

CEQA FINDINGS OF FACT

**OF THE BOARD OF SUPERVISORS OF
THE COUNTY OF MERCED**

for the

VEGA SOLAR PV PROJECT

December 10, 2013

I. INTRODUCTION

The Environmental Impact Report (EIR) prepared for the Vega Solar PV Project (project) addresses the potential environmental effects associated with constructing and operating the project. These findings have been prepared to comply with requirements of the California Environmental Quality Act (CEQA) (Pub. Resources Code, § 21000 et seq.) and the CEQA Guidelines (Cal. Code Regs., tit. 14, § 15000 et seq.). These findings refer to the Notice of Preparation (NOP) or Final EIR (FEIR) where the material appears in either of those documents. Otherwise, references are to the Draft EIR (DEIR).

CEQA generally requires that a lead agency must take reasonable efforts to mitigate or avoid significant environmental impacts when approving a project. An EIR is often prepared to evaluate any potentially significant environmental impacts of a proposed project. The EIR is an informational document that serves to inform the agency decision-making body and the public in general of any potentially significant environmental impacts. The preparation of an EIR also serves as a medium for identifying possible methods of minimizing any significant effects and assessing and describing reasonable alternatives to the project.

The EIR for this project was prepared by the County of Merced (County) as the “lead agency” in accordance with CEQA to identify and assess the anticipated effects of the project. The County, as the lead agency, has the principal responsibility for approval of the project.

II. TERMINOLOGY OF FINDINGS

CEQA and the CEQA Guidelines requires that, for each significant environmental effect identified in an EIR for a proposed project, the approving agency must issue a written finding reaching one or more of the three allowable conclusions:

1. Changes or alterations which avoid or mitigate the significant environmental effects as identified in the EIR have been required or incorporated into the project;
2. Such changes or alterations are within the responsibility and jurisdiction of another public agency and not the agency making the finding, and such changes have been adopted by such other agency or can and should be adopted by such other agency; or
3. Specific economic, legal, social, technological, or other considerations, including consideration for the provision of employment opportunities for highly trained workers, make infeasible the mitigation measures or project alternatives identified in the DEIR.

(Pub. Resources Code, § 21081, subd. (a)(1)-(3); CEQA Guidelines, § 15091, subd. (a)(1)-(3).)

For purposes of these findings, the terms listed below will have the following definitions:

- “Mitigation measures” shall constitute the “changes or alterations” discussed above.
- “Avoid” refers to the effectiveness of one or more mitigation measures to reduce an otherwise significant effect to a less than significant level. The term “substantially lessen” refers to the effectiveness of such measure or measures to substantially reduce the severity of a significant effect, but not to reduce that effect to a less than significant level.
- “Feasible,” pursuant to the CEQA Guidelines, means capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social, and technological factors.

When the Merced County Board of Supervisors finds a measure is not feasible, it will provide evidence for its decision and may adopt substitute mitigation that is feasible, and designed to reduce the magnitude of the impact. In other cases, the Board may decide to modify the proposed mitigation measure. Modifications generally update, clarify, streamline, or revise the measure to comport with current engineering practices, budget conditions, market conditions or existing Board policies, practices, and/or goals. Modifications achieve the intent of the proposed mitigation without reducing the level of protection.

III. DEFINITIONS AND ACRONYMS

Unless otherwise stated within these findings, the same definitions and acronyms set forth in the EIR are used in these findings.

IV. PROJECT DESCRIPTION

A. PROJECT OVERVIEW

The proposed project consists of the construction and operation of an estimated 20-megawatt (MW) photovoltaic electricity-generating facility and associated infrastructure on approximately 178.3 acres in southwestern Merced County, to be known as the Vega Solar Project. The proposed project would be constructed over a period of approximately 12 months, commencing within the fourth quarter of 2013, with delivery of energy produced by the proposed project planned to start within the fourth quarter of 2014.

B. PROJECT DESCRIPTION

The proposed project consists of the construction and operation of an estimated 20-megawatt (MW) photovoltaic electricity-generating facility and associated infrastructure on approximately 178.3 acres in southwestern Merced County. As originally proposed and evaluated in the Draft EIR, the project site included approximately 165 acres. Further project engineering design prepared after the Draft EIR was circulated indicated that the project footprint would need to be enlarged by 8 percent to meet the 20-megawatt (MW) output because of technological challenges with the proposed solar panels. Based on final engineering evaluations, the project footprint

needed to be expanded from 165.0 acres to 178.3 acres. The project location did not change from that evaluated in the Draft EIR, although an additional 13.3 acres was added to the southern portion of the project site (see Final EIR Exhibit 3-1). The layout of the project is the same as analyzed in the Draft EIR, with the exception of the additional 13.3 acres to the southern portion of the project site (see Final EIR Exhibit 3-2). (Final EIR, p. 3-1.) As discussed in more detail below, the potential environmental effects of increasing the project size was evaluated in the “Analysis of No Additional Impacts” submitted with the Final EIR. The Analysis concluded no additional impacts would occur as a result of increasing the project acreage from 165 acres to 178.3 acres.

The proposed project would be constructed over a period of approximately 12 months, commencing within the fourth quarter of 2013, with delivery of energy produced by the proposed project planned to start within the fourth quarter of 2014. This schedule could vary, due to obligations with the utility buyer of the energy generated by the project; however, the analysis in the EIR conservatively assumes a 12-month construction schedule to analyze all potential impacts related to construction activities.

The proposed project is anticipated to operate for 25 years. After the 25-year service life, the project would be decommissioned and the project site returned to its pre-project condition, with the exception of the switchyard. The switchyard would be owned by Pacific Gas and Electric (PG&E) and would remain on the project site. The Applicant would provide a financial guarantee to Merced County as a condition of project approval to assure that upon decommissioning of the project, the project-related improvements would be removed and the site restored to enable continued agricultural use, consistent with the current agricultural land use and zoning designations that apply to the site. Power generated by the project would be delivered to the high-voltage transmission system owned by PG&E for delivery to California electric customers, in furtherance of the goals of the California Renewable Energy Portfolio Standard and other similar renewable energy programs in the State. The proposed project would operate year-round and generate electricity during daylight hours when electricity demand is at its peak, and it would provide for the annual electricity needs of approximately 16,800 residences, based on the projected annual electricity output divided by the annual electricity usage for a single-family residence within the Pacific Gas & Electric service territory.

The proposed project includes the following elements:

- A solar field of approximately 77,000 PV modules mounted on steel structures
- An electrical collection system that aggregates the output from the PV arrays and converts the electricity from direct current (DC) to alternating current (AC)
- A substation where the electrical output is combined and transformed to a 70-kilovolt (kV) loop line
- A 70-kV electrical switchyard adjacent to the substation

- A potential Operation and Maintenance (O&M) building with associated storage room that would measure 25 by 40 feet and would be 20 feet high, approximately 1,000 square feet may be included in the project
- A Supervisory Control and Data Acquisition (SCADA) system
- Onsite Solar Meteorological Station (SMS), the project would contain up to two onsite SMS
- Infrastructure, including the drilling of one domestic well, driveways, and fencing
- A 70-kV single or double-circuit overhead electric generation tie (gentie) line to connect the switchyard to the Point of Interconnection (POI) at Pole #011, located across First Lift Canal Road, less than 500 feet from the switchyard.
- Discontinuation of the existing agricultural use
- Provision of ongoing maintenance for solar panel cleaning and mowing of vegetation

(DEIR, pp. 2-15 to 2-17.)

C. PROJECT LOCATION

The proposed project is located in the western portion of the San Joaquin Valley in unincorporated Merced County, California approximately 9 miles southeast of the City of Los Banos, north of the San Luis Canal/California Aqueduct, east of I-5, south and west of the Delta-Mendota Canal. The project site is located within a portion of Section 6 Township 12 South, Range 11 East, and a portion of Section 31, Township 11 South, Range 11 East, Mount Diablo Base and Meridian (MDBM) (Latitude 36° 55' 41" North, Longitude 120° 48' 18" West). Specifically, the project is located on the north and south sides of El Campo Road, and on the east side of and west of Woo Road. The Laguna Seca Hills are located southwest of the proposed project site. The project site encompasses approximately 178.3 acres. The project site is located on three parcels (APN 088-180-049 and portions of APNs 090-130-036 and 090-130-037).

The current land use on the site consists of grazing (sheep) and some farming. Approximately 151.8 acres of the project site were planted in salt-tolerant wheat grass, 20.7 acres were fallow and dominated by alfalfa and non-native plants, and the remaining acreage consisted of the irrigation ditch on the southwestern portion of the project site and vacant/disturbed land. (FEIR, p. 3-7.) The Charleston Drainage District currently leases 1,000 acres of land, which encompasses the project site and lands to the south of the project site to manage drainage issues. The Drainage District irrigates the land with water from the California Aqueduct through the Pacheco Water District's delivery system blended with sub surface shallow ground water from the Charleston Drainage District. The project site has historically been used to grow forage crops, such as barley and wheat. For the past 5 years, the project site has been planted in wheat.

The project site is undeveloped. No structures exist on the project site; the only onsite improvements are segments of unpaved roads traversing the proposed project site, including W. El Campo Road, a minor irrigation ditch in the western portion of the project site, and the detention basin located along the site's northern boundary adjacent to the Delta-Mendota Canal. There are two existing sumps on the project site, which are used to pump the perched subsurface shallow groundwater to address drainage issues.

D. EXISTING LAND USE DESIGNATIONS AND ZONING

The project site has a Merced County General Plan land use designation of Agricultural and a zoning designation of Exclusive Agricultural (A-2).

None of the land within the project site is under a Williamson Act contract. However, the project site is within the County's agricultural preserve. Lands in the agricultural preserve are devoted to agricultural and open space or related uses. Activities that are considered to be compatible with land included in the agricultural preserve are listed in the County's *Rules of Procedure to Implement the California Land Conservation Act of 1965* (2000). Energy facilities are not listed as a compatible use. Because the proposed project is not considered a compatible use within the agricultural preserve, the project site must be removed from the preserve in accordance with Section B.1.3 the *Rules of Procedure to Implement the California Land Conservation Act of 1965*. A landowner can initiate this request, which must be approved by the Board of Supervisors. The applicant has formally requested, as part of the project, that the project site be removed from the agricultural preserve to enable development of the proposed project, and this request has been evaluated in the Draft EIR.

The California Department of Conservation's Farmland Mitigation and Monitoring Program classifies the project site as Important Farmland, approximately 143 acres are designated Prime Farmland and 35.3 acres are designated Farmland of Statewide Importance.

E. ADJACENT USES

Undeveloped land used for cultivated agriculture is located immediately west of the project site. Agricultural uses have included alfalfa, wheat, and cantaloupe. This land is designated under the existing General Plan and the proposed General Plan Update as Agricultural. The 1st Lift Canal borders the southwestern portion of the project site. Further west (approximately 2,100 feet from the project site) is the Dos Amigos Pumping Plant, part of the California Aqueduct, which runs west (east of Pole Line Road) and southwest of the project site (west of Pole Line Road). Lands west of the project site at the interchange of State Route 165 (SR-165) and Interstate 5 (I-5) are designated as Highway Interchange under the existing General Plan and the proposed General Plan Update.

The Delta-Mendota Canal, part of the Central Valley Project, forms the northern boundary of the project site. North of the Delta-Mendota Canal (approximately 225 feet from the project site) are cultivated agricultural uses on undeveloped land. Agricultural uses have included alfalfa and cotton. This land is designated under the existing General Plan and the proposed General Plan

Update as Agricultural. To the northwest of the project site (approximately 0.15 mile) is a single-family rural residential home adjacent to west side of South Woo Road.

Undeveloped land used for cultivated agriculture is located immediately east of the project site. A 4-foot concrete ditch runs adjacent to the project site's property line. Agricultural uses have included rotating annual row crops such as tomatoes and cotton. This land is designated under the existing General Plan and the proposed General Plan Update as Agricultural.

South of the northern portion of the project site is undeveloped land used for cultivated agriculture. The unpaved El Campo Road easement is located adjacent to the southern boundary. A 4-foot concrete channel runs adjacent to El Campo Road. South of the southern portion of the project site is undeveloped land used for cultivated agriculture. Agricultural uses have included rotating annual crops such as cantaloupe, cotton, oats, and wheat. This land is designated under the existing General Plan and the proposed General Plan Update as Agricultural.

F. PROJECT OBJECTIVES

The objectives of the proposed project are to:

- Construct a 20-MW solar energy facility that would start generating electricity as early as 2014 in order to help meet state and federal renewable energy goals, which would further the State's Renewable Portfolio Standard of 33-percent for renewable energy within its total energy profile and maximize greenhouse gas reductions to the extent possible based on the existing capacity of the existing transmission line facilities;
- Assist in meeting the utility peak power load by adding solar power capacity, which has peak generation on sunny, hot summer days.
- Locate solar power plant facilities as near as possible to electrical transmission facilities with anticipated capacity and reserved queue position.
- Site the project in an area with excellent solar energy resource capabilities, in order to maximize productivity from the photovoltaic (PV) panels.
- Provide an economic benefit by creating temporary construction jobs and full time operations and maintenance jobs and generate business for local vendors during construction and operation.
- Ensure that power can be provided at a competitive price.

G. REQUIRED DISCRETIONARY ACTIONS

Discretionary approvals and permits are required by the County of Merced as lead agency for implementation of the proposed project. The project application would require the following discretionary approvals and ministerial actions, including:

- **Certification of Final EIR.** The Merced County Board of Supervisors will need to certify the Final EIR with appropriate findings and Mitigation Monitoring and Reporting Program.
- **Conditional Use Permit.** The project Applicant has submitted an application for a Conditional Use Permit (CUP) to the Merced County Planning Department for the proposed project.
- **Removal from Agricultural Preserve.** Development of the project will require the removal of the project site from the Merced County agricultural preserve, which would require findings by the Board of Supervisors that the project would not compromise the long-term agricultural capability of adjacent agricultural lands, nor remove any adjacent lands under contract from the preserve, would be consistent with the General Plan, and would mitigate the loss of agriculture.
- **Building Permit.** Prior to issuing the Building Permit, the Building Division of the Merced County Planning Department will review and plan-check the project to ensure compliance with County codes, ordinances, and policies. As part of the review and plan-check process and prior to issuing the Building Permit, project design must be approved.
- **Water Well Permit.** Pursuant to County Code 9.28, an applicant proposing to dig, bore, or drill a water well must apply for and receive a permit to conduct such activities. A Water Well Permit must be granted by the Merced County Environmental Health Division prior to commencing any drilling activities.
- **Encroachment Permit.** The Merced County Public Works Department requires an Encroachment Permit for utility trenching and for the gentie line that would allow overhead lines to cross above County roadways.
- **Roadway Impact Agreement.** Prior to issuance of the Building Permit, the Applicant must enter into a roadway impact agreement with the Merced County Department of Public Works, Road Division to mitigate potential effects to the roadway integrity from heavy truck traffic.

Subsequent ministerial actions would be required for the implementation of the proposed project including issuance of grading and building permits.

A number of other agencies in addition to the County of Merced will serve as **Responsible and Trustee Agencies**, pursuant to CEQA Guidelines Section 15381 and Section 15386, respectively. The Draft EIR provides environmental information to these agencies and other public agencies, which may be required to grant approvals or coordinate with other agencies, as part of project implementation. These agencies may include but are not limited to the following:

- San Joaquin Valley Air Pollution Control District (SJVAPCD)
- California Department of Water Resources (DWR)
- California Public Utilities Commission (CPUC)

- California Department of Fish and Wildlife (CDFW)
- Regional Water Quality Control Board (RWQCB)
- California Department of Transportation (Caltrans)
- Bureau of Reclamation
- U.S. Fish and Wildlife Service (USFWS)

Actions that are necessary to implement the project that must be taken by other agencies are:

- **NPDES Permit, Central Valley Regional Water Quality Control Board.** Construction of the project would disturb a surface area greater than 1 acre. Therefore, the project Applicant would be required to obtain a NPDES Permit from the Central Valley Regional Water Quality Control Board. As part of this permit, a SWPPP would be developed and implemented.
- **Indirect Source Review, San Joaquin Valley Air Pollution Control District (SJVAPCD).** An Indirect Source Review (District Rule 9510) would be filed with the SJVAPCD to determine potential mitigation, if any, for NO_x and PM₁₀ emissions.

V. ENVIRONMENTAL REVIEW PROCESS

The County of Merced issued a Notice of Preparation (NOP) for the proposed project on February 6, 2013. The NOP was circulated for public review and comment between February 6, 2013 and March 7, 2013, for the statutory 30-day public review period. The NOP is contained in Appendix A of the Draft EIR. No Initial Study was prepared, in accordance with CEQA Guidelines Section 15060(d).

One comment letter from the San Joaquin Valley Air Pollution Control District was received in response to the NOP. The Air District requested that the environmental review for the project assess the project's potential impacts on air quality by identifying and quantifying project-related emissions from construction and operation of the project. The Air District also recommended that a health risk screening be performed for the project. The Draft EIR includes an analysis of the project-related air quality impacts, including the health risk screening, as recommended by the Air District.

The Draft EIR prepared for the project was sent to the State Clearinghouse for circulation beginning on August 9, 2013 and ending on September 23, 2013, for the statutorily required 45 day public review period.

The following agencies submitted comments on the Draft EIR: California Department of Transportation; Native American Heritage Commission; Governor's Office of Planning and Research, State Clearinghouse and Planning Unit; and San Joaquin Valley Air Pollution Control District. The County of Merced, as the lead agency, evaluated the comments received on the Draft EIR (State Clearinghouse No. 2013021011) for the Vega Solar Project, and prepared responses to the comments received. The responses are provided in Chapter 2 of the Final EIR.

The Draft EIR was prepared based upon the project's initial footprint of 165 acres. After the Draft EIR was circulated for public review, further project engineering design indicated that the project footprint would need to be enlarged by 8 percent to meet the 20-MW output because of technological challenges with the proposed solar panels. Based on final engineering evaluations, the project footprint would need to be expanded from 165.0 acres to 178.3 acres. The project location did not change from that evaluated in the Draft EIR, although an additional 13.3 acres was added to the southern portion of the project site. The layout of the project is the same as analyzed in the Draft EIR, with the exception of the additional 13.3 acres to the southern portion of the project site. (Final EIR, p. 3-1.)

In response to the determination that additional acreage would be needed for the project, MBA prepared an "Analysis Verifying No Additional Impacts" to evaluate whether the increased acreage would result in any additional environmental impacts. Given the small increase in acreage, no additional construction equipment or workers would be required during construction or demolition of the project, and no additional employees would be required during operation of the project. As a conservative measure, however, the Analysis Verifying No Additional Impacts assumes that the 8-percent increase in acreage would result in an 8-percent increase in construction and decommissioning equipment and workers and operational employees. The 8-percent increase was also applied to water demand during construction and operation. Using the 8-percent increase, water demand during construction and decommissioning would increase by 1.6 acre-feet to a maximum demand of 21.6 acre-feet for each phase. Water demand during project operations would increase by 0.05 acre-foot to a total of 0.75 acre-foot. No additional changes to the project description would occur from the additional acreage. (Analysis, p. 1.)

VI. RECORD OF PROCEEDINGS

For the purposes of CEQA, and the findings herein set forth, the administrative record for the project consists of those items listed in Public Resources Code section 21167.6, subdivision (e). The record of proceedings for the County's decision on the Project consists of the following documents, at a minimum, which are incorporated by reference and made part of the record supporting these findings:

- The NOP and all other public notices issued by the County in conjunction with the Project;
- The DEIR for the Project and all documents relied upon or incorporated by reference;
- All written and oral comments submitted by agencies or members of the public during the 45-day comment period on the DEIR;
- The FEIR for the Project, including the Planning Commission staff report, minutes of the Planning Commission public hearing; Errata and Conditions of Approval; resolution of the Planning Commission relating to the EIR; Board of Supervisors staff report; minutes of the Board of Supervisors public hearing; comments received on the DEIR; the County's responses to those comments; technical appendices; and all documents relied upon or incorporated by reference;
- The mitigation monitoring and reporting program (MMRP) for the Project;
- All findings and resolutions adopted by the County in connection with the Project, and all documents cited or referred to therein;

- All reports, studies, memoranda, maps, staff reports, or other planning documents relating to the Project prepared by the County, consultants to the County, or responsible or trustee agencies with respect to the County's compliance with the requirements of CEQA and with respect to the County's action on the Project;
- All documents submitted to the County by other public agencies or members of the public in connection with the Project, up through the close of the public hearing for the Planning Commission on November 20, 2013 and the close of the public hearing for the Board of Supervisors on [REDACTED];
- Any minutes and/or verbatim transcripts of all information sessions, public meetings, and public hearings held by the County in connection with the Project;
- Any documentary or other evidence submitted to the County at such information sessions, public meetings and public hearings;
- All resolutions adopted by the County regarding the Project, and all staff reports, analyses, and summaries related to the adoption of those resolutions;
- The County's General Plan and all updates and related environmental analyses;
- Matters of common knowledge to the County, including, but not limited to Federal, State, and local laws and regulations;
- The County's Zoning Ordinance;
- Any documents expressly cited in these findings, in addition to those cited above; and
- Any other materials required for the record of proceedings by Public Resources Code section 21167.6, subdivision (e).

Pursuant to CEQA Guidelines section 15091(e), the administrative record of these proceedings is located at, and may be obtained from, the County's Planning and Community Development Department located at 2222 M Street, Merced CA 95340. The custodian of the materials is David Gilbert with the County's Planning and Community Development Department.

The County has relied on all of the documents listed above in reaching its decisions on the proposed project even if not every document was formally presented to the Board of Supervisors or County Staff as part of the County files generated in connection with the Project. Without exception, any documents set forth above not found in the Project files fall into one of two categories. Many of them reflect prior planning or legislative decisions of which the County was aware in approving the Project. (See *City of Santa Cruz v. Local Agency Formation Commission* (1978) 76 Cal.App.3d 381, 391-391; *Dominey v. Department of Personnel Administration* (1988) 205 Cal.App.3d 729, 738, fn. 6.) Other documents influenced the expert advice provided to County Staff or consultants, who then provided advice to the County Board of Supervisors as final decisionmakers. For that reason, such documents form part of the underlying factual basis for the County's decisions relating to approval of the Project. (See Pub. Resources Code, § 21167.6, subd. (e)(10); *Browning-Ferris Industries v. City Council of City of San Jose* (1986) 181 Cal.App.3d 852, 866; *Stanislaus Audubon Society, Inc. v. County of Stanislaus* (1995) 33 Cal.App.4th 144, 153, 155.)

VII. FINDINGS REQUIRED UNDER CEQA

Public Resources Code section 21002 provides that "public agencies should not approve projects as proposed if there are feasible alternatives or feasible mitigation measures available which

would substantially lessen the significant environmental effects of such projects[.]” The same statute provides that the procedures required by CEQA “are intended to assist public agencies in systematically identifying both the significant effects of projects and the feasible alternatives or feasible mitigation measures which will avoid or substantially lessen such significant effects.” Section 21002 goes on to provide that “in the event [that] specific economic, social, or other conditions make infeasible such project alternatives or such mitigation measures, individual projects may be approved in spite of one or more significant effects thereof.”

The mandate and principles announced in Public Resources Code section 21002 are implemented, in part, through the requirement that agencies must adopt findings before approving projects for which EIRs are required. For each significant environmental effect identified in an EIR for a project, the approving agency must issue a written finding reaching one or more of three permissible conclusions. The first such finding is that changes or alterations have been required in, or incorporated into, the project which avoid or substantially lessen the significant environmental effect as identified in the FEIR. The second permissible finding is that such changes or alterations are within the responsibility and jurisdiction of another public agency and not the agency making the finding. Such changes have been adopted by such other agency or can and should be adopted by such other agency. The third potential conclusion is that specific economic, legal, social, technological, or other considerations, including provision of employment opportunities for highly trained workers, make infeasible the mitigation measures or project alternatives identified in the FEIR. (CEQA Guidelines, § 15091.) Public Resources Code section 21061.1 defines “feasible” to mean “capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, social, legal, and technological factors.” CEQA Guidelines section 15364 adds another factor: “legal” considerations. (See also *Citizens of Goleta Valley v. Bd. of Supervisors* (1990) 52 Cal.3d 553, 565 (*Goleta II*).

The concept of “feasibility” also encompasses the question of whether a particular alternative or mitigation measure promotes the underlying goals and objectives of a project. (*City of Del Mar v. City of San Diego* (1982) 133 Cal.App.3d 410, 417 (*City of Del Mar*); *Sierra Club v. County of Napa* (2004) 121 Cal.App.4th 1490, 1506-1509 [court upholds CEQA findings rejecting alternatives in reliance on applicant’s project objectives]; see also *California Native Plant Society v. City of Santa Cruz* (2009) 177 Cal.App.4th 957, 1001 (*CNPS*) [“an alternative ‘may be found infeasible on the ground it is inconsistent with the project objectives as long as the finding is supported by substantial evidence in the record’”] (quoting *Kostka & Zischke, Practice Under the Cal. Environmental Quality Act* [Cont.Ed.Bar 2d ed. 2009] (*Kostka*), § 17.39, p. 825); *In re Bay-Delta Programmatic Environmental Impact Report Coordinated Proceedings* (2008) 43 Cal.4th 1143, 1165, 1166 (*Bay-Delta*) [“[i]n the CALFED program, feasibility is strongly linked to achievement of each of the primary project objectives”; “a lead agency may structure its EIR alternative analysis around a reasonable definition of underlying purpose and need not study alternatives that cannot achieve that basic goal”].) Moreover, “‘feasibility’ under CEQA encompasses ‘desirability’ to the extent that desirability is based on a reasonable balancing of the relevant economic, environmental, social, legal, and technological factors.” (*City of Del Mar, supra*, 133 Cal.App.3d at p. 417; see also *CNPS, supra*, 177 Cal.App.4th at p. 1001 [“an alternative that ‘is impractical or undesirable from a policy standpoint’ may be rejected as

infeasible”] [quoting *Kostka, supra*, § 17.29, p. 824]; *San Diego Citizenry Group v. County of San Diego* (2013) 219 Cal.App.4th 1, 17.)

For purposes of these findings (including Table A attached hereto), the term “avoid” refers to the effectiveness of one or more mitigation measures to reduce an otherwise significant effect to a less than significant level. Although CEQA Guidelines section 15091 requires only that approving agencies specify that a particular significant effect is “avoid[ed] or substantially lessen[ed],” these findings, for purposes of clarity, in each case will specify whether the effect in question has been “avoided” (i.e., reduced to a less than significant level).

CEQA requires that the lead agency adopt mitigation measures or alternatives, where feasible, to substantially lessen or avoid significant environmental impacts that would otherwise occur. Project modification or alternatives are not required, however, where such changes are infeasible or where the responsibility for modifying the project lies with some other agency. (CEQA Guidelines, § 15091(a)-(b).)

With respect to a project for which significant impacts are not avoided or substantially lessened, a public agency, after adopting proper findings, may nevertheless approve the project if the agency first adopts a statement of overriding considerations setting forth the specific reasons why the agency found that the project’s “benefits” rendered “acceptable” its “unavoidable adverse environmental effects.” (CEQA Guidelines, §§ 15093, 15043(b); see also Pub. Resources Code, § 21081, subd. (b).) The California Supreme Court has stated, “[t]he wisdom of approving . . . any development project, a delicate task which requires a balancing of interests, is necessarily left to the sound discretion of the local officials and their constituents who are responsible for such decisions. The law as we interpret and apply it simply requires that those decisions be informed, and therefore balanced.” (*Goleta II, supra*, 52 Cal.3d at p. 576.) The EIR for the proposed Vega project concluded the project would not create any significant and unavoidable impacts; thus, no Statement of Overriding Considerations is required.

VIII. LEGAL EFFECT OF FINDINGS

These findings constitute the County’s best efforts to set forth the evidentiary and policy bases for its decision to approve the project in a manner consistent with the requirements of CEQA. To the extent that these findings conclude that various mitigation measures outlined in the FEIR are feasible and have not been modified, superseded or withdrawn, the County hereby binds itself to implement these measures. These findings, in other words, are not merely informational, but rather constitute a binding set of obligations that will come into effect when the County adopts a resolution approving the project. Each of the findings is individually sufficient to address the potential environmental impacts of the Project. (*Flanders Foundation v. City of Carmel-By-The-Sea* (2012) 202 Cal.App.4th 603.)

IX. MITIGATION MONITORING AND REPORTING PROGRAM

A Mitigation Monitoring and Reporting Program has been prepared for the Project, and is being approved by the County by the same Resolution that has adopted these findings. The County will use the Mitigation Monitoring and Reporting Program to track compliance with project

mitigation measures. The Mitigation Monitoring and Reporting Program will remain available for public review during the compliance period. The Mitigation Monitoring and Reporting Program is attached to and incorporated into the environmental document approval resolution and is approved in conjunction with certification of the EIR and adoption of these Findings of Fact.

X. SIGNIFICANT EFFECTS AND MITIGATION MEASURES

The Draft EIR identified a number of potentially significant environmental effects (or impacts) that the Project will cause or contribute to. All of these significant effects can be substantially lessened by the adoption of feasible mitigation measures. Therefore, a statement of overriding considerations is not required for the project. In other words, the County need not consider whether overriding economic, social, and other considerations outweigh the significant, unavoidable effects of the project, because the project simply will not create any significant unavoidable effects.

The County's findings with respect to the project's significant effects and mitigation measures are set forth in Table A attached to these findings. The findings set forth in Table A are hereby incorporated by reference.

Table A does not attempt to describe the full analysis of each environmental impact contained in the EIR. Instead, the table provides a summary description of each impact, describes the applicable mitigation measures identified in the DEIR or FEIR and adopted by the Board of Supervisors, and states the Board's findings on the significance of each impact after imposition of the adopted mitigation measures. A full explanation of these environmental findings and conclusions can be found in the DEIR and FEIR, and these findings hereby incorporate by reference the discussion and analysis in those documents supporting the FEIR's determinations regarding mitigation measures and the project's impacts and mitigation measures designed to address those impacts. In making these findings, the Board of Supervisors ratifies, adopts, and incorporates into these findings the analysis and explanation in the DEIR and FEIR, and ratifies, adopts, and incorporates in these findings the determinations and conclusions of the DEIR and FEIR relating to environmental impacts and mitigation measures, except to the extent any such determinations and conclusions are specifically and expressly modified by these findings.

The County has adopted all of the mitigation measures identified in Table A attached to these findings.

XI. GROWTH INDUCEMENT

There are two types of growth-inducing impacts that a project may have: direct and indirect. To assess the potential for growth-inducing impacts, the project's characteristics that may encourage and facilitate activities that individually or cumulatively may affect the environment must be evaluated (CEQA Guidelines Section 15126.2(d)).

Direct growth-inducing impacts occur when the development of a project imposes new burdens on a community by directly inducing population growth, or by leading to the construction of

additional developments in the same area. Also included in this category are projects that remove physical obstacles to population growth (such as a new road into an undeveloped area or a wastewater treatment plant with excess capacity that could allow additional development in the service area). Construction of these types of infrastructure projects cannot be considered isolated from the development they facilitate and serve. Projects that physically remove obstacles to growth, or projects that indirectly induce growth may provide a catalyst for future unrelated development in an area such as a new residential community that requires additional commercial uses to support residents.

The proposed project would result in additional electrical generating capacity for the California electrical grid, increasing generating capacity by about 20 megawatts (MW). The availability of additional electrical energy from the proposed project is not in itself anticipated to be growth-inducing by relieving a current constraint to growth.

The proposed project responds to the State's need for renewable energy to meet its Renewable Portfolio Standard. Under the Renewable Portfolio Standard, California's goal is to increase the amount of electricity generated from renewable energy resources to 20 percent by 2010. Legislation passed in 2011 increased that goal to 33 percent by 2020. Currently, California receives almost 20 percent of its electricity from biomass, geothermal, small hydro, wind, and solar sources. The power generated by the proposed project would be added to the State's electricity grid, with the intent that it would displace fossil-fueled power plants and their associated greenhouse gas emissions and augment existing supplies rather than add electricity generation capacity that relieves an existing constraint to statewide growth.

The proposed project would not construct any other infrastructure. Consequently, it would not relieve constraints to growth in the local area that might otherwise be relieved if the proposed project were to provide new infrastructure whose capacity exceeds its specific needs.

The proposed project would create about two full-time jobs. It is anticipated that these employees would live in the general region (Los Banos, Santa Nella, Gustine), where there is adequate existing housing; the vacancy rate in Merced County as of June 2012 was almost 10 percent (United States Census Bureau 2012). Construction workers are anticipated to commute in from these and other outlying communities such that demand for new temporary housing would not be generated.

Given the above noted factors, the proposed project would not be growth inducing.

XII. FINDINGS REGARDING RECIRCULATION OF THE DEIR

The County adopts the following findings with respect to whether to recirculate the DEIR. Under section 15088.5 of the CEQA Guidelines, recirculation of an EIR is required when "significant new information" is added to the EIR after public notice is given of the availability of the DEIR for public review but prior to certification of the FEIR. The term "information" can include changes in the project or environmental setting, as well as additional data or other information. New information added to an EIR is not "significant" unless the EIR is changed in a way that deprives the public of a meaningful opportunity to comment upon a substantial

adverse environmental effect of the project or a feasible way to mitigate or avoid such an effect (including a feasible project alternative) that the project's proponents have declined to implement. "Significant new information" requiring recirculation includes, for example, a disclosure showing that:

- (1) A new significant environmental impact would result from the project or from a new mitigation measure proposed to be implemented.
- (2) A substantial increase in the severity of an environmental impact would result unless mitigation measures are adopted that reduce the impact to a level of insignificance.
- (3) A feasible project alternative or mitigation measure considerably different from others previously analyzed would clearly lessen the significant environmental impacts of the project, but the project's proponents decline to adopt it.
- (4) The DEIR was so fundamentally and basically inadequate and conclusory in nature that meaningful public review and comment were precluded.

(CEQA Guidelines, § 15088.5.)

Recirculation is not required where the new information added to the EIR merely clarifies or amplifies or makes insignificant modifications in an adequate EIR. The above standard is "not intend[ed] to promote endless rounds of revision and recirculation of EIRs." (*Laurel Heights Improvement Assn. v. Regents of the University of California* (1993) 6 Cal. 4th 1112, 1132.) "Recirculation was intended to be an exception, rather than the general rule." (*Ibid.*)

The Board of Supervisors recognizes that the FEIR contains additions, clarifications, modifications, and other changes to the DEIR. As noted above, the Final EIR reflects the increase in the project size from 165 acres to 178.3 acres, and the Analysis of No Additional Impacts prepared for the project concludes the increase in project size does not result in any additional environmental impacts not addressed in the Draft EIR. The Final EIR also reflects the conclusions of the Analysis of PG&E Switching Station which verifies that the switching station, one of the project components for the proposed Vega Solar Project, was adequately evaluated in the Vega Solar Project Draft EIR. As reflected in the Final EIR and as supported by the additional Analyses prepared for the project, these changes do not change the significance of any conclusions presented in the DEIR.

CEQA case law emphasizes that "[t]he CEQA reporting process is not designed to freeze the ultimate proposal in the precise mold of the initial project; indeed, new and unforeseen insights may emerge during investigation, evoking revision of the original proposal." (*Kings County Farm Bureau v. City of Hanford* (1990) 221 Cal.App.3d 692, 736-737; see also *River Valley Preservation Project v. Metropolitan Transit Development Bd.* (1995) 37 Cal.App.4th 154, 168, fn. 11.) "CEQA compels an interactive process of assessment of environmental impacts and responsive project modification which must be genuine. It must be open to the public, premised upon a full and meaningful disclosure of the scope, purposes, and effect of a consistently described project, with flexibility to respond to unforeseen insights that emerge from the

process.’ [Citation.] In short, a project must be open for public discussion and subject to agency modification during the CEQA process.” (*Concerned Citizens of Costa Mesa, Inc. v. 33rd Dist. Agricultural Assn.* (1986) 42 Cal.3d 929, 936.) Here, the changes made to the Draft EIR are exactly the kind of project modifications or improvements that the case law recognizes as legitimate and proper.

The changes described in the FEIR and supporting Analyses merely supplement or clarify the existing language in the Draft EIR. Thus, none of these changes involves “significant new information” triggering recirculation because the changes did not result in any new significant environmental effects, any substantial increase in the severity of any previously identified significant effects that could not be mitigated to less than significant, or otherwise trigger recirculation. Instead, the modifications represent the kinds of changes that commonly occur as the environmental review process works towards its conclusion. Under such circumstances, the County finds that recirculation of the EIR is not required.

XIII. PROJECT ALTERNATIVES

A. BASIS FOR ALTERNATIVES

CEQA requires that the lead agency adopt mitigation measures or alternatives, where feasible, to substantially lessen or avoid significant environmental impacts that would otherwise occur. Project modification or alternatives are not required, however, where significant environmental impacts will not occur.

As is evident from the text of the EIR and the attached table (Table A) describing the disposition of the significant effects of the project, all significant effects of the project have been avoided (that is, rendered less than significant) by the adoption of feasible mitigation measures. There are no impacts that remain as significant and unavoidable.

Under CEQA, project alternatives are developed in order to give agency decisionmakers options for reducing or eliminating the significant environmental effects of proposed projects, while still meeting most if not all of the basic project objectives. “Alternatives and mitigation measures have the same function – diminishing or avoiding adverse environmental effects.” (*Laurel Heights Improvement Association v. Regents of the University of California* (1988) 47 Cal.3d 376, 403.) Here, the adoption of mitigation measures set forth in the EIR are sufficient to reduce all significant impacts to less than significant levels. Under CEQA then, the Board of Supervisors has no obligation even to consider the feasibility of the alternatives set forth in the EIR. (*Laurel Hills Homeowners Association v. City Council of City of Los Angeles* (1978) 83 Cal.App.3d 515, 521 (“*Laurel Hills*”). As such, the County’s discretionary determination whether or not to adopt or reject a project alternative, including the environmentally superior alternative, is not a CEQA issue. (See, e.g., *City of Marina v. Board of Trustees of California State University* (2006) 39 Cal.4th 341, 350 [“The required [CEQA] findings constitute the principal means chosen by the Legislature to enforce the state’s declared policy ‘that public agencies should not approve projects as proposed if there are feasible alternatives [] available which would substantially lessen the significant environmental effects of such projects’”].)

Nevertheless, the County has considered each of the alternatives analyzed in the EIR, and rejects the alternatives as infeasible.

B. ALTERNATIVES CONSIDERED BUT NOT ANALYZED

Some alternatives were considered for analysis but were rejected from further review because they would not sufficiently reduce project impacts, would not attain most of the basic project objectives, or they would be infeasible. In accordance with CEQA Guidelines Section 15126.6(f), factors that may be considered when a Lead Agency is assessing the feasibility of an alternative include “site suitability, economic viability, availability of infrastructure, general plan consistency, other plans or regulatory limitations, jurisdictional boundaries (projects with a regionally significant impact should consider the regional context), and whether the proponent can reasonably acquire, control, or otherwise have access to the alternative site (or the site is already owned by the proponent).” In accordance with CEQA Guidelines Section 15126.6(c), this section identifies the following alternatives that were initially considered but rejected from further consideration.

Reduced Project Size Alternative

The Reduced Project Size Alternative would construct a small solar PV facility that would generate less than 20 MW of electricity. This alternative was rejected because a Power Purchase Agreement has been established with Southern California Edison that requires the provision of 20 MW of solar electricity. As designed and analyzed the proposed project would have no significant and unavoidable impacts. For this reason, the Reduced Project Size Alternative would not be expected to further avoid or substantially lessen project effects while still achieving key project objectives, including the production of 20 MW of electricity.

Wind Power Alternative

Power generation from wind was also considered because it has key attributes that are similar to solar PV power production. It is a renewable power source and requires few natural resource inputs and is largely self-sustaining once the power-generating infrastructure is installed.

The Wind Power Alternative would require the construction of a field of wind turbines of various models considered to most efficiently capture wind resources in the area. Similar to the proposed project, energy produced would be collected via a collection system, with power delivered via an interconnection to the existing 70kV transmission line adjacent to the southwestern portion of the project site.

Like solar PV power production, the potential impacts of developing wind energy are considered to be minimal relative to those from producing fossil fuel or other non-renewable, resource-based energy. Relative to the proposed project, a wind farm alternative would likely result in greater aesthetics impacts due to the substantially greater visibility of tall wind turbines from viewpoints throughout the vicinity. Significant impacts on avian species due to potential kills from turbine rotor blades would be created that do not exist for the proposed project. The amount of land that

would be converted to non-agricultural use would be similar to the proposed project and would result in the conversion of Important Farmland.

The proposed project is located in an area where wind resources for the purpose of generating wind-powered electricity are considered marginal. Consequently, wind resources at the project site are likely to be insufficient to support a wind energy project that has power generation potential comparable to the proposed project.

This alternative was eliminated from further consideration because:

- It could cause significant and unavoidable impacts on aesthetics and biological resources that would not occur with implementation of the proposed project;
- It would not significantly reduce the impacts to agricultural resources because the project site has limited agricultural production value;
- Power production would most likely not be produced by 2013 due to lead times required to design and permit a wind project;
- It is uncertain if the site could produce 20 MW of power;
- It is uncertain if a wind project at this location could produce power at a competitive price due to the potential lack of sufficient wind resources.

Alternative Site Location

This alternative would construct a 20-MW solar facility in a different location within Merced County. It is assumed that an alternative site would be similar in size to the area of the proposed project site (178.3 acres).

Transmission lines traverse largely north-south through western Merced County (230 kV and 500 kV) and north-south through the State Route 99 (SR-99) corridor in eastern Merced County (138 kV and 230 kV). The transmission lines in the western part of the County are generally located along the margins of or within the foothills of the Diablo Range. The transmission lines in the eastern part of the County are found primarily on the more level valley floor.

The greatest prevalence of transmission lines of potentially suitable capacity by number and total length is in the eastern part of Merced County along the SR-99 corridor. Land within this corridor generally is on the flatter portion of the valley floor where solar PV use is most technically feasible from a topographical perspective. However, these are also areas of the County in which the best agricultural soils are located—those classified as productive farmland (Prime Farmland, Farmland of Statewide Importance, or Unique Farmland). The vast majority of land within this corridor is productive farmland. It should be noted that the project site is located on land that is drainage impaired in that mineral-heavy, salty water becomes perched in the shallow subsurface of the ground and migrates up into the root zone of plants affecting their viability. Additionally, the project site is the subject of a non-irrigation covenant, which restricts

access to water from the Central Valley Project or groundwater pumped locally or elsewhere for agricultural purposes. Without access to water, production of high-value crops is limited. As such, although the project site is classified as Important Farmland by the California Department of Conservation it has little agricultural production value. Consequently, significant potential exists that an alternative site in this area would result in the loss of productive farmland, whereas the project site does not.

Potential alternative sites within western Merced County are much more limited than potential sites in eastern Merced County because of topographical constraints in the areas where potentially suitable transmission lines are located. As previously noted, the transmission lines in western Merced County are generally located along the margins of or within the foothills of the Diablo Range; the area's steeper slopes make placement of utility-scale solar PV installations largely infeasible. While the proposed project is located in western Merced County, it is on a site that is unique in the western part of the County for its combination of flat topography and access to a suitable transmission line.

The Leo Solar Project (discussed in Section 4 of the Draft EIR), the only other utility-scale solar PV project currently proposed in the County, is also located in western Merced County south of the proposed project site on a site that has access to transmission capacity and flat topography. The Leo Solar Project would also be located on farmland similar to the proposed project. The Leo Solar Project also has the same drainage and restricted irrigation that limits productive agricultural use. Other topographically feasible sites within western Merced County are also likely to be located on more productive agricultural land and therefore would have a greater impact on agricultural resources.

Given the above characteristics for alternative site locations, developing a solar PV project on an alternative site would not avoid the potentially significant impacts associated with conversion of agricultural resources and may result in significant and unavoidable impacts because the land would have greater production value. Further, the applicant does not control other pieces of land that are suitable for this development with access to the transmission system at the point of interconnection required by the applicant's contract with the power buyer. All other impacts would be of similar nature as the proposed project. Therefore, this alternative has been rejected from further consideration.

Moreover, as discussed in *Citizens of Goleta Valley v. Board of Supervisors* (1990) 52 Cal.3d 553 (*Goleta II*), where a project is consistent with an approved general plan, no alternative site alternative need be analyzed in the EIR. The EIR "is not ordinarily an occasion for the reconsideration or overhaul of fundamental land-use policy." (*Goleta II, supra*, 52 Cal.3d at p. 573.) In approving a general plan, the local agency has already identified and analyzed suitable alternative sites for particular types of development and has selected a feasible land use plan. "Informed and enlightened regional planning does not demand a project EIR dedicated to defining alternative sites without regard to feasibility. Such ad hoc reconsideration of basic planning policy is not only unnecessary, but would be in contravention of the legislative goal of long-term, comprehensive planning." (*Goleta II, supra*, 52 Cal.3d at pp. 572-573.) The proposed project is consistent with the County's General Plan. The EIR need not analyze an alternative site.

C. DISCUSSION OF ALTERNATIVES ANALYZED

The proposed project would not result in any significant unavoidable project impacts. However, the project would result in significant effects requiring mitigation. The alternatives discussed below address the objectives identified for the project as well as the project effects without mitigation. The alternatives to the proposed project evaluated in the EIR are as follows:

- **No Project Alternative:** The project site would not be developed and the project site would remain in its existing condition.
- **Distributed Solar PV Energy Production (Distributed Production):** The 20-megawatt (MW) solar energy production capacity of the proposed project would be replaced by energy produced by solar panels placed on the roofs of commercial, industrial, and institutional buildings located throughout Merced County and the region.

Each of the alternatives is described in more detail below, followed by an assessment of the alternative's impacts relative to the proposed project.

ALTERNATIVE 1: NO PROJECT ALTERNATIVE

Description

CEQA requires the evaluation of the comparative impacts of the "No Project" alternative (CEQA Guidelines, Section 15126.6(e)(1)). The No Project Alternative "shall discuss the existing conditions at the time the [NOP] is published, or if no notice of preparation is published, at the time environmental analysis is commenced, as well as what would be reasonably expected to occur in the foreseeable future if the project were not approved, based on current plans and consistent with available infrastructure and community services" (CEQA Guidelines, Section 15126.6(e)(2)). "The purpose of describing and analyzing a no project alternative is to allow decision makers to compare the impacts of approving the proposed project with the impacts of not approving the proposed project" (CEQA Guidelines, Section 15126.6(e)(1)). The No Project Alternative considers the effects of forgoing the Project entirely, and leaving the Project site in its current, vacant condition.

Comparative Analysis of Environmental Effects

The project site is undeveloped and has historically been used for agriculture. The site is subject to a recorded, non-irrigation covenant, which prohibits the use of irrigation water from the Central Valley Project or groundwater pumped locally or elsewhere for the purposes of agricultural production. As such, there could be changes in the types of agricultural uses on the project site, such as dry farming versus irrigated agriculture.

Aesthetics, Light, and Glare

Under the No Project Alternative, the site would remain undeveloped without any structures or sources of lighting and glare.

The proposed project would not be visible from any designated scenic highways. It would be placed in an area with minimal development, although existing power transmission lines and transmission towers are visually dominant features. The visual impacts of the proposed project are considered less than significant. The proposed project would alter the visual characteristics of the project site, but would not substantially degrade the existing visual character or quality of the area and its surroundings. The proposed project would mitigate potential light impacts to a less than significant level through the implementation of a lighting plan to minimize light and nightglow. The No Project Alternative would not introduce any changes to the existing conditions with regard to aesthetics, light and glare; the No Project Alternative would have less aesthetic impacts relative to the proposed project.

Agricultural Resources

The No Project Alternative would have no effect on agriculture and forestry resources. The project site is subject to a non-irrigation covenant that restricts agricultural production. The site could still be maintained as agricultural land through dry farming. Although the proposed project's impact of converting farmland to non-agricultural use was determined to be less than significant, this alternative would have no impact on agricultural resources. Therefore, under this alternative the impact on farmland would be less relative to the proposed project.

Air Quality and Greenhouse Gases

The No Project Alternative would continue the existing farming on the project site and would continue to generate emissions from farm equipment and vehicles.

The proposed project would result in a temporary increase in criteria pollutants and carbon dioxide from construction of the facility. However, upon operation of the site, the project would offset 20MW of energy from more polluting sources, which would result in reduction in emissions of NO_x. Additionally, during the first year of production, the project would offset 15,234 metric tons of carbon dioxide equivalents (MTCO_{2e}). The No Project Alternative would not realize the air quality benefits of the proposed project; as such, the air quality impacts would be greater under the No Project Alternative.

Biological Resources

The No Project Alternative would have no adverse effect on biological resources because under this alternative, no construction would occur onsite, which would result in no impact to protected plant or wildlife species. Consequently, this alternative would avoid the potential biological resource impacts associated with the proposed project.

Cultural Resources

The No Project Alternative would have no effect on cultural resources because there would be no excavation to damage undiscovered resources. This alternative would avoid the potential cultural resource impacts associated with construction of the proposed project.

Geology, Soils, and Seismicity

The No Project Alternative would have no effect on geology and soils or increase risks to people or structures to seismic hazards because no buildings would be constructed. Consequently, it would eliminate the potential geologic and soils impacts associated with construction of the proposed project.

Hazards and Hazardous Materials

Under the No Project Alternative, no hazard would be created and no hazardous materials would be used. As such, impacts associated with hazards and hazardous materials would be similar to the proposed project.

Hydrology and Water Quality

The No Project Alternative would have no effect on hydrology and water quality because no changes to the existing land would occur. No construction would occur that could disturb soil surfaces such that surface water quality from sedimentation would occur, nor would it increase the potential that pollutants would be introduced into stormwater runoff. This alternative would have fewer impacts to hydrology and water relative to the proposed project.

Land Use

The No Project Alternative would result in no change in land use. Accordingly, impacts to land use would be less than the proposed project.

Noise

The No Project Alternative would not result in any construction, however noise associated with existing farming would continue. Noise impacts from No Project Alternative would be less relative to the proposed project.

Public Services and Utilities

The No Project Alternative would not require any changes to public services or utilities. As such, it would have less of an impact on public services relative to the proposed project.

Transportation/Traffic

The No Project Alternative would not generate any additional trips than existing conditions. As such, the transportation impacts of the No Project Alternative would be less relative to the proposed project.

Relationship to Proposed Project Objectives

The No Project Alternative would have fewer impacts on resources than the proposed project. However, as noted previously, the No Project Alternative would not realize the air quality and

greenhouse gas benefits of the proposed project. The No Project Alternative would not achieve any of the project objectives as shown below.

- The No Project Alternative would not construct a 20-MW solar energy facility that would start generating electricity as early as 2014, would not help further the State’s Renewable Portfolio Standard of 33-percent for renewable energy, and would not result in greenhouse gas reductions.
- The No Project Alternative would not assist in meeting the utility peak power load by adding solar power capacity.
- The No Project Alternative would not locate solar power plant facilities as near as possible to electrical transmission facilities with anticipated capacity and reserved queue position.
- The No Project Alternative would not site a project in an area with excellent solar energy resource capabilities, in order to maximize productivity from the photovoltaic (PV) panels.
- The No Project Alternative would not produce economic benefit by creating temporary construction jobs and full-time operations and maintenance jobs and would not generate business for local vendors during construction and operation.
- The No Project Alternative would not provide any power at a competitive price.

Feasibility of the No Project Alternative

Although the County is not required by law to consider the feasibility of the No Project Alternative, the Board of Supervisors nevertheless does so and rejects the Alternative as undesirable and infeasible. The County believes the proposed Project is consistent with the County’s development goals and regulatory planning documents. The Board of Supervisors therefore sees no need to forestall development on the Project site and instead chooses to approve the project as proposed. The project also reflects the applicant’s/landowner’s considered judgment regarding how to develop its property in light of the realities of the marketplace. The County believes it is appropriate to give some weight to this judgment. (See *Laurel Hills, supra*, 83 Cal.App.3d at p. 521 [a “public agency may approve a developer’s choice of a project once its significant adverse effects have been reduced to an acceptable level – that is, all avoidable damage has been eliminated and that which remains is otherwise acceptable”].)

ALTERNATIVE 2: DISTRIBUTED PV ALTERNATIVE

Description

The Distributed PV Alternative assumes the 20-MW solar energy production capacity of the proposed project would be replaced by energy produced by solar panels placed on the roofs of commercial, industrial, and institutional buildings in locations throughout Merced County and the region, in both incorporated cities and in unincorporated areas. The primary focus of the Distributed PV Alternative is to avoid potential impacts on sensitive biological resources and

construction-related impacts. Although the project site is drainage impaired and subject to an irrigation restriction for agricultural purposes, it is designated as Important Farmland by the California Department of Conservation, as such this alternative would avoid the temporary conversion of 178.3 acres Important Farmland during the life of the proposed project.

Most of the electricity produced at each distributed location is assumed to be used primarily by the occupants of buildings on which the panels are placed, with the balance of electricity, if any, delivered to the local and regional grid for sale to an electric utility. In many cases, the size of rooftops on which solar panels would be placed may not be sufficient to generate more electricity than would be demanded by users of the building on which the panels are placed, though significant exceptions are possible. A total of 20 MW of energy would be produced such that the net production of renewable energy remains the same as the proposed project. Unlike the proposed project, proximity to a major transmission line and specific site conditions are not critical concerns for this alternative because power generation is distributed across many locations with limited capacity at each site and panels would be placed on existing roofs. The balance of power produced that is not used locally would be fed into the grid such that demand for capacity within any one decentralized, local, and/or regional transmission facility would be minimal. Neither a substation nor a switchyard facility would be needed. Small inverters would be used at each site to convert power from direct to alternating current.

Under this alternative, it is assumed that the solar panel rooftop installations would be constructed and owned and operated by private utility companies, institutions, or owners of the buildings and lands on which the installations are placed. Logistical constraints, transaction costs, and economic inefficiencies would make development of the Distributed PV Alternative as a single coordinated project by the applicant impossible. Discretionary approvals (conditional use permits, design review, etc.) may be required, depending on the location and design of the individual installations and the regulations of local jurisdictions.

The total building roof area required to generate 20 MW of electricity would be greater than the 178.3 acres or 3,713,304 square feet of panel surface area included in the proposed project. Typical buildings most suitable for accommodating solar panel installations would be big-box retail stores, industrial buildings, and other large structures with flat roofs. A study of the potential for distributed PV systems in California found that on average, about 60 percent of the flat roof area of buildings is available for solar panels when limiting factors such as shading and structural suitability are considered. Further, the efficiency of rooftop-mounted solar panels is likely to be lower than that for the proposed project. A significant percentage of rooftop solar systems would be non-tracking (fixed panels that would not rotate to capture maximum solar exposure) because of the lower cost of such systems. Non-tracking panel systems are approximately 10 percent less efficient than tracking systems (Navigant Consulting Inc. 2007).

For the year 2016, Merced County is projected to have commercial building roof area sufficient to accommodate approximately 106 MW of solar PV electricity generation. Adjacent counties such as Stanislaus (10,077 MW), San Joaquin (1,596 MW) and Santa Clara (3,098 MW) have substantially greater commercial rooftop generation potential (Navigant Consulting Inc. 2007). A figure for industrial building rooftop energy generation capacity potential in Merced County has not been located, but since agriculture is the primary economic driver in Merced County, it is

assumed that potential exists for agricultural sector-related, building rooftop solar installations, provided such buildings have suitable structural characteristics.

Comparative Analysis of Environmental Effects

Aesthetics, Light, and Glare

In general, commercial building rooftops are often up to 30 feet above the ground, generally flat, and not typically visible from the ground. Because the solar panels are generally up to about 12 feet in height, panels located along the edges of rooftops could be visible, but less so if the rooftops have parapets or other architectural screening features. However, it could also be assumed that a clear area near the roof edge would be maintained for access, which would reduce panel visibility. For the most part, mounting solar panels on rooftops results in minimal changes to the appearance of commercial buildings. The existing visual environments where commercial and/or industrial buildings generally are located are usually in a developed area that has already been substantially modified. Most of the buildings are likely to be distributed across Merced County and/or adjacent counties in urban or locally intensively developed areas where the incremental change in visual aesthetic conditions created by constructing rooftop solar installations would not be considered substantial.

The proposed project would not be visible from any designated scenic highways. It would be placed in an area with minimal development, although existing power transmission lines and transmission towers are visually dominant features. The visual impacts of the proposed project are considered to be less than significant. The proposed project would alter the visual characteristics of the project site, but would not substantially degrade the existing visual character or quality of the area and its surroundings. The proposed project would mitigate potential light impacts to a less than significant level through the implementation of a lighting plan to minimize light and nightglow. The Distributed PV Alternative would be located in developed areas where lighting would already be present. Because of the Distributed PV Alternative's increased space requirement and increased number of locations and corresponding vantage points, the Distributed PV Alternative would have comparable aesthetics impacts relative to the proposed project.

Agricultural Resources

The Distributed PV Alternative would have no effect on agriculture and forestry resources. The Distributed PV Alternative would use already developed sites that would not contain any agricultural or forestry resources. Although the proposed project's impact of converting farmland to non-agricultural use was determined to be less than significant, this alternative would have no impact on agricultural resources. Therefore, under this alternative the impact on farmland would be less relative to the proposed to project.

Air Quality and Greenhouse Gases

The Distributed PV Alternative would construct rooftop solar facilities in various locations throughout the County. Because the exact locations and number of buildings on which the rooftop facilities would be installed is unknown, it would be speculative to estimate the total

number of vehicle miles traveled for the construction and operation of such system relative to the proposed project. It is possible that Distributed PV could result in greater or fewer criteria pollutants and greenhouse gas emissions. Construction of the Distributed PV Alternative would result in little or no particulate dust emissions because soil surfaces would not be disturbed. However, it is likely that greater emissions would result because installed solar generation capacity would be distributed over a larger geographical area and would require many independent delivery, installation, sales, and maintenance trips, rather than to a centralized project location as proposed by the Vega Solar project. The Distributed PV Alternative would have similar air quality and greenhouse gas impacts as the proposed project.

Biological Resources

The Distributed PV Alternative would have no adverse effect on biological resources because under this alternative, land that has previously been developed would be used, which would result in no impact to protected plant or wildlife species. The Distributed PV Alternative would use developed sites that do not have biological resource value. Consequently, this alternative would avoid the potential biological resource impacts associated with the proposed project.

Cultural Resources

The Distributed PV Alternative would have no effect on cultural resources because it would use developed sites; hence, no undeveloped land would be disturbed. The buildings that would be used for the rooftop solar panels would likely be newer structures rather than older, potentially historic structures, because of the superior structural characteristics of new buildings. This alternative would avoid the potential cultural resource impacts associated with construction of the proposed project.

Geology, Soils, and Seismicity

The Distributed PV Alternative would have no effect on geology and soils or increase risks to people or structures to seismic hazards because it would be using buildings that are already developed. Consequently, it would eliminate the potential geologic and soils impacts associated with construction of the proposed project.

Hazards and Hazardous Materials

Under the Distributed PV Alternative, only small amounts of hazardous materials would be used at each installation location, as needed, for maintenance or operation of the panels. Similar to the proposed project, the materials would be required to be stored and handled consistent with state and local regulations designed to reduce potential impacts. It would be too speculative to assume that this alternative would create a greater or a reduced risk of accident associated with the use, transport, and storage of hazardous materials. However, given that the Distributed PV would be located within developed urban areas there is more likelihood that more people would be exposed to hazards as compared to the rural setting of the proposed project. As such, impacts associated with hazards and hazardous materials would be greater relative to the proposed project.

Hydrology and Water Quality

The Distributed PV Alternative would place solar panels on existing impervious surfaces (i.e., buildings), and would not alter the runoff rate or volume of storm water from such surfaces. Further, it would not disturb soil surfaces such that surface water quality from sedimentation would occur, nor would it increase the potential that pollutants would be introduced into stormwater runoff. The Distributed PV Alternative would not be able to utilize subsurface shallow groundwater for panel cleaning in the same way as the proposed project, and it would not help remediate the water quality issues associated with the perched groundwater as the project does. The Distributed PV Alternative would require more potable groundwater relative to the proposed project. As such, the Distributed PV Alternative would have a greater impact on hydrology and water quality than the proposed project.

Land Use

The Distributed PV Alternative would be constructed on commercial, industrial, or institutional building locations within urban areas. Discretionary approvals (conditional use permits, design review, etc.) may be required depending on the location and design of the individual installations and the regulations of local jurisdictions. Construction and operation of the Distributed PV projects would be in accordance with applicable plans, policies, and regulations of the local jurisdictions, similar to the proposed project; accordingly, impacts to land use would be similar.

Noise

The Distributed PV Alternative would result in a limited amount of construction noise at a number of different sites throughout the region. Construction would take place in accordance with the local jurisdiction's noise regulations. For the most part, these sites would likely be commercial, industrial, or institutional building locations within urban areas where ambient noise levels are relatively high and the presence of adjacent noise sensitive uses relatively low. The duration of construction noise would also be minimal and would not require large pieces of earthmoving equipment, for example. Nevertheless, construction within a developed area would be more disturbing because it would require hundreds to thousands of separate installation efforts across a wide variety of locations, close to populations that could be impacted by the noise of installation and within an ambient environment that is already impacted. Consequently, construction noise impacts for this alternative would be greater relative to the proposed project.

Public Services and Utilities

The Distributed PV Alternative would be constructed on commercial, industrial, or institutional building locations within urban areas, where police, fire, and emergency medical services could be provided with minimal response times. However, it is more likely that in the event of a fire or security emergency more people would be at risk than in a rural setting. As such, it would have a greater impact on public services relative to the proposed project.

The Distributed PV Alternative would require the provision of water to clean the panels, but would not require the provision of sewer or wastewater infrastructure. Refuse generation would also be minimal, and solar panels and supporting equipment would remain largely recyclable.

This alternative would result in little or no incremental increase in demand for groundwater during operation similar to the proposed project, and would not result in increased demand for water during the construction phase. The Distributed PV Alternative would not be able to utilize subsurface shallow groundwater for panel cleaning, and it would not help to remediate the water quality issues associated with the perched groundwater as the project does. The Distributed PV Alternative would require more potable groundwater relative to the proposed project. Overall, impacts on utilities and service systems under this alternative would be greater relative to the proposed project.

Transportation/Traffic

The Distributed PV Alternative would generate most trips during the construction phase, but the trips would be dispersed throughout the region and would not be concentrated on a limited number of intersections or road segments. The increase in construction traffic may be more significant within developed urban areas as intersections levels would have greater volumes of traffic and may not be operating at acceptable Levels of Service. Although the construction phase traffic for the proposed project would be concentrated on a limited number of intersections, those intersections are operating at acceptable levels. Compared with the proposed project, this alternative would result in greater impact on transportation facilities.

Relationship to Project Objectives

The Distributed PV Alternative would have comparable impacts to aesthetics, air quality and greenhouse gases, and land use relative to the proposed project. The Distributed PV Alternative would have fewer impacts to agricultural resources, biological resources, cultural resources, and geology and soils relative to the proposed project. The Distributed PV Alternative would have greater impacts to hydrology, noise, public services and utilities, and transportation relative to the proposed project. Overall, the Distributed PV Alternative would result in slightly greater impacts relative to the proposed project. The Distributed PV Alternative would achieve some, but not all, of the project objectives as shown below.

- The Distributed PV Alternative would not meet the objective of generating 20 MW of solar energy by 2014, but would help further the State's Renewable Portfolio Standard of 33-percent for renewable energy, and would result in greenhouse gas reductions. At this time, it would be speculative to estimate if and when implementation of the Distributed PV Alternative could deliver 20 MW, but the likelihood that this could be achieved by 2014 is remote. It would be speculative to assume that solar rooftop PV systems will sufficiently "penetrate" the potential market for such systems within a geographic area consisting of Merced County and surrounding counties such that a total of 20 MW could be produced. It would also be speculative to assume that approval of a sufficient number of building owners needed to install a total of 20 MW of solar electricity generation capacity would be obtained. The above factors suggest that utility-scale solar PV generation will better meet the State's renewable energy goals as embodied in the Renewable Portfolio Standard.
- The Distributed PV Alternative would assist in meeting the utility peak power load by adding solar power capacity.

- The Distributed PV Alternative would not locate solar power plant facilities as near as possible to electrical transmission facilities with anticipated capacity and reserved queue position. Interconnection applications for rooftop facilities have required unanticipated upgrades, which add to the costs of the facilities and result in lengthy interconnection construction schedules.
- The Distributed PV Alternative would site projects in areas with excellent solar energy resource capabilities, in order to maximize productivity from the photovoltaic (PV) panels. However, more PV panels would be required to achieve the equivalent power production from a fixed tilt system due to less efficient fixed-axis roof systems.
- The Distributed PV Alternative would not likely meet the project objective of creating economic benefit from construction and full-time jobs. This alternative would not require jobs needed for major components of the proposed project such as site preparation (i.e. fine grading), installation of concrete equipment pads, installation of the electricity collection system, construction of a substation and PG&E switching yard, trenching, etc.
- Because distributed systems require greater transactional costs and lack economies of scale, the Distributed PV Alternative would not be able to deliver 20 MW of renewable energy at a price that is competitive with the proposed project. Factors such as labor costs, materials and technology costs, electrical utility pricing for a unit of delivered electricity from renewable sources, costs per unit of delivered rooftop solar energy based on the economy of scale for production and installation relative to a centralized, utility scale solar PV installation, etc. would significantly affect the per-unit cost of Distributed PV generated electricity relative to that delivered by a utility-scale PV project in 2014.

Feasibility of the Distributed PV Alternative

Because, as explained earlier, the Project as mitigated would not result in any significant and unavoidable environmental impacts, the County need not address the feasibility of this alternative. Even so, the County has determined that the Distributed PV Alternative is infeasible. Significant impediments to commercial viability, including transaction costs, legal access, and contractual obligations, prevent the Distributed PV Alternative from becoming a reality. Additional impediments to this alternative's viability include the fact that the applicant does not control or have legal access to the hundreds to thousands of rooftops that would be required to construct 20 MW of solar generation by way of the Distributed PV Alternative.

D. ENVIRONMENTALLY SUPERIOR ALTERNATIVE

The No Project Alternative would have fewer impacts than the proposed project because the site would remain in its existing condition, thereby avoiding any potentially adverse environmental impacts. The Distributed PV Alternative would result in slightly greater environmental impacts relative to those of the proposed project. The proposed project is the environmentally superior option relative to the alternatives considered.