ADDENDUM II

KERN COUNTY PLANNING AND NATURAL RESOURCES DEPARTMENT

Planning Commission

STAFF REPORT

Date: March 14, 2019

FILE: GPA #9, Map #152; GPA #1, Map #152-28; ZCC #11, Map #152; ZCC #12, Map #152; ZCC #13, Map #152; ZCC #1, Map #152-28; CUP #23, Map #152; CUP #24, Map #152; CUP #25, Map #152; CUP #26, Map #152; CUP #3, Map #152-28

S.D.: #2 - Couch

TITLE: (a) General Plan Amendment Case No. 9, Map No. 152; General Plan Amendment Case No. 1, Map No. 152-28; (b) Amendment of Zoning Map No. 152, Zone Change Case No. 11; Amendment of Zoning Map No. 152, Zone Change Case No. 12; Amendment of Zoning Map No. 152, Zone Change Case No. 23; Amendment of Zoning Map No. 152-28, Zone Change Case No. 1; (c) Conditional Use Permit Case No. 23, Map No. 152; Conditional Use Permit Case No. 24, Map No. 152; Conditional Use Permit Case No. 25, Map No. 152; Conditional Use Permit Case No. 26, Map No. 152; Conditional Use Permit Case No. 3, Map No. 152-28;

PROPOSAL: (a) Two (2) amendments to the Circulation Element of the Kern County General Plan to eliminate road reservations along section and midsection lines in Sections 23, 28, 31, 32, 33, 34, and 45, T31SR, R37E, MDB&M in Zone Maps 152 and 152-28; (b) Four (4) changes in zone classifications from A-1 (Limited Agriculture) to A (Exclusive Agriculture), on 265.3 acres; from A-1 MH H (Limited Agriculture - Mobilehome Combining - Airport Approach Height Combining) to a A (Exclusive Agriculture), on approximately 81 acres; from PL RS MH (Platted Lands - Residential Suburban Combining - Mobilehome Combining) to A (Exclusive Agriculture), on approximately 81 acres within Zone Map 152; and from E (20) RS (Estate - 20 acres - Residential Suburban Combining) to A (Exclusive Agriculture), on approximately 81 acres within Zone Map 152-28 or more restrictive districts; (c) Five (5) Conditional Use Permits (Condition Use Permits No. 23 through 26, Map No. 152 and Conditional Use Permit 3, Map No. 152-28) to allow for construction and operation of a 500-megawatts (MW) solar photovoltaic (PV) electrical generating facility (Section 19.12.030.G) in an A (Exclusive Agriculture District. The project would be supported by a 230 kilovolt (kV) gen-tie electrical transmission line(s) originating from one or more on-site substation(s) and/or switchyard(s) and terminating at the Los Angeles Department of Water and Power (LADWP), Barren Ridge Substation. The project's permanent facilities would include: service roads, a power collection system, communication cables, overhead and underground transmission lines, electrical switchyards, project substations, and operations and maintenance facilities.

APPLICANT: Eland 1 Solar Project by 68SF 8me, LLC (PP18211)

PROJECT SIZE: 2,652.7 acres

LOCATION: South of Munsey Road, east and west of Neuralia Road, east of State Route (SR) 14, north and south of Phillips Road, in the unincorporated Kern County, southeast of the unincorporated community of Cantil, and immediately north of California City; Supervisorial District 2 – Scrivner

Map 152-28, T31S/R37E

Site 5:
- eastern portion of the northern section line of Section 28
- eastern portion of the midsection lines within Section 28
- north half of mid-section lines within Section 28

Additionally the commenter noted the need of an Encroachment Permit and comments regarding the obstruction of easements. Staff notes these requirements are part of the Conditions of Approval (COA). Please see COA 8(a) and 8(b), of tonight's original Staff Report.

Southern California Gas Company (SoCal Gas).

The commenter states that the Transmission Department of SoCal Gas does not operate any facilities within the proposed improvement. Staff, notes this comment into the record. Comment attached.

Oscar Quintana and Patricia Cobos.

Staff notes that some of the comments made by the commenter have been addressed in the original Staff Report, prepared for tonight hearing, under the heading *Planning Commission Hearing-February 28, 2019*. The comments addressed, on tonight's Staff Report, were the ones associated with health issues, loss of view and scenery, property value and glare. However, Staff would like to provide additional information regarding the issues that were brought up by the commenter.

Living close and surrounded by high voltage.
Electromagnetic field (EMFs) are associated with electromagnetic radiation, which is energy in the form of photons. The electromagnetic spectrum, the scientific name given to radiation energy, includes light, radio waves, and x-rays, among other energy forms. Commonly known human-made sources of EMF are electrical systems, such as electronics and telecommunications, as well as electric motors and other electrically powered devices. Radiation from these sources is invisible, non-ionizing, and of low frequency. Generally, in most environments, the levels of such added radiation added to natural background sources are low.

Electric voltage (electric field) and electric current (magnetic field) from transmission lines create EMFs. Power frequency EMF is a natural consequence of electrical circuits and can be either directly measured using the appropriate measuring instruments or calculated using appropriate information. On January 15, 1991, the California Public Utilities Commission (CPUC) initiated an investigation to consider its role in mitigating the health effects, if any, of electric and magnetic fields from utility facilities and power lines. A working group of interested parties, the California EMF Consensus Group, was created by the CPUC to advise it on this issue. At the end of the research, recommendations from the group were filed with CPUC in March 1992. Consequently, CPUC's decision (93-11-013) was issued on November 2, 1993, to address public concern about possible EMF health effects from electric utility facilities. The conclusions and findings included the following:

> "We find that the body of scientific evidence continues to evolve. However, it is recognized that public concern and scientific uncertainty remain regarding the potential health effects of EMF exposure. We do not find it appropriate to adopt any specific numerical standard is association with EMF until we have a firm scientific basis for adopting any particular value."

This continues to be the stance of the CPUC regarding standards for EMF exposure. Currently, the state has not adopted any specific limits or regulations regarding EMF levels from electric power facilities. Furthermore, Staff has attached additional information regarding EMFs for your Commission's reference. (Attachment "A")

Property Value:
As previously stated in tonight's original Staff Report, property value and potential effects can only be tested through date from parcel sales. There are a number of factors that have the potential to affect property values; as a result, it is not possible to identify exactly how the proposed solar project would potentially affect private property values. Property-specific factors such as neighborhood features, square footage, size of lot, and irrigation potential are substantially more likely to be major determinants of the sales price of property than is the presence of energy infrastructure. Additionally, Staff believes that there is no evidence presented that would conclude that the installation of a solar facility would lead to a decrease in neighboring property values.

Loss of view and scenery:
As previously stated on tonight's original Staff Report, the project site located on a vast plain with a series of distinctive mountain ranges encompassing the background to the north. Although, much of the project area contains desert vegetation, the project site exhibits evidence of past disturbance with the density of vegetation. Man-made features are evident, including paved and unpaved roadways, a railroad line, and the former Honda automotive testing, research, and development facility northeast of the project site. Mitigation Measures MM 4.1-1, MM 4.1-2, and MM 4.1-3 are proposed to soften visual impacts and minimize views of project equipment by installing view-screening materials in fencing and softening the visual impact of the project by requiring the planting of trees or shrubs. Additionally, for portions of the project that abut residentially zoned parcels, an Additional Aesthetics Setback of 100 feet shall be required from the project property boundary line, which includes the centerline of any public roadway. If a public roadway does not exist between the project site and the residentially zoned property, the 100 foot setback shall be measured from the edge of the shared property line. The project proponent shall be responsible for continued dust controls and weed maintenance within this additional aesthetic setback area. No solar panels, substations, or operating equipment shall be located in and/or stored in the identified setback area. An approved site plan showing the designated Additional Aesthetics Setback shall be submitted to Kern County Planning and Natural Resources Department for approval.

Glare, dust and sandy winds
As previously stated on tonight's original Staff Report, photovoltaic (PV) solar panels absorb light which is then converted to electricity. A solar panel comprises numerous solar cells which differ from a typical reflective surface in that they has a microscopically irregular surface designed to trap the rays of sunlight for the purposes of energy production. The intent of solar technology is to increase efficiency by absorbing as much light as possible (which further reduces reflection and glare). Solar glass sheets (the glass layer that covers the PV panels) are typically tempered glass that is treated with an anti-reflective or diffusion coating that further diffuses the intensity of glare produced. Additionally, Mitigation Measure MM 4.1-6 require the applicant to use solar panels and hardware designed to minimize glare and spectral highlighting. In response to dust and sandy winds, Staff notes that in order for the project proponent to be in compliance with Mitigation Measure 4.2-1 of the DSEIR, the project proponent will need to obtain an Authority to Construct (ATC) from the Eastern Kern APCD. The EKAPCD's ATC sets district permitting conditions and requirements which applicants are required to follow. Under this ATC, the project proponent would be required to participate in Air Monitoring Network proposed by American Ecotech. A copy of a sample ATC has been attached for your reference. (Attachment "B") Should your Commission have any further questions regarding this requirement a representative from Eastern Kern APCD is in attendance.

Wildlife.
Staff notes that there are 23 biological Mitigation Measures (MMs) the applicant needs to comply with as part of the project's implementation. With implementation of Mitigation Measures MM 4.3-1 through MM 4.3-23, the impact of the proposed project to biological resources would be less than significant. As shown, in Exhibit C of tonight's original Staff Report.

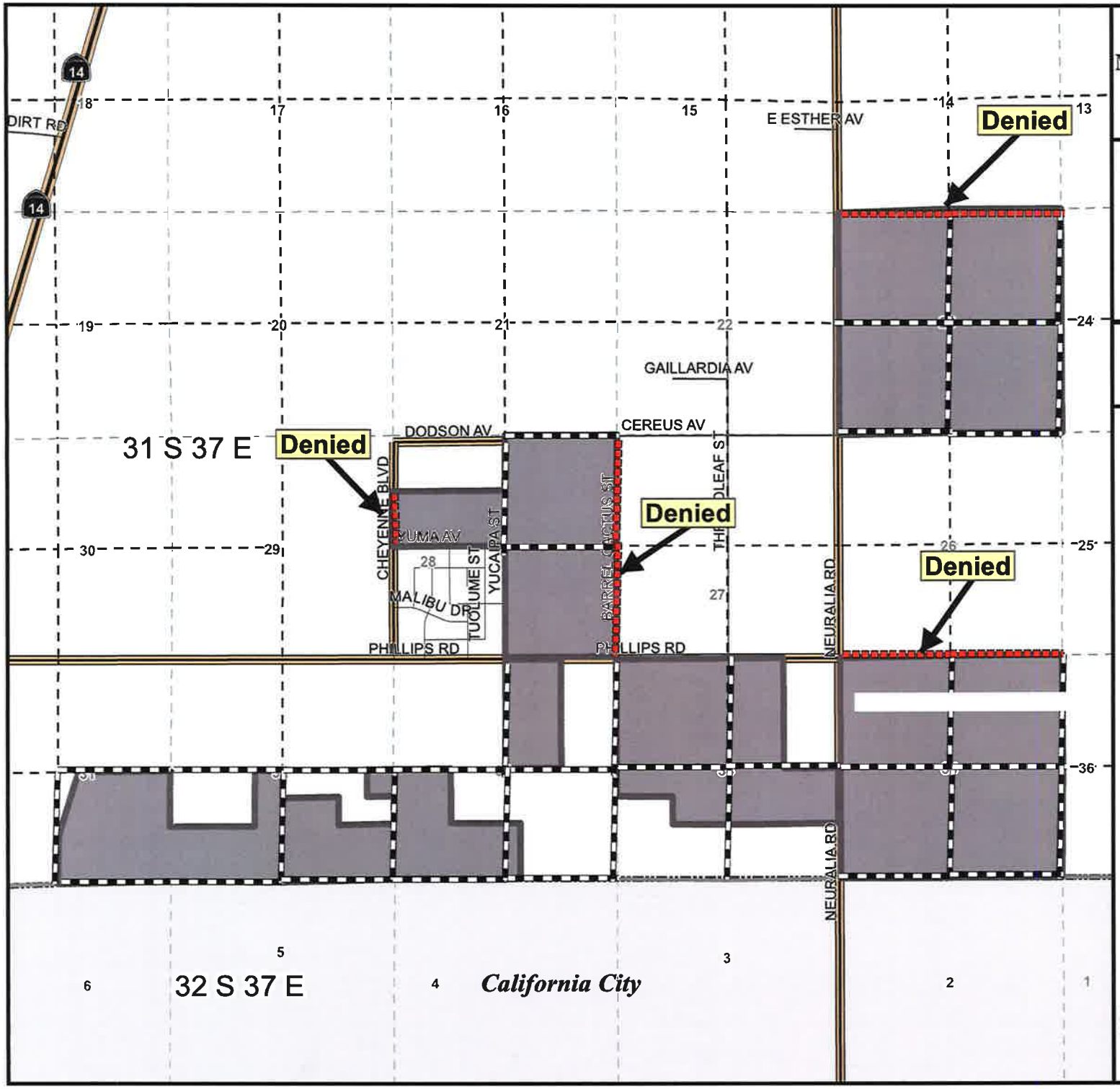
CEQA ACTION: Environmental Review: Supplemental Environmental Impact Report

PLANNING COMMISSION RECOMMENDATION: Advise the Planning Commission to recommend the Board of Supervisors certify the Supplemental Environmental Impact Report; adopt Section 15091 Findings of Fact and Section 15093 Statements of Overriding Considerations; adopt Mitigation Measure Monitoring Program; approve **REVISED** General Plan Amendment as ~~requested~~ **recommended by Staff, to include within T31S/R37E, MDBM: north half of mid-section lines within Section 28; all midsections lines and the eastern and southern sections lines, within Section 23; all midsections lines within and the eastern and southern section lines, of Section 35; all midsections lines and the western section line, of Section 34; all midsections lines and the southern section line of Section 33; the southern section line, the southern portion of midsection line and western and eastern portions of midsection lines within Section 32, the southern and eastern portions of midsection lines and eastern portion of the southern section line within Section 31; the eastern portion of the northern section line and eastern portion of the midsection lines within Section 28; Deny: north portion of the west section line between Section 28 and 29; north and south portions of section line between Section 27 and 28; west and east portions of the section line between Section 26 and 35; west and east portions of the section line between Section 14 and 23;** approve modification of Conditional Use Permit subject to conditions; approve zone changes as requested; approve the Memorandum of Understanding/Agreement and recommend the Board of Supervisors Chairman to sign; adopt the suggested findings as set forth in the attached Draft Resolutions

CMM:CER:sc

Attachment

Maps



GPA 9, Map152;GPA 1, Map152-28; ZCC 11, 12, 13, Map152; ZCC 1, Map 152-28; CUP 23, 24, 25, 26, Map152; CUP 3, Map 152-28

Figure 4 - Revised Staff's Recommendation Circulation Amendment

Eland 1 Solar Project by 68 SF 8me LLC

- Denied Removals
- Section/Midsectio Line Removal
- Site
- Township/Range
- Sections
- City Limits

Sec. 23, 28, 31, 32, 33, 34 & 45 - T31S/R37E

3/13/19

0 1,100 2,200 3,300 4,400 Feet

Kern County Planning & Natural Resources Department

ATTACHMENT "A"

What are EMFs?

Electric and Magnetic fields are invisible lines of force that surround any electrical device. Electric fields are produced by voltage and increase in strength as the voltage increases. The electric field strength is measured in units of volts per meter (V/m). Magnetic fields result from the flow of current through wires or electrical devices and increase in strength as the current increases. Magnetic fields are measured in units of gauss (G) or tesla (T). Most electrical equipment has to be turned on, i.e., current must be flowing, for a magnetic field to be produced. Electric fields, on the other hand, are present even when the equipment is switched off, as long as it remains connected to the source of electric power.

Electric fields are shielded or weakened by materials that conduct electricity (including trees, buildings, and human skin). Magnetic fields, on the other hand, pass through most materials and are therefore more difficult to shield. Both electric and magnetic fields decrease as the distance from the source increases.

PUC Actions Regarding EMFs

A PUC decision on January 27, 2006, affirmed the Commission's November 1993 decision on low-cost/no-cost, policy to mitigate EMF exposure for new utility transmission and substation projects. As a measure of low-cost mitigation, we continue to use the benchmark of 4% of transmission and substation project costs for EMF mitigation, and combine linked transmission and substation projects in the calculation of this 4% benchmark. In addition, the Commission adopted rules and policies to improve utility design guidelines for reducing EMF, and called for a utility workshop to implement these policies and standardize design guidelines.

In order that utilities may proceed with a workshop, the Commission defined and adopted EMF mitigation polices and rules that address underground transmission lines, application of the 4% mitigation benchmark to EMF priority classes, EMF mitigation modeling techniques, and the locations for measuring EMF mitigation. The Commission also directed utilities to initiate standardized field reduction techniques and develop a table to reflect EMF reduction measures taken or rejected.

The Commission is unable to determine whether there is a significant scientifically verifiable relationship

between EMF exposure and negative health consequences. However, the January 2006 decision directs the Commission's Energy Division to pursue and review all available studies regarding EMF, and to review scientific information and report on new findings. Should such studies indicate negative EMF health impacts, the Commission will reconsider its EMF policies, and open a new rulemaking if necessary.

There are seven measures that were ordered in the PUC's November 1993 decision and affirmed in the January 27, 2006 decision are:

• No-cost and low-cost steps to reduce EMF levels: When regulated utilities design new projects or upgrade existing facilities, approximately 4% of the project's budget may be used for reducing EMFs. The PUC did not set specific reduction levels for EMFs . It was inappropriate to set a specific numerical standard until a scientific basis for doing so exists

• New designs to reduce EMF levels: The PUC's Advisory and Compliance Division and Safety Division held workshops for utilities to develop EMF design guidelines for new and rebuilt facilities. The guidelines incorporate alternative sites, increase the size of rights-of-way, place facilities underground, and use other suggested methods for reducing EMF levels at transmission, distribution and substation facilities

• Measurement of EMFs: Uniform residential and workplace EMF measurement programs were also designed in the workshops; they are available to utilities and their customers. Other utilities are also encouraged to use them.

•Education and Research: The PUC wants the public and groups having a financial or basic interest in EMFs to become involved in developing education and research programs; these programs are established and managed by the DHS. PUC-regulated utilities and municipal utilities use ratepayer funds to pay for their share of development costs for the following programs:

• EMF Education: This $1.49 million program will provide credible, meaningful , consistent, and timely EMF information to electric utility customers, employees, and the public. DHS will coordinate a uniform EMF education program to supplement, but not duplicate, those that most electric utilities already have. Utilities without programs should implement one as soon as possible.

• EMF Research: A $5.6 million four-year non-experimental research program will be directed by DHS. This program will provide utility participation in state, national, and international research to be pursued to the extent that it benefits ratepayers.

Other Research: Utilities are authorized to contribute to federal experimental research conducted under the National Energy Policy Act of 1992.

History

On January 15, 1991, the PUC began an investigation to consider the Commission's potential role in mitigating health effects, if any, of EMFs created by electric utility power lines and by cellular radiotelephone facilities. By this investigation, all interested parties were notified that the PUC would take appropriate action on EMFs in response to a conclusion, based on scientific evidence, which indicates that a health hazard actually exists, and that a clear cause and effect relationship between utility property or operations and public health is established.

Due to the lack of scientific or medical conclusions about potential health effects from utility electric facilities and power lines, the PUC adopted Seven Interim Measures that help to address public concern on this subject [D.93-11-013]. The interim EMF requirements apply to Pacific Gas & Electric, Southern California Edison, San Diego Gas & Electric, Sierra Pacific Power, and Pacific Power & Light. Municipal utilities, like the Sacramento Municipal Utilities District and the Los Angeles Department of Water and Power, are not under PUC jurisdiction, although they may voluntarily follow the same measures.

Back to Top
Contact
Employees
Sitemap
Conditions of Use
Jobs
Privacy Policy
Public Advocates Office

EMF Design Guidelines for Electrical Facilities

July 21, 2006

Table of Contents

EMF Design Guidelines for Electrical Facilities

1 California EMF Policy

1.1 Historical Background of California EMF Policy

In 1993, the California Public Utilities Commission (CPUC) issued Decision 93-11-013, establishing EMF policy for California's regulated electric utilities.

The Decision acknowledged that scientific research had not demonstrated that exposures to EMF cause health hazards and that it was inappropriate to set numeric standards that would limit exposure. In recognizing the scientific uncertainty, the CPUC addressed public concern over EMF by establishing a no-cost and low-cost EMF reduction policy that utilities would follow for proposed electrical facilities.

In workshops ordered by the CPUC, the utilities developed the initial EMF Design Guidelines based upon the no-cost and low-cost EMF policy. Fundamental elements of the policy and the Design Guidelines included the following:

A) No-cost and low-cost magnetic field reduction measures would be considered on new and upgraded projects.

B) Low-cost measures, in aggregate, would:

   a. Cost in the range of 4% of the total project cost.

   b. Achieve a noticeable magnetic field reduction.

   The CPUC stated,

   > "We direct the utilities to use 4 percent as a benchmark in developing their EMF mitigation guidelines. We will not establish 4 percent as an absolute cap at this time because we do not want to arbitrarily eliminate a potential measure that might be available but costs more than the 4 percent figure. Conversely, the utilities are encouraged to use effective measures that cost less than 4 percent."[1]

C) For distribution facilities, utilities would apply no-cost and low-cost measures by integrating reduction measures into construction and design standards, rather than evaluating no-cost and low-cost measures for each project.

1.2 Current California EMF Policy

In 2006, the CPUC updated its EMF Policy in Decision 06-01-042. The decision re-affirmed that health hazards from exposures to EMF have not been established and that state and federal public health regulatory agencies have determined that setting numeric exposure limits is not appropriate. The CPUC also re-affirmed that the existing no-cost and low-cost precautionary-

[1] CPUC Decision 93-11-013, Section 3.3.2, p.10

based EMF policy should be continued. In the decision, the CPUC required the utilities to update their EMF Design Guidelines to reflect the following key elements of the updated EMF Policy:

A) "The Commission [CPUC] has exclusive jurisdiction over issues related to EMF exposure from regulated utility facilities."[2]

B) "...while we continue our current policy of low-cost and no cost EMF mitigation, as defined by a 4% benchmark of total project cost, we would consider minor increases above the 4% benchmark if justified under unique circumstances, but not as a routine application in utility design guidelines. We add the additional distinction that any EMF mitigation cost increases above the 4% benchmark should result in significant EMF mitigation to be justified, and the total costs should be relatively low."[3]

C) For low cost mitigation, the "EMF reductions will be 15% or greater at the utility ROW [right-of-way]..."[4]

D) "Parties generally agree on the following group prioritization for land use categories in determining how mitigation costs will be applied:

1. Schools and licensed day care[5]
2. Residential
3. Commercial/industrial
4. Recreational
5. Agricultural
6. Undeveloped land"

E) "Low-cost EMF mitigation is not necessary in agricultural and undeveloped land except for permanently occupied residences, schools or hospitals located on these lands."[6]

F) "Although equal mitigation for an entire class is a desirable goal, we will not limit the spending of EMF mitigation to zero on the basis that not all class members can benefit."[7]

G) ".... We [CPUC] do not request that utilities include non-routine mitigation measures, or other mitigation measures that are based on numeric values of EMF exposure, in revised design guidelines..."[8]

---

[2] CPUC Decision 06-01-042, p. 21
[3] Ibid., p. 7
[4] Ibid., p. 10
[5] "As an additional fixed location of young children, we will add hospitals to this category." Ibid., p. 7
[6] Ibid., p. 20
[7] Ibid., p. 10
[8] Ibid., p. 17

The CPUC also clarified utilities' roles on EMF during the CPCN (Certificate of Public Convenience and Necessity) and PTC (Permit to Construct). The CPUC stated,

> "EMF concerns in future CPCN [Certificate of Public Convenience and Necessity] and PTC [Permit to Construct] proceedings for electric transmission and substation facilities should be limited to the utility's compliance with the Commission's [CPUC] low-cost and no-cost policies."[9]

Furthermore, the CPUC directed "the Commission's Energy Division to monitor and report on new EMF related scientific data as it becomes available."[10] These EMF Design Guidelines, therefore, will be revised as more information or direction from the CPUC becomes available.

1.2.1 Standardized EMF Design Guidelines

Decision 06-01-042 directed the utilities to hold a workshop to develop standard approaches for their EMF Design Guidelines. This workshop was held in spring of 2006, and this document represents the standardized design guidelines produced as a result of that workshop. The guidelines describe the routine magnetic field reduction measures that all regulated California electric utilities will consider for new and upgraded transmission line and transmission substation projects.

These guidelines are not applied to changes made in connection with routine maintenance, emergency repairs, or minor changes to existing facilities. See §3.4 for a list of exemptions.

1.2.2 Standardized Table of Magnetic Field Reduction Measures

As directed by Decision 06-01-042, these guidelines include a standardized table that utilities will use to summarize "the estimated costs and reasons for adoption or rejection"[11] of reduction measures considered for any particular project. Table 1-1 shows the information to be displayed in the standardized table. Utilities may choose to add columns for additional information as necessary for any particular project. Typical format is shown below.

Table 1-1 Low-Cost Reduction Measures Adopted or Rejected

Project Segment	Location (Street, Area)	Adjacent Land Use	Reduction Measure Considered	Measure Adopted? (Yes/No)	Reason(s) if not adopted	Estimated Cost to Adopt
		Per §1.2-D	Per § 2			

[9] Ibid., p. 21
[10] Ibid., p. 16
[11] Ibid., p. 13.

1.2.3 Additional Considerations Used in the Design Guidelines

These additional elements of policy resulting from Decisions 93-11-013 and 06-01-042 are fundamental to application of the guidelines:

- Any proposed changes in guidelines should be consistent with the EMF policy established in this decision [D.06-01-042] and in D.93-11-013.[12]
- The guidelines "should not compromise safety, reliability, or the requirements of [CPUC] General Orders (GO) 95 and 128."[13]
- Without exception, design and construction of electric power system facilities must comply with all applicable federal and state regulations, applicable safety codes, and each electric utility's construction standards.
- Non-routine field reduction measures are not necessary except in unique circumstances, and are not included in the guidelines.
- The guidelines do not include reduction measures "that are based on numeric values of EMF exposure."[14]
- Modeling is done for magnetic fields only.
- Modeling of magnetic fields is for comparison of reduction techniques, and "does not measure actual environmental magnetic fields."[15]
- "[P]ost-construction measurement of EMF in the field cannot indicate the effectiveness of mitigation measures"[16] and is not required.
- "The appropriate location for measuring EMF mitigation is the utility ROW as this is the location at which utilities may maintain access control."[17]
- Reduction measures are not applicable to reconfigurations or relocations of up to 2,000 feet, the distance under which certain exemptions apply under GO 131-D.[18]
- "Utility design guidelines should consider EMF mitigation at the time the FMP [(Magnetic) Field Management Plan] is prepared..." The CPUC does "not require utility design guidelines to include low-cost EMF mitigation for undeveloped land."[19]
- Distribution facilities are not considered in magnetic field modeling or in FMPs for transmission line or substation projects rated 50 kV and above.

---

[12] Ibid., p. 20.
[13] Ibid., p. 21.
[14] Ibid., p. 17.
[15] Ibid., p. 11.
[16] Ibid., p. 11.
[17] Ibid., p. 20.
[18] The CPUC's General Order 131-D establishes rules and specifications for permitting and construction of electric generation, transmission and distribution facilities and substations located in California.

[19] Ibid., p. 9.

2 Methods for Reducing Magnetic Fields

The following magnetic field reduction methods may be considered for new and upgraded electrical facilities:

A) Increasing the distance from electrical facilities by:

   a. Increasing structure height or trench depth.

   b. Locating power lines closer to the centerline of the corridor.

B) Reducing conductor (phase) spacing.

C) Phasing circuits to reduce magnetic fields.

2.1 Increasing the Distance from Electrical Facilities

Reducing magnetic field strength by increasing the distance from the source can be accomplished either by increasing the height or depth of the conductor from ground level. Furthermore, locating the power lines as far away from the edge of the right-of-way or as close to centerline as possible will result in lower field levels at the edge of the right-of-way. For substations, placing major electrical equipment, such as switch-racks and power transformers, near the center of the substation can reduce the magnetic field levels at the property line.

2.2 Reducing Conductor (Phase) Spacing

The magnetic field produced by overhead and underground power lines is approximately inversely proportional to the distance between the phase conductors. Thus, reducing the spacing between conductors by 50 percent generally reduces the magnetic field at ground level by approximately 50 percent. The minimum distance between overhead conductors for power lines built in California is established by CPUC General Order (GO) 95. Utilities may establish minimum clearances greater than those allowed in GO 95 if required for safe working conditions or to prevent flash over. In most cases, insulation levels will be established based on lightning, switching surge, or insulator contamination considerations.

Because underground conductors are insulated, they may be placed within inches of each other. This means that there generally can be greater magnetic field cancellation in an underground circuit than an overhead circuit. Therefore, the magnetic field levels from an underground circuit will generally be lower than a comparably loaded overhead circuit at most locations other than directly above the underground line, where the cancellation effect of the underground conductors is offset by their proximity to the surface. In contrast, overhead conductors will be much farther away and will generally create a lower magnetic field directly under the line than a comparably loaded underground circuit.

2.3 Phasing Circuits to Reduce Magnetic Fields

When two or more circuits share a pole or tower, the resultant magnetic field will be the vector sum of the individual conductor fields on the structure. By using proper phasing techniques, the field from one circuit can reduce the field from another circuit, thereby reducing the level of magnetic field at ground level.

3 The Field Management Plan Process

3.1 The Field Management Plan

The Field Management Plan (FMP) documents the consideration of no-cost and low-cost magnetic field reduction measures for new or significantly reconstructed transmission lines and substations rated 50 kV and above (refer to § 3.4 for exceptions).

FMPs will be prepared for relevant transmission projects and will be retained with the work order. For any project requiring a permit under GO 131-D, the FMP will be incorporated as a part of the GO 131-D filing.

Utilities have incorporated magnetic field reduction measures into their distribution construction and design standards. Therefore, FMPs are not prepared for any distribution projects.

Basic elements of the FMP include a project description, an evaluation of no-cost and low-cost magnetic field reduction measures, and specific recommendations regarding magnetic field reduction measures to be incorporated into the transmission line and substation design (see §§ 4 and 5 of these guidelines for additional information concerning the contents of transmission line and substation FMPs).

3.2 Types of FMP

There are two types of FMP for transmission line projects, a "Basic FMP" and a "Detailed FMP," and a "Checklist FMP" for substation projects.

For transmission line projects with limited work scope, as described in Table 3-1 below, a Basic FMP is sufficient to document no-cost and low-cost magnetic field reduction measures. The Basic FMP consists of a transmission line project description, applicable no-cost and low-cost magnetic field reduction measures without magnetic field model(s), and recommendations.

The Detailed FMP consists of a transmission line project description, evaluation of no-cost and low-cost magnetic field reduction measures, magnetic field models, and recommendations (refer to § 3.3 to determine what types of transmission line projects require a Detailed FMP).

For substation projects, a checklist FMP, showing an evaluation of magnetic field reduction measures adopted or rejected, will be used. An example of the Checklist FMP is shown on Table 5-1.

3.3 Determining If an FMP is Required, and If so, What Type

The CPUC in Decision 93-11-013 (§ 3.4.2, p. 15) states, "Utility management should have reasonable latitude to deviate and modify their guidelines as conditions warrant and as new magnetic fields information is received." Table 3-1 provides criteria to determine if the project requires a Detailed FMP, a Basic FMP, a Checklist FMP, or no FMP.

Table 3-1 Criteria to Determine Whether an FMP is Required		
FMP Type Required	**Type of Work**	**FMP Criteria**
Transmission Line (rated 50 kV and above)		
Detailed FMP Note: A Detailed FMP will be used for transmission line projects requiring permitting under GO 131-D.	**New Transmission Line**: The construction of a new transmission line, if the construction requires permitting under GO 131-D.	The construction of a new transmission line will incorporate no-cost and low-cost magnetic field reduction measures. Magnetic field model is required.
	Major Upgrade: Major upgrade (including replacement of a significant number of existing structures) on an existing transmission line, if the upgrade requires permitting under GO 131-D.	All major upgrades of existing transmission lines will require no-cost and low-cost magnetic field reduction measures unless otherwise exempted under § 3.4. If permitting under GO 131-D is not required, a Basic FMP may be used, and magnetic field modeling is not required.
Basic FMP Note: A Basic FMP will be used unless the transmission line project requires permitting under GO 131-D.	**Rule 20 Conversions**: Direct replacement of overhead transmission lines with underground transmission lines under Rule 20.	The transmission line route generally is pre-established for Rule 20 conversions. Phase spacing and depth are set by utility construction standards. Thus, phase arrangement is the only magnetic field reduction measure available to the designer. Therefore, the Basic FMP will be restricted to an evaluation of phase arrangement. Magnetic field modeling is not required.
	Relocation more than 2000 ft: Relocation of poles and/or towers involving more than 2000 feet of transmission line.	Relocation of existing transmission lines generally does not provide for alternative transmission line routes. Available options are typically limited to minor changes in pole and/or tower height, minor changes in pole-head[20] configuration, or phase arrangement. The Basic FMP will normally cover these options only. Magnetic field modeling is not required.
	Pole-head Reconfiguration more than 2000 ft: Pole-head reconfiguration involving more than 2000 feet of transmission line. The complete replacement of an existing pole-head configuration with a new design.	Pole-head replacement is limited in scope; thus, field management options are generally restricted to selecting the pole-head configuration and phase arrangement. In most cases, the new pole-head configuration must be consistent with the remainder of the line. The Basic FMP will be limited to an

[20] It can also be referred to as "pole-top"

Table 3-1 Criteria to Determine Whether an FMP is Required		
FMP Type Required	**Type of Work**	**FMP Criteria**
Basic FMP Note: A Basic FMP will be used unless the transmission line project requires permitting under GO 131-D	**Reconductoring more than 2000 ft.**: Replacement only of existing conductors and/or insulators with new conductors and/or insulators.	assessment of alternative pole-head configurations and will not require magnetic field modeling. In most cases, replacement of existing transmission conductors is limited in scope; therefore, the Basic FMP will be limited to an assessment of phase arrangement for reconductor activity involving more than 2000 transmission circuit feet. Magnetic field modeling is not required.
None (see exemptions § 3.4)	**Relocation less than 2000 ft**: Relocation of poles and/or towers involving less than 2000 feet of transmission line(s). **Reconductoring less than 2000 ft.**: Replacement only of existing conductors and/or insulators with new conductors and/or insulators. **Pole-head Re-Configuration less than 2000 ft.:** Pole-head reconfiguration involving 2000 feet or less of a transmission line(s) will not require a FMP. **Maintenance:** All maintenance work that does not materially change the design or overall capacity of the transmission line, including the one-for-one replacement of hardware, equipment, poles or towers. **Safety and Protective Devices:** The addition of current transformers, potential transformers, switches, power factor correction, fuses, etc. to existing overhead, pad-mount, or underground circuits. **Emergency Repairs:** All emergency work required to restore service or prevent danger to life and property.	Minor relocation of facilities is limited in scope and does not provide significant opportunity to implement magnetic field reduction measures. Replacement of existing transmission line conductors is limited in scope and does not provide significant opportunity to implement magnetic field reduction measures. Pole-head reconfiguration involving 2000 feet or less of a transmission line(s) will not require a FMP. Maintenance work is limited in scope and does not provide significant opportunity to implement magnetic field reduction measures. The addition of protective equipment or power factor correction to existing transmission circuits is limited in scope and does not provide significant opportunity to implement magnetic field reduction measures. This work is performed on existing facilities under emergency conditions and does not involve redesign.

Table 3-1 Criteria to Determine Whether an FMP is Required		
FMP Type Required	**Type of Work**	**FMP Criteria**
Substation (Rated 50 kV and above)		
Checklist FMP	**New Substations:** The construction of a new substation having a rated high side voltage of 50kV or above.	The construction of a new substation will incorporate no-cost and low-cost magnetic field reduction measures as outlined in §5. A no-cost and low-cost checklist[21] will be used as a part of the FMP.
	Major Upgrade with GO 131-D: Major reconstruction of an existing substation that involves the installation of additional transformers to achieve an increased rated capacity and that requires permitting under GO 131-D.	All major upgrade of existing substations will require evaluations of no-cost and low-cost magnetic field reduction measures as outlined in §5, unless otherwise exempted under § 3.4. A no-cost and low-cost check list may be used.
	Major Upgrade without GO 131-D: Major upgrade of an existing substation that involves the installation of additional transformers to achieve an increased rated capacity and that does not require permitting under GO 131-D.	Major substation upgrade projects involving the addition of new transformers but not requiring GO 131-D permitting may use a no-cost and low-cost check list only. The 'no-cost and low-cost' will be limited to an evaluation of magnetic field reduction measures applicable to the transmission get-away[22] and to the location of the new transformers so as to maximize the distance from the transformers to the substation fence.

[21] See Section 5 for more information about no-cost and low-cost check lists for substation projects.
[22] This can be a part of Transmission FMP.

Table 3-1 Criteria to Determine Whether an FMP is Required		
FMP Type Required	**Type of Work**	**FMP Criteria**
None (see exemptions § 3.4)	**Reconstruction without installation of additional transformers**: This includes, for example, the installation of additional switchgear, line or bank positions, power factor correction capacitors, underground circuits and overhead circuits.	The addition of switchgear or other apparatus is limited in scope and does not provide significant opportunity to implement magnetic field reduction measures.
	Direct Replacement: The direct replacement of substation equipment, even if the new equipment has a different capacity rating.	The direct replacement of substation equipment is limited in scope and does not provide significant opportunity to implement magnetic field reduction measures.
	Maintenance: All maintenance work that does not materially change the design of the substation.	Maintenance work is limited in scope and does not provide significant opportunity to implement magnetic field reduction measures.
	Emergency Repairs: All emergency work required to restore service or prevent danger to life and property.	This work is performed on existing facilities under emergency conditions and does not involve redesign.
Distribution Project (Rated less than 50 kV)		
None	Construction or reconstruction of distribution lines with voltages less than 50 kV.	Each electric utility's distribution construction and design standards incorporates magnetic field reduction measures for distribution lines.

3.4 Projects Exempt from the FMP Requirement

The CPUC, in Decision 93-11-013, recognized that some flexibility was required in the EMF Design Guidelines. In section 3.4.2 of the Decision, the CPUC stated: "Electric utility management should have flexibility to modify the guidelines and to incorporate additional concepts and criteria as new EMF information becomes available. However, if the EMF Design Guidelines are to be truly used as guidelines, the utilities should incorporate criteria which justify exempting specific types of projects from the guidelines."

The following criteria to determine those transmission and substation projects exempted from the requirement for consideration of no-cost and low-cost magnetic field reduction measures:

1. Emergency
   - All work required to restore service or remove an unsafe condition.
2. Operation & Maintenance
   - Washing and switching operations.
   - Replacing cross-arms, insulators, or line hardware.
   - Replacing deteriorated poles.
   - Maintaining underground cable and vaults.
   - Replacing line and substation equipment with equipment serving the same purpose and with similar ratings.
   - Repairing line and substation equipment.
3. Relocations
   - Line relocation of up to 2000 feet.
   - Installation of guy poles or trenching poles only.
4. Minor Improvements
   - Addition of safety devices.
   - Reconductoring up to 2000 feet, where changing pole-head configuration is not required.
   - Installation of overhead switches.
   - Insulator replacement.
   - Modification of protective equipment and monitoring equipment.
   - Intersetting of additional structures between existing support structures.
5. Projects located exclusively adjacent to undeveloped land—including land under the jurisdiction of the National Park Service, the State Department of Parks and Recreation, U.S. Forest Service, or Bureau of Land Management (BLM).

3.5 Prioritizing Within and Between Land Use Classes

The CPUC stated in Decision 06-01-042, "[a]lthough equal mitigation for an entire class is a desirable goal, we will not limit the spending of EMF mitigation to zero on the basis that not all class members can benefit."[23]

While Decision 06-01-042 directs the utilities to favor schools, day-care facilities and hospitals over residential areas when applying low-cost magnetic field reduction measures, prioritization within a class can be difficult on a project case-by-case basis because schools, day-care facilities, and hospitals are often integrated into residential areas, and many licensed day-care facilities are housed in private homes that can be easily moved from one location to another. Therefore, utilities may group public schools, licensed day-care centers, hospitals, and residential together to receive highest prioritization for low-cost magnetic field reduction measures. Commercial and industrial areas may be grouped as a second priority group, followed by recreational and agricultural areas as the third group. Low-cost magnetic field reduction measures will not be considered for undeveloped land such as open space, state and national parks, Bureau of Land Management and National Forest Service Land.

When spending for low-cost measures would otherwise disallow equitable magnetic field reduction for all areas within a single land-use class, prioritization can be achieved by considering location and/or density of permanently occupied structures on lands adjacent to the projects, as appropriate.

[23] Ibid., p. 10

4 Field Management Plans for Transmission Lines

Construction of a new transmission line or the major upgrade of an existing transmission line, if they require GO-131D permitting, or the relocation of 2000 feet or more of an existing transmission line will require the preparation of a FMP; refer to § 3.3 to determine if a Detailed FMP (or Basic FMP) is needed; refer to § 3.4 for exemption criteria.

Transmission FMPs should include the following sections:

- Project Description;
- Evaluation of No-Cost Magnetic Field Reduction Measures;
- Evaluation of Low-Cost Magnetic Field Reduction Measures; and
- Recommendations including a table showing magnetic field reduction measures.

In addition to these requirements, a two-dimensional (2D) magnetic field model is required for a Detailed FMP.

4.1 Project Description

The project description portion of the transmission line FMP will include the following:

- For a Detailed FMP, the proposed line route should be shown on an attached project map illustrating the transmission line route, alternative line route (if applicable), and major streets and highways. A Basic FMP should briefly describe the scope of work including the line route;
- Description of land use adjacent to the line route for both Basic and Detailed FMPs;
- Circuit name and rated voltage, and circuit phasing if more than one circuit is present in the same corridor for both Basic and Detailed FMPs (rated 50 kV and above);
- Description of proposed design. For a Detailed FMP, include circuit configuration, and minimum ground clearance for overhead design. For a Basic FMP, include circuit configuration. For underground facilities (for both Detailed FMP or Basic FMP), show the depth and configuration of duct bank;
- Include estimated total project costs for proposed design.(for a Detailed FMP).

4.2 Two-Dimensional Magnetic Field Modeling for Transmission Lines

The purpose of magnetic field modeling is to evaluate relative effectiveness of various magnetic field reduction measures, not to predict magnetic field levels, as the CPUC recognized in Decision 06-01-042:

> "Utility modeling methodology is intended to compare differences between alternative EMF mitigation measures and not determine actual EMF amounts."[24]

[24] Ibid., p. 20

> "... the modeling indicates relative differences in magnetic field reductions between different transmission line construction methods, but does not measure actual environmental magnetic fields. In the same way, these relative differences in mitigation measures will be evident regardless of whether a maximum peak or a projected peak is used for the comparisons... It is also true that post construction measurement of EMF in the field cannot indicate the effectiveness of mitigation measures used as it would be extremely difficult to eliminate all other EMF sources."[25]

Two-dimensional magnetic field software can be used to evaluate the magnetic field characteristics of the proposed construction and various magnetic field reduction alternatives. Estimates of magnetic field levels are calculated based on a specific set of conditions. Therefore, it is important to make logical assumptions as to what these conditions will be and to keep these calculation conditions consistent when comparing two or more different cases.

Typical two-dimensional magnetic field modeling assumptions include:

- The line will be considered operating at forecasted design load;
- Magnetic field strength is calculated at a height of three feet above ground (assuming flat terrain);
- Resultant magnetic fields are being used;
- All line loadings are considered as balanced (i.e. neutral or ground currents are not considered);
- The line is considered working under normal operating conditions (emergency conditions are not modeled);
- Terrain is flat;
- Dominant power flow directions are being used; and
- Contribution of shield wire currents is not included.

[25] Ibid., p. 11

5 Field Management Plans for Substations

Construction of a new substation rated 50 kV and above or the major upgrade of an existing substation rated 50 kV and above will require the preparation of a substation FMP in a form of a check list (see example in Table 5-1). Magnetic field modeling for the substation project is not required.

A major upgrade for purposes of these Guidelines means the expansion of an existing substation through the addition of transformer bank(s) or new transmission line(s). "One-for-one" replacement of substation transformers, circuit breakers, or other apparatus does not constitute an major upgrade for purposes of these Guidelines, even if that replacement results in an increase in rated capacity. The addition of instrumentation, control, or protection equipment does not constitute a major upgrade. Refer to § 3.3 to determine if a substation FMP is needed, and to § 3.4 for exemption criteria.

Generally, magnetic field values along the substation perimeter are low compared to the substation interior because of the distance to the energized equipment. Normally, the highest values of magnetic fields around the perimeter of a substation are caused by overhead power lines and underground duct banks entering and leaving the substation, and not by substation equipment. Therefore, the magnetic field reduction measures generally applicable to a substation project are as follows:

- Site selection for a new substation;
- Setback of substation structures and major substation equipment (such as bus, transformers, and underground cable duct banks, etc.) from perimeter;
- Lines entering and exiting the substation (this will be a part of a transmission line FMP).

The Substation Checklist FMP evaluates the no-cost and low-cost measures considered for the substation project, the measures adopted, and reasons that certain measures were not adopted. An example Substation check list is shown below:

Table 5-1 Example of Substation Checklist for a FMP

No.	No-Cost and Low-Cost Magnetic Field Reduction Measures Evaluated for a Substation Project	Measures Adopted? (Yes/No)	Reason(s) if not Adopted
1	Keep high-current devices, transformers, capacitors, and reactors away from the substation property lines.	☐	
2	For underground duct banks, the minimum distance should be 12 feet from the adjacent property lines or as close to 12 feet as practical.	☐	
3	Locate new substations close to existing power lines to the extent practical.	☐	
4	Increase the substation property boundary to the extent practical.	☐	
5	Other:	☐	

6 California Department of Education's (CDE) Criteria for Siting New Schools Adjacent to Electric Power Lines Rated 50 kV and Above

The California Department of Education evaluates potential school sites under a range of criteria, including environmental and safety issues. Proximity to high-voltage power transmission lines[26] is one of the criteria. As the CPUC directed in Decision 06-01-042, the California investor-owned utilities worked with the CDE to align EMF Design Guidelines with the CDE's policies to the extent those policies were consistent with the CPUC's EMF Policy as stated in its Decision 06-01-042. As a result, the updated power line setback exemption guidelines were issued in May 2006. In revising its precautionary EMF approach, the CDE stated:

> "The proposed guidance acknowledges the scientific uncertainty of the health effects of EMFs, the lack of any state or nationally established standard for EMF exposure, and the PUC's recently reconfirmed reliance upon no/low-cost measures targeted to only reduce fields from new power transmission lines." [27]

CDE has established the following "setback[27]" limits for locating any part of a school site property line near the edge of easements for any overhead power lines rated 50 kV and above:

- 100 Feet for 50 – 133 kV Power Lines (interpreted by CDE up to 200 kV)
- 150 Feet for 220 – 230 kV Power Lines
- 350 Feet for 500 – 550 kV Power Lines

For underground power lines rated 50 kV and above, the CDE's setback distances are as follows:

- 25 feet for 50-133 kV line (interpreted by CDE up to 200 kV)
- 37.5 feet for 220-230 kV line
- 87.5 feet for 500-550 kV line

School districts that have sites which do not meet the CDE's setbacks may still obtain construction approval from the state by submitting an exemption application. Generally, school districts hire independent consultants who are familiar with the process to complete CDE's application requirements.

[26] *School Site Selection and Approval Guide*, California Department of Education
[27] "Power Line Setback Exemption Guidance - May 2006" by the California Department of Education

ATTACHMENT "B"

AUTHORITY TO CONSTRUCT

EASTERN KERN AIR POLLUTION CONTROL DISTRICT

Administrative Office: 2700 "M" Street Suite 302, Bakersfield, CA 93301
Phone: (661) 862-5250 • Fax: (661) 862-5251 • ekapcd@kerncounty.com
Tehachapi Field Office: Phone: (661) 823-9264 • Fax: (661) 823-0167

ISSUE DATE:	**JULY 27, 20XX**	**APPLICATION NO.:**	**E0400XX**
EXPIRATION:	**JULY 27, 20XX**	**DATE:**	**MARCH 5, 20XX**

AUTHORITY TO CONSTRUCT IS HEREBY GRANTED TO:

SOLAR COMPANY, LLC

If this AUTHORITY TO CONSTRUCT is reissued to a new owner, any emissions increase assigned to this equipment during the initial New Source Review Process remains with initial bearer of this document.

AUTHORITY TO CONSTRUCT IS HEREBY GRANTED FOR:

100 Acre (10-MW) Commercial Solar Power Generating Facility

(See attached sheets for equipment description and conditions)

S	T	R	Location:	Startup Inspection
SW11	**32S**	**37E**	**123 Mojave Desert Rd, Kern County, CA**	

This document serves as a temporary Permit to Operate only as provided by Rule 201 of the District's Rules and Regulations. For issuance of a Permit to Operate, Rule 208 requires equipment authorized by this Authority to Construct be installed and operated in accordance with conditions of approval. Changes to these conditions must be made by application and must be approved before such changes are made. This document does not authorize emission of air contaminants in excess of New Source Review limits (Rule 210.1) or Regulation IV emission limits. Emission testing requirements set forth on this document must be satisfied before a Permit to Operate can be granted.

UPON COMPLETION OF CONSTRUCTION AND/OR INSTALLATION, PLEASE TELEPHONE DISTRICT

Validation Signature:

Glen E. Stephens, P.E.
Air Pollution Control Officer

CONDITIONS OF APPROVAL:

Pursuant to Rule 209, "conditional approval" is hereby granted. Please be aware compliance with all conditions of approval imposed by any applicable Authority to Construct remain in effect for life of project, unless modified by application.

EQUIPMENT DESCRIPTION: 100-Acre (10-MW) Commercial Solar Power Generating Facility, including following equipment and design specifications:

100 Acres of land with photovoltaic solar panels generating 10-MW of electricity.

NOTIFICATION REQUIREMENTS:

In accordance with District Rule 201.II (Permits Required), a person shall notify the Control Officer before operating or using equipment granted in this Authority to Construct. This Authority to Construct shall serve as a temporary Permit to Operate only after such notification. Such notification shall be completed in writing. Intent to Use Notification form is available at the District website: http://www.kernair.org/Main_Pages/Subpages/Forms_Sub/Application_Forms.html. Form can be mailed to the District Administrative Office at: 2700 "M" Street Suite 302, Bakersfield, CA 93301, e-mailed to the District at the following address: ekapcd@kerncounty.com, or sent by FAX to the District at: (661) 862-5251.

OPERATIONAL CONDITIONS:

1. Facility shall participate in Air Monitoring Network proposed by American Ecotech. (Rule 210.1)
2. Air monitoring equipment shall be installed according to the proposed Air Monitoring Network. (Rule 210.1)
3. Visible emissions leaving property boundary of this facility shall not exceed 10% opacity or Ringelmann No. ½ except for not more than three minutes in any one-hour. (Rule 210.1 BACT Requirement)
4. If wind exceeds 25 mph, condition 3 shall not apply in accordance with approved Fugitive Dust Control Plan. (Rule 402)
5. Facility shall be maintained with Reasonable Available Control Measures (RACM) described in Fugitive Dust Control Plan in order to reduce, limit, or mitigate fugitive dust emissions. (Rule 402)
6. Equipment shall be maintained according to manufacturer's specifications to ensure compliance with emissions limitations. (Rules 210.1 BACT Requirement)
7. Compliance with all operational conditions shall be verified by appropriate record keeping, including records of operational data needed to demonstrate compliance. Such records shall be kept on site in readily available format. (Rule 210.1)
8. No emission resulting from use of this equipment shall cause injury, detriment, nuisance, annoyance to or endanger comfort, repose, health or safety of any considerable number of persons or public. (Rule 419 and CH&SC Sec 41700)

STATE OF CALIFORNIA AIR TOXICS HOT SPOTS REQUIREMENTS:

Facility shall comply with California Health and Safety Code Sections 44300 through 44384. (Rule 208.1)

COMPLIANCE TESTING REQUIREMENTS:

Should inspection reveal conditions indicative of non-compliance, compliance with any emission limitations shall be verified within 60 days of District request. Test results shall be submitted to the District within 30 days after test completion. (Rule 108.1 and 209)

EMISSION LIMITS:

Emission rate of each air contaminant from this facility shall not exceed following limits:

Particulate Matter (PM_{10}):	0.004	lb/hr
	0.102	lb/day
	0.019	ton/year

(Emission limits established pursuant to Rule 210.1, unless otherwise noted.)

Compliance with daily emission limits shall be verified by record keeping (Air Monitoring Network). Compliance with annual emission limits shall be demonstrated by records which sum facility emissions on a quarterly basis. All records shall be kept on site and made readily available to District personnel upon request. (Rules 209 and 210.1)

SPECIAL CONDITIONS:

aa. An owner/operator of solar facility may petition to cancel District PTO, given 5-years of "clean data" (upwind/downwind concentration difference is 50-$\mu g/m^3$ or less {based on one-hour averages}). (Rule 210.1)
bb. Air monitoring equipment is allowed to have up to seven (7) days of downtime for maintenance/breakdowns per calendar quarter. (Rule 210.1)
cc. No more than 24 hours of exceedances (concentration differences greater than 50-$\mu g/m^3$) are allowed within a calendar quarter. (Rule 210.1)

Additional Public Comments

COUNTY OF KERN
PUBLIC WORKS DEPARTMENT
Office Memorandum

To: Lorelei Oviatt, Director
Planning and Natural Resources Department
Attn: Carlos Rojas, Planner 3

March 11, 2019

From: Warren D. Maxwell, Development Review Engineer
Administration and Engineering Division W.D.M

Subject: 7-8.5c General Plan Amendment #9, Map 152
7-8.5c General Plan Amendment #1, Map 152-28
7-5.2 Zone Change Case #11, Map 152
7-5.2 Zone Change Case #12, Map 152
7-5.2 Zone Change Case #13, Map 152
7-5.2 Zone Change Case #1, Map 152-28
7-5.3 Conditional Use Permits #23, #24, #25, #26, Map 152
7-5.3 Conditional Use Permit #3, Map 152-28
(South of Munsey Road, east and west of Neuralia Road, east of State Route (SR) 14, north and south of Phillips Road, in the unincorporated Kern County, southeast of the unincorporated community of Cantil, and immediately north of California City.)

This Department has reviewed the subject project and has recommends the following:

1. Support the proposed amendment of the circulation element to delete the section and mid-section line road reservations, except for the following, as they are needed for future circulation in the area.
    a) Cheyenne Boulevard
    b) Yucaipa Street
    c) Barrel Cactus Street
    d) Phillips Road
    e) Harriet Avenue

2. Under Encroachment Permit, issued by the Kern County Public Works Department, construct paved private road approaches at the entrances of the proposed solar project that intersects any County roadway. This will be done in consultation with the Public Works Department.

3. All easements shall be kept open, clear, and free from buildings and structures of any kind pursuant to Chapters 18.50 and 18.55 of the Kern County Land Division Ordinance. All obstructions, including utility poles and lines, trees, pole signs, fences, or similar obstructions, shall be removed from the ultimate road rights-of-way. Compliance with this requirement is the responsibility of the applicant and may result in significant financial expenditures.

Thank you for the opportunity to comment on this project. If you have any questions or comment, please contact Paul Candelaria of this Department.

Mike Campisi
Pipeline Planning Assistant

9400 Oakdale Ave
Chatsworth, CA 91311

Tel: 213-231-6081

February 25, 2019

Carlos Rojas
Kern County Planning and Natural Resources Department
2700 "M" Street, Suite 100
Bakersfield, CA 93301
CRojas@kerncounty.com

Subject: **Eland 1 Solar Project by 68SF 8me LLC (PP18211)**

DCF: **0162-19NC129**

The Transmission Department of SoCalGas does not operate any facilities within your proposed improvement. However, the Distribution Department of SoCalGas may maintain and operate facilities within your project scope.

To assure no conflict with the Distribution's pipeline system, please e-mail them at:

NorthwestDistributionUtilityRequest@semprautilities.com

Sincerely,

Mike Campisi
Pipeline Planning Assistant
SoCalGas Transmission Technical Services
SoCalGasTransmissionUtilityRequest@semprautilities.com

Kern County Planning & Natural
Resources Department
2700 "M" Street, Suite# 100
Bakersfield, CA 93301-2323

28 February 2019

To whom it may concern;

In response to the letter from the Kern County Planning & Natural Resources Department letter receive date, 04 February 2019.

Our concerns are how will this affect us? We bought this property when it was an agricultural area and today it is being changed to an electrical power producer's area.

These are our concerns.

- To the Kern County Planning & Natural Resources Department if one of these issues occur do we need to talk now or when it happens?
- How will this affect us and our families?
- Experts have said that living close and surrounded by high voltage is not healthy and may cause cancer.
- We will be living surrounded, enclosed with metal, high voltage of electrical cables.
- Our property will lose its value.
- Our future the loss of our view and scenery will stop our town from growing.
- Our environment will be affected with the glares, dust and sandy winds.
- The wildlife, beautification and tranquility of the desert will disappear.

Recognize that we lived and home settled first before the Electrical Producers got here!

Thank you,
Oscar Quintana
Patricia Cobos
26411 Yucaipa Street
Resident of Fremont Valley
Mojave, CA 93501