DOCKET
09-AFC-6
DATE FEB 03 2010
RECD. FEB 08 2010

February 3, 2010

Alan Solomon
Project Manager
California Energy Commission
1516 Ninth Street
Sacramento, CA 95814

RE: Blythe Solar Power Project, Docket No. 09-AFC-6
Responses to January 15 and 20, 2010 CEC Email Query from CEC staff, Additional Information regarding Transmission System Engineering.

Dear Mr. Solomon:

On January 15 and 20, 2010, CEC staff requested via email additional information and clarification on several Transmission System Engineering matters. Attached please find our responses to those specific questions.

If you have any questions on this data response to the staff's email queries, please feel free to contact me directly.

Sincerely,

Alice Harron
Senior Director, Development

Solar Millennium LLC
1625 Shattuck Avenue, Suite 270
Berkeley, CA 94709-4611
tel (1) 510-524-4517
fax (1) 510-524-5516
Info@SolarMillennium.com
http://www.SolarMillennium.com

Responses to CEC Email Requests, January 15, 2010

Transmission System Engineering

Blythe Solar Power Project

Docket No. 09-AFC-6

Alice Harron
Senior Director of Project Development
1625 Shattuck Avenue, Suite 270
Berkeley, CA 94709-1161

Data Response Queries – January 15, 2010

TSE-DR-: An email request from Laiping Ng of the CEC on January 15, 2010 and a follow up email on January 20, 2010 requested the following additional information and clarification.

1) Clarify the proposed voltage and step up voltages.

The T-line voltage has been previously provided on Figure 2-9. Additional voltage information is identified on Figures 2-14, 2-15, and 2-15a which are provided as attachments to this submittal. The step-up voltages are provided on Figures 2-8, 2-9, and 2-15a also provided as an attachment to this submittal.

If it is different from the ISO study, please submit a letter from the ISO and a letter from the SCE stating that the new proposed voltage is acceptable.

The Applicant has received a letter from CAISO stating that the submitted modifications are acceptable. A copy of this letter is provided as an attachment to this submittal.

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2) Provide gen-tie information: number of conductors, type, rating, and length.

The number and types of conductors are provided on Figures 2-14, 2-15, and 2-15a, with the rating and length given on Figure 2-15a.

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3) Update pole structures: take-off, dead-end, pole type, and height information.

The updated pole structure information inclusive of take-off, dead end, pole type and height is provided on Figure 2-14.

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4) Update Figure 2-9 (one-line for the generators and gen-tie), Figure 2-14 (pole), and Figure 2-15 (Colorado River Substation connection). Figure 2-15 needs to show step-up transformer connection and transformer data.

Figure 2-9 was previously provided as stated above. Figure 2-14 is being provided. Applicant's Figure 2-15, Colorado River Substation SLD, is limited to Palo Verde I, LLC's scope of supply. SCE 230kV/500kV step-up transformer connection and transformer information is provided, however, on Figure 2-15a.

---

5) Update AFC: related pages only to reflect the voltage changes.

The revised AFC Section 5.14, Transmission Line Safety & Nuisance, is attached at the end of this submittal.

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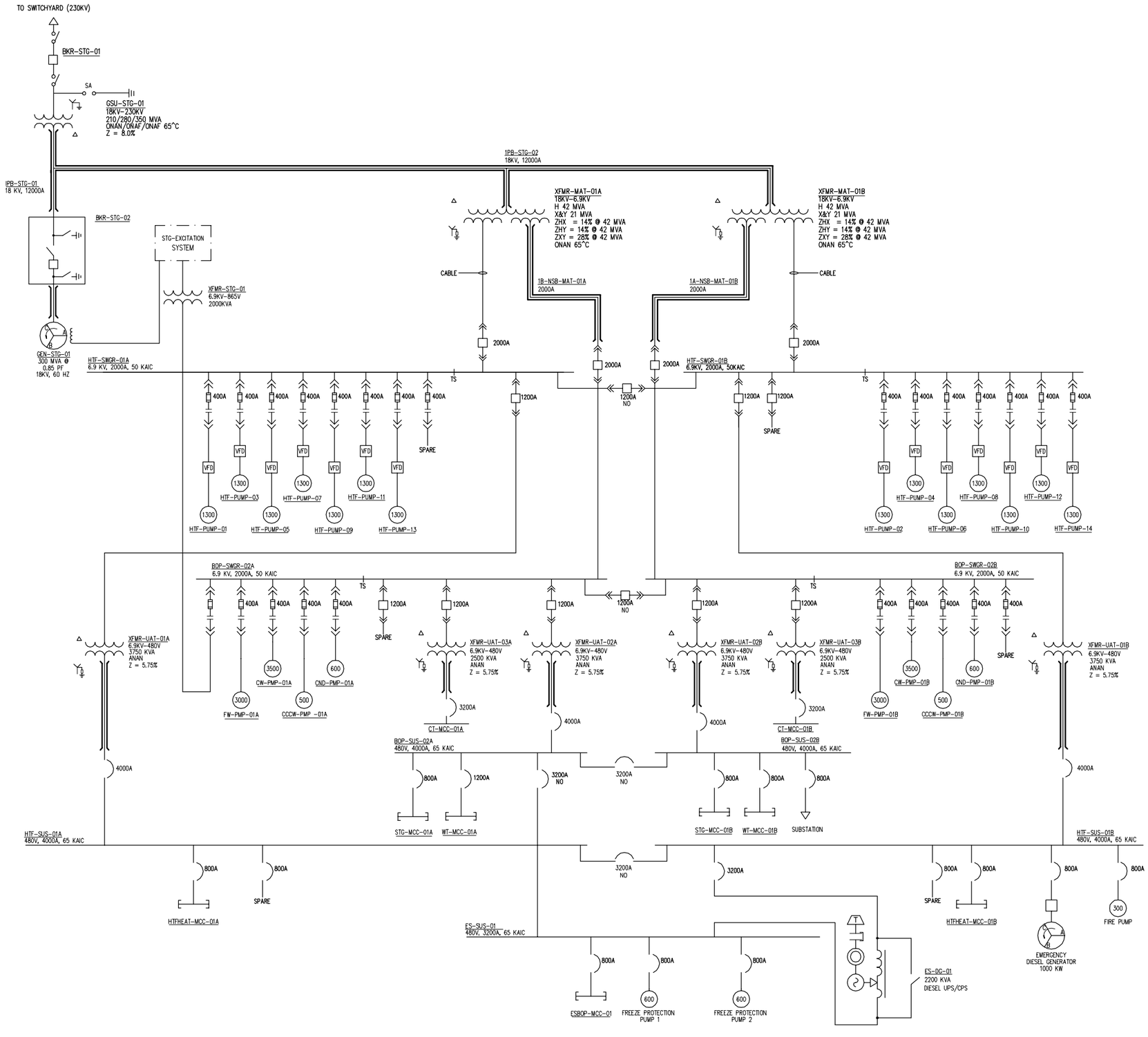
6) Please update Figure 2-8 (Conceptual One Line Diagram - Power Plant).

The revised Figure 2-8 is provided as an attachment to this submittal.

Figure 2-8



NOTES:

1. MAIN AUXILIARY TRANSFORMERS ARE ONLY SIZED FOR ½ THE FULL LOAD.

– PRELIMINARY – NOT FOR CONSTRUCTION

REV	DESCRIPTION	DWN	CHK	APP	DATE
D	ADDED EMER DIESEL GEN; RELOCATED FREEZE PROT, FIRE PUMP; DELETED ESHTF-MCC-01; REVISED STG TO 12000A, 1A-NSB-MAT-01A, 1B-NSB-MAT-01B TO CABLE				02-26-09
C	ADDED EMERGENCY BUS				01-30-09
B	MODIFIED TO 3-WINDING XFMRS AND OWNER'S COMMENTS				12-10-08
A	PRELIMINARY				10-28-08

KIEWIT-MSM JOINT VENTURE

PALO VERDE I, LLC

BLYTHE SOLAR POWER PLANT

FIGURE 2-8 (2-1-10) CONCEPTUAL ONE LINE DIAGRAM POWER PLANT

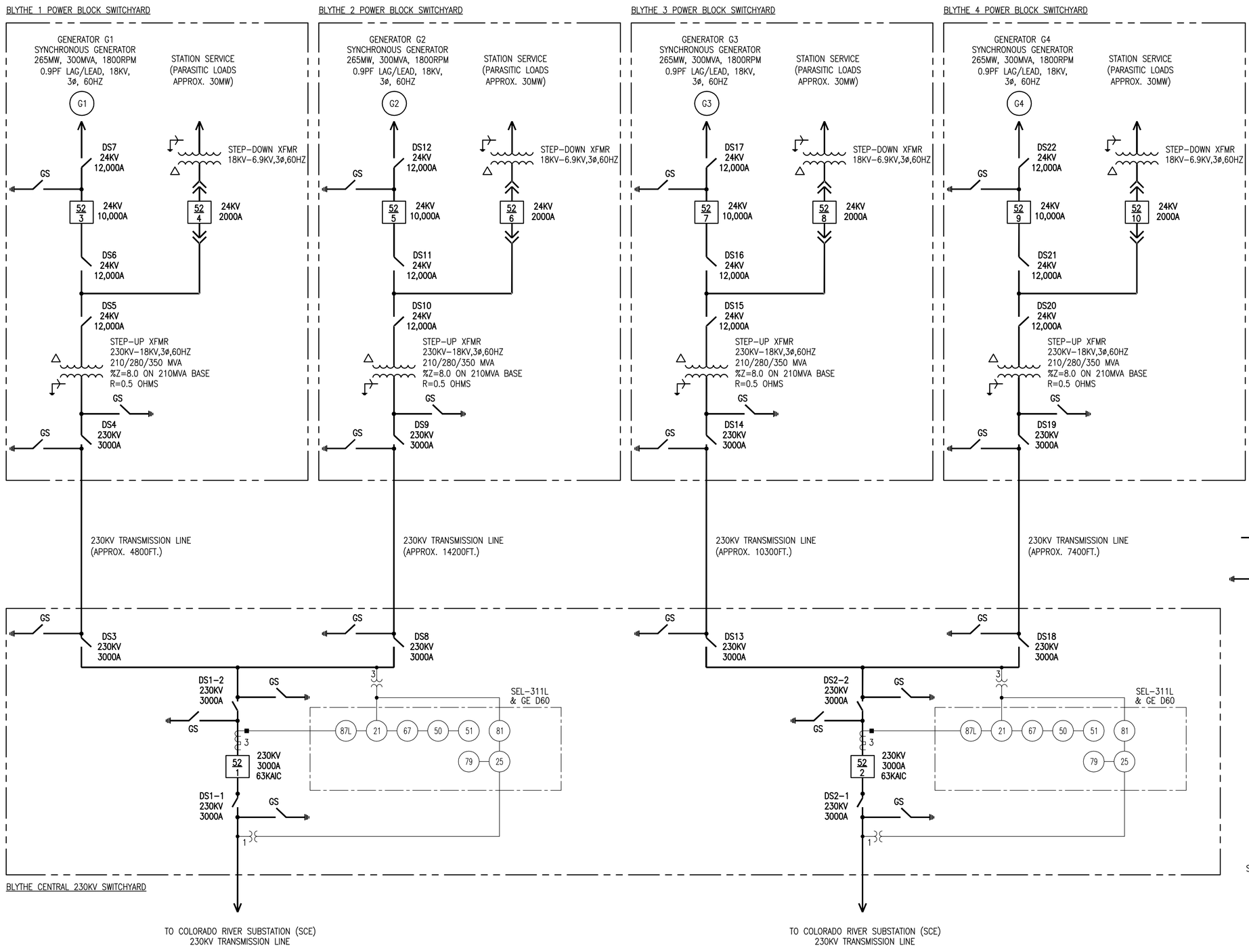
ELECTRICAL ONE LINE DIAGRAM

	by	date
DESIGNED		
DRAWN		
CHECKED		
APPROVED		

DRAWING NUMBER

2008-045E-E0-001

Figure 2-9



ABBREVIATIONS:

A	AMPERES
APPROX.	APPROXIMATELY
DS	DISCONNECT SWITCH
FT.	FEET
G	GENERATOR
GS	GROUND SWITCH
HZ	HERTZ
IC	INTERRUPTING CURRENT
KA	KILO AMPERES
KV	KILOVOLTS
KVA	KILO VOLTAMPERE
LA	LIGHTNING ARRESTER
MI	MILES
MVA	MEGA VOLTAMPERE
MW	MEGA WATTS
NEUT,N	NEUTRAL
PF	POWER FACTOR
RES	RESISTOR
V	VOLTS
XFMR	TRANSFORMER

NOTE: ABBREVIATION MAY OR MAY NOT INCLUDE PERIOD/S, OR LETTER S FOR PLURAL FORM.

SYMBOLS	DESCRIPTION
52 X	CIRCUIT BREAKER X
	POWER TRANSFORMER
G	STEAM TURBINE GENERATOR SYNCHRONOUS GENERATOR 265MW, 300MVA, 1800RPM 0.9PF LAG/LEAD, 18KV, 3ø, 60HZ
	DISCONNECT SWITCH THREE POLE GANG OPERATED
GS	GROUND SWITCH
87L	CURRENT DIFFERENTIAL
21	DISTANCE
67	DIFFERENTIAL OVERCURRENT
50	INSTANTANEOUS OVERCURRENT
51	TIME OVERCURRENT
81	OVER/UNDER FREQUENCY
79	AUTO–RECLOSING
25	SYNCHRONISM CHECK
SEL–311L RELAY	LINE CURRENT DIFFERENTIAL PROTECTION AND AUTOMATION SYSTEMS
GE D60 RELAY	LINE DISTANCE PROTECTION SYSTEM

NOT FOR CONSTRUCTION

Prepared for:

Solar Millennium LLC

AECOM USA, Inc. AECOM
440 STEVENS AVENUE
SUITE 250
SOLANA BEACH, CA 92075

REVISIONS

NO.	DATE	DESCRIPTION	BY	APPD.

BLYTHE SOLAR POWER PROJECT

RIVERSIDE COUNTY, CALIFORNIA

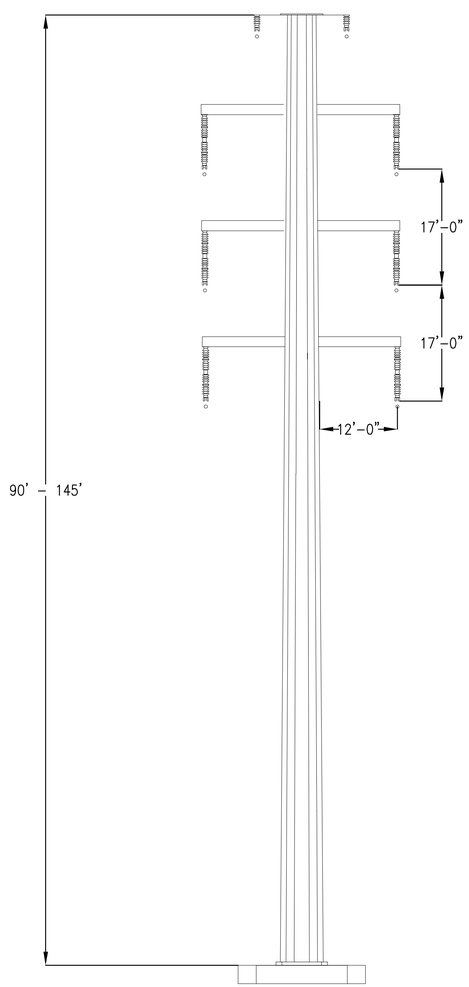
Figure 2-9
(1-27-10)

ELECTRICAL

ONE LINE DIAGRAM

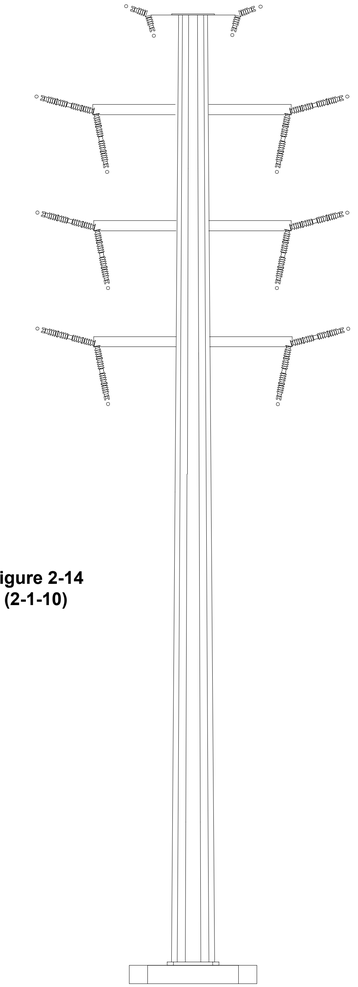
PROJECT MANAGER: R. ARDOLINO	SCALE: NTS
DESIGNED BY: R.SCHUGMANN	DATE: DEC. 22, 2009
DRAWN BY: R.SCHUGMANN	AECOM PROJECT NO. 60100008
CHECKED BY:	
FILE LOCATION:	
DRAWING NO.	E–101–R
SHEETS NO. 1 OF	

Figure 2-14



TANGENT TRANSMISSION TOWER

NOT TO SCALE



DEAD END TRANSMISSION TOWER

NOT TO SCALE

Figure 2-14
(2-1-10)

TYPICAL 230KV STRUCTURE

SINGLE BUNDLE 2156KCMIL "BLUEBIRD"

NOT FOR CONSTRUCTION

Prepared for:

PALO VERDE I, LLC

AECOM USA, Inc. AECOM

440 STEVENS AVENUE
SUITE 250
SOLANA BEACH, CA 92075

REVISIONS

NO.	DATE	DESCRIPTION	BY	APPD.

BLYTHE SOLAR POWER PROJECT

RIVERSIDE COUNTY, CALIFORNIA

Figure 2-14
(2-1-10)

ELECTRICAL

TRANSMISSION TOWER DETAIL

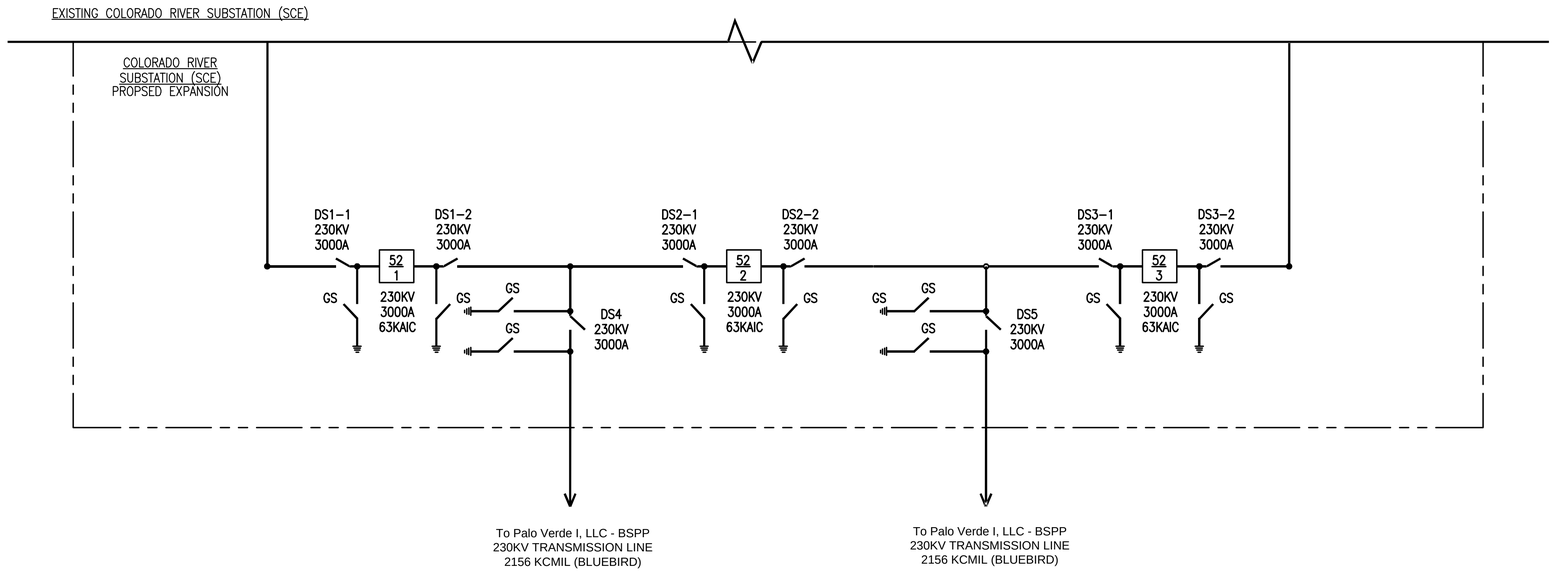
PROJECT MANAGER: R. ARDOLINO	SCALE: NTS
DESIGNED BY: R. ALIVIO	DATE: JAN. 18 2010
DRAWN BY: R.SCHUGMANN	AECOM PROJECT NO. 60100008
CHECKED BY:	
FILE LOCATION:	

DRAWING NO.

E–B–TWR2

SHEETS NO. 1 OF

Figure 2-15



ABBREVIATIONS:

A	AMPERES
APPROX.	APPROXIMATELY
DS	DISCONNECT SWITCH
FT.	FEET
G	GENERATOR
GS	GROUND SWITCH
HZ	HERTZ
IC	INTERRUPTING CURRENT
KA	KILO AMPERES
KV	KILOVOLTS
KVA	KILO VOLTAMPERE
LA	LIGHTNING ARRESTER
MI	MILES
MVA	MEGA VOLTAMPERE
MW	MEGA WATTS
NEUT,N	NEUTRAL
PF	POWER FACTOR
RES	RESISTOR
V	VOLTS
XFMR	TRANSFORMER

NOTE: ABBREVIATION MAY OR MAY NOT INCLUDE PERIOD/S, OR LETTER S FOR PLURAL FORM.

SYMBOLS	DESCRIPTION
B	CIRCUIT BREAKER
	POWER TRANSFORMER
G	GENERATOR
	DISCONNECT SWITCH THREE POLE GANG OPERATED
GS	GROUND SWITCH

NOT FOR CONSTRUCTION

Prepared for:

Palo Verde I, LLC

AECOM USA, Inc. AECOM
440 STEVENS AVENUE
SUITE 250
SOLANA BEACH, CA 92075

REVISIONS

NO.	DATE	DESCRIPTION	BY	APPD.

BLYTHE SOLAR POWER PROJECT

RIVERSIDE COUNTY, CALIFORNIA

Figure 2-15
(2-1-10)

ELECTRICAL

COLORADO RIVER SUBSTATION (SCE) PROPOSED EXPANSION

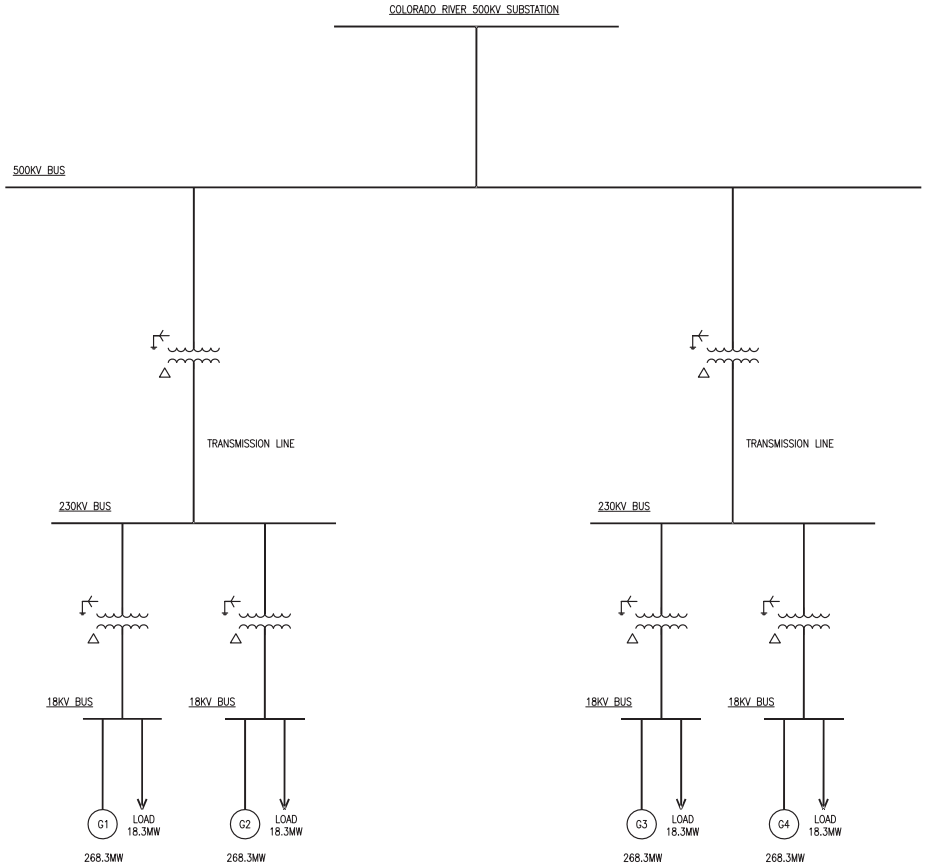
PROJECT MANAGER: R. ARDOLINO	SCALE: NTS
DESIGNED BY: R.SCHUGMANN	DATE: JAN. 18 2010
DRAWN BY: R.SCHUGMANN	AECOM PROJECT NO. 60100008
CHECKED BY:	
FILE LOCATION:	

DRAWING NO.

E-104

SHEETS NO. 1 OF

Figure 2-15a



TRANSMISSION LINE DATA

DISTANCE:	8 MILES, 2156 BLUEBIRD
Z1 (PU):	0.00161 + j0.00876 B = 0.03107
Z0 (PU):	0.00731 + j0.03420 B = 0.01641
LINE RATING:	1623 A
BASE 230KV AT 100MVA	

TRANSFORMER DATA
(2 WINDING)

RATED VOLTAGE:	500/230KV
RATED MVA:	450/600/750MVA
IMPEDANCE:	10% AT 450MVA
H WINDING:	WYE GROUNDED
X WINDING:	DELTA
TAPS:	± 2.5%, ±5%

TRANSFORMER DATA
(2 WINDING)

RATED VOLTAGE:	230/18KV
RATED MVA:	210/280/350MVA
IMPEDANCE:	8% AT 210MVA
H WINDING:	WYE GROUNDED
X WINDING:	DELTA

GENERATOR DATA

TOTAL RATED OUTPUT:	1073.2MW
AUXILIARY LOAD:	73.2
NET GENERATION:	1000MW
NUMBER OF UNITS:	4
INDIVIDUAL GENERATOR OUTPUT:	268.3MVA
MVA RATING:	1200MVA
VOLTAGE RATING:	18KV
PF:	0.9 PF
Xd":	0.203
Xd":	0.203
Xd":	INFINITE

ABBREVIATIONS:

A	AMPERES
APPROX.	APPROXIMATELY
DS	DISCONNECT SWITCH
FT.	FEET
G	GENERATOR
GS	GROUND SWITCH
HZ	HERTZ
IC	INTERRUPTING CURRENT
KA	KILO AMPERES
KV	KILOVOLTS
KVA	KILO VOLTAMPERE
LA	LIGHTNING ARRESTER
MI	MILES
MVA	MEGA VOLTAMPERE
MW	MEGA WATTS
NEUT,N	NEUTRAL
PF	POWER FACTOR
RES	RESISTOR
V	VOLTS
XFMR	TRANSFORMER

NOTE: ABBREVIATION MAY OR MAY NOT INCLUDE PERIOD/S, OR LETTER S FOR PLURAL FORM.

SYMBOLS	DESCRIPTION
	POWER TRANSFORMER
G	STEAM TURBINE GENERATOR SYNCHRONOUS GENERATOR

Blythe Solar Power Project
1000MW NET CAPACITY

*Adapted from CAISO Phase I Cluster Study, Figure 2.1

NOT FOR CONSTRUCTION

Prepared for:

Palo Verde I, LLC

AECOM USA, Inc.
440 STEVENS AVENUE
SUITE 250
SOLANA BEACH, CA 92075

REVISIONS

NO.	DATE	DESCRIPTION	BY	APPD.

BLYTHE SOLAR POWER PROJECT
RIVERSIDE COUNTY, CALIFORNIA

Figure 2-15a*
(2-1-10)

ELECTRICAL

Blythe Solar Power Project

ONE-LINE DIAGRAM

PROJECT MANAGER: R. ARDOLINO	SCALE: NTS
DESIGNED BY: R.SCHUGMANN	DATE: JAN. 18 2010
DRAWN BY: R.SCHUGMANN	AECOM PROJECT NO.
CHECKED BY:	60100008
FILE LOCATION:	
DRAWING NO.	

E-105

SHEETS NO. 1 OF

CAISO Letter

February 2, 2010

Mr. Ray Dracker
Senior Vice President
Solar Millennium LLC
1625 Shattuck Avenue, Suite 270
Berkeley, CA 94709

Subject: Blythe Solar Power Project: Q 294 – LGIP Data

Dear Mr. Dracker,

This confirms that the California ISO received the Appendix B package for Blythe Solar Power Project on November 25, 2009. Consistent with Section 6.7.2, Appendix Y of the FERC Tariff governing the interconnection process, the revised Appendix B included a change in interconnection voltage from 500 kV in the original application, to 230 kV. The Appendix B package included single line diagrams showing step up from the 18 kV generator voltage directly to the 230 kV interconnection voltage.

The submitted modifications are acceptable under the tariff, and are being used as the basis for completing the Phase II Cluster Study.

Please let me know if I can be of further assistance.

Sincerely,

Linda Wright

Linda Wright
Project Specialist
916/351-4470
lwright@caiso.com

AECOM
Environment

Revised AFC Section 5.14

5.14 Transmission Line Safety and Nuisance

Summary

Project's transmission line safety and nuisance impacts will be less than significant. Analyses indicate that neither Project construction nor operation will result in significant increases in electric and magnetic fields (EMF) levels or audible noise. Because the Project transmission system will conform to applicable California Public Utilities Commission (CPUC) and other regulatory requirements, induced current and voltage are unlikely to lead to hazardous electrical shocks. Corona (a phenomenon occurring on the surface of the energized transmission conductor) can cause interference with radio and television reception. Corona typically becomes a design concern for transmission lines with voltages of 345kV and above. The Project will be connected at 230kV and it will employ large diameter conductors, therefore no corona-related design issues are expected. Due to the remoteness of the Project electric transmission facilities, no adverse effects to local communication networks are anticipated. Project design and construction will adhere to standards and procedures that minimize the likelihood of interference with aircraft communications or avionics.

5.14.1 Environmental Impacts

5.14.1.1 Aviation Safety

The Project is located one mile north of an active airport (in Blythe). Due to this proximity, height restrictions were evaluated for Project structures that would need to be located within the restricted airspace.

The 230kV double circuit transmission lines will use monopoles up to 145 feet in height, and where heights are restricted due to proximity to the airport, will use 90-foot tall monopoles. The gen-tie line route starts northwest of the airport, heading south, to the west of the airport. The closest point of the gen-tie line route is approximately 1.6 miles west of the end of the nearest runway. The gen-tie line route continues south crossing Interstate Highway 10, then veers southwest, then west, terminating at the proposed site of the Colorado River substation. Analysis in accordance with Federal Aviation Administration (FAA) rules indicate a 2.3-mile segment of the t-line route for which a height restriction of 90 feet will be required. The Project has submitted Form 7460, "Notice of Proposed Construction and Alteration," to the FAA consistent with the FAA's advance notice requirement. The FAA has completed 41 of 58 of the aeronautical studies required (each pole represents a single study). The completed studies include the pole nearest the airport, and all studies completed to date indicate the Project structures present no hazard to aircraft navigation.

5.14.1.2 Radio Frequency Communications

Transmission line-related radio frequency interference is one of the indirect effects of the transmission line operation and is produced by the physical interaction (which is called corona) between air molecules and the electric field on the surface of line's conductor and the hardware holding the conductor off the tower. Since the level of interference depends on factors such as the electric field on the conductors and hardware, distance from the line to the receiving device, orientation of the antenna, frequency and level of the signal , line configuration and weather conditions, maximum interference levels are not specified as design criteria for modern transmission lines.

The potential for such corona-related interference is usually of concern for lines operating at 345kV and above and where the electric field on the surface of the conductor is above 15kV/cm. The double circuit BSPP transmission lines will operate at 230kV and below 15kV/cm because of the large conductor

("Bluebird") chosen for the project. Radio frequency interference is not expected to be a concern during operation of the line.

5.14.1.3 Audible Noise

Corona may also produce audible noise from a transmission line. As discussed above, given the operating voltage and the conductor surface electric field, the corona production of BSPP will be insignificant.

An additional source of audible noise is hum caused by the generator step-up transformer installed on the facility site. This hum is insignificant in comparison to plant operational noise and therefore will not add any appreciable audible noise to the noise levels discussed in Section 5.8, Noise.

5.14.1.4 Electrical Effects

Induced Current and Voltages

Electric fields at ground level from transmission lines can induce electrical currents on metallic and other conducting objects in the near vicinity of the line. However, the magnitude of the electric field from the BSPP facilities will be so low that induced currents will be imperceptible.

Electric and Magnetic Fields

Voltage and currents on the transmission lines produce electric and magnetic fields at ground level. The magnitude of these fields is a function of the physical configuration of the facility and the voltage and current levels of the facility.

Electric field strength is directly proportional to the line's voltage; that is, increased voltage produces a higher electric field. At a given distance from the transmission line conductor, the electric field is inversely proportional to the distance from the conductors, so that the electric field strength declines as the distance from the conductor increases. The strength of the electric field is measured in units of kV per meter (kV/m).

Magnetic fields around transmission lines are produced by the level of current flow through the conductors, measured in amperes. The magnetic field strength is also directly proportional to the current; that is, increased amperes produce a stronger magnetic field. As the voltage on the conductor is usually very steady, the magnetic field is directly related to the power flow on the line. The magnetic field is inversely proportional to the distance from the conductors, and thus, like the electric field, the magnetic field strength declines as the distance from the conductor increases. Magnetic fields are expressed in units of milligauss (mG).

Considerable research has been conducted over the last thirty years on the possible biological effects and human health effects from EMF. This research has produced many studies that offer no uniform conclusions about whether long-term exposure to EMF is harmful or not. In the absence of conclusive evidence, some states, California in particular, have chosen not to specify maximum acceptable levels of EMF. Instead, California mandates a program of prudent avoidance whereby EMF exposure to the public would be minimized by encouraging electric utilities to use low-cost techniques to reduce the levels of EMF.

Electric and Magnetic Field Calculations Assumptions

It is important that any discussion of EMF include the assumptions used to calculate the values and to remember that EMF in the vicinity of power lines varies based on a variety of factors including, line design, the presence of other lines in the right of way (ROW), line loading, and distance from the line. The electric field depends upon the line voltage and 230 kV has been used nominally throughout this Application for Certification. The magnetic field is proportional to the line current (amperes) which is

directly related to the power flowing on the transmission lines. The power flow on the BSPP will be variable. It will be a function of the interconnected power system loading and the output of the generating facility; which is in turn a function of the solar energy being converted by the facility. As the line loading is variable, the calculations are based on the nominal loading on each of the double circuits being construction for the BPSS; which is 500MW.

The arrangement of the transmission lines in the ROW is another important consideration for the field calculation. The Project interconnection will utilize a new ROW; therefore, no other lines are considered in this study. The phase arrangement of each line has been entered into the model used for the field calculation. The phase arrangement is indicated in the conceptual pole configuration in Figure 5.14-1

Electric and Magnetic Field Calculations

The calculated electric fields are expressed in kV/m and the magnetic fields expressed in mG. The various inputs for the calculations include voltage, maximum load in amperes, current angle (phasing), conductor diameter and spacing, along with relative location of conductors and shield wires. The elevation used for the conductors is the lowest point of the conductors which corresponds to the midpoint between two tangent structures where the conductor sag is the greatest. Table 5.14-8 shows the input values used for modeling and Figure 5.14-1 shows the pole design used for phase configuration and circuit height. The electric and magnetic field MF calculation inputs are as follows:

1) All calculations are based on up to date electrical engineering principles and have been validated with extensive field comparisons of actual and predicated values.
2) These approximations are only valid for low frequency (50-60 Hz) AC transmission lines.
3) The effects of earth return currents are ignored when calculating the magnetic field.
4) Conductor heights are assumed worst case conditions under maximum sag
5) All calculations assume the ground is flat with the same elevation as that of centerline.
6) The calculated height above ground is 1 meter (3.28 feet)

Table 5.14-8 EMF Study Conductor Information

Line	Conductor OD (inches)	No. of Conductors	Load (Amperes)
Gen-Tie Line	1.762	1	1,255 Amperes per circuit

Figures 5-14.2 and 5.14-3 summarize the results of the EMF Simulation of the interconnecting transmission line and the numerical results at the edges of the ROW are included in Table 5.14-9.

Table 5.14-9 EMF Study Edge-of ROW Calculation Results

ROW Edge (feet)	Magnetic Field (B) rms (mG)	Electric Field (E) rms (kV/m)
-75	18.07	0.03
75	18.07	0.03

From Figures 5.14-2 and 5.14-3, the maximum magnitude of the magnetic and electric fields at the edge of the ROW is 18.07mG and 0.03kV/m respectively. While the State of California does not set a statutory limit for electric and magnetic field levels, the CPUC, which regulates electric transmission lines, mandates EMF reduction as a practicable design criterion for new and upgraded electrical facilities. As a result of this mandate, the regulated electric utilities have developed their own design guidelines to reduce EMF at each new facility. The CEC, which regulates transmission lines to the first point of

connection, requires generators to follow the existing guidelines that are in use by local electric utilities or transmission-system owners.

In keeping with the goal of EMF reduction, the interconnections of the Blythe Project will be designed and constructed using the principles outlined in the directives of the CPUC by developing design procedures compliant with Decision 93-11-013 and GO-95, -128, and -131-D.

Substation and Switchyard

The electric and magnetic fields EMF at the fence line of substations and switchyards will be insignificant with respect to the incoming transmission lines and therefore was not considered in the EMF study. The incoming transmission lines will be designed to maintain minimum ground clearances until within the Project switching station and Colorado River substation fence lines and thus were included in the study.

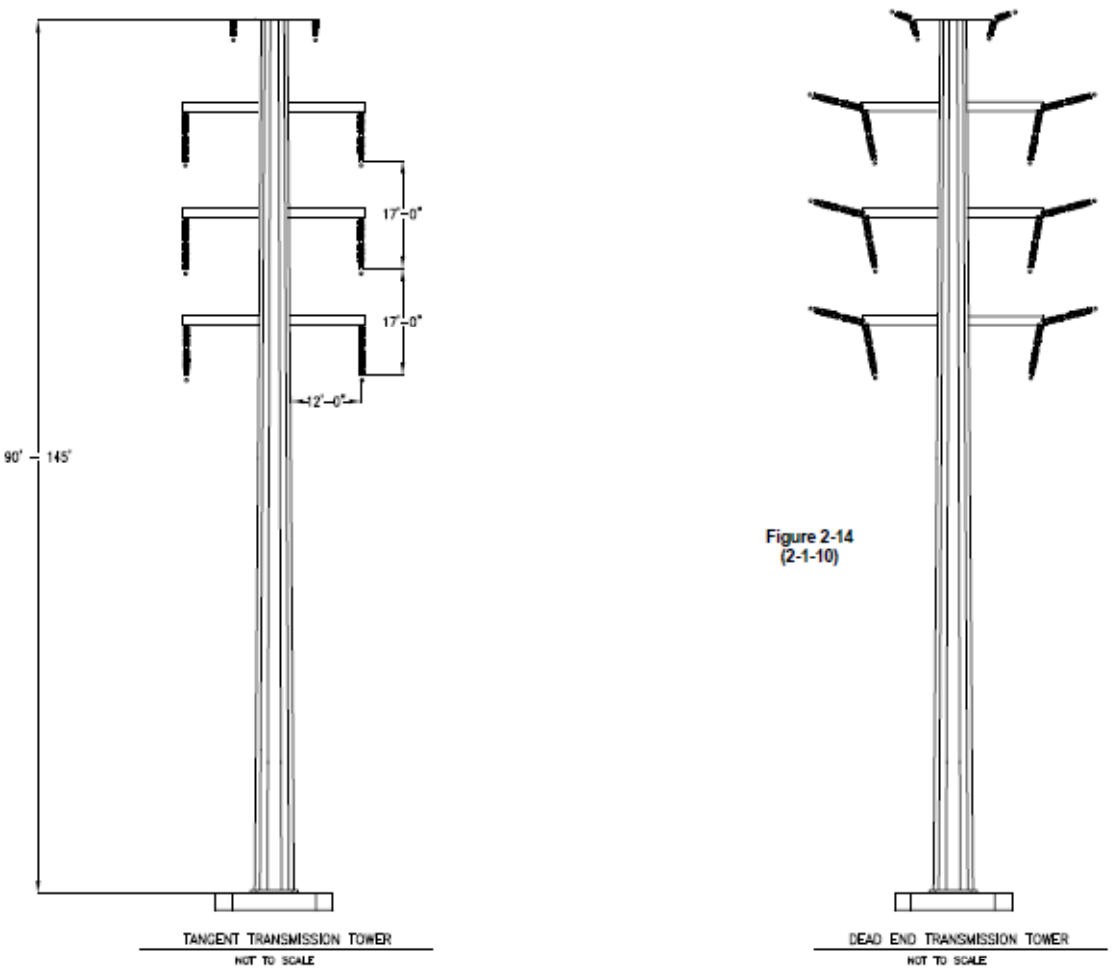
Anticipated EMF levels are typical for the Project as designed. If required, the pre- and post-interconnection verification measurements could be made consistent with IEEE guidelines

5.14.1.5 Fire Hazards

The proposed 230kV transmission interconnection lines will be designed, constructed, and maintained in accordance with the CPUC's GO-95, which establishes clearances from other man-made and natural structures to reduce/avoid fire hazards. The Project will maintain the onsite portions of the transmission line route and immediate area in accordance with existing regulations and accepted industry practices that will include identification and abatement of any fire hazards. The offsite portions of the transmission line will be owned and operated by SCE and the line and immediate area also will be maintained in accordance with applicable requirements and standard good practices that include fire protection.

5.14.2 Mitigation Measures

No significant transmission line-related impacts were identified as a result of the Project studies. The Project will be designed, constructed, operated, and maintained in accordance with the applicable LORS and to minimize EMF at the edges of the ROW. Impacts will be less than significant with Project implementation as described in this section (e.g., insulators and hardware selected to minimize corona noise; pre- and post-Project noise surveys performed to document ambient condition change caused by the line, and procedures to investigate and resolve interference complaints). No additional mitigation is required. However, should additional currently unforeseen issues arise; they will be addressed to ensure that impacts remain less than significant.



TYPICAL 230KV STRUCTURE

SINGLE BUNDLE 2156KCMIL "BLUEBIRD"

Figure 5.14-1

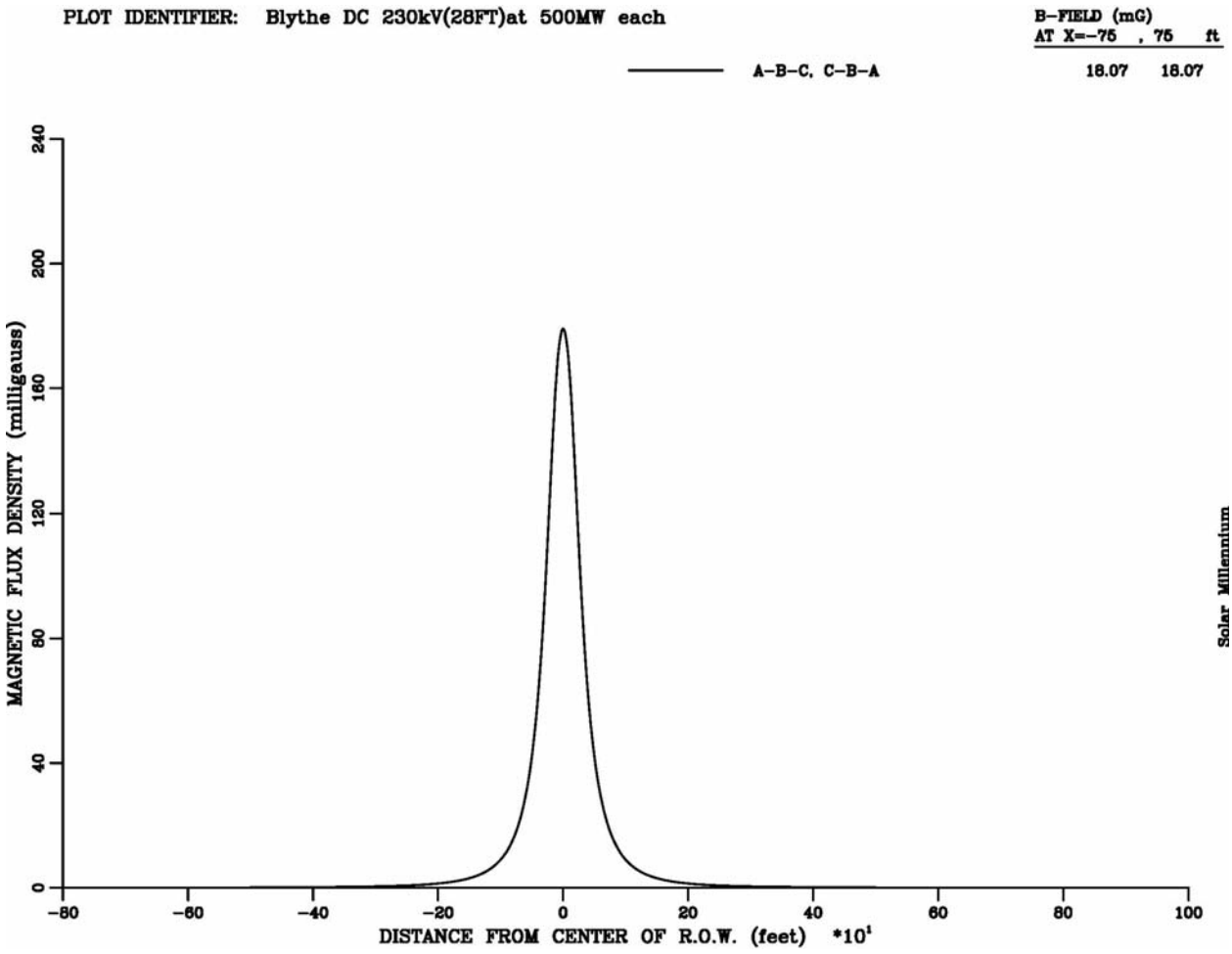

PLOT IDENTIFIER: Blythe DC 230kV(28FT)at 500MW each
B-FIELD (mG)
AT X=-75 , 75 ft
A-B-C, C-B-A
18.07 18.07
MAGNETIC FLUX DENSITY (milligauss)
0
40
80
120
160
200
240
-80
-60
-40
-20
0
20
40
60
80
100
DISTANCE FROM CENTER OF R.O.W. (feet) *10¹
Solar Millennium

Figure 5.14-2

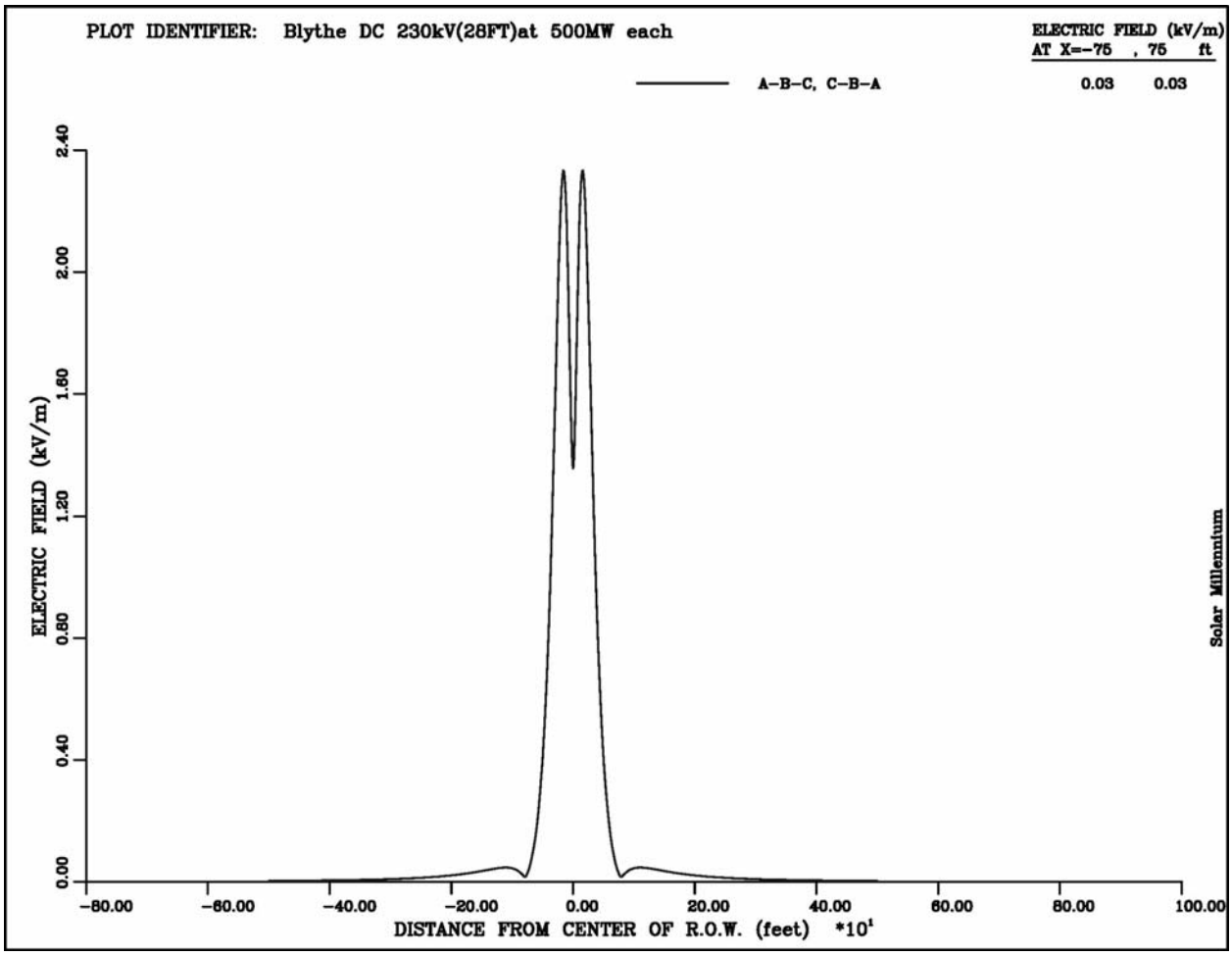

PLOT IDENTIFIER: Blythe DC 230kV(28FT)at 500MW each
ELECTRIC FIELD (kV/m)
AT X=-75 , 75 ft
A-B-C, C-B-A
0.03 0.03
ELECTRIC FIELD (kV/m)
0.00
0.40
0.80
1.20
1.60
2.00
2.40
-80.00
-60.00
-40.00
-20.00
0.00
20.00
40.00
60.00
80.00
100.00
DISTANCE FROM CENTER OF R.O.W. (feet) *10¹
Solar Millennium

Figure 5.14-3

STATE OF CALIFORNIA
ENERGY RESOURCES CONSERVATION AND DEVELOPMENT COMMISSION

In the Matter of:
APPLICATION FOR CERTIFICATION
for the *BLYTHE SOLAR POWER PROJECT*

Docket No. 09-AFC-6
PROOF OF SERVICE
(Revised 1/26/2010)

APPLICANT

Alice Harron
Senior Director of Project Development
1625 Shattuck Avenue, Suite 270
Berkeley, CA 94709-1161
harron@solarmillenium.com

Gavin Berg
Senior Project Manager
1625 Shattuck Avenue, Suite 270
Berkeley, CA 94709
berg@solarmillennium.com

APPLICANT'S CONSULTANT

Carl Lindner
AECOM Project Manager
1220 Avenida Acaso
Camarillo, CA 93012
arrie.bachrach@aecom.com

COUNSEL FOR APPLICANT

Scott Galati, Esq.
Galati/Blek, LLP
455 Capitol Mall, Suite 350
Sacramento, CA 95814
sgalati@gb-llp.com

Peter Weiner
Matthew Sanders
Paul, Hastings, Janofsky & Walker LLP
55 2nd Street, Suite 2400-3441
San Francisco, CA 94105
peterweiner@paulhastings.com
matthewsanders@paulhastings.com

INTERESTED AGENCIES

Holly L. Roberts, Project Manager
Bureau of Land Management
Palm Springs-South Coast Field Office
1201 Bird Center Drive Palm Springs, CA 92262
CAPSSolarPalen@blm.gov

California ISO
e-recipient@caiso.com

INTERVENORS

Tanya A. Gulesserian,
Marc D. Joseph
Adams Broadwell Joseph & Cardozo
601 Gateway Boulevard, Suite 1000
South San Francisco, CA 94080
tgulesserian@adamsbroadwell.com

ENERGY COMMISSION

Karen Douglas
Chair and Presiding Member
Ukldougla@energy.state.ca.usUH

Robert Weisenmiller
Commissioner and Associate Member
rweisenm@energy.state.ca.us

Raoul Renaud
Hearing Officer
rrenaud@energy.state.ca.us

Alan Solomon
Project Manager
asolomon@energy.state.ca.us

Lisa DeCarlo
Staff Counsel
ldecarlo@energy.state.ca.us

Public Adviser's Office
publicadviser@energy.state.ca.us

DECLARATION OF SERVICE

I, Carl Lindner, declare that on, February 3, 2010, I served and filed copies of the attached Blythe Solar Power Project Data Response Materials:

Data Responses to January 15 and January 20, 2010 CEC Staff Email Queries
Transmission System Engineering clarifications and revisions.

The original document, filed with the Docket Unit, is accompanied by a copy of the most recent Proof of Service list, located on the web page for this project at:

[http://www.energy.ca.gov/sitingcases/solar_millennium_blythe].

The document has been sent to the other parties in this proceeding (as shown on the Proof of Service list) and to the Commission's Docket Unit, in the following manner:

(*Check all that Apply*)

For service to all other parties:

_____ sent electronically to all email addresses on the Proof of Service list;

__X___ by personal delivery or by overnight delivery service or depositing in the United States mail at Camarillo, California with postage or fees thereon fully prepaid and addressed as provided on the Proof of Service list above to those addresses **NOT** marked "email preferred."

AND

For filing with the Energy Commission:

__X_ sending an original paper copy and one electronic copy, mailed and emailed respectively, to the address below (preferred method);

OR

_____ depositing in the mail an original and 12 paper copies, along with 13 CDs, as follows:

CALIFORNIA ENERGY COMMISSION
Attn: Docket No. 09-AFC-6
1516 Ninth Street, MS-4
Sacramento, CA 95814-5512

docket@energy.state.ca.us

I declare under penalty of perjury that the foregoing is true and correct.