California Independent
System Operator Corporation

March 12, 2008

Mr. Robert Morgan
Ausra, Inc
2585 East Bayshore Road
Palo Alto, CA 94306

Subject: Carrizo Plain Solar Interconnection System Impact Study Report

Dear Mr. Morgan:

Attached is the Interconnection System Impact Study (ISIS) Report for the interconnection of the proposed 190 MW Carrizo Plain Solar Project (Project) to the Pacific Gas & Electric Company's (PG&E) Morro Bay-Midway 230 kV #1 line in San Luis Obispo county. The ISIS was performed by PG&E under the direction of the California ISO (CAISO) in accordance with the CAISO's LGIP tariff. The Project's proposed Commercial Operation Date is December 31, 2011.

The results of this ISIS concluded that the Project will cause overloading of one transmission circuit under Category B and three transmission circuits under Category C contingency conditions on the CAISO Controlled Grid. The short circuit study concluded that the project would result in no overstressed equipment at the nearby substations.

The ISIS also included two sensitivity analyses, one without modeling the CAISO queue #009 project and the other without modeling #166 project in the Study. The results without #009 project indicated that the Project will cause no overloading of transmission facilities. The results without #166 project indicated overloading of two transmission circuits caused by the Project under Category B contingency conditions.

The non-binding cost estimate of the Interconnection Facilities to interconnect the Project would be approximately $520,000, exclusive of ITCC[1]. The non-binding cost estimate for the Network Upgrades to interconnect the Project would be approximately $26,860,000. This cost will be $9,860,000 without queue #009 project and $61,360,000 without queue #166 project, all exclusive of ITCC. These costs do not include mitigation cost for Category C overloads which will be determined during the Interconnection Facilities Study.

Upon completion of the remaining Interconnection Studies, this project may interconnect to the CAISO Controlled Grid after making the required system upgrades and be eligible to deliver the project's output using available transmission. However, the interconnection studies do not establish the generation project's level of deliverability for purposes of determining its Net Qualifying Capacity under the CAISO Tariff and in accordance with CPUC-adopted Resource Adequacy Rules. Therefore, this letter makes no representation, and Ausra, Inc cannot rely on any statements herein, regarding the ability, or amount, of the output of the project to be eligible to sell Resource Adequacy Capacity. Separate studies entitled "Deliverability Assessments" are being done by the CAISO which will determine whether or not the project is 100% deliverable to the Grid. If the project is found less than 100% deliverable, the study will recommend mitigation measures to make it 100% deliverable. These studies are nearing completion and the results will be posted on the CAISO website in about two weeks.

[1] Income Tax Component of Contribution

CAISO
151 Blue Ravine Road
Folsom, California 95630
(916) 351-4400

The ISIS results meeting will be coordinated and scheduled by the ISO Project Manager Ed Fishback (916) 608-5836 (EFishback@caiso.com) within 10 business days following receipt of this Interconnection System Impact Study Report.

Should you have questions regarding the Study, please contact Nisar Shah at (916) 608-7376 (nshah@caiso.com) or myself at (916) 608-5880 (GDeShazo@caiso.com).

Sincerely,

Original signed by Ali Chowdhury for

Gary DeShazo
Director of Regional Transmission - North

DP/GD:dd

Attachment

via e-mail:

John Vardanian (JAV7@pge.com)
Kaicheng Chen (Kxcj@pge.com)
Rajul Mahmood (R7ML@pge.com)

CAISO via email:

Ed Fishback (EFishbackl@caiso.com)
ISO Regional Transmission North

Interconnection System Impact Study Report

Generation Interconnection

Ausra, Inc.

Carrizo Plain Solar Project

This Study has been completed in coordination with Pacific Gas & Electric per the Large Generator Interconnection Procedures.

March 12, 2008

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Appendices:

1. Executive Summary

Ausra, Inc., an Interconnection Customer (IC), proposes to interconnect their Carrizo Plain Solar Project (Project) to the California Independent System Operator Corporation (CAISO) Controlled Grid. The Project is located in San Luis Obispo County near Pacific Gas and Electric Company's (PG&E) Carrizo Plains Substation. The proposed Project utilizes solar thermal technology with two 98.6 MW steam turbine generators with a maximum gross output of 190 MW.

The Project proposes to interconnect in two separate phases. Phase one proposes to begin commercial operation of steam turbine #1 with an initial generating capacity of 30 MW by May 2010, and be fully capable of rated generating capacity (98.6 MW) by December 2010. Phase two proposes to begin commercial operation of steam turbine #2 with an initial generating capacity of 30 MW by December 2010, and be fully capable of rated generating capacity (98.6 MW) by December 2011. The Project will be fully operational at 190 MW by December 31, 2011.

The Project proposes to interconnect to PG&E's transmission system by looping into the Morro Bay – Midway 230 kV #1 Line via a new 230 kV switching station, which will be located less than one mile west of Carrizo Plains Substation. The IC has also chosen an alternative point of interconnection which is to loop into both Morro Bay – Midway 230 kV #1 and #2 Lines.

The CAISO and PG&E had performed an Interconnection Feasibility Study (IFS) and issued a Report on September 7, 2007. This report indicated that the proposed Project is technically feasible.

In accordance with the Federal Energy Regulatory Commission's (FERC) Large Generation Interconnection Procedures (LGIP), the IC, the CAISO and PG&E agreed that an Interconnection System Impact Study (ISIS) is required. Upon direction from the CAISO, PG&E completed the ISIS which provided the following key results:

- Identified transmission system impacts caused solely by the addition of the Project,
- Identified system reinforcements necessary to mitigate the adverse impact of the Project under various system conditions,
- Provided facilities required for system reinforcements with a non-binding good faith estimate of cost responsibility and a non-binding good faith estimate of time to construct, and
- Provided the level of deliverability of the Project by means of a Deliverability Assessment, conducted by CAISO per Section 3.3.3 of the LGIP.

To determine the system impacts caused by the interconnection of the Project, studies were performed using the following full-loop base case:

- 2012 Summer Peak full loop base case

The studies performed included:

- Steady State Power Flow Analyses
- System Fault Duty Analyses
- Dynamic Stability Analyses
- Reactive Power Deficiency Analyses
- Sensitivity Study
- Deliverability Assessment
- System Protection Requirements
- Substation Evaluation
- Transmission Line Evaluation

The power flow analyses for the year 2012 concluded that the interconnection of the Project to the CAISO Controlled Grid causes no new normal overloads, one new Category "B" emergency overload and three new Category "C" emergency overloads under projected 2012 summer peak load conditions. The CAISO Controlled Grid Generation Interconnection Queue dated November 30, 2007 was used to model higher queued projects in the ISIS study load flow cases. The CAISO generation queues at the time of IFS and at the time of ISIS were different. In the vicinity of the Carrizo plain Solar Project, for example, Projects Q166 and Q177 at the time of IFS had generation levels of 300 MW and 200 MW, respectively. The projects Q166 and Q177 reduced their generation levels to 200 MW and 100 MW, respectively, at the time of conducting ISIS (allowed under the Tariff). Therefore, the Interconnection System Impact Study (ISIS) results are slightly different from the Interconnection Feasibility Study (IFS) results.

In addition, two sensitivity studies were conducted to determine system impacts if certain generation projects were not constructed under projected 2012 peak load conditions. The sensitivity study concluded that the Project causes no new overloads if the Q009 Project is not constructed. Also, the Project will result in two new Category "B" emergency overloads if the Q166 Project is not constructed.

The analyses also determined that the Project causes no reactive power deficiencies.

Dynamic Stability Study results indicated that the transmission system's transient performance would not be significantly impacted by the Project following selected disturbances.

The protection requirements for the Project are presented in Appendix G.

The substation evaluation found no overstressed breakers due to the Project.

The Project will interconnect via a new 230 kV switching station consisting of a three-element breaker-and-a-half bus configuration.

The non-binding cost estimate of the Interconnection Facilities[1] to interconnect the project would be approximately $520,000 exclusive of ITCC[2].

The non-binding cost estimate for the 2012 Network Upgrades[3] to interconnect the project would be approximately **$26,860,000**. If the Q009 Project is not constructed, the non-binding cost estimate for the 2012 Network Upgrades would be approximately **$9,860,000**. If the Q166 Project is not constructed, the non-binding cost estimate for the 2012 Network Upgrades would be approximately **$61,360,000**. These costs do not include mitigation cost for Category "C" overloads which will be determined during the Interconnection Facilities Study.

The non-binding construction schedule to engineer and construct the facilities is approximately 36-48 months from the signing of the Large Generator Interconnection Agreement (LGIA).

2. Project and Interconnection Information

The proposed Project utilizes solar thermal technology with two 98.6 MW steam turbine generators with a maximum net output of 186 MW to the CAISO Controlled Grid. The Project proposes to interconnect in two separate phases. Phase one proposes to begin commercial operation of steam turbine #1 with an initial generating capacity of 30 MW by May 2010, and be fully capable of rated generating capacity (98.6 MW) by December 2010. Phase two proposes to begin commercial operation of steam turbine #2 with an initial generating capacity of 30 MW by December 2010, and be fully capable of rated generating capacity (98.6 MW) by December 2011. The Project will be fully operational at 186 MW by December 31, 2011.

The Project will be looped into PG&E's Morro Bay – Midway 230 kV # 1 Line via a new 230 kV switching station, which will be located less than one mile west of Carrizo Plains Substation in San Luis Obispo County.

Table 5-1 provides general information about the Project.

[1] The transmission facilities necessary to physically and electrically interconnect the Project to the CAISO Controlled Grid at the point of interconnection.
[2] Income Tax Component of Contribution
[3] The transmission facilities, other than Interconnection facilities, beyond the point of interconnection necessary to physically and electrically interconnect the Project safely and reliably to the CAISO Controlled Grid

Table 5-1: Carrizo plain Project General Information

Project Location	San Luis Obispo County, California
PG&E Planning Area	Los Padres Division
Number and Type of Generators	2-98.6 MW Steam Turbine Generators
Maximum Generator Output	190 MW
Generator Auxiliary Load	4 MW
Maximum Net Output to Grid	186 MW
Power Factor	0.85 lag – 0.9 lead
Step-up Transformer(s)	Two-115 MVA,13.8/230 kV transformers with 7.5 % impedance on 69 MVA base
Description Of Interconnection Configuration	Construct a new 230 kV switching station near the Project site and loop Morro Bay – Midway 230 kV # 1 Line into this switching station
Connection Voltage	230 kV
Description Of Alternate Interconnection Configuration	Construct a new 230 kV switching station and loop both Morro Bay – Midway 230 kV #1 and #2 Lines into this switching station
Alternate Connection Voltage	230 kV

Figure 2-1 provides the map for the Project and the transmission facilities in the vicinity. A conceptual single line diagram of the Project is shown in Figure 2-2.

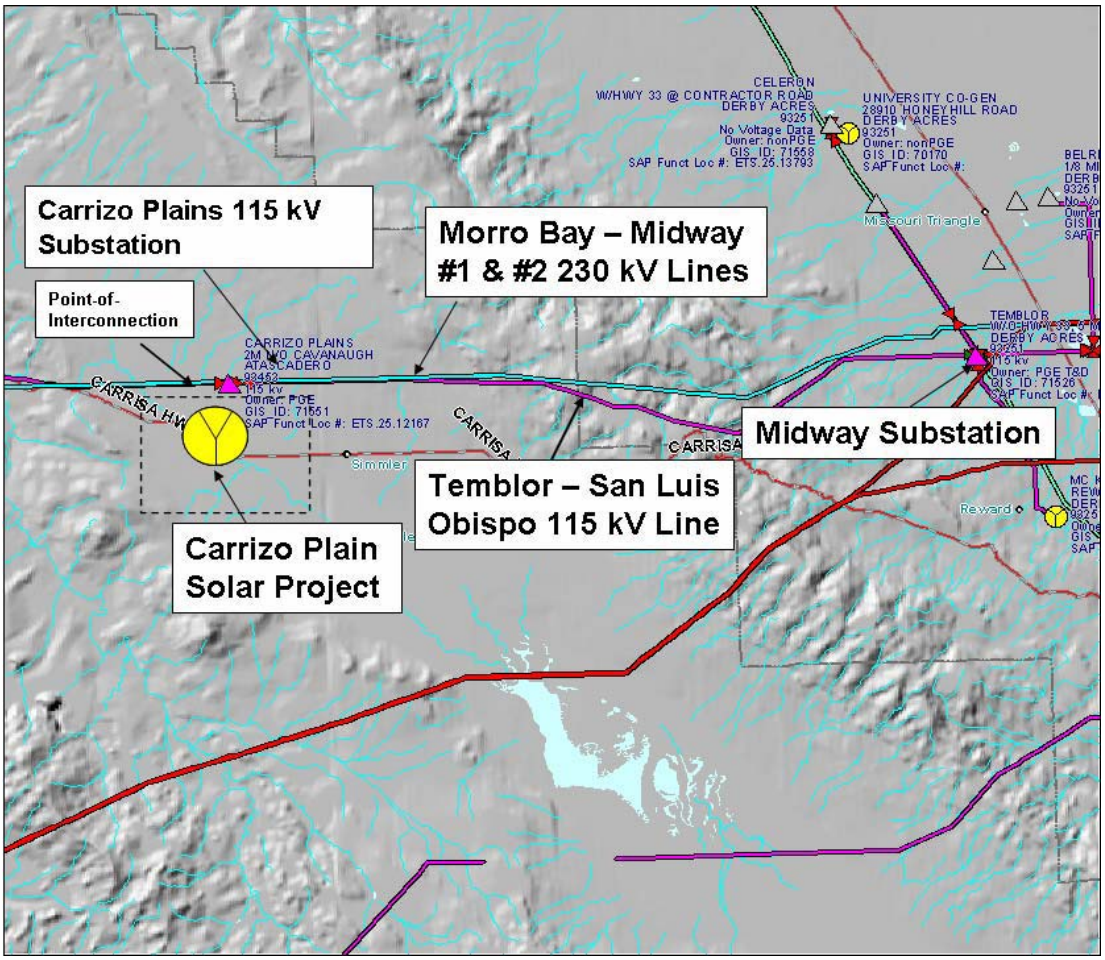

Figure 2-1: Map of the Project

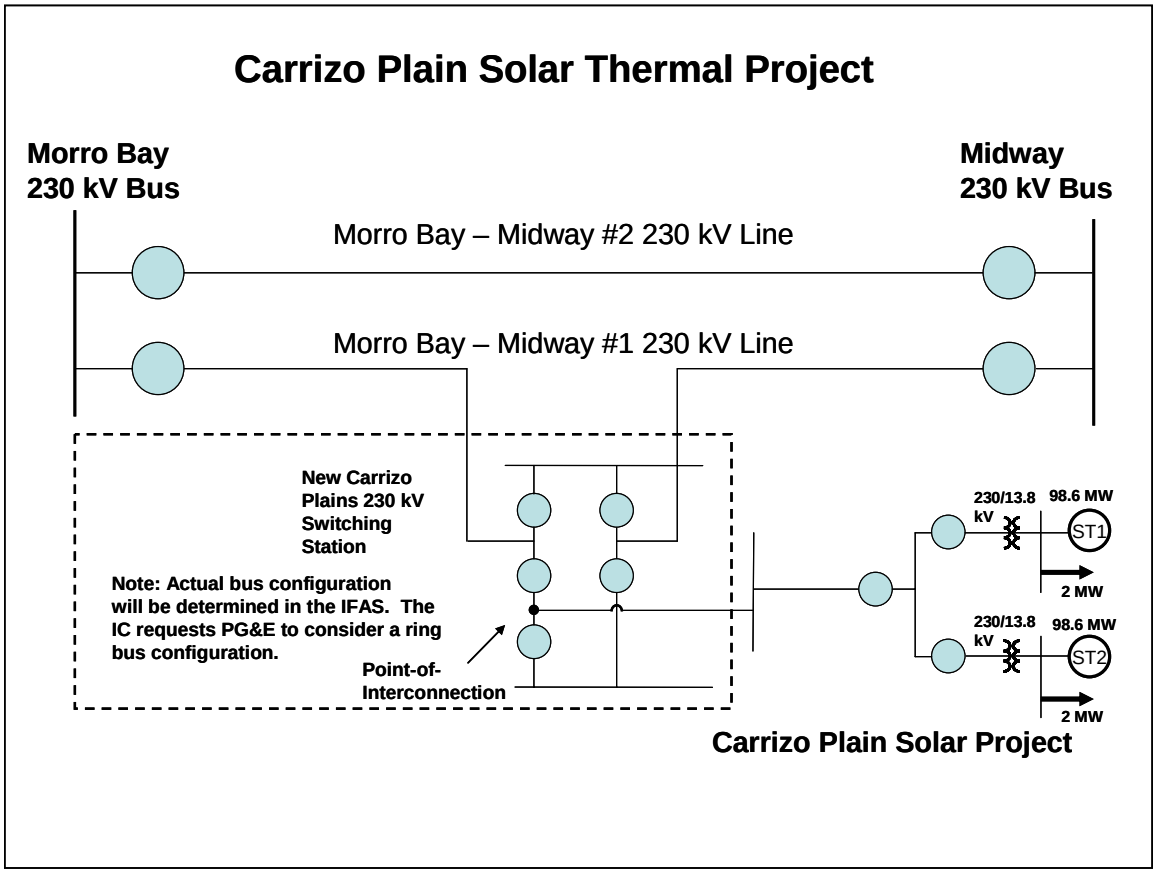

Figure 2-2: Conceptual Single-Line Diagram

3. Study Assumptions

Under the direction of the CAISO, PG&E conducted the ISIS using the following assumptions:

1) The Project's maximum net output to the CAISO Controlled Grid is 186 MW.

2) The expected Commercial Operation Date of rated generation capacity (190 MW) is December 31, 2011.

3) The Project has two three phase 13.8/230 kV step-up transformers, each rated for 115 MVA at 65 degree C temperature rise with 7.5% impedance at 69 MVA base.

4) The IC will engineer, procure, construct, own, and maintain its project facility.

5) The IC will engineer, procure, construct, own, and maintain its generator tie line.

6) This study took into account the planned generating facilities in PG&E's service territory whose schedules are concurrent with or precede the Project's schedule.

4. Power Flow Study Base Cases

One power flow base case was used to evaluate the impact of the Project on the CAISO Controlled Grid. While it is impractical to study all combinations of system load and generation levels during all seasons and at all times of the day, this base case represented extreme loading and generation conditions for the study area.

The CAISO and PG&E cannot guarantee that the Project can operate at maximum rated output 24 hours a day, year round, without system impacts, nor can the CAISO and PG&E guarantee that the Project will not have system impacts during the times and seasons other than those studied in the ISIS.

The following power flow base case was used for the analysis in the ISIS:

2012 Summer Peak Full Loop Base Case:

Power flow analyses was performed using PG&E's 2012 Summer Peak Full-Loop Base Case (in General Electric Power Flow format). This base case was developed from PG&E's 2007 base case series and has a 1-in-10 year extreme weather load level for the Central Coast and Los Padres Areas.

This base case modeled all approved PG&E transmission reliability projects that would be operational by 2012. This base case also modeled all proposed higher-queued generation projects that would be operational by 2012. However, some generation projects that are electrically far from the proposed project were either turned off or modeled with reduced generation to balance the loads and resources in the power flow model. The major generation projects included are shown in Attachment 1 of Appendix A.

5. Study Criteria Summary

The CAISO Controlled Grid Reliability Criteria, which incorporate the Western Electricity Coordinating Council (WECC) and the North American Electric Reliability Council (NERC) planning criteria, were used to evaluate the impact of the Project on the CAISO Controlled Grid.

5.1 Steady State Study Criteria – Normal Overloads

Normal overloads are those that exceed 100 percent of normal ratings. The CAISO Controlled Grid Reliability Criteria requires the loading of all transmission system facilities be within their normal ratings.

5.2 Steady State Study Criteria – Emergency Overloads

Emergency overloads are those that exceed 100 percent of emergency ratings. The emergency overloads refer to overloads that occur during single element contingencies (Category "B") and multiple element contingencies (Category "C").

6. Sensitivity Study

6.1 Project Q009 Sensitivity Study

The IC has requested a sensitivity power flow analysis which assumes that the Project Q 009 (1200 MW) is not constructed. It is important to note that the existing Morro Bay Power Plant Units #1 & #2 were not dispatched in the Morro Bay sensitivity base cases developed for Interconnection Feasibility Study. After further investigation, it was determined that these units are not officially retired, but are only mothballed. These units were dispatched at maximum power in the Interconnection System Impact Study, which may have an effect on facility loading and assignment of Network Upgrades.

This sensitivity study used the 2012 Summer Peak base case. Only normal and emergency Category "B" contingencies were evaluated.

6.2 Project Q166 Sensitivity Study

The IC also requested a sensitivity power flow analysis without the Project Q 166 (210 MW) modeled in the Base cases. This sensitivity analysis used the same 2012 base case that was used for the original study. Only the summer Peak base case (after necessary modifications) was used and only normal and emergency Category B contingencies were evaluated for this sensitivity.

7. Steady State Power Flow Study and Results

7.1 Contingencies

The Category "B" and "C" contingencies used in this analysis are listed in Appendix B. The single (Category "B") and selected multiple (Category "C") contingencies include the following outages:

7.1.1 Category "B"

- All single generator outages within the study area.
- All single (60 - 230 kV) transmission circuit outages within the study area

- All single (60 - 230 kV) transformer outages within the study area
- Selected overlapping single generator and transmission circuit outages for the transmission lines and generators within the study area

7.1.2 Category "C"

- Selected bus (60-230 kV) outages within the study area
- Selected outages caused by selected breaker failures (excluding bus tie and sectionalizing breakers) at the same above bus section
- Selected combination of any two-generator/transmission line/transformer outages (except ones included above in Category "B") within the study area
- Selected outages of double circuit tower lines (60-230 kV) within the study area

7.2 Study Results

The overloads caused by the Project are detailed in Appendix C, and overload plots are shown in Appendix D.

The CAISO Controlled Grid Generation Queue dated November 30, 2007 was used to model higher queued projects in the ISIS study load flow cases. The CAISO generation queues at the time of IFS and at the time of ISIS were different. Some differences were in the generation output of few projects. In the vicinity of the Carrizo plain Solar Project, for example, the projects Q166 and Q177 at the time of IFS had generation levels of 300 MW and 200 MW, respectively. The projects Q166 and Q177 reduced their generation levels to 200 MW and 100 MW, respectively, at the time of conducting ISIS (allowed under the LGIP tariff). Therefore, the ISIS results are slightly different from the IFS results.

7.2.1 Normal Overloads (Category "A")

There are no normal overloads or voltage violations caused by the Project. Under 2012 summer peak conditions, the Project exacerbates one (1) pre-project Category "A" normal overload. This overload is shown shaded in table 7-1 below.

Table 7-1: Category "A" Normal Overloads

Over Loaded Component	Rating (Amps)	Pre- Project Loading (Amps |%Rating)		Post-Project Loading (Amps |%Rating)		% Change from Pre-Project Loading
Category A Normal Overloads – 2012 Summer Peak COD						
Wilson - Le Grand 115 kV Line	442	548	124%	558	126%	2%

7.2.2 Emergency Overloads (Category "B")

Under 2012 summer peak conditions, the Project causes one (1) new and exacerbates seven (7) pre-project Category "B" emergency overloads. The Category "B" emergency overloads are summarized in Table 7-2. The pre-project overloads are shown as shaded in the table. There are no Category "B" voltage violations caused by the Project.

Table 7-2: Category "B" Emergency Overloads

Over Loaded Component	Contingency	Rating (Amps)	Pre- Project Loading (Amps |%Rating)		Post-Project Loading (Amps |%Rating)		% Change from Pre-Project Loading
Category B Emergency Overloads - 2012 Summer Peak COD							
Atascadero - Cayucos 70 kV Line (Atascadero - Cayucos Jct 2)	Morro Bay - Templeton 230 kV Line with SLO - Atascadero SPS	297	379	128%	403	136%	8%
	Morro Bay - Templeton 230 kV Line with SLO - Atascadero SPS and Morro Bay Unit 4	297	309	104%	332	112%	8%
Atascadero - Cayucos 70 kV Line (Cayucos Jct 2 - Cayucos)	Morro Bay - Templeton 230 kV Line with SLO - Atascadero SPS	322	380	118%	404	126%	8%
	Morro Bay - Templeton 230 kV Line with SLO - Atascadero SPS and Morro Bay Unit 4	322	310	96%	332	103%	7%
Callendar Sw Sta - Mesa 115 kV Line (Mesa - Union Oil)	Morro Bay 230/115 kV Transformer Bank 6	372	407	109%	413	111%	2%
Morro Bay - Gates 230 kV Line	Morro Bay - Templeton 230 kV Line with SLO - Atascadero SPS	975	994	102%	1073	110%	8%
Q166 - Midway 230 kV Line	Morro Bay - Templeton 230 kV Line with SLO - Atascadero SPS	977	1028	105%	1078	110%	5%
	Q194 - Midway 230 kV Line	977	944	97%	1072	110%	13%
	Morro Bay - Gates 230 kV Line	977	959	98%	1008	103%	5%
	Templeton - Gates 230 kV Line	977	924	95%	974	100%	5%
Q194 - Midway 230 kV Line	Q166 - Midway 230 kV Line	977	738	76%	1052	108%	32%
	Morro Bay - Templeton 230 kV Line with SLO - Atascadero SPS	977	733	75%	1051	108%	33%
	Morro Bay - Gates 230 kV Line	977	666	68%	982	101%	33%
San Luis Obispo - Callendar Sw Sta 115 kV Line (Oceano - Union Oil)	Morro Bay 230/115 kV Transformer Bank 6	371	397	107%	403	109%	2%
San Luis Obispo - Cayucos 70 kV Line (Mustang jct - San Luis Obispo)	Morro Bay - Templeton 230 kV Line with SLO - Atascadero SPS	404	521	129%	545	135%	6%
	Morro Bay - Templeton 230 kV Line with SLO - Atascadero SPS and Morro Bay Unit 4	404	453	112%	475	117%	5%

7.2.3 Emergency Overloads (Category "C")

Under the 2012 summer peak conditions, the Project causes three (3) new and exacerbates twelve (12) pre-project Category "C" emergency overloads. The Category "C" emergency overloads are

summarized in Table 7-3. The pre-project overloads are shown as shaded in the table. There are no Category "C" voltage violation caused by the Project.

Table 7-3: Category "C" Emergency Overloads

Over Loaded Component	Contingency	Rating (Amps)	Pre- Project Loading (Amps |%Rating)		Post-Project Loading (Amps |%Rating)		% Change from Pre-Project Loading
Category C Emergency Overloads - 2012 Summer Peak COD							
Atascadero - Cayucos 70 kV Line (Atascadero - Cayucos Jct 2)	Morro Bay - Gates and Morro Bay - Templeton with SLO - Atascadero SPS 230 kV Lines	297	579	195%	617	208%	13%
	Morro Bay 230 kV Bus Section 1D	297	309	104%	332	112%	8%
Atascadero - Cayucos 70 kV Line (Cayucos Jct 2 - Cayucos)	Morro Bay - Gates and Morro Bay - Templeton with SLO - Atascadero SPS 230 kV Lines	322	580	180%	618	192%	12%
	Morro Bay 230 kV Bus Section 1D with SLO - Atascadero SPS	322	310	96%	333	103%	7%
Callendar Sw Sta - Mesa 115 kV Line (Mesa - Union Oil)	Morro Bay 230 kV Bus Section 2D	372	418	112%	426	114%	2%
	Morro Bay 115 kV Bus	372	391	105%	398	107%	2%
Morro Bay - Gates 230 kV Line	Q194 - Midway and Q166 - Midway 230 kV Lines	975	1210	124%	1433	147%	23%
	Templeton 230 kV Bus Sections D and E	975	921	94%	1000	103%	9%
Morro Bay - Templeton 230 kV Line	Q194 - Midway and Q166 - Midway 230 kV Lines	1715	1541	90%	1777	104%	14%
Q166 - Midway 230 kV Line	Morro Bay - Gates and Morro Bay - Templeton with SLO - Atascadero SPS 230 kV Lines	977	1485	152%	1565	160%	8%
	Morro Bay - Gates and Templeton - Gates 230 kV Lines	977	1300	133%	1381	141%	8%
	Templeton 230 kV Bus Sections D and E	977	990	101%	1038	106%	5%
Q194 - Midway 230 kV Line	Morro Bay - Gates and Morro Bay - Templeton with SLO - Atascadero SPS 230 kV Lines	977	1180	121%	1530	157%	36%
	Morro Bay - Gates and Templeton - Gates 230 kV Lines	977	1000	102%	1350	138%	36%
	Templeton 230 kV Bus Sections D and E	977	696	71%	1012	104%	33%
San Luis Obispo - Callendar Sw Sta 115 kV Line (Oceano - Union Oil)	Morro Bay 230 kV Bus Section 2D	371	408	110%	416	112%	2%
	Morro Bay 115 kV Bus	371	382	103%	388	105%	2%
San Luis Obispo - Cayucos 70 kV Line (Baywood - Mustang Jct)	Morro Bay - Gates and Morro Bay - Templeton with SLO - Atascadero SPS 230 kV Lines	553	663	120%	702	127%	7%
San Luis Obispo - Cayucos 70 kV Line (Cayucos - Baywood)	Morro Bay - Gates and Morro Bay - Templeton with SLO - Atascadero SPS 230 kV Lines	553	658	119%	696	126%	7%
San Luis Obispo - Cayucos 70 kV Line (Mustang Jct - San Luis Obispo)	Morro Bay - Gates and Morro Bay - Templeton with SLO - Atascadero SPS 230 kV Lines	404	720	178%	758	188%	10%
	Morro Bay 230 kV Bus Section 1D	404	453	112%	475	117%	5%
San Miguel - Paso Robles 70 kV Line	Morro Bay - Gates and Templeton - Gates 230 kV Lines	346	315	91%	350	101%	10%
Temblor - San Luis Obispo 115 kV Line (Carrizo - San Luis Obispo))	Q194 - Midway and Q166 - Midway 230 kV Lines	437	387	90%	481	110%	20%

Over Loaded Component	Contingency	Rating (Amps)	Pre- Project Loading (Amps |%Rating)		Post-Project Loading (Amps |%Rating)		% Change from Pre-Project Loading
Category C Emergency Overloads - 2012 Summer Peak COD							
Temblor - San Luis Obispo 115 kV Line (Temblor - Carrizo)	Morro Bay - Gates and Morro Bay - Templeton with SLO - Atascadero SPS 230 kV Lines	437	419	96%	453	104%	8%
	Q194 - Midway and Q166 - Midway 230 kV Lines	437	383	88%	473	108%	20%
	Morro Bay - Gates and Morro Bay - Templeton with SLO - Atascadero SPS 230 kV Lines	437	412	94%	446	102%	8%
Templeton - Gates 230 kV Line	Q194 - Midway and Q166 - Midway 230 kV Lines	975	1085	111%	1300	133%	22%

7.3 Sensitivity Study # 1- w/o Project Q009

The ISIS included sensitivity evaluation without the Q009 Project. By applying the 2012 summer peak loading conditions the results for sensitivity evaluation for normal and Category "B" emergency contingencies are summarized below.

7.3.1 Sensitivity Normal Overloads (Category "A")

The Project causes no new normal overloads and exacerbates one (1) pre-project normal overload under projected 2012 summer peak conditions. This pre-project normal overload is shown as shaded in table 7-4 below.

Table 7-4: Normal Overloads

Over Loaded Component	Rating (Amps)	Pre- Project Loading (Amps |%Rating)		Post-Project Loading (Amps |%Rating)		% Change from Pre-Project Loading
Category A Normal Overloads – 2012 Summer Peak COD Sensitivity 1						
Wilson - Le Grand 115 kV Line	442	541	122%	546	124%	2%

7.3.2 Sensitivity Emergency Overloads (Category "B")

The Project causes no new Category "B" overloads and exacerbates two (2) pre-project Category "B" overloads under projected 2012 summer peak conditions. These overloads are summarized and shown as shaded in Table 7-5. The Project causes no Category "B" voltage violations.

Table 7-5: Category "B" Overloads

Over Loaded Component	Contingency	Rating (Amps)	Pre- Project Loading (Amps |%Rating)		Post-Project Loading (Amps |%Rating)		% Change from Pre-Project Loading
Category B Emergency Overloads - 2012 Summer Peak COD Sensitivity 1							
Callendar Sw Sta - Mesa 115 kV Line (Mesa - Union Oil)	Morro Bay 230/115 kV Transformer Bank 6	372	389	105%	395	106%	1%
San Luis Obispo - Callendar Sw Sta 115 kV Line (Oceano - Union Oil)	Morro Bay 230/115 kV Transformer Bank 6	371	380	102%	386	104%	2%

7.4 Sensitivity Study # 2- w/o Project Q166

The ISIS also included sensitivity evaluation without the Project Q166. By applying the 2012 summer peak loading conditions the results for this sensitivity evaluation for normal and Category "B" emergency contingencies are summarized below.

7.4.1 Sensitivity Normal Overloads (Category "A")

The Project causes no new normal overloads and exacerbates one (1) pre-project normal overload under projected 2012 summer peak conditions. This overload is shown as shaded in Table 7-6.

Table 7-6: Normal Overloads

Over Loaded Component	Rating (Amps)	Pre- Project Loading (Amps |%Rating)		Post-Project Loading (Amps |%Rating)		% Change from Pre-Project Loading
Category A Normal Overloads – 2012 Summer Peak COD Sensitivity 2						
Wilson - Le Grand 115 kV Line	442	542	122%	547	124%	2%

7.4.2 Sensitivity Emergency Overloads (Category "B")

The Project causes two (2) new and exacerbates five (5) pre-project Category "B" overloads under projected 2012 summer peak conditions. These overloads are summarized in Table 7-7. The pre-project overloads are shown as shaded in the table. There are no Category "B" voltage violations caused by the Project.

Table 7-7: Category "B" Overloads

Over Loaded Component	Contingency	Rating (Amps)	Pre- Project Loading (Amps |%Rating)		Post-Project Loading (Amps |%Rating)		% Change from Pre-Project Loading
Category B Emergency Overloads - 2012 Summer Peak COD Sensitivity 2							
Atascadero - Cayucos 70 kV Line (Atascadero - Cayucos Jct 2)	Morro Bay - Templeton 230 kV Line with SLO - Atascadero SPS	297	352	118%	376	127%	9%
	Morro Bay - Templeton 230 kV Line with SLO - Atascadero SPS and Morro Bay Unit 4	297	283	95%	306	103%	8%
Atascadero - Cayucos 70 kV Line (Cayucos Jct 2 - Cayucos)	Morro Bay - Templeton 230 kV Line with SLO - Atascadero SPS	322	352	110%	377	117%	7%
Callendar Sw Sta - Mesa 115 kV Line (Mesa - Union Oil)	Morro Bay 230/115 kV Transformer Bank 6	372	400	107%	406	109%	2%
Morro Bay - Gates 230 kV Line	Morro Bay - Templeton 230 kV Line with SLO - Atascadero SPS	975	904	93%	983	101%	8%
Q194 - Midway 230 kV Line	Morro Bay - Templeton 230 kV Line with SLO - Atascadero SPS	977	676	69%	994	102%	33%
San Luis Obispo - Callendar Sw Sta 115 kV Line (Oceano - Union Oil)	Morro Bay 230/115 kV Transformer Bank 6	371	390	105%	396	107%	2%
San Luis Obispo - Cayucos 70 kV Line (Mustang jct - San Luis Obispo)	Morro Bay - Templeton 230 kV Line with SLO - Atascadero SPS	404	495	122%	518	128%	6%
	Morro Bay - Templeton 230 kV Line with SLO - Atascadero SPS and Morro Bay Unit 4	404	428	106%	450	111%	5%

8. Fault Duty Analysis

Short circuit studies were performed to determine the impact of adding the Project to the transmission system. The fault duties were calculated before and after the Project.

8.1 System Protection Study Input Data

The following input data provided by the IC was used in this study:

Steam Turbine Generator Data – 2 Units

- Direct axis subtransient reactance (X''_d) = 0.17
- Direct axis transient reactance (X'_d) = 0.246
- Direct axis synchronous reactance (X_d) = 2.313
- Negative sequence reactance (X"1) = 0.163
- Zero Sequence reactance (X"0) = 0.109

Per unit impedances on a 115.6 MVA base (generator base).

Station Step-up Transformers

- Unit transformer rated at 69/115MVA, 230kV/13.8kV, Z1= 7.5% on 69MVA base, Delta-Y grounded. Delta side will be connected to 13.8 kV. Two unit transformers were modeled.

8.2 Results

Table 8-1 lists the available Fault Duty at the buses electrically adjacent to the Project. This data was used to determine if any equipment would be overstressed by the interconnection of the Project.

Table 8-1: Short circuit study results

Fault Location	Pre-Project		Post-Project			
	3∅ Fault (Amps)	L-G Fault (Amps)	3∅ Fault (Amps)	% Increase	L-G Fault (Amps)	% Increase
Carrizo Sw Sta 230 kV Bus	N/A	N/A	14,969	N/A	13,952	N/A
Midway 230 kV Bus "D"	63,113	60,890	63,481	0.58%	61,238	0.57%
Midway 230 kV Bus "E"	62,794	60,797	63,483	1.09%	61,333	0.88%
Midway 230 kV Bus "F"	62,134	60,177	62,800	1.07%	60,694	0.86%
Morro Bay #1 230 kV Bus	22,655	26,172	22,953	1.31%	26,433	0.99%
Morro Bay #2 230 kV Bus	22,645	26,154	22,940	1.3%	26,412	0.98%

Midway 230 kV Bus - All breakers are rated 63,000 amps Interrupting Capacity or higher.

Morro Bay 230 kV Bus - All breakers are rated 37,653 amps Interrupting Capacity or higher except Circuit breakers CB 412 and 472 that are rated 25,102 amps Interrupting Capacity.

Table 8-2 lists the close-in fault currents for Morro Bay Circuit Breakers CB 412 and 472. These are faults currents seen by the relays at Morro Bay Breakers 412 and 472, not the fault currents at the fault location, to determine if these breakers would be overstressed by the interconnection of the Project.

Table 8-2: Close-in Fault Currents for Morro Bay Breakers 412 and 472

Morro Bay Breaker	Before Project		After Project	
	3Phase	L-G	3 Phase	L-G
CB 412	20,054	21,724	20,313	21,912
CB 472	20,407	24,903	20,663	25,118

9. Reactive Power Deficiency Analysis

The power flow studies of Category "B" and "C" contingencies indicate that the Project did not cause voltage drops of 5% or more from the pre-project levels, or cause the PG&E system to fail to meet applicable voltage criteria. This is also true for both the sensitivity analysis.

10. Dynamic Stability Analysis

Dynamic stability studies were conducted using the 2012 summer peak full loop base cases to ensure that the transmission system remains in operating equilibrium through abnormal operating conditions after the new facility begins operation. The generator dynamic data used for the study is shown in Appendix E.

10.1 Dynamic Stability Study Scenarios

Disturbance simulations were performed for a study period of up to 20 seconds to determine whether the new facility will create any system instability during the following line and generator outages:

10.1.1 Category "B" Contingencies:

- Full load rejection of 186 MW for the Project.
- A three-phase close-in fault on the Carrizo Plains Sw. Sta. – Midway 230 kV Line at the Carrizo Plains 230 kV bus with normal clearing time followed by loss of the Carrizo Plains Sw. Sta. – Midway 230 kV Line.
- A three-phase close-in fault on the Carrizo Plains Sw. Sta. – Morro Bay 230 kV Line at the Carrizo Plains 230 kV bus with normal clearing time followed by loss of the Carrizo Plains Sw. Sta. – Morro Bay 230 kV Line.

10.1.2 Category "C" Contingencies:

- A three-phase fault on the Midway Substation 230 kV Bus followed by the loss of the Carrizo Plains Sw. Sta. – Midway 230 kV Line and the Midway – Q166 Project 230 kV Line.
- A three-phase fault on the Morro Bay Substation 230 kV Bus followed by the loss of the Carrizo Plains Sw. Sta. – Morro Bay 230 kV Line and the Morro Bay – Q166 Project 230 kV Line.

10.2 Parameters Monitored to Evaluate System Stability Performance

10.2.1 Rotor Angle

The rotor angle plots shown in Appendix F provide a measure for determining how the proposed generation units would swing with respect to one another. The plots also provide a measure of how the units would swing with respect to other generation units in the area.

10.2.2 Bus Voltage

The bus voltage plots, in conjunction with the relative rotor angle plots, also shown in Appendix F, provide a means of detecting out-of-step conditions. The bus voltage plots are useful in assessing the magnitude and the duration of post disturbance voltage dips and peak-to-peak voltage oscillations. The bus voltage plots also give an indication of system damping and the level to which voltages are expected to recover in steady state conditions.

10.2.3 Bus Frequency

The bus frequency plots, also shown in Appendix F, provide information on the magnitude and the duration of post fault frequency swings with the Project in service. These plots indicate the extent of possible over-frequency or under-frequency, which can occur because of the imbalance between the generation and load within an area.

10.2.4 Other Parameters

- Generator Terminal Power
- Generator Terminal Voltage
- Generator Rotor Speed
- Generator Field Voltage
- Bus Angle
- Line Flow
- Voltage Spread
- Frequency Spread

10.3 Results

Dynamic stability studies were conducted using the 2012 summer peak base cases described in Section 4 and the generator models shown in Appendix E to determine whether the transmission system would maintain operating equilibrium following selected outages.

The results indicate that the Project would have no adverse impact on the stable operation of the transmission system. Also, the transmission system's transient stability performance would not be significantly impacted by the Project following the selected contingencies.

These results are shown in the form of plots in Appendix F.

11. Transmission Line Evaluation

- Provide loop line interconnection from the Morro-Bay – Midway # 1 230 kV Line and the end poles of the generator loop lines constructed by the IC. According to the transmission line evaluation the initial scope of work is to replace the existing 4G suspension tower with dead end tower (most likely G94) with loop crossarms. The loop crossarms will permit looping the Morro Bay - Midway #1 230 kV circuit into generator tie line to be engineered and constructed by the IC. Remove existing 4G tower.

- **Note: PG&E can construct the loop line (230 kV), if required. The preliminary cost estimate to build this loop line by PG&E is approximately $400,000.**

12. Substation Evaluation

12.1 Overstressed Breakers

PG&E uses the following policy to allocate breaker replacement responsibility for projects that overstress or increase overstress[4] on existing circuit breakers:

- If a breaker is not overstressed before the project, and the project results in an overstressed condition of the breaker, then the project is responsible for the cost of replacement.

- If a breaker is already overstressed, and a project increases the overstress by 5% or more, or the post-project overstress level exceeds 25%, then the project is responsible for the cost of replacement.

- If the overstress level exceeds 25% before the project, and for all other circumstances, PG&E or other generation projects will be responsible for any replacement costs.

Using the short-circuit study results of the System Fault Duties Study in Section 8, a breaker evaluation found that the Project is not responsible for any overstressed circuit breakers. Please note that PG&E did not evaluate the third party equipment electrically adjacent to the Project.

12.2 Substation Evaluations

- Provide protection required by this interconnection at both Morro Bay and Midway Substations.

[4] Overstressed Circuit Breaker – The percent of overstress, or level of overstress, is the percent of maximum fault current above the breaker's nameplate rating. For example, a breaker rated at 40,000 amps symmetrical current interrupting a 44,000 amp symmetrical fault is overstressed by 10%.

- **Note: PG&E can construct the new project switching station, if required. The preliminary cost estimate to build the station with a breaker and a half (BAAH) scheme consisting of one three-breaker full bay and two-breaker bay, by PG&E, is approximately $8.5 million.**

13. Preliminary Protection Requirements

Per Section G2.1 of the PG&E Interconnection Handbook, PG&E protection requirements are designed and intended to protect PG&E's system only. The applicant is responsible for the protection of its own system and equipment and must meet the requirements in the PG&E Interconnection Handbook.

These Preliminary Protection Requirements are based upon an interconnection plan as shown in Figure 2-2. Appendix G provides details of the preliminary protection requirements.

14. Overload Mitigation

Mitigation alternatives have been developed for Category "A" (normal) and "B" contingency overloads identified in section 7. For CAISO Category "C" contingencies, the overloads may be mitigated by load shedding or generation dropping (according to WECC reliability criteria). PG&E or CAISO or both may require new generators to take part in and be responsible for the costs of operating procedures and/or Special Protection Systems (SPS) for Category "C" emergency overloads caused by the project. Category "C" overload mitigation will be determined in the facilities study.

14.1 Mitigation for Category "A" & "B" Overloads

The Project causes no Category A overloads. Mitigation for Category B overloads is described below.

14.1.1 Carrizo plain Project – Midway #1 230 kV Line

Limiting Factor		1113 kcmil AAC (34 miles), 975 Amps Emergency, 2fps wind speed rating	
Pre-Project Normal Loading	733 Amps (75%)	Post Project Normal Loading	1051 Amps (108%)
Worst Contingency		Morro Bay – Templeton 230 kV Line + Local RAS (Saint Luis Obispo-Atascadero SPS) (Another equally worst contingency: Project Q166 - Midway 230 kV Line with 108% overload)	
Worst Overload Condition		Summer Peak	

Solution: This alternative proposes to reconductor the Carrizo plain Project-Midway section of the Morro Bay – Midway #1 230 kV Line (34 miles) with a

conductor capable of a summer emergency rating of 1700 Amps or greater. Substation terminal equipment will be upgraded to match or exceed the ampere rating of the new conductor.

15. Overload Mitigation for Sensitivity Studies

15.1 Sensitivity Study # 1 w/o Project Q009- Mitigation for Category "A" & "B" Overloads

The power flow study indicates that no new Category "A" or "B" mitigation is required due to the Project.

15.2 Sensitivity Study # 2 w/o Project Q166- Mitigation for Category "A" & "B" Overloads

The Project causes no Category A overloads. Mitigation for Category B overloads is described below.

15.2.1 Morro Bay – Gates #2 230 kV Line

Limiting Factor		1113 kcmil AAC (69 miles), 975 Amps Emergency, 2 fps wind speed rating	
Pre-project Emergency Loading	904 Amps (93%)	Post-project Emergency Loading	983 Amps (101%)
Worst Contingency		Morro Bay – Templeton 230 kV Line + Local RAS Scheme (Saint Luis Obispo-Atascadero SPS)	
Overload Condition		2012 Summer Peak	

Solution: The proposed mitigation is to reconductor the Morro Bay – Gates #2 230 kV Line (69 miles) with a conductor capable of an emergency rating of 1500 Amps or greater. Substation terminal equipment will be upgraded to match or exceed the ampere rating of the new conductor.

15.2.2 Carrizo plain Project – Midway #1 230 kV Line

Limiting Factor		1113 kcmil AAC (34 miles), 975 Amps Emergency, 2fps wind speed rating	
Pre-Project Normal Loading	676 Amps (69%)	Post Project Normal Loading	994 Amps (102%)
Worst Contingency		Morro Bay – Templeton 230 kV Line + Local RAS Scheme (Saint Luis Obispo-Atascadero SPS)	
Worst Overload Condition		Summer Peak	

Solution: The proposed mitigation is to reconductor the Carrizo plain Project-Midway section of the Morro Bay – Midway #1 230 kV Line (34 miles) with a conductor capable of an emergency rating of 1700 Amps or greater. Substation

terminal equipment will be upgraded to match or exceed the ampere rating of the new conductor.

16. Environmental Evaluation/ Permitting

16.1 CPUC General Order 131-D

Pacific Gas and Electric Company (PG&E) is subject to the jurisdiction of the California Public Utilities Commission (CPUC) and must comply with CPUC General Order 131-D (Order) on the construction, modification, alteration, or addition of all electric transmission facilities (i.e., lines, substations, etc.). This includes facilities to be constructed by others and deeded to PG&E. The Order exempts PG&E from obtaining a formal permit from the CPUC on facilities over 200 kV provided the planned facilities involve the replacement of existing facilities or supporting structures with equivalent facilities or structures, the minor relocation of existing facilities, the conversion of existing facilities to underground or the placing of new or additional conductors, insulators, or their accessories on or replacement of structures already built. These exemptions do not apply under certain circumstances when significant environmental impacts may be caused by the work. If the project does not qualify for an exemption, PG&E will need to seek formal approval from the CPUC (i.e., Certificate of Public Convenience and Necessity) taking as much as 18 months or more since the CPUC may decide to conduct its own environmental evaluation (i.e., Negative Declaration or Environmental Impact Report).

For cases where PG&E can claim a valid exemption, PG&E would file an Advice Letter with the CPUC and publish public notice of the proposed construction of the facilities. The noticing process takes about 90 days if no protests are filed, but should be done as early as possible so that a protest does not delay construction. PG&E has no control over the time it takes the CPUC to respond when issues arise. If the protest is granted, PG&E will then need to apply for a formal permit to construct the project (i.e., Certificate of Public Convenience and Necessity).

Facilities built or modified under this procedure must also be designed to include electric and magnetic field (EMF) mitigation measures pursuant to PG&E "EMF Design Guidelines of New Electrical Facilities: Transmission, Substation and Distribution".

Please see Section III, B.1 (f) in General Order 131-D. This document can be found in the CPUC's web page at:

http://www.cpuc.ca.gov/PUBLISHED/GENERAL_ORDER/589.htm

16.2 CPUC Section 851

Pacific Gas and Electric Company (PG&E) is subject to the jurisdiction of the California Public Utilities Commission (CPUC) and must comply with Public Utilities Code Section 851, which among other things requires CPUC

approval of leases and licenses to use PG&E property. This includes rights-of-way granted to third parties for interconnection facilities. Obtaining CPUC approval for a Section 851 application can take several months, and requires compliance with the California Environmental Quality Act (CEQA). PG&E recommends that Section 851 issues be identified as early as possible so that the necessary application can be prepared and processed.

17. Cost and Construction Schedule Estimates

A non-binding good faith cost estimates for the Interconnection Facilities and Network Upgrades costs as a result of the Project is **$27,380,000** exclusive of ITCC. The cost responsibility breakdown is provided in the sections below. These costs have no associated degree of accuracy and are provided for informational purpose only.

17.1 Interconnection Facilities Cost

Tables 17-1 shows the cost for Interconnection Facilities required to interconnect the Project to the CAISO Controlled Grid.

Table 17.1 Interconnection Facilities Cost Estimates

Substation Work at Customer 's Substation	
Pre-parallel inspection, testing, SCADA/EMS setup, meters, etc.	$220,000
Subtotal Substation Work	**$220,000**
Transmission Work	
Provide Interconnection from generator tie-line to new Carrizo Plains Switching Station 230 kV Bus	$200,000
Subtotal Substation Work	**$200,000**
Building & Land Work	
Land engineering support and permitting activities	$100,000
Subtotal Building & Land Work	**$100,000**
Total Interconnection Facilities Cost before ITCC	**$520,000**

17.2 Network Upgrades Cost

Tables 17-2 shows costs for the Network Upgrades facilities required for the Project to the CAISO Controlled Grid.

Table 17-2 Network Upgrades Cost Estimates

Substation Work	
Morro Bay Substation - Protective relay replacement and telecommunication changes, and pre-parallel inspection, testing, etc.	$480,000
Midway Substation - Protective relay replacement and telecommunication changes, and pre-parallel inspection, testing, etc.	$480,000
New Carrizo Plains 230 kV Switching Station – Construct new 3-element breaker-and-half 230 kV substation w/MPAC building	$8,500,000
Subtotal Substation Work	**$9,460,000**
Transmission Line Work	

Carrizo plain Project – Midway section of the Morro Bay - Midway #1 230 kV Line - Reconductor 34 miles of 230 kV Line	$17,000,000
Reconfigure Morro Bay – Midway 230 kV # 1 Line to loop into new Carrizo Plains 230 kV Switching Station	$400,000
Subtotal Transmission Line Work	**$17,400,000**
Total Network Upgrades Cost	**$26,860,000**

17.3 Network Upgrades Cost for sensitivity Study # 1- w/o Project Q009

Tables 17-3 shows the cost for Network Upgrades required to interconnect the Project to the CAISO Controlled Grid assuming the Q009 Project is not constructed.

Table 17-3 Network Upgrades Cost Estimates

Substation Work	
Morro Bay Substation - Protective relay replacement and telecommunication changes, and pre-parallel inspection, testing, etc.	$480,000
Midway Substation - Protective relay replacement and telecommunication changes, and pre-parallel inspection, testing, etc.	$480,000
New Carrizo Plains 230 kV Switching Station – Construct new 3-element breaker-and-half 230 kV substation w/MPAC building	$8,500,000
Subtotal Substation Work	**$9,460,000**
Transmission Line Work	
Reconfigure Morro Bay – Midway 230 kV # 1 Line to loop into new Carrizo Plains 230 kV Switching Station	$400,000
Subtotal Transmission Line Work	**$400,000**
Total Network Upgrades Cost	**$9,860,000**

17.4 Network Upgrades Cost for sensitivity Study # 2– w/o Project Q166

Tables 17-4 shows the cost for Network Upgrades required to interconnect the Project to the CAISO Controlled Grid assuming the Q166 Project is not constructed.

Table 17-4 Network Upgrades Cost Estimates

Substation Work	
Morro Bay Substation - Protective relay replacement and telecommunication changes, and pre-parallel inspection, testing, etc.	$480,000
Midway Substation - Protective relay replacement and telecommunication changes, and pre-parallel inspection, testing, etc.	$480,000
New Carrizo Plains 230 kV Switching Station – Construct new 3-element breaker-and-half 230 kV substation w/MPAC building	$8,500,000
Subtotal Substation Work	**$9,460,000**
Transmission Line Work	
Carrizo plain Project – Midway section of the Morro Bay - Midway #1 230 kV Line - Reconductor 34 miles of 230 kV Line	$17,000,000
Morro Bay - Gates #2 230 kV Line - Reconductor 69 miles of 230 kV Line	$34,500,000

Reconfigure Morro Bay – Midway 230 kV # 1 Line to loop into new Carrizo Plains 230 kV Switching Station	$400,000
Subtotal Transmission Line Work	**$51,900,000**
Total Network Upgrades Cost	**$61,360,000**

17.5 Construction Schedule Estimate

The non-binding construction schedule to engineer and construct the facilities based on the assumptions outlined in the ISIS is approximately 36-48 months from the signing of the Large Generator Interconnection Agreement (LGIA). This is based upon the assumption that the environmental permitting obtained by the IC is adequate for permitting all PG&E activities.

Note that if CPUC may require PG&E to obtain a Permit to Construct (PTC) or a Certificate of Public Convenience and Necessity (CPCN) for the tap line or any other work associated with the project, the project could require an additional one to two years to complete. The cost for obtaining any of this type of permitting is not included in the above estimates.

18. Standby Power

The ISIS did not address any requirements for standby power that the Project may require. The IC should contact their PG&E Generation Interconnection Services representative regarding this service.

Note: The IC is urged to contact their PG&E Generation Interconnection Services representative promptly regarding standby service in order to ensure its availability for the project's start-up date.

19. Study Updates

The ISIS was performed according to the assumptions shown in Sections titled "Study Assumptions" and "Power Flow Study Base Cases". If these assumptions are changed, a re-study according to the LGIP may be required to re-evaluate the Project's impact on the CAISO Controlled Grid. The IC would be responsible for paying for any such updating study.

BEFORE THE ENERGY RESOURCES CONSERVATION AND DEVELOPMENT COMMISSION OF THE STATE OF CALIFORNIA

APPLICATION FOR CERTIFICATION *For the CARRIZO ENERGY SOLAR FARM* **PROJECT**	**Docket No. 07-AFC-8** **PROOF OF SERVICE** (Revised 2/5/2008)

INSTRUCTIONS: All parties shall either (1) send an original signed document plus 12 copies or (2) mail one original signed copy AND e-mail the document to the address for the Docket as shown below, AND (3) all parties shall also send a printed or electronic copy of the document, which includes a proof of service declaration to each of the individuals on the proof of service list shown below:

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DECLARATION OF SERVICE

I, Christina Flores, declare that on March 26, 2008, I deposited copies of the attached Carrizo Plain Solar Interconnection System Impact Study Report in the United States mail at Sacramento, CA with first-class postage thereon fully prepaid and addressed to those identified on the Proof of Service list above.

OR

Transmission via electronic mail was consistent with the requirements of California Code of Regulations, title 20, sections 1209, 1209.5, and 1210. All electronic copies were sent to all those identified on the Proof of Service list above.

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

[Original Signed in Dockets]

Christina Flores