STOEL RIVES LLP
ATTORNEYS AT LAW

500 Capitol Mall Suite 1600
Sacramento, California 95814
main 916 447 0700
fax 916 447 4781
www.stoel.com

June 22, 2012

MELISSA A. FOSTER
Direct (916) 319-4673
mafoster@stoel.com

BY HAND DELIVERY

Mr. Eric Solorio, Siting Project Manager
California Energy Commission
1516 Ninth Street
Sacramento, CA 95814

Re: Pio Pico Energy Center Project (11-AFC-1)
California Independent System Operator's Re-Study of C1C2 Phase II Interconnection Study Report, Group Report for the SDG&E Area

Dear Mr. Solorio:

On behalf of Applicant Pio Pico Energy Center, LLC, please find enclosed herewith the California Independent System Operator's Re-Study of C1C2 Phase II Interconnection Study Report, Group Report for the San Diego Gas & Electric Area (the "Study"). Please note that certain portions of the Study were deemed confidential; therefore, those portions deemed as such have been redacted or have been submitted to the Executive Director's office under the July 25, 2011 Designation of Confidentiality.

Should you have any questions regarding this filing, please contact Kim Hellwig or me at (916) 447-0700.

Very truly yours,

Melissa A. Foster

MAF:kjh
Enclosures
cc: See Proof of Service List

California ISO
Shaping a Renewed Future

California Independent
System Operator Corporation

June 4, 2012

Mr. Gary Chandler
President
Pio Pico Energy Center, LLC
2542 Singletree
South Jordan, UT 84095-2769

Subject: Pio Pico Energy Center Project
Re-Study of C1C2 Phase II Report

Dear Mr. Chandler:

Attached is the Re-Study of C1C2 Phase II Report for the interconnection of the proposed Pio Pico Energy Center Project to the CAISO Controlled Grid. The purpose of this C1C2 Phase II Re-Study is to incorporate the results from the C1C2 Phase II Re-assessment and determine which Network Upgrades that were identified in the original Phase II Study are still needed.

If you have any questions, please contact Luba Kravchuk (lkravchuk@caiso.com or 916.608.5877).

Sincerely,

Robert Sparks
Manager of Regional Transmission - South

Attachment

via e-mail:

Gary Chandler (grchandler@apexpowergroup.com)
Khoang Ngo (KNgo@semprautilities.com)
Mariam Mirzadeh (MMirzadeh@semprautilities.com)
GI Engineers (GIEngineers@semprautilities.com)

CAISO via email:

Robert Sparks (Rsparks@caiso.com)
Robert Emmert (remmert@caiso.com)
Judy Brown (JBrown@caiso.com)
Linda Wright (LWright@caiso.com)

Re-Study of C1C2 Phase II Interconnection Study Report

Group Report for SDG&E Area

Final Report

California ISO

Shaping a Renewed Future

June 4, 2012

This study has been completed in coordination with San Diego Gas & Electric Company per CAISO Tariff Appendix Y Generator Interconnection Procedures (GIP) for Interconnection Requests in a Queue Cluster Window

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Appendix B for Re-Study – CAISO Controlled Grid Generation Queue

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Definitions

APS	Arizona Public Service
C1C2 Projects	Cluster 1, Cluster 2, and SGIP Transition Cluster generation projects listed in the CAISO Queue being evaluated in this Phase II Re-Study
CAISO	California Independent System Operator Corporation
CFE	Comisión Federal de Electricidad
CPUC	California Public Utilities Commission
COD	Commercial Operation Date
CT	Combustion Turbine
Cut Plane	SDG&E Cut Plane is the aggregate flow of: South of SONGS (5-230 kV lines), 2-500/230 kV transformer banks at Suncrest Substation, all 500/230 kV transformer banks at Miguel Substation, 1-230 kV Otay Mesa-Tijuana line, and the flow across the Q72 transmission system
Deliverability Assessment	CAISO's Deliverability Assessment
EO	Energy Only Deliverability Status
ECO	SDG&E's proposed East County Substation located between the Imperial Valley and Miguel substations
FC	Full Capacity Deliverability Status
FERC	Federal Energy Regulatory Commission
GIP	Generator Interconnection Procedures
IC	Interconnection Customer
IID	Imperial Irrigation District
IV	Imperial Valley
LFB	Local Furnishing Bond
LGIA	Large Generator Interconnection Agreement
LGIP	Large Generator Interconnection Procedures
Max	Maximum generation output
NERC	North American Electric Reliability Corporation
NG	Natural Gas
PEN	Palomar Energy Switchyard
Phase I Study	Cluster 1 and Cluster 2 Phase I Study
PTO	Participating Transmission Owner
RAS	Remedial Action Scheme (also known as SPS)
POI	Point of Interconnection
POS	Plan of Service
PV	Photovoltaic
RASRS	Remedial Action Schemes Reliability Subcommittee
S	Solar
SCE	Southern California Edison Company
SCIT	Southern California Import Transmission
SDG&E	San Diego Gas & Electric Company
SGIP	Small Generator Interconnection Procedures
SPS	Special Protection System (also known as RAS)
SRPL	Sunrise Powerlink
ST	Steam Turbine
SWPL	Southwest Powerlink
TCA	Transmission Control Agreement
TJI	Tijuana Substation
W	Wind
WECC	Western Electricity Coordinating Council
WT	Wind Turbine

1. Executive Summary

In accordance with the Federal Energy Regulatory Commission (FERC) approved Generator Interconnection Procedures (GIP) for Interconnection Requests in a Queue Cluster Window (CAISO FERC Electric Tariff Appendix Y), a Phase II Study was performed to determine the combined impact of all the Cluster 1, Cluster 2, and Small Generator Interconnection Procedures Transition Cluster projects (C1C2 Projects) on the CAISO Controlled Grid. The Phase II Study report was sent to the Interconnection Customers (ICs) on August 24, 2011.

Subsequent to issuing the original Phase II Study report, the CAISO performed studies (C1C2 Phase II Re-assessment) to re-assess specific upgrades using the criteria in the Technical Bulletin issued January 31, 2012 (and revised February 2, 2012) entitled "Generation Interconnection Procedures: Deliverability Requirements for Clusters 1-4."[1] Applicable C1C2 Projects received addendums detailing the results of the C1C2 Phase II Re-assessment on February 10, 2011. The addendums specified that the SCE Upgrades identified in the original Phase II Study do not apply to the SDG&E area C1C2 Projects. In addition, the C1C2 Phase II Re-assessment identified deliverability constraints and generation dispatch limitations.

The purpose of this C1C2 Phase II Re-Study (Re-Study) is to incorporate the results from the C1C2 Phase II Re-assessment and determine which Network Upgrades that were identified in the original Phase II Study are still needed due to the following:

A. Applying the criteria defined in the CAISO issued Technical Bulletin (January and February 2012) that resulted in dispatch limitations to observe the Path 43 flow limit,

B. Project withdrawals from the queue since the original C1C2 Phase II Study was performed,

C. Current status of earlier queued generation projects with executed Generation Interconnection Agreements with respect to required milestones, and

D. Transmission additions and upgrades approved in the most recent Transmission Planning Process (TPP) cycle.

The Re-Study also identified an additional Network Upgrade to mitigate impacts on a neighboring system identified as an Affected System in the original Phase II Study. This mitigation plan is subject to review and concurrence by the Affected System Operator and must be coordinated with the Affected System Operator and the Interconnection Customers.

In situations where the Re-Study identifies updates to required Network Upgrades and/or Interconnection Facilities, the CAISO will use the results to amend the Generation Interconnection Agreements.

[1] The Technical Bulletin can be accessed on the CAISO website at http://www.caiso.com/Documents/TechnicalBulletin-GeneratorInterconnectionProcedures-DeliverabilityRequirements-Clusters1-4Jan31_2012.pdf

Eleven generation projects totaling a maximum net-output-to-grid of 1,624.5 MW are included in SDG&E's grouping of C1C2 Projects. (This is a 92 MW reduction from the original Phase II Study due to the withdrawal of a project.) The projects consist of two Cluster 1 projects, six Cluster 2 projects, and three Small Generator Interconnection Procedures Transition Cluster (SGIP TC) projects. The Commercial Operation Dates proposed by these projects range from year 2012 to 2016. The study year was revised to reflect SDG&E's 2015 system load and transmission system topology. This study report provides the following:

A. Transmission system impacts caused by the addition of the C1C2 Projects,

B. System reinforcements necessary to mitigate the adverse impacts of the C1C2 Projects under various system conditions studied, and

C. A list of required facilities, a cost responsibility for Network Upgrades assigned to each Interconnection Request, and a non-binding, good faith estimate of the cost and time to construct the upgrades for each Interconnection Request.

To determine the system impacts caused by the C1C2 Projects, the following studies were revised. (The results from all other studies originally performed are considered valid and are not repeated in this report):

A. Deliverability Assessment

B. Steady-State Power Flow

The results of the above studies indicated that the C1C2 Projects are responsible for:

A. Overloading several transmission facilities in the CAISO Controlled Grid, and

B. Increasing the available fault current at the Comisión Federal de Electricidad (CFE) 230 kV bus at Tijuana Substation (connects to Otay Mesa Switchyard).

Network Upgrades[2] within the CAISO Controlled Grid to mitigate identified problems have been proposed in this report. The following tables show a summary of the proposed Network Upgrades in the CAISO Controlled Grid and the estimated costs for these upgrades.

[2] The transmission facilities, beyond the Point of interconnection (POI), necessary to interconnect the Project, which would not have been necessary but for the interconnection of the Project.

Table 1.1: Reliability Network Upgrades

	Description of Upgrade	Cost (x 1,000)
1	Participate in existing Otay Mesa Energy Center Generator SPS for N-1 and N-2 contingencies (included in Mission-Old Town SPS cost)	[redacted]
2	Participate in existing Imperial Valley SPS for multiple N-1 and N-2 contingencies	
3	Participate in proposed ECO 500/230 kV transformer bank outage SPS (included in IV SPS cost)	
4	Implement an SPS to protect ECO 230/138 kV transformer bank for overload or outage	
5	Install current limiting series reactor on Otay Mesa-Tijuana 230 kV line	
	TOTAL	

Table 1.2: Delivery Network Upgrades on SDG&E Transmission System

	Description of Upgrade	Cost (x 1,000)
1	Reconfigure TL23041 and TL23042 at Miguel Substation to create two Otay Mesa-Miguel 230 kV lines	[redacted]
	TOTAL	

The upgrades in Tables 1.1 and 1.2 do not include Interconnection Facilities. The Interconnection Facilities relating to each individual project are discussed in the corresponding Appendix A for Re-Study, Individual Project Report.

In the original study, CFE was identified as an Affected System Operator in the short circuit analysis due to the reconfiguration of TL23041 and TL23042 at the Miguel Substation. This upgrade was identified as a Delivery Network Upgrade. The short circuit study results showed a 27% increase in available fault current at the Tijuana 230 kV bus. Without the details of CFE's system, it is unknown if any circuit breakers are overstressed. Coordination with CFE is required so CFE can perform studies with its detailed system model to determine mitigation to maintain its existing fault duty margin for CFE's future expansion. This Re-Study introduces a current limiting series reactor installed on the Otay Mesa-Tijuana 230 kV line as a mitigation plan to retain CFE's fault duty margin at the Tijuana 230 kV bus.

The CAISO analyses primarily focus on the CAISO system. The definitive analyses of the impacts on Affected Systems are the responsibility of the Affected System Operator to perform. It is the obligation of each Interconnection Customer to work with potentially Affected System Operators, to identify impacts on their systems and mitigate those impacts.

Project-specific confidential information for each project is not included in this Group Report. Each generation project will have its own Individual Project Report in Appendix A. Appendix A will include project information, Point of Interconnection (POI), dynamic models, Reliability Study results, and costs to interconnect and mitigate impacts on the

transmission system. This Group Report includes only general results based on the cumulative impact of the projects evaluated in this Phase II Re-Study.

Given the magnitude of the identified Network Upgrades, a good faith estimate to license/permit, design, procure material, and construct the SDG&E facilities could be 18 months from the submittal of written authorization to proceed after the execution of all required Generator Interconnection Agreements (GIAs).

2. Cluster Interconnection Information

Eleven (11) generation projects totaling a maximum net-output-to-grid of 1,624.5 MW are included in SDG&E's C1C2 Projects Phase II Re-Study. Table 2.1 lists SDG&E's C1C2 Projects with essential data obtained from the CAISO Controlled Grid Generation Queue (see Appendix B for Re-Study). C1C2 Projects in SDG&E's Phase II Re-Study utilize various fuel resources. Two (2) generation projects utilize wind turbines, seven (7) generation projects utilize solar photovoltaic systems, and two (2) generation projects utilize natural gas-fired generation.

Table 2.1: SDG&E C1C2 Projects

CAISO Queue Position	Point of Interconnection	Max MW	FC/EO	Fuel/Type	Commercial Operation Date *(Note 1)*
493	Sunrise Powerlink 500 kV Line	299	FC	Wind / Wind Turbine	12/15/2012
510	Imperial Valley Substation 230 kV Bus	200	FC	Solar / PV	1/1/2016
561	Imperial Valley Substation 230 kV Bus	200	FC	Solar / PV	12/1/2014
565	Carlton Hills Substation 138 kV Bus	100	FC	Natural Gas / Reciprocating Engine	5/15/2014
574	Otay Mesa Substation 230 kV Bus	308	FC	Natural Gas / Combustion Turbine	5/1/2014
583	Boulevard Substation 138 kV Bus	57.5	EO	Wind / Wind Turbine	7/14/2014
590	Imperial Valley Substation 230 kV Bus	150	FC	Solar / PV	9/30/2013
608	Imperial Valley Substation 230 kV Bus	250	FC	Solar / PV	1/1/2016
621	Imperial Valley Substation 12 kV Bus	20	EO	Solar / PV	10/1/2012
644A	ECO Substation 138 kV Bus	20	EO	Solar / PV	2/1/2016
653ED	Boulevard Substation 69 kV Bus	20	EO	Solar / PV	10/31/2014
	Total Generation	**1,624.5**			

Note 1: Some dates differ from the CAISO Queue due to revisions provided by the ICs

SDG&E performed the Reliability Study under the direction of the CAISO. For the Reliability Study, all Cluster 1, Cluster 2, and SGIP Transition Cluster generator projects were dispatched and studied simultaneously. Figure 2.1 shows the proposed generator interconnections at Boulevard East Substation, East County (ECO) Substation, Imperial Valley Substation, and Sunrise Powerlink. Figure 2.2 shows the two projects in the internal SDG&E transmission service territory.

Figure 2.1: C1C2 Project Interconnections in East

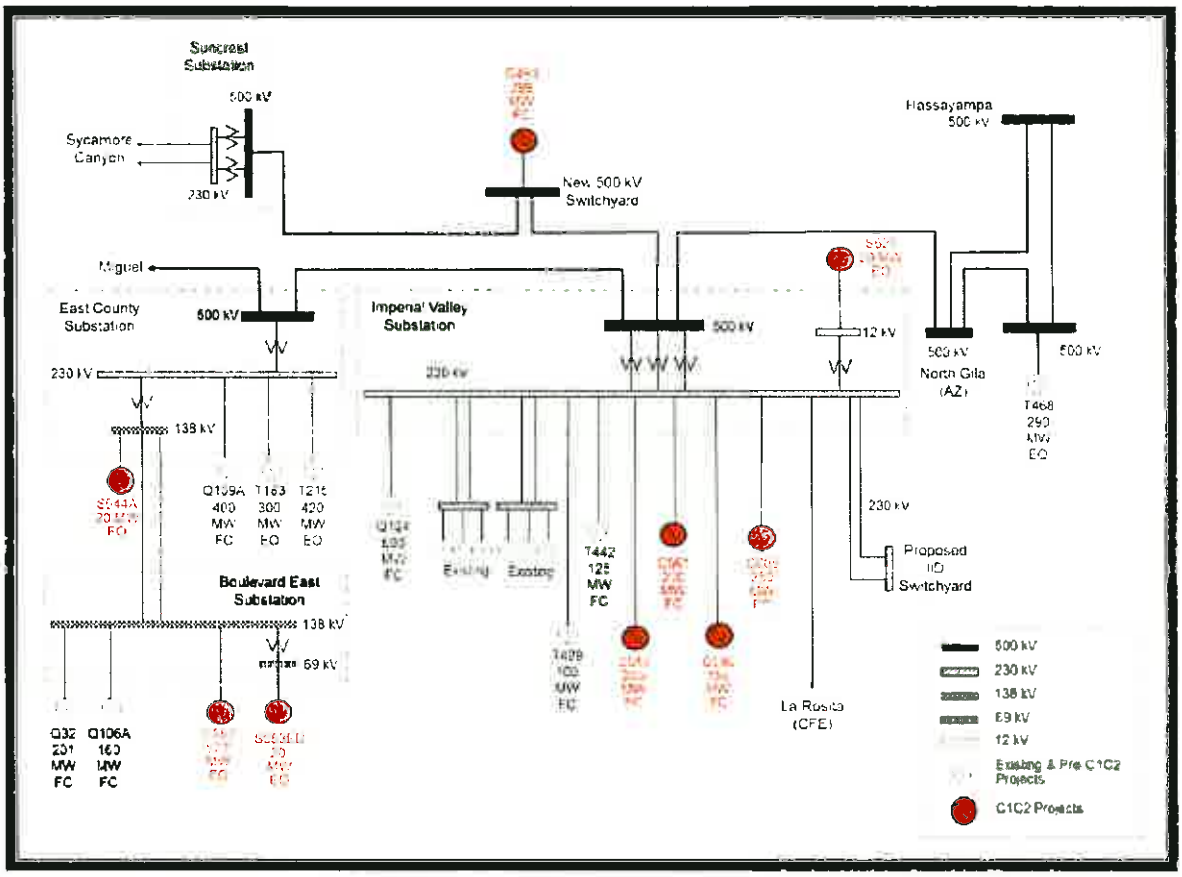
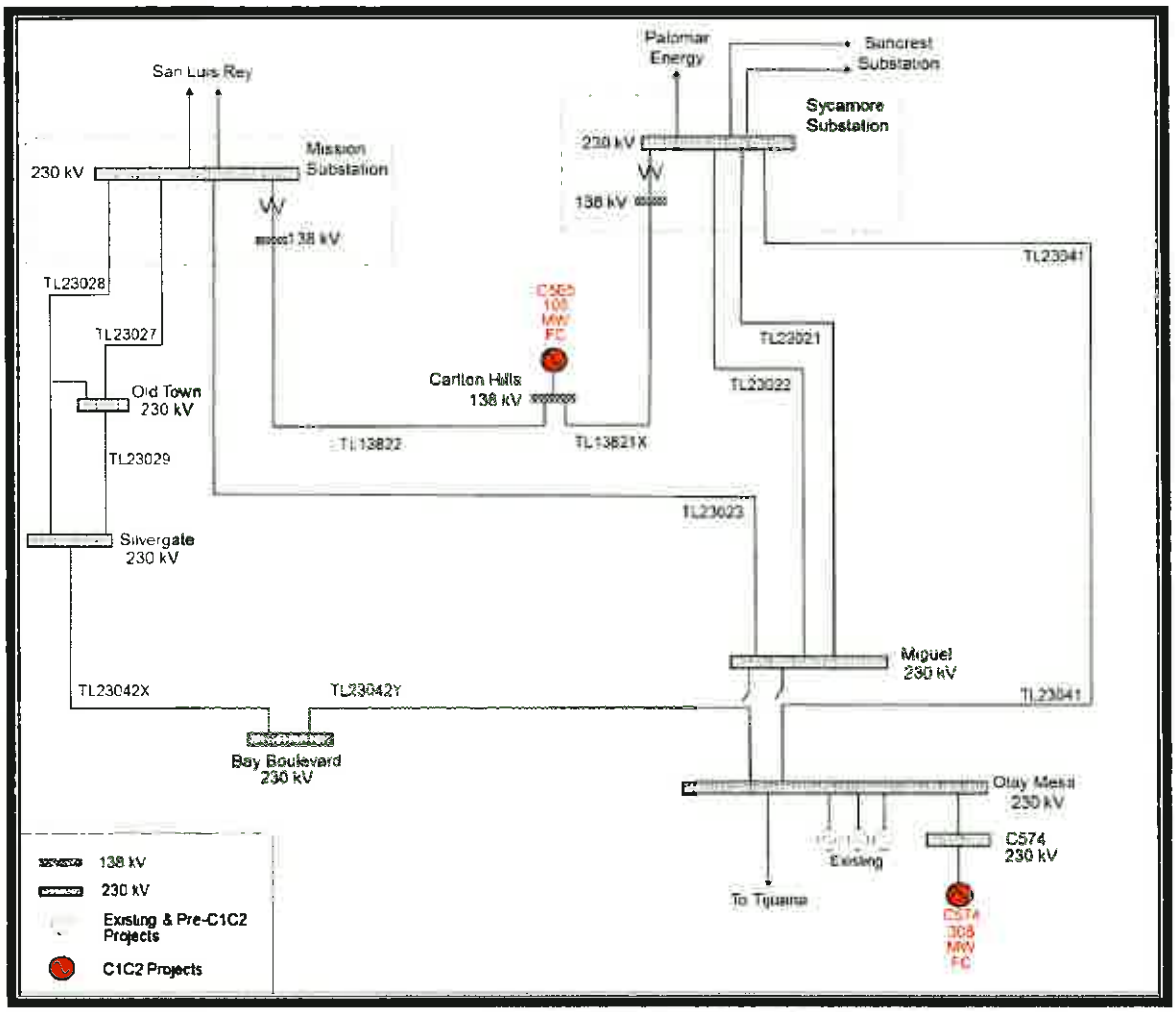


Figure 2.2: C1C2 Project Interconnections for Internal Area



3. Study Objectives

The purpose of this C1C2 Phase II Re-Study (Re-Study) is to incorporate the results from the C1C2 Phase II Re-assessment and determine which Network Upgrades that were identified in the original Phase II Study are still needed due to the following:

A. Applying the criteria defined in the CAISO issued Technical Bulletin (January and February 2012) that resulted in dispatch limitations to observe the Path 43 flow limit,

B. Project withdrawals from the queue since the original C1C2 Phase II Study was performed,

C. Current status of earlier queued generation projects with executed Generation Interconnection Agreements with respect to required milestones, and

D. Transmission additions and upgrades approved in the most recent Transmission Planning Process (TPP) cycle.

The Re-Study also identified an additional Network Upgrade to mitigate impacts on a neighboring system identified as an Affected System in the original Phase II Study. This mitigation plan is subject to review and concurrence by the Affected System Operator and must be coordinated with the Affected System Operator and the Interconnection Customers.

In situations where the Re-Study identifies updates to required Network Upgrades and/or Interconnection Facilities, the CAISO will use the results to amend the Generation Interconnection Agreements.

4. Study Assumptions

4.1 Power Flow Base Cases

4.1.1 Deliverability Assessment

The Deliverability Assessment was performed by the CAISO to identify which of the Network Upgrades that were identified in the original C1C2 Phase II Study are still needed. The base cases studied reflect a 2015 SDG&E system configuration with all CAISO-approved transmission projects through 2015. In addition, pre-C1C2 Projects that are currently active were modeled. A second Hassayampa-North Gila 500 kV transmission line planned for 2014 in the Arizona Public Service (APS) service territory was included in the base cases.

4.1.2 Reliability Study

The Reliability Study re-evaluated the C1C2 Projects under the Heavy Summer and Light Load system conditions. The SDG&E transmission system topology used for the Reliability Study base cases was the same as for the Deliverability Assessment. In an attempt to capture the most adverse condition, the Reliability Study modeled simultaneous maximum dispatch for both pre-C1C2 Projects (higher-queued), with In-Service Dates within the 2015 timeframe, and C1C2 Projects in the electrical vicinity of the projects being studied. 230 kV and 500 kV facilities in the APS and CFE transmission systems and the 92 kV, 161 kV, and 230 kV facilities in the Imperial Irrigation District (IID) transmission system were monitored for adverse impacts caused by the addition of the C1C2 Projects.

The cases used for evaluating the steady-state thermal loading and SDG&E operating voltages are listed in Table 4.1.

Table 4.1: Reliability Study Cases

Case Name
C1c2_hs_restudy_base.sav
C1c2_ll_restudy_base.sav

4.2 Load and Import

4.2.1 Deliverability Assessment

The Deliverability Assessment On-Peak case modeled 5,176 MW load + losses (the latest 1-in-5 load forecast received from the California Energy Commission (CEC) in February 2012) in the SDG&E system with an import target as shown in Table 4.2.

An Off-Peak Deliverability Assessment was not performed because the C1C2 Projects that triggered Delivery Network Upgrades during the Off-Peak condition in the original Phase II Study have been withdrawn or converted to EO Deliverability Status, therefore, those Delivery Network Upgrades are no longer needed.

Table 4.2: On-Peak Deliverability Assessment Import Target

Branch Group (BG) Name	BG Import Direction	Net Import MW	Import Unused ETC MW
LUGO-VICTORVILLE-BG	N-S	1306	171
COI_BG	N-S	3770	548
BLYTHE_BG	E-W	90	0
CASCADE_BG	N-S	17	0
CFE_BG	S-N	-95	0
ELDORADO_MSL	E-W	1011	0
IID-SCE_BG	E-W	315	0
IID-SDGE_BG	E-W	-159	0
LAUGHLIN_BG	E-W	-41	0
MCCULLGH_MSL	E-W	14	316
MEAD_MSL	E-W	350	585
NGILABK4_BG	E-W	-105	168
NOB_BG	N-S	1283	0
PALOVRDE_MSL	E-W	2899	124
PARKER_BG	E-W	123	22
SILVERPK_BG	E-W	0	0
SUMMIT_BG	E-W	-8	0
SYLMAR-AC_MSL	E-W	-72	459

4.2.2 Reliability Study

The Reliability Study re-evaluated the impact of the proposed C1C2 Projects for the 2015 Heavy Summer and Light Load system conditions.

The Heavy Summer case represents SDG&E system modeled with a 5,342 MW (load + losses) target (this 1-in-10 CEC load forecast differed from the 1-in-5 load used in the Deliverability Assessment) and a moderate Cut Plane import target.

The Light Load case represents SDG&E system modeled with a 2,938 MW (load + losses) target (55% of the 1-in-10 CEC load forecast) and a moderate Cut Plane import target.

While it is impractical to study all combinations of system load and generation levels during all seasons and at all times of the day, the base cases were developed to represent a stressed scenario of loading and generation conditions for the C1C2 Projects. The load, resource, and dispatch summary table is included in Appendix C.

4.3 Generation Dispatch

The generation dispatch differed for the Deliverability Assessment and the Reliability Study as follows:

4.3.1 Deliverability Assessment

The generation dispatch in the Re-Study followed the same guidelines as the original Phase II Study. More details about the dispatch used in the Deliverability Assessment can be found in the Deliverability Assessment Methodologies.

4.3.2 Reliability Study

In the Reliability Study, an attempt was made to dispatch all generation in the study area, including SDG&E's pre-C1C2 Projects, at maximum generation output. Pre-C1C2 Projects with an In-Service Date later than 2015 were modeled, but not dispatched. Curtailment of existing or higher-queued generation was required for certain scenarios as discussed in Section 7. The base case assumptions are listed in Table 4.3.

SDG&E's Out-of-Basin generation includes existing and proposed generation interconnected at the ECO Substation, Boulevard East Substation, Imperial Valley Substation, Imperial Valley-Suncrest 500 kV transmission line (Sunrise Powerlink), and North Gila-Hassayampa 500 kV transmission line.

Table 4.3: Reliability Study Base Case Assumptions, MW

		Heavy Summer	Light Load
		Post-C1C2 Projects case	Post-C1C2 Projects case
CAISO Load +Losses			
SDG&E			
	Load+Losses	5397	2872
	Area Generation	5866	3721
	Exports	469	849
SDG&E Cut Plane		2523	1766
In-Basin Generation		2744	1029
Out-of-Basin Generation		3093	2693
PG&E			
	Load+Losses	29773	15136
	Area Generation	24815	13283
	Exports	-4959	-1853
SCE			
	Load+Losses	26213	15354
	Area Generation	19681	8180
	Exports	-6532	-7174
IID			
	Load+Losses	1051	528
	Area Generation	1264	991
	Exports	213	463
CFE			
	Load+Losses	2493	1157
	Area Generation	2393	1507
	Exports	-100	350
Arizona (Area 14)			
	Load+Losses	22644	10679
	Area Generation	29541	17579
	Exports	6897	6900
Path 43 (North of SONGS) "+" flow is exiting SDG&E		2250	2380
Path 44 (South of SONGS) "-" flow is exiting SDG&E and "+" flow is entering SDG&E		-100	-230
Path 45 (CFE-SDG&E) "+" flow is entering SDG&E		-100	350
Path 66 (COI)		2080	2206
SCIT (Southern CA Import Transmission)		11973	6278

4.4 New Transmission Projects

All CAISO-approved projects with a proposed In-Service Date before or in 2015 were modeled in the base cases. In addition, some CAISO-approved projects that are expected to be operational after that time or SDG&E-approved projects were included if the CAISO and SDG&E agreed to the reasons for including those projects. Table 4.4 lists the planned SDG&E system additions and upgrades modeled in the cases.

Table 4.4: Planned SDG&E System Additions and Upgrades

Project
Proposed East County (ECO) 500/230/138 kV Substation *(Note 1)*
Proposed Boulevard East 138/69/12 kV Substation *(Note 1)*
Proposed Boulevard East-ECO 138 kV Transmission Line *(Note 1)*
Sunrise Powerlink 500 kV Transmission Project
Bay Boulevard Substation - South Bay Substation Relocation Project *(Note 2)*
Reconfigure Carlton Hills-Sycamore-Santee and Carlton Hills-Mission to Carlton Hills-Sycamore and Sycamore-Santee 138 kV Transmission Lines
Reconductor Talega-Pico 138 kV Transmission Line
New San Mateo-Laguna Niguel 138 kV Tap
New Escondido- Ash 69 kV Transmission Line # 2
Reconductor Poway-Pomerado 69 kV Transmission Line
Upgrade terminal line equipment on TL642B Sweetwater – Montgomery Tap 69 kV *(Note 3)*
Upgrade TL644 South Bay – Sweetwater 69 kV
New Sycamore-Bernardo 69 kV Transmission Line
New and/or Upgrade of 69 kV Capacitors Banks
TL626 Santa Ysabel – Descanso mitigation (Loop Loveland – Barrett Tap (TL625B) into Loveland substation and eliminate Barrett tap)
Reconductor TL663, Mission-Kearny 69 kV Transmission Line
Reconductor TL670, Mission-Clairemont 69 kV Transmission Line
Reconductor TL676, Mission-Mesa Heights 69 kV Transmission Line
Loop TL694A 69 kV Transmission Line into Melrose substation
Replacement of Los Coches 138/69 kV Bank 50 and Bank 51
Modified - South Orange County Reliability Enhancement Project
Reconductor TL631, El Cajon – Los Coches 69kV Transmission Line
Reconductor TL633, Bernardo – Rancho Carmel 69kV Transmission Line
Reconductor TL695B, Japanese Mesa – Talega Tap 69kV Transmission Line
Replacement of Talega Bank 50

Note 1: The Administrative Law Judge issued the Proposed Decision approving the Permit to Construct for the ECO Substation which will go to the California Public Utilities Commission for approval at the June 21, 2012 meeting. Boulevard East is the new name for the Boulevard Substation Rebuild project, representing the 138 kV upgrade of the existing Boulevard 69 kV Substation. Boulevard East was modeled in the base cases. With this new substation, the existing Boulevard-Crestwood 69 kV transmission line was also opened (normal open), establishing a radial connection between Boulevard East and the proposed ECO 500/230/138 kV Substation.

Note 2: The Permit to Construct for the South Bay Relocation Project is currently under review by the CPUC and a draft environmental impact report (EIR) is expected in June 2012. The final environmental impact report (FEIR) should be approved before the end of 2012. The review of the coastal permit by the California Coastal Commission is awaiting the CPUC decision. The relocated substation will be named Bay Boulevard

Note 3: This project does not require CAISO approval. SDG&E intends to increase the rating of the line. The proposed rating was modeled to ensure that it is adequate for this cluster study.

4.5 Pre-C1C2 Projects

All pre-C1C2 Projects, as listed in Table 4.5, were modeled in the base cases. However, some generation projects were either turned off or modeled with reduced output to create a more stressed case for the Reliability Study, to observe generation dispatch limitations as discussed in Section 7.2, or to balance the loads and resources in the power flow model.

Table 4.5: Pre-C1C2 Projects

Queue Position	Point of Interconnection
13	Olivenhain-Bernardo-Rancho Santa Fe 69 kV Line
32	Boulevard Substation 138 kV
72	Proposed Lee Lake Substation *(Note 1)*
103	Border Substation 69 kV
106A	Boulevard Substation 138 kV
124	Imperial Valley Substation 230 kV Bus
137	Encina Substation 230kV Bus
150	Border Substation 69 kV
159A	Imperial Valley-Miguel via proposed ECO 500/230 kV Sub 230 kV Bus
183	Imperial Valley-Miguel via proposed ECO 500/230 kV Sub 230 kV Bus
189	Encina 138 kV Substation
215	Imperial Valley-Miguel via proposed 230/500 kV Sub 230 kV Bus
337	Borrego Substation 69 kV
429	Imperial Valley Substation 230 kV
442	Imperial Valley Substation 230 kV
468	Hassayampa-North Gila 500 kV Line
480	Borrego Substation 69 kV
WDAT #2	Borrego 12 kV

Note 1: This project and its Network Upgrades are not being modeled per the CAISO issued Technical Bulletin - Generator Interconnection Procedures: Deliverability Requirements for Cluster 1-4, Revised February 2, 2012.

Reliability Network Upgrades and Delivery Network Upgrades associated with the projects listed in Table 4.5 were evaluated to see if they were still needed. If the Network Upgrades were still needed, they were modeled in the base cases if they were identified in the cluster process or if there is an executed Generator Interconnection Agreement (GIA) with the Interconnection Customer and the mitigation is listed in the GIA. Network Upgrades for pre-C1C2 Projects that were still needed are listed in Table 4.6.

Table 4.6: Network Upgrades and SPSs for Pre-C1C2 Projects

Project
Participate in existing Imperial Valley SPS for multiple N-1 and N-2 contingencies for Imperial Valley, Boulevard East, ECO substations and/or the C493 switchyard
Imperial Valley 500/230 kV Transformer Bank #3
Reconductor Border-Border Tap 69 kV, Otay-Otay Lakes Tap 69 kV, and Otay Lakes Tap-San Ysidro 69 kV Transmission Lines
SPS for generators connected to Border 69 kV Substation
SPS to trip generators connected to Encina to protect San Luis Rey 138/69 kV transformer and Cannon-San Luis Rey 138 kV line
Dispatch limitation and accompanying SPS for generation connected to ECO or Boulevard East to a maximum of 1,150 MW
Implement an SPS to trip generation for the overload or outage of the Borrego-Narrows 69 kV line or the outage of the Narrows-Warners 69 kV line

4.6 Other SPSs and Operator Actions

4.6.1 Imperial Valley SPS

The output from the existing and queued generation connected to the Imperial Valley Substation must comply with the CAISO generation tripping limitation of 1,150 MW for a Category B contingency and 1,400 MW tripping limitation of net generation, for a Category C contingency. New generation in the area (a project connecting to Imperial Valley and/or Boulevard East and/or ECO substations and/or the C493 switchyard) will also be required to participate in the existing Imperial Valley generation SPS, which mitigates adverse impacts to the SDG&E, CFE, and IID transmission systems by tripping generation following various N-1 and N-2 contingencies. (CFE has an internal SPS that monitors the CFE 230 kV lines, La Rosita–Rumorosa and La Rosita-Herradura. During non-summer operation, if loading is above 388 MVA on either line and TL23050 (Imperial Valley–La Rosita 230 kV line) flow is from Imperial Valley to La Rosita, a trip signal will be sent in two seconds to open TL23050. During summer operation, TL23040 (Otay Mesa-Tijuana) is tripped instead of TL23050).

The following 500 kV contingencies will result in tripping of generation projects connecting to the Imperial Valley and/or Boulevard East and/or ECO substations and/or the C493 switchyard:

A. Category B contingencies with up to 1,150 MW of generation tripping

1. Imperial Valley-ECO 500 kV line (eastern segment of Southwest Powerlink (SWPL) after looping into ECO)

2. ECO-Miguel 500 kV line (western segment of SWPL after looping into ECO)

3. Imperial Valley-C493 500 kV line (segment of Sunrise Powerlink (SRPL) after looping into C493)

4. C493-Suncrest 500 kV line (segment of Sunrise Powerlink after looping into C493)

B. Category C contingencies with up to 1,400 MW of generation tripping

1. Imperial Valley-ECO 500 kV line (segment of SWPL after looping into ECO) and Imperial Valley-C493 500 kV line (segment of Sunrise Powerlink after looping into C493).

2. North of Miguel N-2

A. Miguel-Mission 230 kV lines #1 and #2

B. Miguel-Sycamore 230 kV lines #1 and #2

3. Imperial Valley Stuck Breaker

A. Imperial Valley-North Gila 500 kV line and Imperial Valley 500/230 kV transformer bank

B. Imperial Valley-C493 500 kV line and Imperial Valley 500/230 kV transformer bank

The existing IV SPS is based on the two 500 kV (one to North Gila and one to Miguel) and the two 230 kV transmission lines (one to IID and one to CFE) as outlets at the IV Substation. After the Sunrise Powerlink is in-service, the IV SPS with its current modules/logic would no longer be needed until more generation connects to the IV Substation and substantiates the need for the SPS again. CAISO and SDG&E Grid Operations are planning to remove the IV SPS from service in the near future. However, the equipment will remain in place and as more generation develops, and if the need for the IV SPS is identified in studies, the IV SPS will be returned to service.

All new SPSs and modifications to existing SPSs are subject to review by Affected System Operators, members of the Imperial Valley RAS Technical Committee, and review and approval by WECC RASRS.

4.6.2 Operating Procedures

Additional provisions and operating procedures (which may include curtailing the output of C1C2 Projects during planned or extended forced outages) may be required for reliable operation of the transmission system. These procedures, if needed, will be developed before the projects' Commercial Operation Dates in coordination with CAISO Grid Operations and SDG&E Grid Operations.

5. Study Criteria and Methodology

The information in this section did not change from the original study. See original Group Report dated August 24, 2011.

6. Deliverability Assessment

The Deliverability Assessment was performed by the CAISO according to the On-Peak and Off-Peak Deliverability Assessment Methodologies posted on the CAISO website at: http://www.caiso.com/1c44/1c44b5c31cce0.html. See original Group Report dated August 24, 2011 for more details on the process and assumptions used to perform the Re-Study.

Due to the updated study assumptions, the following Network Upgrades that were identified in the Deliverability Assessment in the original C1C2 Phase II Study are no longer needed:

A. Implement an SPS to protect Mission-Old Town 230 kV line for N-2 contingencies

B. Implement an SPS to trip the San Luis Rey 138/69 kV transformer bank to prevent overload of Cannon-San Luis Rey 138 kV line for an N-2 (Some C1C2 projects contributed to an overload on the Cannon-San Luis Rey 138 kV line and San Luis Rey 138/69 kV transformer following the N-2 outage of Encina-San Luis Rey 230 kV and Encina-San Luis Rey-Palomar 230 kV lines. The Re-Study identified the preferred mitigation to be implementation of an SPS to trip generation. Because tripping the C1C2 Projects is marginally effective in eliminating the overload, other more effective generators will be participating in the SPS and the C1C2 Projects are not expected to be included in this SPS)

C. Install 2nd ECO 230/138 kV transformer bank

D. Reconductor Escondido-Palomar Energy 230 kV lines #1 and #2

E. Reconductor Friars-Doublet Tap 138 kV line

The following Network Upgrades that were identified in the Deliverability Assessment in the original Phase II Study are still needed:

A. Participate in existing Otay Mesa Energy Center Generator SPS for N-1 and N-2 contingencies

B. Reconfigure TL23041 and TL23042 at Miguel Substation to create two Otay Mesa-Miguel 230 kV lines

Prior to the distribution of this Phase II Re-Study, some C1C2 Projects received addendums that documented studies performed by the CAISO (C1C2 Phase II Re-assessment) to re-assess specific upgrades by applying the criteria in the Technical Bulletin issued January 31, 2012 (and revised February 2, 2012) entitled "Generation Interconnection Procedures: Deliverability Requirements for Clusters 1-4." Those addendums to the Appendix As of the C1C2 Phase II report contained a revised identification of Network Upgrades resulting from the Re-assessment. Applicable C1C2 Projects received addendums detailing the results of the C1C2 Phase II Re-assessment on February 10, 2011. The addendums specified that the SCE Upgrades identified in the original Phase II Study do not apply to the SDG&E area C1C2 Projects. The C1C2 Phase II Re-assessment also identified deliverability constraints and generation dispatch limitations. In addition, two C1C2 projects received addendums unrelated to the Re-assessment. This Phase II Re-Study incorporates the results from all prior addendums and the results are presented below.

The C1C2 Phase II Re-Study removed the upgrades that met the criteria specified in the Technical Bulletin. The following project and its associated upgrades that affect the SDG&E area study met the criteria for removal:

Q72 and associated upgrades

Table 6.1 lists the deliverability constraint identified in the Re-Study as a result of the removal of the Q72 project and its associated upgrades.

Table 6.1: Deliverability Constraint

Contingency	Limiting Facility
Normal condition	Path 43 (North of SONGS) path rating

Due to the above constraint, between 600 and 1400 MW of generation in the SDG&E area cannot be dispatched. The lower value is based on the assumption that Encina units 4, 5, and the gas turbine (GT) (644 MW total) and Cabrillo II generation (188 MW) will not be repowered. If these units are repowered, their deliverability may need to be preserved, and more generation will have to be limited.

In the scenario where Encina units 4, 5, and the GT are not repowered, the Re-Study identified an N-0 overload on the Miguel-Bay Boulevard 230 kV line. Since this overload is caused by the removal of existing generation, its mitigation is not being assigned to C1C2 generators. An overload on this line was identified in the CAISO's 2011/2012 Transmission Planning Process and it is expected to be mitigated through that process[3]. There is a possibility that when Bay Boulevard Substation is constructed, the rating of the Miguel-Bay Boulevard 230 kV line could be greater than what was modeled, and this higher rating may be sufficient to eliminate the identified overload.

Table 6.2 provides the approximate number of MWs that are deliverable if Q72 and its associated transmission upgrades are not in-service. Given that there is approximately 3,800 MW of generation in the CAISO queue that significantly flow across the deliverability constraint shown in Table 6.1, approximately 2,400 MW to 3,200 MW can be accommodated as fully deliverable without the need for major upgrades similar to Q72 upgrades. As a comparison, the renewable portfolios under study in the 2011/2012 CAISO Transmission Planning Process have no more than approximately 1,000 MW to 2,000 MW of generation that significantly flow across the constraint.

Table 6.2: Summary of Results – SDG&E Area

Contingency	Low End of Range	High End of Range
Deliverable MW in SDG&E area	2400	3200

[3] The final 2011/2012 Transmission Plan report is available at http://www.caiso.com/Documents/Board-approvedISO2011-2012-TransmissionPlan.pdf

Table 6.3 lists the set of proposed generation projects for the deliverability constraint and Table 6.4 lists the shift factors on the constraint. The proposed generation dispatch by CREZ in the lower level of withdrawal case is also shown in Table 6.4.

Table 6.3: Generation Projects Contributing to the North of SONGS Deliverability Constraint

Generation Projects Contributing to the North of SONGS Deliverability Constraint			
Project Q#	**POI**	**Pmax**	**CREZ**
13	Olivehain-Bernardo-Rancho Santa Fe 69 kV line	40	Non-CREZ
32	Boulevard Station 138 kV Bus	201	San Diego South
103	Border Sub 69 kV Bus	27	Non-CREZ
106A	Boulevard Sub 138 kV Bus	160	San Diego South
124	Imperial Valley Substation 230 kV bus	600	Imperial – SDG&E
137	Encina Substation 230 kV bus	260	Non-CREZ
150	Border Substation	47.4	Non-CREZ
159A	Imperial Valley-Miguel new 230/500 kV Sub 230 kV bus	400	San Diego South
169	Encina 138kV Substation	260	Non-CREZ
337	Borrego Substation 69 kV	25.75	Non-CREZ
429	Imperial Valley Substation	100	Imperial - SDG&E
442	Imperial Valley 230 kV	125	Imperial - SDG&E
493	Sunrise Powerlink 500 kV line	299	Imperial - SDG&E
510	Imperial Valley Substation 230 kV bus	200	Imperial - SDG&E
561	Imperial Valley Sub 230 kV bus	200	Imperial - SDG&E
565	Carlton Hills 138 kV	100	Non-CREZ
574	Otay Mesa Sub 230 kV Bus	303	Non-CREZ
590	Imperial Valley Sub 230 kV bus	150	Imperial - SDG&E
608	Imperial Valley Sub 230 kV bus	250	Imperial - SDG&E
Total MW		**3753**	

Table 6.4: Shift Factors by CREZ

Shift Factors and Dispatch by CREZ			
Limiting Facility	Path 43 (North of SONGS)		
Contingency	Normal		
	PMAX	Shift Factors	PGEN
Imperial - SDG&E	1924	0.26	868.6
San Diego South	761	0.33	275.5
Non-CREZ	1068	0.59 - 0.42	1037.2

6.1 Required Network Upgrades

6.1.1 Participate in Existing Otay Mesa Energy Center Generator SPS

This upgrade is still needed and the original scope of work is unchanged:

Modify existing SPS that trips generation at Otay Mesa for outages of Otay Mesa-Miguel 230 kV lines

6.1.2 Reconfigure TL23041 and TL23042 at Miguel to create two Otay Mesa-Miguel 230 kV lines

This upgrade is still needed and the original scope of work is unchanged:

Reconfigure TL23041 and TL23042 at Miguel to create two Otay Mesa-Miguel 230 kV lines

7. Reliability Study Steady-State Analysis

7.1 Detailed Base Case Assumptions

The Reliability Study re-evaluated SDG&E's transmission system under stressed conditions. The steady-state studies identified thermal overloads due to the simultaneous dispatch of all C1C2 Projects. C1C2 Projects were dispatched as one cluster.

The steady-state power flow analysis in the Reliability Study was performed to ensure that with the proposed interconnections SDG&E's transmission system remains in compliance with North American Electric Reliability Corporation (NERC) reliability standards TPL-001, 002, 003 and 004. The results of this power flow analysis will serve as documentation that the reliability impacts of new facilities and their connections on interconnected transmission systems are evaluated.

The CAISO and SDG&E cannot guarantee that C1C2 Projects can operate at maximum rated output at all times without adverse system impacts, especially during the times and seasons not studied in the Phase II Re-Study.

A 2015 Heavy Summer power flow base case was used for the analysis in the Phase II Re-Study. The Phase II Re-Study Reliability Study Heavy Summer case modeled all CAISO approved projects in the SDG&E area. The SDG&E system was modeled with a 5,342 MW (load + losses) target (1-in-10 CEC 2015 load forecast), a moderate Cut Plane import target, and moderate In-Basin generation. The Heavy Summer case includes transmission system topology updates provided by CFE and IID. IID's area export matched the WECC Heavy Summer approved base case (14hs3sa.sav). CFE requested an import (SDGE to CFE) of 100 MW for the 2015 Heavy Summer due to CFE generation retiring or not developed as planned. The loads and topology of other WECC areas replicated the 14hs3sa.sav case.

A 2015 Light Load power flow base case was used for the analysis in the Phase II Re-Study. The Light Load case modeled all CAISO approved projects in the SDG&E area. The SDG&E system was modeled with a 2,938 MW (load + losses) target (55% of the 1-in-10 CEC 2015 load forecast), a moderate Cut Plane import target, and moderate In-Basin generation. IID's area export matched the WECC 2014 Light Autumn approved base case (14la1sa.sav). The Light Load case includes transmission system topology updates provided by CFE and IID. CFE is modeled exporting 350 MW from CFE to SDG&E to create a stressed scenario. The loads and topology of other WECC areas replicated the 14la1sa.sav.

All C1C2 Projects were modeled at Pmax simultaneously. While it is impractical to study all combinations of system load and generation levels during all seasons and at all times of the day, the base case represents extreme loading and generation conditions for the study area.

CAISO approved transmission projects and proposed generation projects and associated Network Upgrades were modeled as noted in Section 4. See Appendix C for Re-Study for additional details regarding SDG&E generation dispatch.

The Deliverability Assessment identified one Reliability Network Upgrade (RNU) and one Delivery Network Upgrade (DNU). All upgrades identified in the Deliverability Assessment were modeled in the Reliability Study Post-C1C2 cases, as listed in Tables 7.1 and 7.2.

Table 7.1: Deliverability Assessment Identified RNUs Modeled in the Reliability Study

	Description of Upgrade
1	Participate in existing Otay Mesa Energy Center Generator SPS for N-1 and N-2 contingencies

Table 7.2: Deliverability Assessment Identified DNUs Modeled in the Reliability Study

	Description of Upgrade
1	Reconfigure TL23041 and TL23042 at Miguel Substation to create two Otay Mesa-Miguel 230 kV lines

7.2 Reliability Study Steady-State Results

SDG&E's Reliability Study dispatched all C1C2 Projects regardless of Deliverability Status. Dispatched generation includes existing and queued generation. The results of the Reliability Study's steady-state power flow analysis for the C1C2 Projects are shown in Appendix D for Re-Study.

Not all pre-C1C2 Projects may be simultaneously dispatched at rated output due to the constraints summarized below:

A. Generation projects interconnecting to ECO and **Boulevard** East substations are limited to 1,150 MW due to the CAISO N-1 generation tripping limit (for N-1 of a single ECO 500/230 kV transformer bank). The output of higher-queued projects connecting to Boulevard East or ECO substations was reduced[4]. Generators connecting at Boulevard East or ECO substations will be required to participate in the proposed ECO/Boulevard East SPS which trips all dispatched generation connected at ECO 230 and/or 138 kV and Boulevard East substations in the event of an N-1 of the ECO 500/230 kV transformer.

B. Generation projects interconnecting to Boulevard East Substation and ECO 138 kV bus are limited due to the continuous loading limit of 392 MVA on the single ECO 230/138 kV transformer bank. An accompanying SPS will be implemented to trip this generation to prevent the ECO 230/138 kV transformer bank from overloading under N-0 conditions. This limitation is not needed for pre-C1C2 Projects but dispatching generation from C1C2 Projects connected to the Boulevard East Substation or ECO 138 kV bus may overload the ECO 230/138 kV transformer bank. C1C2 Projects connecting at Boulevard East Substation and the ECO 138 kV bus will be required to participate in the N-0 dispatch limitation to maintain loading less than the 392 MVA continuous limit of the single ECO 230/138 kV transformer bank. Also, generation will be tripped with the outage of the ECO 230/138 kV transformer bank.

[4] Higher-queued Projects, Q189 and Q215, have In-Service Dates beyond 2016. The In-Service Dates are 2018 and 2020, respectively. Q189 and Q215 were modeled in the case and not dispatched to represent the dispatch for the 2015 year of study.

C. Constraints also included observing the Path 43 (North of SONGS) maximum flow limit of 2,440 MW. The maximum output of the generation at Imperial Valley Substation and C493 combined, 1,944 MW Heavy Summer or 1,544 MW Light Load, is the limit to adhere to the Path 43 flow limit.

7.2.1 Steady-State Thermal Results for C1C2 Projects in SDG&E System

The scenarios studied include Network Upgrades identified in the Deliverability Assessment, as noted in Tables 7.1 and 7.2, and dispatch constraints, as noted in Section 7.2. C1C2 Projects injecting into the 138 kV side of the ECO 138/230 kV transformer, at Boulevard Substation and the ECO 138 kV bus, overload the 230/138 kV ECO bank N-0 for both the Heavy Summer scenario and the Light Load sensitivity. However, since some of the projects have requested Energy Only Deliverability Status, the need for an additional transformer is not identified by the Deliverability Assessment studies. No other thermal overloads are due to C1C2 Projects for the Heavy Summer scenario or the Light Load sensitivity. Mitigation, in addition to the Network Upgrades identified by the Deliverability Assessment, is listed in Table 7.3.

Table 7.3: Reliability Study Identified RNU

	Description of Upgrade
1	Implement an SPS to protect ECO 230/138 kV transformer bank for overload or outage

7.2.2 Steady-State Voltage Results in SDG&E System

No steady-state voltage violations were observed in the SDG&E transmission system due to the addition of the C1C2 Projects.

7.2.3 Steady-State Reactive Power Deficiency Analysis Results

The results from the original study are still valid. See original Group Report dated August 24, 2011.

7.2.4 Affected Systems

Due to the IV SPS and the Otay Mesa SPS, no thermal overloads were identified in the IID or CFE transmissions as a result of the addition of the C1C2 Projects. However, the CAISO analyses primarily focus on the CAISO system, and the definitive analyses of the impacts on Affected Systems are the responsibility of the Affected System Operator to perform.

8. Short Circuit Duty Analysis

The results from the original study are still valid. See details in the original Group Report dated August 24, 2011.

CFE's transmission system was identified as an Affected System in the short circuit analysis due to the reconfiguration of TL23041 and TL23042 at the Miguel Substation. The short circuit study results showed a 27% increase in fault current at the Tijuana 230 kV bus. The CAISO analyses primarily focus on the CAISO system, and the definitive analyses of the impacts on Affected Systems are the responsibility of the Affected System Operator to perform.

9. Transient Stability Analysis

The results from the original study are still valid. See original Group Report dated August 24, 2011.

10. Post-Transient Voltage Stability Analysis

The results from the original study are still valid. See original Group Report dated August 24, 2011.

11. Post-Transient Reactive Power Deficiency Analysis

The results from the original study are still valid. See original Group Report dated August 24, 2011.

12. Mitigation

The mitigation requirements triggered by the C1C2 Projects, based on the results described in Sections 6-11, are as follows.

12.1 Facilities for Project Interconnections

The plan of service for the Reliability Network Upgrades required for the physical interconnection of the C1C2 Projects is discussed in detail in each Individual Project Report (Appendix A).

12.2 Delivery Network Upgrades

The scope for the Delivery Network Upgrade for C1C2 Projects in the SDG&E System is discussed below.

Reconfigure TL23041 and TL23042 at Miguel Substation to create two Otay Mesa-Miguel 230 kV lines

A. Install 1-230 kV breaker, 2-230 kV disconnects, relaying, new steel pole, and 600 feet of bundled 900 ACSS/AW for TL23041, Otay Mesa-Miguel-Sycamore 230 kV line

B. Install 1-230 kV breaker and relaying for TL23042, Miguel-Otay Mesa-Bay Boulevard 230 kV line

12.3 Reliability Network Upgrades

12.3.1 Special Protection Systems

Per the CAISO guidelines, all SPSs are classified as Reliability Network Upgrades because their cost is less than $1 million. This is to prevent overburdening of CAISO's congestion management system which can increase processing time to a point that could create reliability concerns.

12.3.1.1 Participate in Existing Otay Mesa Energy Center Generator SPS

Currently, there is an SPS to trip existing generation at Otay Mesa Energy Center to protect CFE's transmission system in the event of an N-2 contingency of the Otay Mesa-Miguel/Bay Blvd Tap-Bay Blvd 230 kV and Otay Mesa-Miguel/Sycamore Tap-Sycamore 230 kV transmission lines. Some of the C1C2 Projects will be add to this existing SPS. The details are provided in Appendix A.

In addition, the SPS will be modified to monitor the parallel Miguel-Otay Mesa 230 kV lines #1 and #2. An SPS is proposed to trip some C1C2 Projects after detecting an emergency rating overload of one line following the N-1 contingency of the parallel line. The C1C2 Project connecting to the Otay Mesa Switchyard will be subject to this modification of the SPS. The details are provided in Appendix A.

12.3.1.2 Imperial Valley SPS

Currently, there is an Imperial Valley Special Protection System in place which limits the impact of generation plants connected to the Imperial Valley Substation for various N-1 and N-2 contingencies and mitigates adverse impacts to the SDG&E, CFE, and IID's transmission systems. Participation in this existing IV SPS is proposed as a Reliability Network Upgrade.

The Imperial Valley area generation output is currently limited by the CAISO criteria of 1,150 MW of generation tripping for a Category B contingency and 1,400 MW of generation tripping for a Category C contingency. Study results for the C1C2 Projects showed that tripping 1,400 MW of generation for N-2 and 1,150 MW of generation for N-1 contingencies mitigated any adverse impacts on neighboring systems. No additional generation tripping was required beyond the 1,400 MW limit for N-2 or 1,150 MW for N-1.

Currently, there are 1,070 MW of generation connected at Imperial Valley Substation which is subject to the Imperial Valley generation tripping SPS. It should be assumed that any generation which would impact the facilities protected by the Imperial Valley SPS would be included in the generation tripping scheme covered by this SPS. C1C2 Projects injecting power into the Sunrise Powerlink, Southwest Powerlink, and the Imperial Valley Substation will be subject to this SPS. The details are provided in Appendix A.

All new SPSs and modifications to the existing ones are subject to review by Affected System Operators, members of the Imperial Valley RAS Technical Committee, and review and approval by the WECC RASRS.

12.3.1.3 Participate in Proposed ECO 500/230 kV transformer bank outage SPS

In the event of the N-1 contingency of the 500/230 kV transformer bank at ECO Substation, all generation interconnected at Boulevard East and ECO substations must be tripped by this SPS. In addition, as described in Section 7.2, the combined generation dispatch at these two substations is limited to 1,150 MW. It is assumed that any generation interconnected at Boulevard East and ECO substations will participate in generation reduction and this SPS. The details are provided in Appendix A.

12.3.1.4 Implement an SPS to protect ECO 230/138 kV transformer bank for overload or outage of bank

The amount of generation dispatched at the Boulevard East Substation and the ECO 138 kV bus will be limited to prevent the overload of the ECO 230/138 kV transformer bank. The SPS will be implemented to trip this generation for the overload or outage of the ECO 230/138 kV transformer bank. C1C2 Projects connecting at Boulevard East Substation and the ECO 138 kV bus will be subject to this SPS. The details are provided in Appendix A.

12.3.2 Mitigation for Steady-State Voltage Violation

There were no steady-state voltage violations identified to mitigate.

12.3.3 Mitigation for Short Circuit Duty

There were no overstressed circuit breakers in SDG&E's transmission system due to the C1C2 Projects.

However, the short circuit study results showed a 27% increase in fault current at CFE's Tijuana 230 kV bus. The reconfiguration of TL23041 and TL23042 at the Miguel Substation was the primary reason for the significant increase in fault current. This Re-Study introduces one option for mitigation, a current limiting series reactor to be installed on the Otay Mesa-Tijuana 230 kV line. Coordination with CFE is needed to confirm this option will mitigate the increased fault current at Tijuana 230 kV and will maintain the existing fault duty margin for CFE's future expansion.

Install current limiting series reactor on Otay Mesa-Tijuana 230 kV line

A. Install 3-single phase 230 kV series reactors (2.9-3.0 ohm) in Bay 4 in the Otay Mesa Switchyard

B. Connect series reactors to the Otay Mesa-Tijuana 230 kV line (TL23040)

C. Re-arrange termination of TL23040 in Otay Mesa Switchyard to accommodate the connection of the series reactor

D. Install associated structures

E. Relay protection

12.3.4 Mitigation for Transient Stability

See original Group Report dated August 24, 2011. There were no transient stability issues identified to mitigate.

12.3.5 Mitigation for Post-Transient Voltage Stability

See original Group Report dated August 24, 2011. There were no post-transient stability issues identified to mitigate.

12.3.6 Mitigation for Post-Transient Reactive Power Deficiency

See original Group Report dated August 24, 2011. There were no reactive power deficiency issues identified to mitigate.

12.3.7 Mitigation for Steady-State Reactive Power Deficiency

See original Group Report dated August 24, 2011. There were no reactive power deficiency violations identified to mitigate. Since it is impractical to study all system conditions SDG&E Grid Operations may face in real time, asynchronous generator

projects are urged to construct generators with 0.95 lagging to 0.95 leading power factor range capability in order to meet SDG&E's specified voltage schedule. Synchronous generators will be required to provide 0.90 lagging to 0.95 leading power factor per LGIA 9.6.1.

13. Environmental Evaluation/Permitting

The information in this section did not change from the original study. See original Group Report dated August 24, 2011.

14. Upgrades, Cost Estimates, and Time to Construct Estimates

The cost estimates are good faith estimates and are based on the published unit costs, when applicable. Customized costs were developed when the unit costs did not reflect the unique circumstances of a project. The customized costs include: anticipated land acquisition costs, environmental mitigation, licensing/permitting, looping lines into substations, new switchyards, substation upgrades not included in unit costs, and PTO's Interconnection Facilities.

The Commercial Operation Dates of the C1C2 Projects are dependent on the completed construction and energizing of the identified Network Upgrades. Based on the estimated time to construct for the Network Upgrades listed in Table 14.1, it appears feasible to complete all the Network Upgrades required for mitigation before the requested Commercial Operation Dates of the projects in the cluster.

Some of the projects also require Reliability Network Upgrades to accommodate their physical interconnections. Based on the time needed to license/permit, design, procure material, and construct, it may not be feasible to complete all Reliability Network Upgrades to physically interconnect all the C1C2 Projects before the requested In-Service Dates. Projects cannot connect until all Reliability Network Upgrades are in-service. Specific details are presented in the Individual Project Reports for applicable projects.

Costs for each generation project are confidential and are not published in this Group Report. Each IC is also receiving an Individual Project Report (Appendix A), specific only to their generation project, containing the details of the IC's cost responsibilities.

The estimated cost of **Reliability Network Upgrades** identified in this Group Study is assigned to all Interconnection Requests in that Group Study according to the following rules: (a) short circuit related Reliability Network Upgrades will be assigned pro rata on the basis of the total short circuit duty contribution of each Generating Facility and its associated Network Upgrades, (b) for all other Reliability Network Upgrades, the cost will be assigned pro rata on the basis of the maximum megawatt electrical output of each proposed new Large Generating Facility or the amount of megawatt increase in the generating capacity of each existing Generating Facility as listed by the Interconnection Customer in its Interconnection Request. The Reliability Network Upgrades required for a project to "physically" interconnect (i.e. bus extension, new switchyard, etc.) are presented only in the Individual Project Reports. Some mitigation measures are related to the telecommunications needed for each individual SPS. SPS costs may have two components. The cost for the SDG&E protection and communication equipment for the monitored facilities is assigned pro rata on the basis of the maximum megawatt electrical output of each project. The cost for the protection and communication equipment to interface between SDG&E and each project is assigned directly to the participating project.

The estimated cost of all **Delivery Network Upgrades** identified in the Deliverability Assessment are assigned to all Interconnection Requests selecting Full Capacity Deliverability Status based on the flow impact of each such Large Generating Facility on the Delivery Network Upgrades as determined by the generation distribution factor methodology.

The estimated cost of all **PTO's Interconnection Facilities** is assigned to each Interconnection Request individually. The cost estimates for the PTO's Interconnection Facilities are all site specific and details are provided in each Individual Project Report.

The cost of the mitigation plan for overloads of SDG&E facilities attributed to the C1C2 Projects evaluated as a cluster is [redacted], as shown in Table 14.1.

PTO's Interconnection Facilities and Reliability Network Upgrades required to physically interconnect specific projects are identified (as appropriate) in each project's Appendix A. The non-binding, good faith estimate of time to construct (license/permit, design, procure material, and construct) the facilities identified in the report will be project-specific and will be based upon the assumption that the environmental permitting obtained by the IC is adequate for permitting all SDG&E activities.

It is assumed that the Interconnection Customers will include the PTO's Interconnection Facilities and Network Upgrades work scope in their environmental impact study/report to the regulatory agency having jurisdiction over the permitting of their project. In the time to construct estimates, SDG&E included the time required for a PTC or CPCN, if it was anticipated. If the CPUC requires licensing when it was not anticipated by SDG&E, timing for the upgrade could be extended by two to three years.

Table 14.1: SDG&E Network Upgrades, Estimated Costs, Estimated Time to Construct

Type of Upgrade	Upgrade		Estimated Cost x 1,000 *(Note 1)*	Estimated Time to Construct *(Note 2)*
Reliability Network Upgrades	Participate in existing Imperial Valley SPS for multiple N-1 and N-2 contingencies *(Notes 3 & 4)*	SDG&E protection and communication equipment for Imperial Valley Substation, ECO Substation, and C493 switchyard *(Note 5)*	[redacted]	12 Months
		Protection and communication equipment to interface between SDG&E and projects *(Note 6)*		12 Months
	Participate in proposed ECO 500/230 kV transformer bank outage SPS *(Note 3)*	SDG&E protection and communication equipment for ECO Substation (assumed installed with higher-queued projects) *(Note 5)*		-
		Protection and communication equipment to interface between SDG&E and projects (included in IV SPS cost) *(Note 6)*		-
	Implement an SPS to protect ECO 230/138 kV transformer bank for overload or outage *(Note 3)*	SDG&E protection and communication equipment for ECO Substation and Boulevard East Substation *(Note 5)*		12 Months
		Protection and communication equipment to interface between SDG&E and projects (included in IV SPS cost) *(Note 6)*		-
	Participate in existing Otay Mesa Energy Center Generator SPS for N-1 and N-2 contingencies *(Note 3)*	SDG&E protection and communication equipment for Miguel Substation and Otay Mesa (already installed) *(Note 5)*		-
		Protection and communication equipment to interface between SDG&E and projects *(Note 6)*		-
	Install current limiting series reactor on Otay Mesa-Tijuana 230 kV line	• Install 3-single phase 230 kV series reactors (2.9-3.0 ohm) in Bay 4 in the Otay Mesa Switchyard • Connect series reactors to the Otay Mesa-Tijuana 230 kV line (TL23040) • Re-arrange termination of TL23040 in Otay Mesa Switchyard to accommodate the connection of the series reactor • Install associated structures • Relay protection		12 Months
Delivery Network Upgrades	Reconfigure TL23041 and TL23042 at Miguel Substation to create two Otay Mesa-Miguel 230 kV lines	For TL23041, Otay Mesa-Miguel-Sycamore 230 kV line • Install 1-230 kV breaker, 2-230 kV disconnects, and relaying • Install a new anchor-bolted deadend steel pole • Install approximately 600 feet of bundled 900 ACSS/AW For TL23042, Miguel-Otay Mesa-Bay Boulevard 230 kV line • Install 1-230 kV breaker and relaying		18 Months
Total				**18 Months**

Notes for Table 14.1:

Note 1: *Estimated costs in "as year spent" dollars and in thousands of $ dollars, excluding Allowance for Funds Used During Construction (AFUDC). Estimated costs include land purchases and licensing/permitting costs, when appropriate.*

Note 2: *Time to construct estimates include time for licensing/permitting, when appropriate. The estimated time to construct is for a typical project; construction duration may change due to the number of projects simultaneously in construction. Multiple projects impact resources, system outage availability, and environmental windows of construction. A key assumption is SDG&E will need to obtain CPUC licensing and regulatory approvals prior to design, procurement, and construction of the proposed facilities. The time to construct is not cumulative.*

Note 3: *Per CAISO guidelines, all Special Protection Systems are classified as Reliability Network Upgrades because their cost is less than $1 million per project. This is to prevent overburdening of CAISO's congestion management system which can increase processing time to a point that could create reliability concerns.*

Note 4: *The existing Imperial Valley SPS protects SDG&E, CFE, and IID following various N-1 and N-2 contingencies. All new SPSs and modifications to existing SPSs are subject to review by Affected System Operators, members of the Imperial Valley RAS Technical Committee, and review and approval by the WECC RASRS.*

Note 5: *The SPS cost includes the equipment on the PTO's system. This is a one-time setup and equipment cost. The SPS cost does not include any control, protection, and/or fiber-optic communication costs at the projects' facility.*

Note 6: *The SPS cost includes project-specific equipment required on the PTO's system for interface with the projects, as well as equipment provided to the projects for installation at the projects' facility. Additional SPSs would require updated logic, but minimal/no cost.*

15. Coordination with Affected Systems

CAISO Appendix Y GIP Tariff, Section 3.7 requires the CAISO to notify the Affected System Operators that are potentially affected by the C1C2 Projects. The CAISO will also coordinate the studies, performed by or under the direction of the Affected System Operators and at the cost to the Interconnection Customer, required to determine the impact on any Affected Systems, to the extent possible.

Due to the participation of the C1C2 Projects, as necessary, in the IV SPS, no thermal overloads were identified in the CFE or IID transmission systems as a result of the addition of C1C2 Projects. However, the CAISO analyses primarily focus on the CAISO system, and the definitive analyses of the impacts on Affected Systems are the responsibility of the Affected System Operator to perform.

CFE was identified as an Affected System in the short circuit analysis due to the Delivery Network Upgrade reconfiguring TL23041 and TL23042 at the Miguel Substation. The short circuit study results showed a 27% increase in fault current at the Tijuana 230 kV bus. The proposed current limiting series reactor will mitigate the increased fault current at Tijuana 230 kV and will maintain the existing fault duty margin for CFE's future expansion.

The CAISO will coordinate, to the extent possible, further communications and study efforts between CFE, IID, and the appropriate project developers.

16. Local Furnishing Bonds

The results from the original study are still valid. See original Group Report dated August 24, 2011.

Re-Study of C1C2 Phase II
Appendix B

CAISO Controlled Grid Generation Queue

The California ISO Controlled Grid Generation Queue - CISO Active

Queue Position	Interconnection Request Receive Date	Queue Date	Application Status	Study Process	Generating Facility				Maximum MWs				Location		Point of Interconnection		Proposed On-line Date (as filed with IC)	Current On-line Date	Study Availability				
					Type-1	Type-2	Fuel-1	Fuel-2	Summer-1	Summer-2	Winter (Total)	Full Capacity or Energy Only (FCDS)	County	State	Utility	Station or Transmission Line			Feasibility Study (FS)	System Impact Study or Phase I Cluster Study	Facilities Study (FAS) or Phase II Cluster Study	Optional Study (OS)	Interconnection Agreement Status
1	9/30/1998	9/30/1998	Active	Fac. Annex J	WT		W		46.5				[illegible]	CA	SCE	[illegible]	3/1/1999	12/31/2002	NA	Complete	Complete		Active
3	4/2/2000	4/2/2000	Active	Serial LGIP	ST		BG		500		500		RIVERSIDE	CA	SCE	Devers Substation 230kV Bus	1/1/2004	6/1/2013	Waived	Complete	Complete	Complete	Active
7	8/10/2000	8/10/2000	Active	Fac. Annex J	CC		NG		619				LOS ANGELES	CA	SCE	El Segundo 230kV Bus	6/1/2003	6/15/2013	NA	Complete	Complete	Complete	Executed
13	12/1/2001	9/1/2001	Active	AMEND 39	PA		WTH		40				SAN DIEGO	CA	SDGE	Otay Mesa-Border-Rancho Santa Fe 69kV line	7/1/2007	9/1/2012	NA	Complete	Complete		Executed
14	9/11/2001	9/11/2001	Active	AMEND 39	WT		W		95.5				SANTA BARBARA	CA	PGE	Divide-Cieneba #2 115kV line tap	6/1/2008	12/31/2014	NA	Complete	Complete		Executed GIA
17	9/19/2001	9/19/2001	Active	AMEND 39	CC		NG		570				RIVERSIDE	CA	SCE	Devers-Palo Verde #2 500 kV line	1/1/2006	6/1/2010	NA	Complete	Complete		Active
20	8/19/2001	9/4/2001	Active	AMEND 39	WT		W		300				KERN	CA	SCE	Antelope	12/31/2006	5/1/2013	NA	Re-Study in Progress	Complete		Executed GIA
12	9/4/2001	9/4/2001	Active	Serial LGIP	WT		W		201		201		SAN DIEGO	CA	SDGE	Boulevard Station 138kV Bus	9/1/2007	12/1/2012	Waived	Complete	Complete		Complete
16	10/12/2001	10/12/2001	Active	AMEND 39	WT		W		200				SOLANO	CA	PGE	Birds Landing Switching Station 230kV	12/31/2008	12/15/2012	NA	Complete	Complete		Executed
45	1/31/2002	1/31/2002	Active	AMEND 39	CT		NG		565				ALAMEDA	CA	PGE	Eastshore Substation 230kV	7/31/2009	9/15/2013	NA	Complete	Re-study Complete		Executed
49	12/18/2002	12/18/2002	Active	AMEND 39	WT		W		100.5				RIVERSIDE	CA	SCE	Devers Substation 115kV bus	12/31/2009	7/31/2011	NA	Re-Study Complete	Re-study Complete		In Progress
58	1/23/2003	2/27/2003	Active	AMEND 39	ST		G		82				MIRAMAR	CA	PGE	Coronal 115kV Substation	10/7/2007	2/1/2012	NA	Complete	Complete	On Hold	Executed
66	2/28/2003	2/28/2003	Active	AMEND 39	CT		NG		94				KERN	CA	PGE	Kern Oil Substation 115 kV	12/31/2007	9/1/2012	NA	Complete	Complete		Executed
66	5/2/2005	5/2/2005	Active	AMEND 39	CT		NG		540.5				LOS ANGELES	CA	SCE	Walnut Substation 220kV	9/1/2007	1/3/2011	NA	Re-Study in Progress	Complete		Executed
67	3/27/2003	5/6/2005	Active	AMEND 39	CC		NG		245				ALAMEDA	CA	PGE	Eastshore Substation 230kV	7/31/2008	9/1/2011	NA	Complete	Re-study Complete		Executed
68	3/18/2004	5/11/2005	Active	Serial LGIP	PV		S		650				SAN BERNARDINO	CA	SCE	Pisgah Sub 230 kV Bus	12/31/2007	1/31/2013	Waived	Complete	Complete	Complete	Complete
72	4/30/2004	10/12/2005	Active	Serial LGIP	PS		WTH		500				RIVERSIDE	CA	SDGE	Proposed Lee Lake Substation	12/31/2008	5/31/2012	Waived	Complete	Complete		Active
73	4/30/2004	10/27/2005	Active	Serial LGIP	WT		W		250				KERN	CA	SCE	Whirlwind Sub 230kV Bus	12/31/2007	9/1/2013	Waived	Complete	Complete		Active
84	11/27/2005	12/1/2005	Active	Serial LGIP	WT		W		140				KERN	CA	SCE	Whirlwind Sub 230kV Bus	12/31/2009	12/31/2011	Waived	Complete	Complete		Active
84A	12/9/2008	12/9/2008	Active	Serial LGIP	WT		W		83.1				KERN	CA	SCE	Vincent Substation	7/15/2008	10/1/2008	Waived	Complete	Complete		Active
84B	12/9/2008	12/9/2008	Active	Serial LGIP	WT		W		34				KERN	CA	SCE	Cantelini Substation 66kV	7/15/2008	10/1/2008	Waived	Complete	Complete		
92	2/23/2006	2/23/2006	Active	Serial LGIP	CC		NG		570				LOS ANGELES	CA	SCE	Vincent Sub 230 kV Bus	7/1/2009	6/1/2010	Waived	Complete	Complete		Active
93	2/15/2006	3/1/2006	Active	Serial LGIP	WT		W		220				KERN	CA	SCE	Windhub Substation 220kV bus	12/31/2008	12/31/2012	Waived	Complete	Complete		Complete
94	2/15/2006	3/1/2006	Active	Serial LGIP	WT		W		140				KERN	CA	SCE	Highwind Sub 230kV Bus	12/31/2011	12/31/2011	Waived	Complete	Complete		Active
95	2/10/2006	3/1/2006	Active	Serial LGIP	WT		W		550				KERN	CA	SCE	Windhub Substation 220kV bus	12/31/2009	12/30/2012	Waived	Complete	Complete		Complete
97	2/15/2006	3/1/2006	Active	Serial LGIP	WT		W		140				KERN	CA	SCE	Whirlwind Sub 230kV Bus	12/31/2013	12/31/2013	Waived	Complete	Complete		Active
101	3/3/2006	3/29/2006	Active	Serial LGIP	ST		B		22				SAN DIEGO	CA	SDGE	Border Sub 69 kV Bus	12/1/2008	12/1/2012	Complete	Complete	Complete		Complete
108A	5/1/2006	5/1/2006	Active	Serial LGIP	WT		W		100		100		SAN DIEGO	CA	SDGE	Boulevard Sub 138kV Bus	6/1/2008	12/31/2014	Complete	Complete	Complete		Complete
108	6/5/2006	6/5/2006	Active	Serial LGIP	WT		W		128		128		SOLANO	CA	PGE	Lambie-Contra Costa 230kV	7/1/2011	3/1/2012	Complete	Complete	Complete	Complete	Complete
111	6/23/2006	6/26/2006	Active	AMEND 39	ST		B		10				KERN	CA	PGE	Tap at Chevron 70kV transline	3/31/2009	12/15/2015	NA	Complete	Complete		Executed GIA
113	6/29/2006	6/30/2006	Active	Serial LGIP	WT		W		30		30		SOLANO	CA	PGE	Birds Landing Switching Station 230kV bus	4/15/2009	4/1/2012	Complete	Complete			Complete
119	8/8/2006	8/8/2006	Active	Serial LGIP	WT		W		500				KERN	CA	SCE	Windhub Sub 230kV Bus	12/31/2013	12/31/2013	Complete	Complete	Complete		Complete
124	8/22/2006	8/22/2006	Active	Serial LGIP	PV		S		100				IMPERIAL	CA	SDGE	Imperial Valley Substation 230kV bus	3/1/2011	9/1/2012	Waived	Complete	Complete		Complete
125	8/22/2006	8/22/2006	Active	Serial LGIP	ST		G		250				SAN BERNARDINO	CA	SCE	Colsenter-Mariner 230kV line	8/1/2010	12/31/2011	Complete	Complete	Complete	Complete	Complete
129	8/11/2006	8/11/2006	Active	Serial LGIP	WT		W		1500				CLARK	NV	SCE	Eldorado Substation 230kV bus	12/31/2011	12/31/2011	Complete	Complete	Active		
131	9/5/2006	9/5/2006	Active	Serial LGIP	ST		S		100				SAN BERNARDINO	CA	SCE	Eldorado-Lugo-Mohave-Control-Water-Dunn Siding-Mountain Pass 115kV line	8/30/2010	8/30/2012	Complete	Complete	Complete		Complete
132	9/27/2006	9/27/2006	Active	Serial LGIP	WT		W		237				KERN	CA	SCE	Highwind Substation 230kV bus	12/31/2010	8/30/2012	Complete	Complete	Complete	Active	Complete
135	10/10/2006	10/10/2006	Active	Serial LGIP	WT		W		90				SAN BERNARDINO	CA	SCE	Lugo-Pisgah 230kV line	8/30/2008	12/31/2011	Complete	Complete	Complete		Complete
137	10/10/2006	10/17/2006	Active	Serial LGIP	CT		NG		240				SAN DIEGO	CA	SDGE	Encina Substation 230kV bus	8/1/2009	8/1/2013	Active	Complete	Complete		Complete
139	10/23/2006	10/23/2006	Active	Serial LGIP	WT		W		150				RIVERSIDE	CA	SCE	Devers-Vista 230kV #1	12/31/2006	8/1/2012	Active	Complete	Complete		Active
142	11/1/2006	11/1/2006	Active	Serial LGIP	ST		S		80				SAN BERNARDINO	CA	SCE	Kramer Substation 230kV	12/31/2005	4/1/2010	Complete	Complete	Complete		
144	11/16/2006	11/16/2006	Active	Serial LGIP	PV		S		150				RIVERSIDE	CA	SCE	Red Bluff Substation 230kV	12/31/2008	12/30/2015	Complete	Complete	Complete		Complete
147	11/10/2006	11/10/2006	Active	Serial LGIP	PV		S		200				RIVERSIDE	CA	SCE	Red Bluff Substation 230kV	12/31/2010	12/30/2015	Complete	Complete	Complete		Complete
150	11/16/2006	11/16/2006	Active	Serial LGIP	CT		NG		47.4				SAN DIEGO	CA	SDGE	Border Substation 69kV	9/15/2014	9/15/2014	Complete	Complete	Complete	Active	Active
153	11/22/2006	11/22/2006	Active	Serial LGIP	WT		W		100				KERN	CA	SCE	Whirlwind Substation 230kV	12/31/2008	12/31/2012	Waived	Complete	Complete		
154	11/21/2006	11/30/2006	Active	TC	ST		S		240		240	Full Capacity	KERN	CA	SCE	Windhub 230kV Substation	12/31/2009	6/1/2015		Complete	Complete		Active
156A	1/31/2007	1/31/2007	Active	Serial LGIP	WT		W		400				LA RUMOROSA, BAJA	MX	SDGE	ECO Substation 230kV bus	6/1/2009	6/30/2013	Complete	Complete	Complete		Active
160	1/31/2007	1/31/2007	Active	Serial LGIP	ST		S		114				SAN BERNARDINO	CA	SCE	Eldorado-Lugo-Mohave-Control-Water-Dunn Siding-Mountain Pass 115kV line	8/30/2010	2/1/2012	Waived	Complete	Complete		Complete
161	2/5/2007	2/5/2007	Active	TC	PV		S		800		800	Full Capacity	SAN BERNARDINO	CA	SCE	Mountain Pass Substation 115kV	12/31/2010	12/31/2015		Complete	Complete		Active
166	12/15/2007	12/7/2007	Active	Serial LGIP	PV		S		210		210		SAN LUIS OBISPO	CA	PGE	Midway-Mesa Bus 230kV line	12/31/2010	12/31/2013	Complete	Complete	Complete		Complete
172	2/9/2007	2/15/2007	Active	Serial LGIP	CC		NG		500		500		SAN JOAQUIN	CA	PGE	Tesla-Bellota 230kV lines	9/15/2011	9/30/2016	Complete	Complete	Complete		Complete
175	2/21/2007	2/21/2007	Active	TC	WT		W		650		650	Full Capacity	KERN	CA	SCE	Whirlwind Substation 230kV	9/30/2008	12/31/2014		Complete	Complete		Active
181	3/5/2007	3/5/2007	Active	TC	WT		W		800		800	Energy Only	BAJA	MX	SDGE	Imperial Valley-Miguel new 230/500kV bus (ECO)	11/1/2009	6/30/2014		Active	Complete		Active
184	3/5/2007	3/5/2007	Active	Serial LGIP	ST		G		32		32		SONOMA	CA	PGE	Geysers #5-Eyeglass 115 kV line	6/1/2010	12/15/2010	Complete	Complete	Complete		Complete
188	3/27/2007	3/27/2007	Active	TC	WT		W		199		199	Full Capacity	KERN	CA	SCE	Windhub Substation 230kV	12/15/2013	6/30/2011		Complete	Complete		Active
190	3/30/2007	3/30/2007	Active	Serial LGIP	CC		NG		200				SAN DIEGO	CA	SDGE	Encina 138kV Substation	9/30/2010	6/1/2011	Active	Complete	Complete		Complete
191	3/19/2007	4/4/2007	Active	TC	ST		S		500		500	Full Capacity	RIVERSIDE	CA	SCE	Colorado River Substation 500kV	12/31/2010	6/15/2014		Complete	Complete		Complete

California ISO

The California ISO Controlled Grid Generation Queue - CISO Active

					Generating Facility				Maximum MWs					Location		Point of Interconnection				Study Applicability				
Queue Position	Interconnection Request Receive Date	Queue Date	Application Status	Study Process	Type-1	Type-2	Fuel-1	Fuel-2	Summer-1	Summer-2	Wkly (Total)	Fuel Diversity or Energy Only (FERC)	County	State	Utility	Station or Transmission Line	Proposed On-line Date (as filed with IC)	Current On-line Date	Feasibility Study (FAS)	System Impact Study or Phase I Cluster Study	Facilities Study (FAS) or Phase II Cluster Study	Optional Study (OS)	Interconnection Agreement Status
196	4/5/2002	4/5/2002	Active	Serial LGIP	PV		S		192		192		SAN LUIS OBISPO	CA	PGE	Morro Bay-Mesa 115 kV line	5/31/2010	4/30/2016	Complete	Complete	Complete		Complete
205	4/30/2002	4/30/2002	Active	SC	ST		S		845		850	Fuel Capacity	CLARK	NV	SCE	La Fresnes 230kV Switchyard	5/31/2010	12/31/2013		Complete	Complete		Active
212	5/8/2002	5/8/2002	Active	Serial LGIP	WT		W		50				KERN/INYO	CA	PGE	Rio Del Substation 66kV	10/30/2010	12/31/2013	Complete	Complete	Complete		Complete
215	5/13/2002	5/13/2002	Active	SC	WT		W		400		400	Energy Only	INYO	CA	SCE	LCC1 Substation 230kV bus	5/30/2011	12/31/2014		Active	Complete		Active
219	5/31/2002	5/31/2002	Active	Serial LGIP	CT		NG		50				RIVERSIDE	CA	SCE	Colorado River Substation 500kV Bus	4/1/2012	6/1/2013	Complete				Active
232	6/27/2002	6/27/2002	Active	Serial LGIP	ST		S		200				SAN LUIS OBISPO	CA	PGE	Mesa 66 Substation 70kV	8/30/2013	8/30/2013	Waived	Complete	Complete		Complete
239	7/11/2002	7/11/2002	Active	SC	PV		S		220		250	Fuel Capacity	SAN LUIS OBISPO	CA	PGE	Midway-Andrew Bay 230kV line	12/1/2010	12/30/2013		Complete	Complete		Complete
240	7/11/2002	7/11/2002	Active	Serial LGIP	ST		S		400				SAN BERNARDINO	CA	SCE	Regals Sub 230kV	6/30/2014	6/30/2018	Waived	Complete	Complete		
241	7/11/2002	7/11/2002	Active	Serial LGIP	ST		S		400				SAN BERNARDINO	CA	SCE	Regals Sub 230kV	6/30/2015	6/30/2019	Waived	Complete	Complete		
247	7/17/2002	7/17/2002	Active	SC	PV		S		150		150	Fuel Capacity	SAN LUIS OBISPO	CA	PGE	Morro Bay-Mesa 230kV line	5/1/2017	6/30/2018		Complete	Complete		Complete
248	7/29/2002	7/29/2002	Active	Serial LGIP	CT		NG		167				SAN JOAQUIN	CA	PGE	Tesla-Ingalls 230kV line	5/31/2011	5/1/2014		Complete	Complete		Complete
252	11/21/2002	7/31/2002	Active	SC	WT		W		99.2		99.2	Fuel Capacity	LAKE AND COLUSA	CA	PGE	Wilderness-Cortina 115kV line	5/1/2009	12/31/2012		Complete	Complete		Complete
254	8/7/2002	8/7/2002	Active	SC	CT		NG		499		499	Fuel Capacity	KINGS	CA	PGE	Gregg Substation 230kV bus	5/30/2012	6/1/2014		Complete	Complete		Complete
259	9/12/2002	9/12/2002	Active	SC	CC		NG		951		951	Fuel Capacity	CONTRA COSTA	CA	PGE	Contra Costa Substation 230kV bus	5/30/2012	12/1/2013		Active	Complete		Active
267	10/21/2002	10/21/2002	Active	Serial LGIP	CT		NG		280				SAN JOAQUIN	CA	PGE	Tesla-Kasson 115kV line at Tesla Substation	6/30/2013	7/31/2013	Active	Withdrawn	Complete		Complete
268	10/24/2002	10/24/2002	Active	Serial LGIP	ST		NG		183				SAN JOAQUIN	CA	PGE	Tesla Substation	6/30/2013	6/30/2013	Waived	Complete	Complete		Complete
272	12/4/2002	11/6/2002	Active	SC	ST	ST	NG	S	75	125	198	Fuel Capacity	KERN	CA	PGE	Kern Substation 70kV bus	6/30/2012	5/31/2013		Complete	Complete		Active
294	1/15/2003	1/15/2003	Active	SC	ST		S		1000		1000	Fuel Capacity	RIVERSIDE	CA	SCE	Midpoint Substation 500kV	6/30/2017	7/1/2013		Complete	Complete		Complete
297	1/16/2003	1/16/2003	Active	SC	ST		S		99		99	Fuel Capacity	LOS ANGELES	CA	SCE	Vincent-Mesa 115kV line	12/31/2009	6/1/2013		Complete	Complete		Active
309	2/19/2003	2/19/2003	Active	SC	PV		S		50		50	Fuel Capacity	TULARE	CA	PGE	Smyrna-Moreno 115kV line	5/30/2013	6/1/2013		Complete	Complete		Complete
320	3/12/2003	3/12/2003	Active	SC	CT		NG		100		100	Fuel Capacity	CONTRA COSTA	CA	PGE	Contra Costa Substation 230kV switchyard	5/30/2013	5/30/2013		Complete	Complete		Complete
336	4/4/2003	4/4/2003	Active	SC	CT		NG		1214		1214	Fuel Capacity	ALAMEDA	CA	PGE	Ames Substation 230kV bus	5/30/2012	7/1/2013		Active	Complete		Complete
337	4/21/2003	4/18/2003	Active	SC	PV		S		21.75		21.75	Fuel Capacity	SAN DIEGO	CA	SDGE	Borrego Substation 69kV	6/1/2011	6/1/2013			Complete		Complete
344	4/21/2003	4/21/2003	Active	SGIP	PV		S		20		20	Energy Only	TULARE	CA	PGE	Smyrna-Moreno 115kV line	5/30/2013	6/1/2013		Active	Complete		Complete
352	4/24/2003	4/24/2003	Active	SC	PV		S		50		50	Fuel Capacity	LOS ANGELES	CA	SCE	Del Sur Substation 66kV	5/1/2011	7/1/2013			Complete		Active
355	4/25/2003	4/24/2003	Active	SC	PV		S		40		40	Fuel Capacity	KERN	CA	SCE	Cantua Substation 66kV bus	5/1/2011	6/1/2013			Complete		Active
359	4/25/2003	4/24/2003	Active	SC	PV		S		100		100	Fuel Capacity	KERN	CA	SCE	Gladstone Substation 66kV	5/1/2011	6/1/2013			Complete		Active
360	4/25/2003	4/24/2003	Active	SC	PV		S		40		40	Fuel Capacity	SANTA BARBARA	CA	SCE	Goleta Substation #1 66kV bus	5/1/2011	6/1/2013			Complete		Active
364	4/30/2003	4/30/2003	Active	SC	ST		S		500		500	Fuel Capacity	RIVERSIDE	CA	SCE	Red Bluff Substation 230kV	5/30/2013	7/1/2013			Complete		Complete
372	5/12/2003	5/12/2003	Active	SGIP	PV		S		20		20	Fuel Capacity	KERN	CA	PGE	Tupman-Comet Substation 70kV bus	1/1/2010	6/1/2013		Complete	Complete		Complete
378	5/30/2003	5/30/2003	Active	SC	CT		NG		120		120	Fuel Capacity	SANTA CLARA	CA	PGE	Los Esteros Substation 115kV bus	6/1/2011	6/1/2013		Complete	Complete		Complete
382	5/30/2003	5/30/2003	Active	SC	OC		NG		49		49	Fuel Capacity	LOS ANGELES	CA	SCE	Alamitos #1 & #2 230kV lines	5/31/2012	12/1/2013		Complete	Complete		Active
387	5/30/2003	5/30/2003	Active	SC	PV		S		225		225	Fuel Capacity	KERN	CA	SCE	Cottonwood-Whitewolf 230kV line	5/1/2017	12/31/2018		Active	Complete		Complete
388	5/30/2003	5/30/2003	Active	SC	PV		S		225		225	Fuel Capacity	KERN	CA	SCE	Cottonwood-Whitewolf 230kV line	5/1/2017	12/31/2018		Active	Complete		Complete
393	5/30/2003	5/30/2003	Active	SC	WT		W		150		150	Energy Only	KERN	CA	SCE	Pastoria Substation 230kV	10/1/2011	12/31/2012		Complete	Complete		Active
412	6/30/2003	6/30/2003	Active	SC	PV		S		250		250	Fuel Capacity	LOS ANGELES	CA	SCE	Whitewolf Substation 230kV	5/1/2012	12/31/2013		Complete	Complete		Complete
417	7/8/2003	7/8/2003	Active	SC	WT		W		14		14	Fuel Capacity	CONTRA COSTA	CA	PGE	Altamont-Tesla 230kV line	10/31/2010	12/15/2013		Complete	Complete		150 Executed
421	7/9/2003	7/9/2003	Active	SC	ST		S		49.5		49.5	Fuel Capacity	RIVERSIDE	CA	SCE	Mesa-Devers Mountain 161kV line	5/1/2014	5/1/2017		Complete	Complete		Active
423	7/10/2003	7/10/2003	Active	SC	ST		S		100		100	Fuel Capacity	IMPERIAL	CA	IID-EC	Imperial Valley Substation	5/1/2014	6/1/2015		Complete	Complete		Active
442	7/30/2003	7/30/2003	Active	SC	PV		S		125		125	Fuel Capacity	IMPERIAL	CA	SDGE	Imperial Valley 230kV	10/1/2014	5/1/2017		Complete	Complete		Active
467	9/30/2003	9/12/2003	Active	SC	ST		S		230		230	Fuel Capacity	CLARK	NV	SCE	Eldorado-Lugo 230kV line	6/1/2012	12/31/2015		Active	Complete		Active
468	9/30/2003	9/12/2003	Active	SC	PV		S		250		250	Fuel Capacity	YUMA	AZ	SDGE	Hoassanga-North City 500kV line	6/1/2013	6/30/2016		Complete	Complete		Complete
470	10/6/2003	10/6/2003	Active	SGIP	PV		S		20		20	Fuel Capacity	KINGS	CA	PGE	Tupman-Comet Substation 70kV bus	6/1/2011	5/1/2013		Complete	Complete		Complete
471	10/6/2003	10/6/2003	Active	SGIP	PV		S		20		20	Fuel Capacity	KINGS	CA	PGE	Tupman-Comet Substation 70kV bus	6/1/2011	6/1/2013		Complete	Complete		Complete
472	10/7/2003	10/7/2003	Active	SGIP	PV		S		20		20	Fuel Capacity	TULARE	CA	PGE	Smyrna-Moreno 115kV line	5/1/2012	6/1/2013		Complete	Active		Complete
474	10/7/2003	10/7/2003	Active	SGIP	IC		LFG		3.15		3.15	Energy Only	HARIM	CA	PGE	Gallo#6 60 kV bus	5/31/2010	6/1/2013		Complete	Active		Complete
477	10/21/2003	10/21/2003	Active	SGIP	PV		S		4		4	Energy Only	ALTO	CA	PGE	Cottonwood-Table Mountain 69kV line	10/1/2010	5/30/2012			Complete		Complete
478	10/21/2003	10/21/2003	Active	SGIP	PV		S		20		20	Fuel Capacity	KERN	CA	PGE	Cottonwood-Kingsburg 115kV #2 line	11/1/2011	6/15/2013		Active	Complete		Active
479	10/21/2003	10/21/2003	Active	SGIP	PV		S		20		20	Fuel Capacity	TULARE	CA	PGE	Smyrna-Moreno 115kV line	10/1/2011	6/1/2013		Complete	Complete		Executed
482	10/27/2003	10/27/2003	Active	SGIP	PV		S		20		20	Energy Only	SAN DIEGO	CA	SDGE	Borrego Substation 69kV (withdrawn)	12/31/2010	10/31/2013		Active	Active		
491	11/7/2003	10/30/2003	Active	SGIP	WT		W		10.4		10.4	Energy Only	AMADOR	CA	PGE	Valley Springs-Bellota #2 115kV line	6/1/2008	12/1/2012		Complete	Complete		Complete

Report Run Date: 4/19/2013

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The California ISO Controlled Grid Generation Queue - CISO Active

Queue Position	Interconnection Request Receive Date	Queue Date	Application Status	Study Process	Generating Facility				Maximum MWs			Fuel	Location			Point of Interconnection	Proposed On-line Date (as filed with IR)	Current On-line Date	Study Availability				
					Type-1	Type-2	Fuel-1	Fuel-2	Summer-1	Summer-2	Winter (Total)		County	State	Utility	Station or Transmission Line			Feasibility Study (FS)	System Impact Study or Phase I Cluster Study	Facilities Study (FAS) or Phase II Cluster Study	Optional Study (OS)	Interconnection Agreement Status
482	4/24/2009	4/24/2009	Active	SGIP	PV		S		20		20	Full Capacity	TULARE	CA	PGE	Tulare-Alpaugh 115kV line	6/1/2012	6/1/2012		Complete	Complete		Active
484	5/1/2009	5/1/2009	Active	SGIP	PV		S		20		20	Full Capacity	SACRAMENTO	CA	PGE	Atlantic-Placer 115 kV line	12/31/2013	12/31/2013		Complete	Complete		Complete
486	4/24/2009	4/24/2009	Active	SGIP	PV		S		20		20	Energy Only	KERN	CA	SCE	Antelope-Mountain View line	11/1/2012	11/1/2013	Complete	Active	Active		
490	9/8/2009	7/31/2009	Active	G2	ST		WH		48		48	Full Capacity	SAN DIEGO	CA	SDGE	Los Coches Indoor Generating Station 230kV switchyard	12/31/2012	12/31/2012		Active	Active		Active
493	7/14/2009	7/31/2009	Active	G2	WT		W		249		249	Full Capacity	IMPERIAL	CA	SDGE	Imperial Windfarm 500kV line	12/31/2013	12/31/2013		Active	Complete		Active
494	7/20/2009	7/31/2009	Active	G2	PV		S		350		350	Full Capacity	KERN	CA	SCE	Windhub Substation 230kV	12/31/2013	9/1/2013		Restudy	Complete		Active
495	7/24/2009	7/31/2009	Active	G2	H		WTE		7.2		7.2	Full Capacity	TEHACHAPI	CA	SCE	Tehachi 115kV line	10/1/2011	12/31/2013		Complete	Active		
502	10/8/2009	7/31/2009	Active	G2	PV		S		20		20	Full Capacity	STARK	NV	SCE	Chevron Substation 230kV line	5/31/2011	10/1/2013		Restudy	Complete		Active
503	7/30/2009	7/31/2009	Active	G2	PV		S		155		155	Full Capacity	STARK	NV	SCE	Eldorado Substation 230kV line	12/31/2013	8/1/2013		Active	Complete		
504	7/30/2009	7/31/2009	Active	G2	PV		S		350		350	Full Capacity	KERN	CA	SCE	Windhub Substation 230kV	12/31/2013	11/30/2013		Restudy	Complete		Active
506	7/31/2009	7/31/2009	Active	G2	PV		S		200		200	Full Capacity	IMPERIAL	CA	SDGE	Imperial Valley Substation 230kV bus	7/15/2013	11/1/2013		Restudy	Complete		Complete
512	8/13/2009	7/31/2009	Active	G2	PV		S		20		20	Full Capacity	LOS ANGELES	CA	SCE	Magunden Substation 66kV	12/31/2013	12/31/2013		Restudy	Complete		Active
513	8/13/2009	7/31/2009	Active	G2	PV		S		141		141	Full Capacity	LOS ANGELES	CA	SCE	Whitewater Substation 230kV	8/30/2013	8/1/2013		Restudy	Complete		Active
514	8/13/2009	7/31/2009	Active	SGIP	PV		S		20		20	Energy Only	KERN	CA	PGE	Arco Substation 66kV bus	5/31/2010	9/1/2012		Complete	Complete		Active
515	8/13/2009	8/31/2009	Active	SGIP	PV		S		20		20	Full Capacity	KERN	CA	PGE	Kern 115kV line, #1 230kV line	5/31/2010	12/31/2012		Complete	Complete		
517	8/13/2009	8/31/2009	Active	SGIP	PV		S		20		20	Full Capacity	KERN	CA	SCE	Fairfax Canyon 66kV line	5/31/2010	12/31/2013			Active		
518	8/13/2009	8/31/2009	Active	SGIP-TE	PV		S		20		20	Full Capacity	KERN	CA	SCE	Fairfax Canyon 66kV line	5/31/2010	12/31/2013			Active		
519A	8/13/2009	8/31/2009	Active	SGIP	PV		S		20		20	Full Capacity	KERN	CA	SCE	Rosamond Substation 66kV	5/31/2011	12/31/2013		Active	Complete		Complete
519B	8/13/2009	8/31/2009	Active	SGIP	PV		S		20		20	Energy Only	KERN	CA	SCE	Rosamond leg of the Cal Cement-Hanson Rosamond-Abel 7 proj. 66kV line	12/1/2013	12/31/2013		Complete			
520C	8/13/2009	8/31/2009	Active	SGIP-TE	PV		S		20		20	Energy Only	KERN	CA	SCE	Kern River-Lamont 12 66kV line	5/31/2013	12/31/2013			Active		
523	8/17/2009	8/17/2009	Active	SGIP	PV		S		20		20	Energy Only	KINGS	CA	PGE	Arco Substation 70kV bus	12/30/2011	6/30/2013		Complete	Complete		
524	8/17/2009	8/17/2009	Active	SGIP	PV		S		20		20	Energy Only	TULARE	CA	PGE	Substation-Outlook #2 70kV line	5/1/2012	7/1/2013		Complete	Complete		
525	8/21/2009	8/21/2009	Active	SGIP	PV		S		20		20	Energy Only	KINGS	CA	PGE	Corcoran-Stratford #1 115kV line	6/1/2013	8/1/2013		Complete	Complete		
526A	8/21/2009	8/21/2009	Active	SGIP	ST		WH		16.5		16.5	Energy Only	TULARE	CA	PGE	Tulare-Corcoran 70kV line	6/1/2011	12/31/2013	Complete	Active	Active		
526B	8/21/2009	8/21/2009	Active	SGIP	PV		S		20		20	Energy Only	LOS ANGELES	CA	SCE	Antelope-Del Sur 66kV line	6/1/2011	8/1/2012	Complete		Complete		
527	8/21/2009	8/21/2009	Active	SGIP	PV		S		20		20	Energy Only	TULARE	CA	SCE	Tulare/Kaweah-Tulare/Outlook 70kV line	12/1/2012	9/1/2013		Complete	Active		
527A	11/23/2010	11/23/2010	Active	SGIP	WT		W		19.5		19.5	Energy Only	KERN	CA	SCE	Chalmette Substation	6/1/2011	4/1/2011		Complete			
530	8/31/2009	8/31/2009	Active	SGIP	PV		S		20		20	Full Capacity	STANISLAUS	CA	PGE	Salado-Mormon #1 70kV line	5/31/2012	9/1/2012		Active	Active		
540	9/24/2009	9/22/2009	Active	SGIP	PV		S		20		20	Energy Only	LOS ANGELES	CA	SCE	Little Rock-Palo 66kV line	5/1/2013	5/1/2014		Complete			
541	9/24/2010	9/22/2010	Active	SGIP-TE	PV		S		20		20	Full Capacity	FRESNO	CA	PGE	Parnelee-Del Cerro 115kV line	12/1/2012	12/1/2012		Active	Complete		
542	9/24/2010	9/22/2010	Active	SGIP	PV		S		20		20	Energy Only	FRESNO	CA	PGE	Schindler Sub 70kV bus	12/1/2012	6/1/2013		Active	Complete		
544	9/27/2010	9/27/2010	Active	SGIP	PV		S		15		15	Energy Only	LOS ANGELES	CA	SCE	Redondo-Pico 66kV Tap	12/1/2010	12/1/2012		Complete	Active		
545	9/27/2010	9/27/2010	Active	SGIP	PV		S		20		20	Energy Only	LOS ANGELES	CA	SCE	Loop Rustman-Lemoore 66kV	12/1/2012	12/1/2012		Complete	Active		
548	11/19/2009	8/15/2010	Active	SGIP	PV		S		20		20	Energy Only	KINGS	CA	PGE	Mercy Springs Substation 70kV	12/31/2013	12/31/2013		Complete	Active		
550	12/4/2009	8/19/2010	Active	SGIP	PV		S		20		20	Full Capacity	TULARE	CA	PGE	Merced #1 70kV	12/15/2011	8/30/2012		Active	Complete		
552	10/2/2009	9/1/2010	Active	G2	PV		S		80		80	Full Capacity	SAN BERNARDINO	CA	SCE	Lugo-Pisgah #1 230kV	8/1/2011	4/30/2013		Active	Complete		Active
557	10/7/2010	9/1/2010	Active	G2	PV		S		19.75		19.75	Full Capacity	TULARE	CA	PGE	Smyrna-Alpaugh 115kV line	4/1/2013	4/1/2013		Active	Active		
558	10/7/2010	9/1/2010	Active	G2	PV		S		19.75		19.75	Full Capacity	KINGS	CA	PGE	Corcoran-Kingsburg #2 115kV	9/1/2011	9/15/2013		Active	Active		
559	10/7/2010	9/1/2010	Active	G2	PV		S		67.5		67.5	Full Capacity	KERN	CA	PGE	Wheeler Ridge-Lamont 115kV	7/1/2014	10/1/2014		Complete	Active		
560	10/7/2010	9/1/2010	Active	G2	PV		S		110		110	Full Capacity	MERCED	CA	PGE	Los Banos-Dos Amigos 230kV	7/1/2013	3/31/2014		Complete	Active		
561	10/7/2010	9/1/2010	Active	G2	PV		S		200		200	Full Capacity	IMPERIAL	CA	SDGE	Imperial Valley Sub 230kV bus	7/1/2013	12/1/2014		Complete	Complete		Active
565	10/7/2010	9/1/2010	Active	G2	IC		NG		100		100	Full Capacity	SAN DIEGO	CA	SDGE	Carlton Substation 138kV	5/31/2014	5/31/2014		Complete	Complete		Active
568	10/8/2010	9/1/2010	Active	G2	CC		NG		25		25	Full Capacity	ALAMEDA	CA	PGE	Fairshore Substation 230kV Bus	5/1/2013	8/1/2012		Complete	Complete		
569	10/8/2010	9/1/2010	Active	G2	CC		NG		600		600	Full Capacity	SUTTER	CA	PGE	Table Mountain-Tesla 500kV	5/1/2011	5/1/2014		Complete	Complete		
574	10/8/2010	9/1/2010	Active	G2	CT		NG		308		308	Full Capacity	SAN DIEGO	CA	SDGE	Otay Mesa Sub 230kV bus	5/1/2011	5/1/2014		Complete	Complete		Active
576	10/8/2010	9/1/2010	Active	G2	PV		S		485		485	Full Capacity	RIVERSIDE	CA	SCE	Colorado River Sub 230kV Bus	12/31/2013	12/31/2013		Complete	Complete		Active
577	10/8/2010	9/1/2010	Active	G2	PV		S		110		110	Full Capacity	MERCED	CA	PGE	Los Banos-Wardley 230kV	12/31/2013	12/31/2014		Complete	Complete		
581	10/8/2010	9/1/2010	Active	G2	PV		S		100		100	Full Capacity	KINGS	CA	PGE	Mendota Sub 115kV Bus	5/1/2011	12/31/2013		Complete	Active		
582	10/8/2010	9/1/2010	Active	G2	WT		W		52.5		52.5	Energy Only	SAN DIEGO	CA	SDGE	Boulevard Sub 138kV Bus	12/31/2012	7/1/2014		Complete	Complete		Active
584	10/8/2010	9/1/2010	Active	G2	ST		G		49.9		49.9	Full Capacity	SONOMA	CA	PGE	Geysers #17-Fulton 230kV	6/1/2013	5/31/2013		Complete	Active		
588	10/8/2010	9/1/2010	Active	G2	PV		S		300		300	Full Capacity	RIVERSIDE	CA	SCE	Red Bluff Substation 230kV	12/31/2012	9/1/2011		Complete	Complete		Active
590	10/8/2010	9/1/2010	Active	G2	PV		S		40		40	Full Capacity	SAN BERNARDINO	CA	SCE	Victor Substation 115kV	12/31/2012	9/1/2013		Complete	Complete		Active
599	10/8/2010	9/1/2010	Active	G2	PV		S		150		150	Full Capacity	IMPERIAL	CA	SDGE	Imperial Valley Sub 230kV bus	12/31/2012	9/30/2013		Complete	Complete		Active
561	10/8/2010	9/1/2010	Active	G2	PV		S		110		110	Full Capacity	SAN BERNARDINO	CA	SCE	Mojave Generating Station 500kV bus	7/1/2014	7/1/2014		Restudy	Complete		
602	10/8/2010	9/1/2010	Active	G2	PV		S		150		150	Full Capacity	KERN	CA	SCE	Windhub Substation 230kV	7/1/2013	7/1/2013		Restudy	Complete		Active
606	10/8/2010	9/1/2010	Active	G2	CC		NG		50		50	Full Capacity	SAN JOAQUIN	CA	PGE	Schulte Switching Station 115kV bus	9/1/2012	9/1/2012		Complete	Active		
607	10/8/2010	9/1/2010	Active	G2	PV		S		60		60	Full Capacity	FRESNO	CA	PGE	Herndon Substation 115kV bus	10/1/2012	12/1/2012		Complete	Complete		
608	10/8/2010	9/1/2010	Active	G2	PV		S		150		150	Full Capacity	IMPERIAL	CA	SDGE	Imperial Valley Sub 230kV bus	9/1/2013	12/1/2013		Restudy	Complete		Active
609	10/8/2010	9/1/2010	Active	SGIP	PV		S		20		20	Energy Only	LOS ANGELES	CA	SCE	Rosamond Substation 66kV bus	9/30/2012	9/30/2012		Active	Active		

California ISO

The California ISO Controlled Grid Generation Queue - CISO Active

Queue Position	Interconnection Request Receive Date	Status Date	Application Status	Study Process	Generating Facility				Maximum MWs			Fuel Type	Location		Point of Interconnection		Proposed On-line Date as Submitted	Current On-line Date	Study Availability				
					Type-1	Type-2	Fuel-1	Fuel-2	Summer-1	Summer-2	Winter (Total)		County	State	Utility	Station or Transmission Line			Feasibility Study (FAs)	System Impact Study or Phase I Cluster Study	Facilities Study (FAs) or Phase II Cluster Study	Optional Study (OS)	Interconnection Agreement Status
612	2/15/2010	2/15/2010	Active	SGIP	PV		S		12		12	Full Capacity	FRESNO	CA	PGE	Panoche Substation #2 115kV Line	12/31/2013	12/31/2013		Active	Active		
613	2/15/2010	2/15/2010	Active	SGIP	PV		S		20		20	Energy Only	FRESNO	CA	PGE	Helm 230kV bus	2/28/2014	2/28/2014		Active	Active		
614	3/1/2010	3/1/2010	Active	SGIP	PV		S		20		20	Energy Only	FRESNO	CA	SCE	Kerman-Mustang 66kV	1/1/2011	1/1/2011		Active	Active		Active
615	3/1/2010	3/1/2010	Active	SGIP	PV		S		20		20	Energy Only	SAN JOAQUIN	CA	PGE	Tesla-Kasson 115kV	6/30/2012	6/30/2013		Active	Active		
615A	3/3/2010	3/3/2010	Active	SGIP	PV		S		20		20	Energy Only	LOS ANGELES	CA	SCE	Pardee-Redwood 66kV	12/1/2012	1/1/2014		Active			
616	4/26/2010	4/26/2010	Active	SGIP	PV		S		20		20	Full Capacity	KERN	CA	PGE	Copper River Sub 70kV bus	6/1/2014	12/31/2016		Active	Active		
616A	4/26/2010	4/26/2010	Active	SGIP	PV		S		20		20	Energy Only	KERN	CA	PGE	Lakeview Sub 70kV bus	6/1/2014	6/30/2016		Active	Active		
617	5/3/2010	5/3/2010	Active	SGIP-TC	PV		S		20		20	Energy Only	IMPERIAL	CA	SDGE	Imperial Valley Sub 12kV Bus	6/30/2013	6/30/2013			Active		
617A	5/5/2010	5/5/2010	Active	SGIP	PV		S		20		20	Full Capacity	KERN	CA	PGE	Weedpatch - Lost Hills 66 kV line	9/1/2012	12/31/2012		Active			
617B	5/5/2010	5/5/2010	Active	SGIP	PV		S		20		20	Full Capacity	KERN	CA	PGE	Wheeler Ridge Sub 115kV Bus	9/1/2013	6/1/2014		Active			
625	5/14/2010	5/14/2010	Active	SGIP	PV		S		20		20	Full Capacity	ERROS	CA	PGE	Henrietta-Gregg 115kV	12/31/2011	12/31/2011		Active	Active		
626	5/17/2010	5/17/2010	Active	SGIP	PV		S		20		20	Full Capacity	ERROS	CA	PGE	Henrietta-Clarence 70kV	12/31/2011	12/31/2011		Active	Complete		
627	5/18/2010	5/18/2010	Active	SGIP-TC	PV		S		20		20	Full Capacity	LOS ANGELES	CA	SCE	Antelope-Del Cerro#2 66kV	12/1/2011	12/1/2012			Complete		
631	5/24/2010	5/24/2010	Active	SGIP	PV		S		20		20	Full Capacity	FRESNO	CA	PGE	Sanger SW Station - Sanger 69kV line	6/30/2014	6/30/2014		Active	Active		
632	5/25/2010	5/25/2010	Active	SGIP	PV		S		10		10	Full Capacity	FRESNO	CA	PGE	Wren 70kV bus	12/31/2012	12/31/2012		Active	Active		
632B	6/1/2010	6/1/2010	Active	SGIP-TC	PV		S		20		20	Full Capacity	FRESNO	CA	PGE	Sanger SW Station 70kV	12/31/2012	12/31/2012		Active	Active		
632C	6/1/2010	6/1/2010	Active	SGIP-TC	PV		S		20		20	Full Capacity	FRESNO	CA	PGE	Sanger SW Station 70kV	12/31/2012	12/31/2012			Active		
632AA	5/28/2010	5/28/2010	Active	SGIP-TC	PV		S		11		11	Full Capacity	SAN DIEGO	CA	SDGE	Bernardo-Lamar 12 kV	9/1/2011	6/1/2012		Active	Active		
633	6/2/2010	6/2/2010	Active	SGIP	PV		S		20		20	Full Capacity	FRESNO	CA	PGE	Wren-Challenge 70kV line #1	12/30/2012	12/30/2012		Active	Active		
634	6/3/2010	6/3/2010	Active	SGIP	PV		S		20		20	Full Capacity	ERROS	CA	PGE	Clayton Junction-Lawrence Tap 70kV	6/30/2013	6/30/2013		Active	Active		
635	6/2/2010	6/2/2010	Active	SGIP	PV		S		20		20	Full Capacity	ERROS	CA	PGE	Lassen Road (Delevan) 115kV Tap	12/31/2012	12/31/2012		Active	Active		
637	6/2/2010	6/2/2010	Active	SGIP	PV		S		20		20	Full Capacity	ERROS	CA	PGE	Henrietta-Kingston-Corcoran 66kV	12/31/2012	12/31/2012		Active			
638	6/8/2010	6/8/2010	Active	SGIP	PV		S		10		10	Full Capacity	FRESNO	CA	PGE	Corcoran-Hanford 70kV	12/31/2012	6/30/2013		Active	Active		
641	6/8/2010	6/8/2010	Active	SGIP-TC	PV		S		20			Full Capacity	GLENN	CA	PGE	Elk Creek-Willows Tap	6/30/2011	3/1/2013		Active	Complete		
643D	7/30/2010	7/16/2010	Active	CI	PV		S		150		150	Full Capacity	KERN	CA	PGE	Magunden Sub 70kV Bus	12/31/2014	12/31/2016		Requested			
643E	7/30/2010	7/16/2010	Active	CI	PV		S		200		200	Full Capacity	FRESNO	CA	PGE	Schindler Sub 115 kV Bus	12/31/2014	12/31/2014		Requested			
643F	7/30/2010	7/16/2010	Active	CI	PV		S		220		220	Full Capacity	KERN	CA	PGE	Rio Bravo-Lakefield 230kV	6/1/2014	6/1/2014		Requested			
643G	7/30/2010	7/16/2010	Active	CI	ST		B		22.15		22.15	Full Capacity	SHASTA	CA	PGE	Cascade-Cottonwood 115kV	6/1/2012	6/1/2013		Requested			
643I	7/30/2010	7/16/2010	Active	CI	PV		S		200			Full Capacity	FRESNO	CA	PGE	Pendale-Donalson 115 kV	6/1/2014	6/1/2014		Active			
643J	7/30/2010	7/16/2010	Active	CI	PV		S		80		80	Full Capacity	FRESNO	CA	PGE	Castaic #2-Gilhaley 70 kV	6/1/2013	6/1/2013		Requested			
643O	7/30/2010	7/16/2010	Active	CI	PV		S		20		20	Full Capacity	YOLO	CA	PGE	Brighton-Davis 115 kV	6/1/2014	6/1/2015		Requested			
643P	7/30/2010	7/16/2010	Active	CI	PV		S		200		200	Full Capacity	KERN	CA	PGE	Westwind Sub 230kV Bus	6/1/2013	6/1/2013		Requested			
643T	7/30/2010	7/16/2010	Active	CI	CT	PV	WD	S	1230	780	1230	Full Capacity	MARICOPA	AZ	SCE	Pinnacle Peak-Mesa 230 kV line	12/31/2015	6/31/2015		Requested			
643W	7/30/2010	7/16/2010	Active	CI	PV		S		100		100	Full Capacity	ERROS	CA	PGE	Gates-Gregg 230 kV and Gates-McCall 230kV	6/30/2014	12/31/2015			Complete		
643X	7/30/2010	7/16/2010	Active	CI	PV		S		200		200	Full Capacity	FRESNO	CA	PGE	Mesa-Panoche 230kV and Panoche-Academy 230kV	6/30/2014	6/30/2014		Requested			
643AA	7/30/2010	7/16/2010	Active	CI	WT		W		202.5		202.5	Full Capacity	LOS ANGELES	CA	SCE	Antelope Sub 230kV Bus	12/31/2013	12/31/2013		Requested			
643AC	7/30/2010	7/16/2010	Active	CI	ST		S		720		720	Full Capacity	RIVERSIDE	CA	SCE	Coachella-Knox Sub 230 kV Bus	6/1/2015	6/1/2015		Requested			
643AE	7/30/2010	7/16/2010	Active	CI	PV		S		140		140	Full Capacity	RIVERSIDE	CA	SCE	Red Bluff Sub 230kV Bus	6/1/2014	6/1/2014		Requested			
643AF	7/30/2010	7/16/2010	Active	CI	PV		S		200		200	Full Capacity	CLARK	NV	SCE	Eldorado Sub 220 kV Bus	10/30/2014	10/30/2014		Requested			
643AJ	7/30/2010	7/16/2010	Active	CI	PV		S		100		100	Full Capacity	KERN	CA	SCE	Whitewolf Sub 230kV Bus	6/1/2013	6/1/2014		Requested			
643AM	7/30/2010	7/16/2010	Active	CI	PV		S		43		43	Energy Only	IMPERIAL	CA	SDGE	Imperial Valley 230kV bus	6/1/2014	6/1/2014		Requested			
643AP	7/30/2010	7/16/2010	Active	CI	WT		W		99.1		99.1	Full Capacity	IMPERIAL	CA	SDGE	Sunrise Powerlink 500kV	12/31/2013	12/31/2013		Requested			
644	8/10/2010	8/10/2010	Active	SGIP-TC	PV		S		20			Full Capacity	MADERA	CA	PGE	Storey-Legrand 115 kV	6/1/2012	6/1/2013		Active	Complete		Complete
644A	8/17/2010	8/17/2010	Active	SGIP-TC	PV		S		20			Full Capacity	SAN DIEGO	CA	SDGE	Otay County Sub 138kV Bus	6/1/2012	6/1/2014		Requested	Complete		
645A	8/23/2010	8/23/2010	Active	SGIP-TC	PV		S		20			Full Capacity	KERN	CA	PGE	Westpark-Wheeler Ridge 70kV	12/31/2012	12/31/2012		Requested	Complete		
646	8/27/2010	8/27/2010	Active	SGIP-TC	PV		S		9		9	Full Capacity	FRESNO	CA	PGE	Cresser #2 115kV Tap	6/1/2013	6/1/2013		Active	Active		
647	8/31/2010	8/31/2010	Active	SGIP-TC	PV		S		20		20	Full Capacity	KERN	CA	PGE	Famoso - Old River 115 kV	6/1/2012	6/30/2012		Active	Active		
648	8/31/2010	8/31/2010	Active	SGIP-TC	PV		S		20		20	Full Capacity	FRESNO	CA	PGE	Panoche-Oro Loma 115kV Tap	6/30/2012	6/30/2012		Active	Active		
649	8/31/2010	8/31/2010	Active	SGIP-TC	PV		S		20		20	Full Capacity	FRESNO	CA	PGE	Helm 70kV	12/31/2013	12/31/2013		Active	Active		
649	8/31/2010	8/31/2010	Active	SGIP-TC	PV		S		11.25		11.25	Full Capacity	IMPERIAL	CA	PGE	Brawley-Midway 92 kV	6/1/2013	6/1/2013		Active	Active		
649A	9/13/2010	9/13/2010	Active	SGIP-TC	PV		S		10			Energy Only	SOLANO	CA	PGE	Davis-Vaca 60 kV	6/1/2013	6/1/2013		Active	Active		
649B	9/8/2010	9/8/2010	Active	SGIP-TC	PV		S		20			Full Capacity	LOS ANGELES	CA	SCE	Antelope-Del Sur-Neenach 66 kV	12/31/2013	12/31/2013		Active	Active		
649C	9/8/2010	9/8/2010	Active	SGIP-TC	PV		S		20			Full Capacity	LOS ANGELES	CA	SCE	Antelope-Del Cerro#2 66kV	12/31/2013	12/31/2013		Requested	Active		
649AA	10/13/2010	9/8/2010	Active	SGIP-TC	PV		S		15			Full Capacity	LOS ANGELES	CA	SCE	Rosamond-Del Sur 66 kV	12/31/2013	12/31/2013			Active		
650AB	9/8/2010	9/8/2010	Active	SGIP-TC	PV		S		20			Full Capacity	KERN	CA	PGE	Kern River-Live Oak 70kV	12/31/2012	12/31/2012		Active	Complete		
650AC	9/8/2010	9/8/2010	Active	SGIP-TC	PV		S		20			Full Capacity	KERN	CA	PGE	Henrietta Sub 70kV Bus	12/31/2012	12/31/2012		Active	Complete		
651	9/10/2010	9/10/2010	Active	SGIP-TC	PV		S		20			Energy Only	LOS ANGELES	CA	SCE	Whirlwind-Reynolds 66kV	6/1/2012	6/1/2012		Active	Complete		
651A	9/21/2010	9/21/2010	Active	SGIP-TC	PV		S		20			Full Capacity	KERN	CA	PGE	Lamont Sub 66 kV Bus	6/30/2012	6/30/2012			Active		
651	9/10/2010	9/10/2010	Active	SGIP-TC	PV		S		11			Full Capacity	KERN	CA	PGE	Lamont 66 kV	6/1/2013	12/31/2013		Active	Complete		

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					Generating Facility				Maximum MWs										Study Availability				
Queue Position	Interconnection Request Receive Date	Queue Date	Application Status	Study Process	Type-1	Type-2	Fuel-1	Fuel-2	Summer-1	Summer-2	Winter (Total)	Transmission Owner Control Area (TO/CA)	County	State	Utility	Station or Transmission Line	Proposed On-line Date (as filed with IR)	Current On-line Date	Feasibility Study (IFS)	System Impact Study or Phase I Cluster Study	Facilities Study (FAS) or Phase II Cluster Study	Optional Study (OS)	Interconnection Agreement Status
451A	9/29/2010	9/29/2010	Active	SPP-FC	PV		U		20				KERN	CA	PGE	Arco Sub 70 kV Bus	12/31/2013	12/31/2013		Active	Complete		
451B	9/29/2010	9/29/2010	Active	SPP-FC	PV		U		20			Full Capacity	KERN	CA	PGE	Midway - Taft No 2 115kV	5/1/2013	5/1/2013		Active	Complete		
451C	9/29/2010	9/29/2010	Active	SPP-FC	PV		U		20				FRESNO	CA	PGE	Panoche-Helm 70 kV	5/1/2012	6/1/2012		Active	Complete		
451E	9/29/2010	9/29/2010	Active	SPP-FC	PV		U		20			Full Capacity	FRESNO	CA	PGE	Helm Tap 70 kV Bus	6/1/2012	6/1/2012		Active	Complete		
451F	10/7/2010	10/1/2010	Active	SPP-FC	PV		U		20			Full Capacity	YOLO	CA	PGE	Woodland-Davis 115 kV	5/1/2013	5/1/2013		Active	Complete		
451H	10/12/2010	10/1/2010	Active	SPP-FC	PV		U		20			Full Capacity	LANCASTER	CA	SCE	Antelope Sub 66 kV Bus	12/31/2013	12/31/2013		Restored	Active		
451HA	9/29/2010	9/29/2010	Active	SPP-FC	PV		U		20			Energy Only	KERN	CA	SCE	Kern River-Lamont 230 kV	12/31/2012	12/31/2012			Active		
451HB	9/29/2010	9/29/2010	Active	SPP-FC	PV		U		20			Energy Only	KERN	CA	PGE	Carneros-Old River 70 kV	6/1/2012	6/1/2012		Active	Active		
451HC	9/29/2010	9/29/2010	Active	SPP-FC	PV		U		20		20	Full Capacity	SAN DIEGO	CA	SDGE	Boulevard Sub 69 kV Bus	6/1/2013	7/30/2014			Active		
454	10/5/2010	10/5/2010	Active	SPP-FC	PV		U		20			Full Capacity	KERN	CA	PGE	Gosford-Midway #2 115kV	5/1/2013	5/1/2013		Active	Complete		
459	10/8/2010	10/8/2010	Active	SPP-FC	PV		U		20			Full Capacity	LOS ANGELES	CA	SCE	Antelope-Lancaster Sub 66 kV	12/31/2013	12/31/2013		Restored	Active		
460	10/15/2010	10/15/2010	Active	SPP-FC	PV		U		20			Energy Only	LOS ANGELES	CA	SCE	Antelope Sub 66 kV Bus	12/31/2013	12/31/2013		Restored	Active		
461	10/15/2010	10/15/2010	Active	SPP-FC	PV		U		20			Energy Only	LOS ANGELES	CA	SCE	Antelope Sub 66 kV Bus	12/31/2013	12/31/2013			Active		
462	10/15/2010	10/15/2010	Active	SPP-FC	PV		U		20			Full Capacity	LOS ANGELES	CA	SCE	Antelope-Rosamond #2	12/31/2013	12/31/2013		Restored	Active		
463	10/15/2010	10/15/2010	Active	SPP-FC	PV		U		20			Energy Only	LOS ANGELES	CA	SCE	Antelope Sub 66 kV Bus	12/31/2013	12/31/2013		Restored	Active		
465	10/18/2010	10/1/2011	Active	ST	PV		U		5		5	Energy Only	FRESNO	CA	PGE	Corcoran #1 Tap-Lemoore 70kV	10/1/2012	10/1/2012					
466	10/8/2010	10/1/2011	Active	ST	PV		U		5		5	Energy Only	CONTRA COSTA	CA	PGE	Pittsburg - Kirker - Columbia Steel 115 kV Tap	10/1/2012	12/30/2012					
467	10/12/2010	10/1/2011	Active	CY	PV		U		150			Full Capacity	IMPERIAL	CA	SDGE	Imperial Valley Substation 230kV Bus	12/1/2013	12/31/2014		Active			
470	10/13/2010	10/1/2011	Active	CY	PV		U		75		20	Energy Only	LOS ANGELES	CA	SCE	Del Sur-Rinconada 66kV Tie	12/1/2013	12/30/2014		Active			
471	10/13/2010	10/1/2011	Active	CY	PV		U		20		20	Full Capacity	LOS ANGELES	CA	SCE	Antelope-Lancaster and Shuttle 66kV Line	12/1/2013	12/30/2014		Restored			
474	10/14/2010	10/1/2011	Active	CY	PV		U		40		40	Full Capacity	FRESNO	CA	PGE	Panoche-Schindler #1 & #2 115kV	9/1/2013	9/1/2013		Restored			
476	10/15/2010	10/1/2011	Active	CY	PV		U		20		20	Full Capacity	FRESNO	CA	PGE	Tiffen substation 70 kV	9/1/2013	9/1/2013		Restored			
478	10/15/2010	10/1/2011	Active	CY	PV		U		1650		1650	Full Capacity	KERN	CA	PGE	Stroble Canyon - Midway #3 100 kV line	12/1/2019	12/31/2019		Restored			
480	10/15/2010	10/1/2011	Active	CY	PV		U		20		20	Full Capacity	CONTRA COSTA	CA	PGE	Pittsburg - Kirker - Columbia Steel 115 kV	12/1/2012	12/30/2012		Restored			
484	10/15/2010	10/1/2011	Active	CY	PV		U		17.2		17.2	Full Capacity	KINGS	CA	PGE	Hanford - Corcoran 70 kV	8/30/2013	9/1/2014		Restored			
487	10/15/2010	10/1/2011	Active	CY	ST		G		15		15	Full Capacity	CHURCHILL	NV	SCE	Control Sub 115kV Bus via the 230kV Odessa Bus	12/1/2013	12/30/2015		Restored			
492	10/15/2010	10/1/2011	Active	CY	CC		NG		415		415	Full Capacity	LOS ANGELES	CA	SCE	El Segundo Substation 230kV Bus	6/1/2015	6/1/2018		Restored			
493	10/18/2010	10/1/2011	Active	CY	PV		U		20		20	Full Capacity	KERN	CA	PGE	Rockwell Substation 70 kV	5/1/2013	5/1/2013		Restored			
497	10/15/2010	10/1/2011	Active	CY	PV		U		20		20	Full Capacity	LEANDRO	CA	PGE	Oleum sub 115 Kv Bus	7/1/2014	7/1/2014		Restored			
498	10/15/2010	10/1/2011	Active	CY	WT		W		50		50	Full Capacity	ALAMEDA	CA	PGE	Tesla - Vasco 230 kV	12/1/2013	12/31/2013		Restored			
499	10/15/2010	10/1/2011	Active	CY	WT		W		30		30	Full Capacity	ALAMEDA	CA	PGE	Tesla Sub 115 kV	12/1/2013	12/31/2013		Restored			
500	10/15/2010	10/1/2011	Active	CY	ST		G		540			Full Capacity	LIVERMORE	CA	SCE	El Dorado Substation - Vaca Bus	6/30/2014	6/30/2014		Restored			
501	10/15/2010	10/1/2011	Active	CY	H		WTR		4.5		4.5	Energy Only	TEHAMA	CA	PGE	Vaca - Davis #2 kV	12/15/2012	12/30/2013		Restored			
502	10/15/2010	10/1/2011	Active	CY	PV		U		20		20	Full Capacity	FRESNO	CA	PGE	Herndon Sub 230 kV Bus	7/1/2014	7/1/2014		Restored			
503	10/15/2010	10/1/2011	Active	CY	PV		U		20		20	Full Capacity	FRESNO	CA	PGE	Kingsburg Sub 115 kV	7/1/2014	7/1/2014		Restored			
510	10/15/2010	10/1/2011	Active	CY	OT		WH		4.5		4.5	Full Capacity	SAN DIEGO	CA	SDGE	North Island Metering Station 69 kV	12/1/2014	12/30/2014		Restored			
511	10/15/2010	10/1/2011	Active	CY	PV		U		20			Full Capacity	LOS ANGELES	CA	SCE	Goss Substation 66kV Bus	10/1/2013	12/31/2014		Restored			
512	10/15/2010	10/1/2011	Active	CY	ST		G		100		100	Full Capacity	CLARK	NV	SCE	El Dorado Substation 500kV Bus	9/30/2013	9/30/2015		Restored			
514	10/15/2010	10/1/2011	Active	CY	PV		U		20		20	Full Capacity	KERN	CA	PGE	Lamont Sub 115 kV Bus	7/1/2014	7/1/2014		Active			
516	10/15/2010	10/1/2011	Active	CY	PV		U		300		300	Full Capacity	KERN	CA	SCE	230kV Witherell substation	12/31/2014	12/31/2016		Active			
517	10/15/2010	10/1/2011	Active	CY	PV		U		5		5	Full Capacity	TULARE	CA	PGE	Lemoll 70kV Bus - Lemoll 70 kV	12/1/2013	12/31/2013		Active			
518	10/15/2010	10/1/2011	Active	CY	PV		U		12		12	Full Capacity	KINGS	CA	PGE	Corcoran - Hanford 70 kV	12/1/2013	12/31/2013		Active			
519	10/15/2010	10/1/2011	Active	CY	PV		U		75		75	Full Capacity	CONTRA COSTA	CA	PGE	Contra Costa Delta DP 4 kV 230kV	7/1/2014	7/1/2014		Active			
520	10/15/2010	10/1/2011	Active	CY	PV		U		20		20	Full Capacity	STANISLAUS	CA	PGE	Oakdale - Manteca 60 kV	10/1/2013	10/1/2014		Active			
522	10/15/2010	10/1/2011	Active	CY	PV		U		100		100	Full Capacity	LOS ANGELES	CA	SCE	Antelope Substation 230kV Bus	12/31/2014	12/31/2016		Restored			
523	10/15/2010	10/1/2011	Active	CY	PV		U		20		20	Full Capacity	LOS ANGELES	CA	SCE	Antelope-Del Sur 66kV line	12/31/2014	12/31/2016		Restored			
524	10/15/2010	10/1/2011	Active	CY	PV		U		15		15	Full Capacity	KERN	CA	PGE	Arco Tehachapi 70 kV	7/1/2014	7/1/2014		Active			
528	10/15/2010	10/1/2011	Active	CY	PV		U		20		20	Energy Only	LOS ANGELES	CA	SCE	Antelope Substation 66 kV Bus	12/31/2013	12/31/2014		Restored			
529	10/15/2010	10/1/2011	Active	CY	PV		U		200		200	Full Capacity	MERCED	CA	PGE	Los Banos-Panoche #1 230kV	6/30/2014	6/30/2014		Active			
530	10/15/2010	10/1/2011	Active	CY	PV		U		20		20	Full Capacity	SAN DIEGO	CA	SDGE	Bernardo-Penasquitos 69kV line	12/31/2014	12/31/2016		Restored			
531	10/15/2010	10/1/2011	Active	CY	PV		U		50		50	Full Capacity	SAN DIEGO	CA	SDGE	Boulevard Substation 69 kV Bus	12/31/2015	12/31/2016		Restored			
532	10/15/2010	10/1/2011	Active	CY	PV		U		40		40	Full Capacity	SAN DIEGO	CA	SDGE	KV1 Substation 138kV bus	12/31/2015	12/31/2016		Restored			
533	10/15/2010	10/1/2011	Active	CY	PV		U		20		20	Full Capacity	KERN	CA	SCE	Witherell Substation 230kV bus	12/31/2014	12/31/2016		Complete			
534	10/15/2010	10/1/2011	Active	CY	PV		U		400		400	Full Capacity	RIVERSIDE	CA	SCE	Red Hill 3 Substation 230kV	12/31/2014	12/31/2016		Restored			

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					Generating Facility				Maximum MWs					Location		Point of Interconnection					Study Applicability				
Queue Position	Interconnection Request Receive Date	Queue Date	Application Status	Study Process	Type-1	Type-2	Fuel-1	Fuel-2	Summer-1	Summer-2	Wind (Total)	Full Capacity or Energy Only (FCDS)	County	State	Utility	Station or Transmission Line	Proposed On-line Date per Request (M)	Current On-line Date	Feasibility Study (FAS)	System Impact Study or Phase I Cluster Study	Facilities Study (FAS) or Phase II Cluster Study	Optional Study (OS)	Interconnection Agreement Status
748	6/28/2010	6/28/2011	Active	CA	PV		S		221		221	Energy Only	RIVERSIDE	CA	SCE	Colorado River Substation 230kV	12/31/2013	12/31/2013		Scoped			
749	6/28/2011	6/28/2011	Active	CA	PV		S		20		20	Full Capacity	TRUCKEE	CA	PCE	Henderson-Truckee-Kings-Beach 70kV	12/31/2013	12/31/2013		Scoped			
750	6/28/2011	6/28/2011	Active	CA	PV		S		20		20	Full Capacity	TRUCKEE	CA	PCE	Henderson-Truckee-Kings-Beach 70kV	12/31/2013	12/31/2013		Scoped			
751	6/28/2011	6/28/2011	Active	CA	PV		S		20		20	Full Capacity	TRUCKEE	CA	PCE	Henderson-Truckee-Kings-Beach 69kV	12/31/2013	12/31/2013		Scoped			
809	7/11/2011	7/11/2011	Active	CA	PV		S		20		20	Full Capacity	TRUCKEE	CA	PCE	Henderson-Truckee-Kings-Beach 70 kV	12/31/2014	12/31/2014		Scoped			
810	7/11/2011	7/11/2011	Active	CA	PV		S		40		40	Full Capacity	TRUCKEE	CA	PCE	Coleal 70 kV	12/31/2014	12/31/2014		Scoped			
811	7/11/2011	7/11/2011	Active	CA	PV		S		20		20	Full Capacity	TRUCKEE	CA	PCE	Coleal Substation 70kV Bus	12/31/2014	12/31/2014		Scoped			
812	7/11/2011	7/11/2011	Active	CA	PV		S		20		20	Full Capacity	TRUCKEE	CA	PCE	Coleal Substation 70kV Bus	12/31/2014	12/31/2014		Scoped			
813	7/11/2011	7/11/2011	Active	CA	PV		S		20		20	Full Capacity	TRUCKEE	CA	PCE	Coleal Substation 70kV Bus	12/31/2014	12/31/2014		Scoped			
814	7/11/2011	7/11/2011	Active	CA	PV		S		60		60	Full Capacity	TRUCKEE	CA	PCE	Henderson Sub 115 kV Bus	12/31/2014	12/31/2014		Scoped			
815	7/11/2011	7/11/2011	Active	CA	PV		S		50		50	Full Capacity	TRUCKEE	CA	PCE	Kim Lane - Parsolte 115 kV	12/31/2014	12/31/2014		Scoped			
816	7/11/2011	7/11/2011	Active	CA	PV		S		20		20	Energy Only	TRUCKEE	CA	PCE	Henderson Sub 115 kV Bus	12/31/2014	12/31/2014		Scoped			
839	7/11/2011	7/11/2011	Active	CA	PV		S		300		300	Full Capacity	SAN BERNARDINO	CA	SCE	Mesa Parsolte and Calajon-Parsolte 230 kV	12/30/2015	12/31/2015		Active			
840	7/11/2011	7/11/2011	Active	CA	ST		S		540		540	Full Capacity	ERO	CA	SCE	Colorado River Substation 230kV	12/30/16	12/31/2016		Scoped			
841	7/11/2011	7/11/2011	Active	CA	ST		S		150		150	Full Capacity	PIMA	AZ	SRPE	South Gila Substation 500kV	12/31/2015	12/31/2015		Scoped			
842	7/11/2011	7/11/2011	Active	CA	PV		S		20		20	Full Capacity	SAN DIEGO	CA	SDGE	Otay Substation 138kV	12/30/12	12/31/2012		Complete			
843	7/11/2011	7/11/2011	Active	CA	PV		S		100		100	Full Capacity	IMPERIAL	CA	SDGE	Imperial Valley Substation 230kV	12/31/2015	12/31/2015		Scoped			
855	7/11/2011	7/11/2011	Active	CA	PV		S		150		150	Full Capacity	KERN	NV	VEA	Merchant 230 kV Bus	12/30/2014	12/30/2014					
856	7/11/2011	7/11/2011	Active	CA	STR		W		8		8	Energy Only	KERN	CA	SCE	Magunden Substation 66kV Bus	7/1/2012	8/1/2012		Complete			
866	7/11/2011	7/11/2011	Active	CA	ST		W		11		11	Energy Only	CONTRA COSTA	CA	PGE	Newark-Ygnacio Cable 230 kV line	12/31/2013	12/31/2013		Active			
867	7/11/2011	7/11/2011	Active	IT	PV		S		5		5	Energy Only	SAN JOAQUIN	CA	PGE	Tesla-Salado 60 kV Line	12/15/2012	12/15/2012					
887	7/11/2011	7/11/2011	Active	IT	PV		S		5		5	Energy Only	KINGS	CA	PGE	Corcoran 70 kV	12/30/2017	12/30/2017					
888	10/24/2011	10/17/2011	Active	CT	WT		W		72			Full Capacity	HUMBOLDT	CA	PGE	Humboldt-Bridgeville 115 kV line	10/1/2015	10/1/2015					
889	11/8/2011	10/17/2011	Active	CT	WT		W		105			Full Capacity	MESA	CA	PGE	Tesla-Metcalf 230kV line	10/1/2016	10/1/2016					
943	11/15/2011	10/17/2011	Active	CT	PV		S		22			Full Capacity	FRESNO	CA	PGE	Helm Tap-Helm 70kV line	12/1/2015	12/1/2015					
878	11/15/2011	10/17/2011	Active	CT	PV		NG		300			Full Capacity	KERN	CA	PGE	Midway-Wheeler Ridge 230 kV	6/1/2017	6/1/2017					
877	11/15/2011	10/17/2011	Active	CT	PV		S		80			Full Capacity	SAN BENITO	CA	PGE	Colorado River Substation 230kV	3/1/2014	3/1/2014					
872	11/15/2011	10/17/2011	Active	CT	PV		S		75			Full Capacity	KERN	CA	PGE	Calaveras Substation 70kV bus	12/15/2014	12/15/2014					
873	11/9/2011	10/17/2011	Active	CT	PV		S		200			Full Capacity	MARICOPA	AZ	SRP	Coop Pole Yonder-Drivers #5 line 500kV	3/30/2015	3/30/2015					
874	11/9/2011	10/17/2011	Active	CT	PV		S		80			Full Capacity	IMPERIAL	CA	SDGE	Imperial Valley 230kV substation	6/1/2014	12/31/2014					
879	12/9/2011	10/17/2011	Active	IT	PV		S		5			Energy Only	SANTA BARBARA	CA	PGE	Cabrillo 70 kV substation	6/1/2013	12/31/2013					

The California ISO Controlled Grid Generation Queue - CISO Completed

					Generating Facility				Maximum MWs					Location			Point of Interconnection			Study Availability					
Queue Position	Interconnection Request Receive Date	Queue Date	Application Status	Study Process	Type-1	Type-2	Fuel-1	Fuel-2	Summer-1	Summer-2	Winter (Total)	Net Capacity or Energy Only (ECDO)	County	State	Utility	Station or Transmission Line	Proposed On-line Date (as filed with IR)	Current On-line Date	Feasibility Study (FS)	System Impact Study or Phase I Cluster Study	Facilities Study (FAS) or Phase II Cluster Study	Optional Study (OS)	Interconnection Agreement Status
5A	11/01/1999	11/01/1999	Complete	Pre-Amend 30	GC		NG		530		530		SAN DIEGO	CA	SDGE	Miguel Substations	2/1/2002	10/1/2003	NA	Complete	Complete		Executed IA
9	8/30/1999	2/2/2000	Complete	Pre-Amend 30	GC		NG		599				CONTRA COSTA	CA	PGE	Contra Costa Power Plant Post 230 kV bus	11/30/2002	1/7/2005	NA	Complete	Complete		Executed GIFA
4	8/2/2000	8/8/2000	Complete	Pre-Amend 30	CC		NG		521		545		SAN DIEGO	CA	SDGE	Penasquitos 230 kV	4/1/2001	10/15/2002	NA	Complete	Complete		Executed
12	12/15/2000	12/26/2000	Complete	AMEND 30	WT		W		150				SOLANO	CA	PGE	Birds Landing Sub 230kV Bus	12/31/2003	3/30/2004	NA	Complete	Complete		Executed GIFA
14	2/7/2001	1/5/2001	Complete	AMEND 30	CC		NG		93				SAN DIEGO	CA	SDGE	Miguel Tie-line	12/31/2004	10/30/2003	NA	Complete	Complete		Executed
15	3/12/2001	01/16/2001	Complete	AMEND 30	WT		W		48				SAN DIEGO	CA	SDGE	Crestwood	12/31/2003	10/1/2003	NA	Complete	Complete		Executed
31	08/31/2001	08/31/2001	Complete	AMEND 30	WT		W		22.95				CONTRA COSTA	CA	PGE	Westwood/Sweet Vista Sub	7/1/2004	12/29/2004	NA	NA	NA		Executed
32	11/16/2001	11/16/2001	Complete	AMEND 30	WT		W		36				SOLANO	CA	PGE	Birds Landing Sub 230 kV Bus	6/30/2003	12/15/2010	NA	Complete	Complete		Executed GIFA
33	11/17/2001	11/16/2001	Complete	AMEND 30	GC		NG		72				SAN BERNARDINO	CA	SCE	San Bernardino 220/66/12 W	11/1/2004	10/1/2003	NA	Complete	Complete		Executed IFA
34	11/21/2001	11/20/2001	Complete	AMEND 30	WT		W		150				SOLANO	CA	PGE	Birds Winds/Contra Costa PP	12/31/2004	10/1/2003	NA	Complete	Complete		Executed GIFA
53	5/6/2004	11/12/2004	Complete	AMEND 30	ST		O		16				CHEROKEE	NV	SCE	Stanley Control Sub	11/1/2005	5/31/2004	NA	Complete	Complete		Executed LGIA
28	10/12/2001	11/01/2004	Complete	AMEND 30	IC		NG		139.8				HUMBOLDT	CA	PGE	Humboldt Power Plant Substation	6/1/2003	6/30/2010	NA	Complete	Complete		Executed LGIA
50	10/21/2004	12/01/2004	Complete	AMEND 30	CC		NG		615				RIVERSIDE	CA	SCE	Mira Loma Substations	12/31/2005	6/30/2010	NA	Complete	Complete		Executed IA
51	12/28/2004	12/31/2004	Complete	AMEND 30	IC		NG		6.93				FRESNO	CA	PGE	10 10 Recipro-Rein Cogeneration Line	4/30/2005	6/1/2006	NA	NA	NA		Executed GIFA
57	12/31/2001	12/31/2004	Complete	Serial LGIP	ST		NG		401				FRESNO	CA	PGE	Pinedale Substation	6/30/2004	5/30/2003		Complete	Complete		Complete
58	1/3/2005	1/12/2005	Complete	Serial LGIP	ST		NG		113.5				FRESNO	CA	PGE	Pinedale Substation	6/1/2005	5/30/2006	Waived	Complete	Complete		Complete
67	12/7/2004	2/8/2005	Complete	AMEND 30	CC		NG		515				OLIVEHA	CA	PGE	Belleva Cottonwood and Vaca-Dixon	1/1/2010	12/31/2010	NA	Complete	Complete		Executed
61	3/28/2005	3/30/2005	Complete	AMEND 30	ST		NG		73.27				FRESNO	CA	PGE	70kV Herndon	3/31/2006	3/30/2007	NA	Complete	Complete		Executed
70	5/9/2005	01/12/2007	Complete	AMEND 30	IC		LFG		12.8				SAN MATEO	CA	PGE	Millbrae Jct to Half Moon Bay 60 kV line	12/31/2005	6/1/2006	NA	Complete	Complete		Executed GIFA
74	7/13/2005	7/13/2005	Complete	Serial LGIP	WT		W		150				SHASTA	CA	PGE	Pit #3 Round Mountain 230kV Line	12/31/2007	11/19/2010	Active	Complete	Complete		Complete
73	4/28/2005	7/15/2005	Complete	AMEND 30	ST		B		10.5				MADERA	CA	PGE	La Grant-Chowchilla 115 kV	12/31/2005	5/30/2006	NA	Complete	Complete		Executed GIFA
79	8/31/2005	7/13/2005	Complete	AMEND 30	ST		B		10.5				MERCED	CA	PGE	Pit#3 no.5 Merced #1 115 kV	7/1/2007	5/30/2006	NA	Complete	Complete		Executed GIFA
72	5/24/2005	8/2/2005	Complete	Serial LGIP	WT		W		21				KERN	CA	SCE	Windhub Sub 66kV line	6/1/2006	12/30/2013	Complete	Complete	Complete		Complete
87	8/12/2005	8/12/2005	Complete	Serial LGIP	ST		G		33				LAKE	CA	PGE	Eagle Rock - Fulton 230kV Line	6/1/2008	11/1/2007	Active	Complete	Complete		Complete
91	2/22/2006	2/23/2006	Complete	Serial LGIP	WT		W		51				KERN	CA	SCE	Windhub Sub 66kV bus	2/21/2010	12/30/2013	Waived	Complete	Complete		Complete
99	2/13/2006	2/1/2006	Complete	Serial LGIP	WT		W		600				KERN	CA	SCE	Tehachapi Cloverleaf Substation #1	12/31/2009	11/30/2011	Waived	Complete	Complete		Complete
98	2/10/2006	2/8/2006	Complete	TC	ST		NG		21		21	Full Capacity	SAN LUIS OBISPO	CA	PGE	Diablo Canyon Substation Circuit Breakers 532 and 632	12/31/2013	1/1/2008	Active				
96	2/16/2006	2/16/2006	Complete	Serial LGIP	IR		NG		43		43		SAN LUIS OBISPO	CA	PGE	Diablo Canyon Substation Circuit Breakers 542 and 642	6/30/2009	6/30/2009					
100	4/3/2006	4/5/2006	Complete	Serial LGIP	WT		W		120				KERN	CA	SCE	Tehachapi Substation 230kV	12/31/2007	12/30/2013	Waived	Complete	Complete		Complete
121	8/16/2006	8/17/2006	Complete	Serial LGIP	ST		NG		20				SAN DIEGO	CA	SDGE	SDG&E Miramar GT Substation	2/31/2009	6/30/2009	Active	Complete	Complete		Complete
162	1/9/2007	1/9/2007	Complete	Serial LGIP	PV		S		1				SAN BERNARDINO	CA	SCE	Mountain Pass Substation	12/31/2010		Active				Complete
201	6/2/2007	6/15/2007	Complete	Serial LGIP	WT		NG						SAN DIEGO	CA	SDGE	Pala Substation	6/1/2010	6/1/2010	Waived	Complete	Complete		Complete
222	8/23/2007	8/23/2007	Complete	TC	WT		W		19		19	Full Capacity	SOLANO	CA	PGE	Birds Landing Substation 230kV	12/31/2010	12/30/2013		Complete	Complete		Complete
232	10/1/2007	9/6/2007	Complete	Serial LGIP	ST		NG		23.98		23.98		LOS ANGELES	CA	SCE	Eastman Beach Receiving Station 220kV switchyard	6/30/2007	2/6/2010		Complete	Complete		Complete
301A	10/8/2007	10/8/2007	Complete	AMEND 30	PV		S		1				FRESNO	CA	PGE	Mendota Bus Junction (kV) 70kV	4/30/2009	6/30/2010					Executed SGIA
274	11/6/2007	11/13/2007	Complete	Serial LGIP	CC		NG						SAN DIEGO	CA	SDGE	Palomar Substation 230kV	6/30/2009	6/30/2009	Waived	Complete	Complete		Complete
340	12/11/2007	12/13/2007	Complete	TC	ST		B		4			Full Capacity	MADERA	CA	PGE	Tap Dairyland-Berenda 115 kV line	6/30/2008	6/30/2011		Complete	Complete		Complete
472	11/19/2018	6/11/2008	Complete	SGIP	ST		B		11		11	Energy Only	HUMBOLDT	CA	PGE	Blue Lake Tap 60kV	12/30/2008	6/30/2010			Complete		Complete
382	7/31/2008	7/31/2008	Complete	C1	ST		NG		46.9		46.9	Full Capacity	SAN DIEGO	CA	SDGE	El Cajon Sub 69kV Bus	6/30/2010	12/1/2010			Active		Complete

California ISO

The California ISO Controlled Grid Generation Queue - CISO Withdrawn

					Generating Facility				Maximum MWs			Deliverability Status	Location		Point of Interconnection				Study Availability				
Queue Position	Interconnection Request Receive Date	Queue Date	Application Status	Study Process	Type-1	Type-2	Fuel-1	Fuel-2	Summer-1	Summer-2	Winter (Total)	Full Capacity or Energy Only (FC/EO)	County	State	Utility	Station or Transmission Line	Proposed On-line Date (as filed with IR)	Current On-line Date	Feasibility Study (FS)	System Impact Study or Phase I Cluster Study	Facilities Study (FAS) or Phase II Cluster Study	Optional Study (OS)	Interconnection Agreement Status
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

California ISO

The California ISO Controlled Grid Generation Queue - CISO Withdrawn

					Generating Facility				Maximum MWs				Location		Point of Interconnection				Study Availability				
Queue Position	Interconnection Request Receive Date	Queue Date	Application Status	Study Process	Type-1	Type-2	Fuel-1	Fuel-2	Summer-1	Summer-2	Winter (Total)	Net Capacity or Energy Only (MWh)	County	State	Utility	Station or Transmission Line	Proposed On-line Date (as filed with IC)	Current On-line Date	Feasibility Study (FS)	System Impact Study or Phase I Cluster Study	Facilities Study (FAS) or Phase II Cluster Study	Optional Study (OS)	Interconnection Agreement Status
1058	8/3/2010	8/31/2010	Withdrawn	Serial GIP	WT		W		101		101		KERN	CA	SCE	Cantil Tap 115kV	12/31/2013	12/31/2013					
1061	8/4/2010	8/31/2010	Withdrawn	Serial GIP	ST		BIO		104		104		LOS ANGELES	CA	SCE	Laguna Bell Jct. - Cherry Ave.	10/1/2013	10/1/2013	Active	Complete	Complete		
111	1/4/2010	1/6/2010	Withdrawn	Serial GIP	W		W		101		101		HUMBOLDT	CA	PGE	Bridgeville-Rio Dell Jct. - Humboldt 115kV	12/31/2014	12/31/2015	Active				
230	5/27/2010	5/28/2010	Withdrawn	Serial GIP	ST		W		479		479		SAN BERNARDINO	CA	SCE	Mohave 230 kV Switchyard	12/31/2013	12/31/2013	Complete	Active			
231	5/27/2010	5/28/2010	Withdrawn	Serial GIP	ST		W		149		149		KERN	CA	PGE	Midway-Gates #1 230kV line	12/31/2013	12/31/2013	Complete				
1064	8/4/2010	8/31/2010	Withdrawn	Serial GIP	ST		W		100		100		KERN	CA	PGE	Kern Power Station	12/31/2013	12/31/2013	Complete			Active	
1065	8/4/2010	8/31/2010	Withdrawn	Serial GIP	Hy		S		230		230		SAN BERNARDINO	CA	SCE	Rimrock Substation	6/1/2011	6/1/2011	Complete	Active			
1132	8/4/2010	8/31/2010	Withdrawn	Serial GIP	PV		S		1000		1000		SAN BERNARDINO	CA	SCE	Kramer Substation	6/1/2013	6/1/2013	Complete	Active			
117	1/5/2010	1/7/2010	Withdrawn	Serial GIP	WT		W		200		200		SAN LUIS OBI	CA	PGE	Mesa Loop-In	12/31/2013	12/31/2013	Complete	Complete	Active		
118	1/5/2010	1/7/2010	Withdrawn	Serial GIP	WT		W		150		150		SAN BERNARDINO	CA	SCE	Vista 220 kV	6/1/2013	6/1/2013	Complete	Active			
119	1/5/2010	1/7/2010	Withdrawn	Serial GIP	WT		W		150		150		SAN BERNARDINO	CA	SCE	Lugo-Pisgah 230kV line	6/1/2013	6/1/2013	Complete	Active			
120	1/5/2010	1/7/2010	Withdrawn	Serial GIP	WT		W		150		150		SAN BERNARDINO	CA	SCE	Lugo-Pisgah 230kV line	6/1/2013	6/1/2013	Complete	Active			
121	1/5/2010	1/7/2010	Withdrawn	Serial GIP	PV		S		20		20		HUMBOLDT	CA	PGE	Bridgeville-Rio Dell Jct. - Humboldt	12/31/2013	12/31/2013					
114	1/4/2010	1/6/2010	Withdrawn	Serial GIP	CC		NG		100		100		ORANGE	CA	SCE	SCE Western Generation	6/1/2013	6/1/2013	Complete	Active			
1060	8/3/2010	8/31/2010	Withdrawn	Serial GIP	PV		S		100		100		SAN BERNARDINO	CA	SCE	Mohave 500 kV Switchyard	6/1/2011	6/1/2011	Active				
123	1/6/2010	1/8/2010	Withdrawn	Serial GIP	ST		NG		49		49		ORANGE	CA	SCE	SCE Western Generation	6/1/2013	6/1/2013	Active	Active			
124		1/8/2010	Withdrawn	Serial GIP	ST		NG		49		49		SAN DIEGO	CA	SDGE	SDGE Pio Pico Substation	6/1/2013	6/1/2013					
125	1/7/2010	1/8/2010	Withdrawn	Serial GIP	CC		NG		500		500		SAN BERNARDINO	CA	SCE	Etiwanda-Vista 230kV line	6/1/2013	6/1/2013	Active	Complete	Complete		
126	1/7/2010	1/8/2010	Withdrawn	Serial GIP	CC		NG		500		500		IMPERIAL	CA	IID	Midway Substation	12/1/2013	12/1/2013	Complete	Complete	In Study		
127	1/7/2010	1/8/2010	Withdrawn	Serial GIP	WT		W		100		100		SAN BERNARDINO	CA	SCE	Mirage 230kV Substation	6/1/2013	6/1/2013					
128	1/7/2010	1/8/2010	Withdrawn	Serial GIP	ST		S		50		50		SAN BERNARDINO	CA	SCE	Mohave Generating Station	12/31/2013	12/31/2013	Active				
129	1/7/2010	1/8/2010	Withdrawn	Serial GIP	ST		S		100		100		SAN BERNARDINO	CA	SCE	Rimrock 115kV	6/1/2013	6/1/2013	Active				
130		1/8/2010	Withdrawn	Serial GIP	CT		NG		200		200		KERN	CA	PGE	Kern Power Station	12/31/2013	12/31/2013					
131	1/8/2010	1/8/2010	Withdrawn	Serial GIP	WT		W		100		100		SAN BERNARDINO	CA	SCE	Mirage 230kV Substation	6/1/2013	6/1/2013	Active	Complete	Complete		Active
132	1/8/2010	1/8/2010	Withdrawn	Serial GIP	ST		W		100		100		SAN BERNARDINO	CA	SCE	Lugo-Pisgah 230kV line	6/1/2013	6/1/2013	Active	Complete	Complete		Active
133	1/8/2010	1/8/2010	Withdrawn	Serial GIP	CC		NG		500		500		SAN BERNARDINO	CA	SCE	Etiwanda-Vista 230kV line	6/1/2013	6/1/2013	Active				
134		1/8/2010	Withdrawn	Serial GIP	CT		NG		200		200		KERN	CA	PGE	Kern Power Station	12/31/2013	12/31/2013					
135	1/8/2010	1/8/2010	Withdrawn	Serial GIP	CC		NG		500		500		SAN BERNARDINO	CA	SCE	Etiwanda-Vista 230kV line	6/1/2013	6/1/2013	Active				
136	1/8/2010	1/8/2010	Withdrawn	Serial GIP	CC		NG		500		500		SAN BERNARDINO	CA	SCE	Etiwanda-Vista 230kV line	6/1/2013	6/1/2013	Active	Complete	Complete		Active
137	1/8/2010	1/8/2010	Withdrawn	Serial GIP	CC		NG		500		500		SAN BERNARDINO	CA	SCE	SCE Western Generation	6/1/2013	6/1/2013	Active	Complete	Complete		Active
138	1/8/2010	1/8/2010	Withdrawn	Serial GIP	ST		S		49		49		KERN	CA	PGE	Kern Power Station	6/1/2013	6/1/2013	Active				
139	1/8/2010	1/8/2010	Withdrawn	Serial GIP	ST		S		100		100		SAN BERNARDINO	CA	SCE	Mohave Generating Station	12/31/2013	12/31/2013	Active	Active			
140	1/8/2010	1/8/2010	Withdrawn	Serial GIP	ST		S		100		100		SAN BERNARDINO	CA	SCE	Kramer Substation	6/1/2013	6/1/2013	Complete	Active			
141	1/8/2010	1/8/2010	Withdrawn	Serial GIP	CC		NG		500		500		SAN BERNARDINO	CA	SCE	Etiwanda-Vista 230kV transmission	6/1/2013	6/1/2013	Active	Active			
142	1/8/2010	1/8/2010	Withdrawn	Serial GIP	ST		S		49		49		SAN BERNARDINO	CA	SCE	Mohave Generating Station	12/31/2013	12/31/2013	Complete	Active			
143	1/8/2010	1/8/2010	Withdrawn	Serial GIP	ST		S		100		100		SAN BERNARDINO	CA	SCE	Kramer Substation	12/31/2013	12/31/2013	Complete	Active			
144	1/8/2010	1/8/2010	Withdrawn	Serial GIP	CC		NG		500		500		IMPERIAL	CA	IID	Midway 230kV Substation	6/1/2013	6/1/2013	Complete	Active	Active		
145	1/8/2010	1/8/2010	Withdrawn	Serial GIP	ST		S		49		49		KERN	CA	PGE	Kern Power Station	6/1/2013	6/1/2013	Active				
146		1/8/2010	Withdrawn	Serial GIP	ST		S		49		49		KERN	CA	PGE	Kern Power Station	6/1/2013	6/1/2013	Active				
147	1/8/2010	1/8/2010	Withdrawn	Serial GIP	W		W		100		100		KERN	CA	PGE	Midway-Gates #1 230kV line	12/31/2013	12/31/2013	Complete				
148	1/8/2010	1/8/2010	Withdrawn	Serial GIP	W		W		100		100		KERN	CA	PGE	Midway-Gates #1 230kV line	12/31/2013	12/31/2013	Complete				
149	1/8/2010	1/8/2010	Withdrawn	Serial GIP	W		W		100		100		KERN	CA	PGE	Midway-Gates #1 230kV line	12/31/2013	12/31/2013	Active	Active			
150	1/8/2010	1/8/2010	Withdrawn	Serial GIP	ST		S		100		100		SAN BERNARDINO	CA	SCE	Mohave Generating Station	6/1/2013	6/1/2013	Active				
151	1/8/2010	1/8/2010	Withdrawn	Serial GIP	ST		W		200		200		SAN BERNARDINO	CA	SCE	Mirage 230kV Substation	6/1/2013	6/1/2013	Active	Complete	Complete		
152	1/8/2010	1/8/2010	Withdrawn	Serial GIP	ST		W		100		100		LOS ANGELES	CA	SCE	Antelope-Vincent 500kV line	6/1/2013	6/1/2013	Active	Complete	Complete		
153	1/8/2010	1/8/2010	Withdrawn	Serial GIP	W		W		100		100		SAN BERNARDINO	CA	SCE	Antelope Valley 230kV substation	12/31/2013	12/31/2013	Complete	Active			
154	1/8/2010	1/8/2010	Withdrawn	Serial GIP	ST		S		49		49		SAN BERNARDINO	CA	SCE	Mirage 230kV Substation and	6/1/2011	6/1/2011	Active	Complete	Active		
155	1/8/2010	1/8/2010	Withdrawn	Serial GIP	ST		S		100		100		KERN	CA	PGE	Midway to Maricopa Substation	6/1/2013	6/1/2013					
156		1/8/2010	Withdrawn	Serial GIP	CT		NG		100		100		KERN	CA	PGE	Kern Power Station	6/1/2013	6/1/2013					
157	1/8/2010	1/8/2010	Withdrawn	Serial GIP	W		W		100		100		KERN	CA	PGE	Midway-Gates #1 230kV line	12/31/2013	12/31/2013	Complete	Active			
158	1/8/2010	1/8/2010	Withdrawn	Serial GIP	W		W		100		100		KERN	CA	PGE	Midway-Gates #1 230kV line	12/31/2013	12/31/2013	Complete	Active			
159	1/8/2010	1/8/2010	Withdrawn	Serial GIP	W		W		100		100		KERN	CA	PGE	Midway-Gates #1 230kV line	12/31/2013	12/31/2013	Complete	Active			
160	1/8/2010	1/8/2010	Withdrawn	Serial GIP	W		W		100		100		KERN	CA	PGE	Midway-Gates #1 230kV line	12/31/2013	12/31/2013	Complete	Active			
161	1/8/2010	1/8/2010	Withdrawn	Serial GIP	W		W		100		100		KERN	CA	PGE	Midway-Gates #1 230kV line	12/31/2013	12/31/2013	Complete	Active			
162	1/8/2010	1/8/2010	Withdrawn	Serial GIP	W		W		100		100		KERN	CA	PGE	Midway-Gates #1 230kV line	12/31/2013	12/31/2013	Complete	Active			
163	1/8/2010	1/8/2010	Withdrawn	Serial GIP	W		W		100		100		KERN	CA	PGE	Midway-Gates #1 230kV line	12/31/2013	12/31/2013	Complete	Active			
164	1/8/2010	1/8/2010	Withdrawn	Serial GIP	W		W		100		100		KERN	CA	PGE	Midway-Gates #1 230kV line	12/31/2013	12/31/2013	Complete	Active			
165	1/8/2010	1/8/2010	Withdrawn	Serial GIP	W		W		100		100		KERN	CA	PGE	Midway-Gates #1 230kV line	12/31/2013	12/31/2013	Complete	Active			
166	1/8/2010	1/8/2010	Withdrawn	Serial GIP	W		W		100		100		KERN	CA	PGE	Midway-Gates #1 230kV line	12/31/2013	12/31/2013	Complete	Active			
167		1/8/2010	Withdrawn	Serial GIP	CT		NG		100		100		KERN	CA	PGE	Kern Power Station	6/1/2013	6/1/2013					
168	1/8/2010	1/8/2010	Withdrawn	Serial GIP	W		W		100		100		KERN	CA	PGE	Midway-Gates #1 230kV line	12/31/2013	12/31/2013	Complete	Active			
169	1/8/2010	1/8/2010	Withdrawn	Serial GIP	ST		S		214		214		KERN	CA	PGE	Midway-Gates #1 230kV line	12/31/2013	12/31/2013	Complete	Active			
170	1/8/2010	1/8/2010	Withdrawn	Serial GIP	W		W		100		100		KERN	CA	PGE	Midway-Gates #1 230kV line	12/31/2013	12/31/2013	Active	Active			
171	1/8/2010	1/8/2010	Withdrawn	Serial GIP	ST		S		100		100		KERN	CA	PGE	Kern Power Station	6/1/2013	6/1/2013	Active	Active			
172	1/8/2010	1/8/2010	Withdrawn	Serial GIP	ST		S		49.5		49.5		KERN	CA	PGE	Kern Power Station	6/1/2011	6/1/2011	Active	Complete			Active
173	1/8/2010	1/8/2010	Withdrawn	Serial GIP	W		W		50		50		KERN	CA	PGE	Midway-Gates #1 230kV line	12/31/2013	12/31/2013	Active				
174	1/8/2010	1/8/2010	Withdrawn	Serial GIP	ST		S		49.5		49.5		SAN DIEGO	CA	SDGE	Miguel 230kV Substation	6/1/2013	6/1/2013	Active	Complete	Complete		Complete
175	1/8/2010	1/8/2010	Withdrawn	Serial GIP	W1		W		100		100		IMPERIAL	CA	IID	Midway 230kV Substation	6/1/2013	6/1/2013	Complete	Complete	Active		
176	1/8/2010	1/8/2010	Withdrawn	Serial GIP	ST		S		100		100		KERN	CA	PGE	Kern Power Station	6/1/2013	6/1/2013					
177	1/8/2010	1/8/2010	Withdrawn	Serial GIP	ST		S		100		100		KERN	CA	PGE	Midway-Gates #1 230kV line	12/31/2013	12/31/2013	Complete	Active			
1144	12/1/2010	12/3/2010	Withdrawn	Serial GIP	W1		W		100		100		RIVERSIDE/SAN DIEGO	MP	SCE	Mead 230kV Bus	6/1/2011	6/1/2011	Complete	Active			
1145	12/1/2010	12/3/2010	Withdrawn	Serial GIP	W1		W		100		100		RIVERSIDE/SAN DIEGO	MP	SDGE	Imperial Valley 230kV Substation	6/1/2013	6/1/2013	Complete	Active			
178	1/8/2010	1/8/2010	Withdrawn	Serial GIP	ST		S		100		100		KERN	CA	PGE	Kern Power Station	6/1/2013	6/1/2013					

California ISO

The California ISO Controlled Grid Generation Queue - CISO Withdrawn

Queue Position	Interconnection Request Receive Date	Queue Date	Application Status	Study Process	Generating Facility: Type-1	Type-2	Fuel-1	Fuel-2	Maximum MWs: Summer-1	Summer-2	Winter (Total)	Deliverability Status: Full Capacity or Energy Only (FC/EO)	Location: County	State	Point of Interconnection: Utility	Station or Transmission Line	Proposed On-line Date (as filed with IR)	Current On-line Date	Study Availability: Feasibility Study (FS)	System Impact Study or Phase I Cluster Study	Facilities Study (FAS) or Phase II Cluster Study	Optional Study (OS)	Interconnection Agreement Status
[illegible]	[illegible]	[illegible]	Withdrawn	Serial LGIP	[illegible]		[illegible]		[illegible]		[illegible]		[illegible]	CA	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	Active			
[illegible]	[illegible]	[illegible]	Withdrawn	Serial LGIP	[illegible]		[illegible]		[illegible]		[illegible]		[illegible]	CA	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	Active			
[illegible]	[illegible]	[illegible]	Withdrawn	Serial LGIP	[illegible]		[illegible]						[illegible]	CA	[illegible]	[illegible]	[illegible]	[illegible]	Active				
[illegible]	[illegible]	[illegible]	Withdrawn	Serial LGIP	[illegible]		[illegible]		[illegible]		[illegible]		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	Complete	Active	Active	
[illegible]	[illegible]	[illegible]	Withdrawn	Serial LGIP	[illegible]		[illegible]		[illegible]		[illegible]		[illegible]	CA	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	Active			
[illegible]	[illegible]	[illegible]	Withdrawn	Serial LGIP	[illegible]		[illegible]		[illegible]		[illegible]		[illegible]	CA	[illegible]	[illegible]	[illegible]	[illegible]	Active	Complete	Active		
[illegible]	[illegible]	[illegible]	Withdrawn	Serial LGIP	[illegible]		[illegible]		[illegible]				[illegible]	CA	[illegible]	[illegible]	[illegible]	[illegible]	Complete	Complete	Complete		Active
[illegible]	[illegible]	[illegible]	Withdrawn	Serial LGIP	[illegible]		[illegible]		[illegible]				[illegible]	CA	[illegible]	[illegible]	[illegible]	[illegible]	Complete	Active			
[illegible]	[illegible]	[illegible]	Withdrawn	Serial LGIP	[illegible]		[illegible]		[illegible]				[illegible]	CA	[illegible]	[illegible]	[illegible]	[illegible]	Complete				
[illegible]	[illegible]	[illegible]	Withdrawn	Serial LGIP	[illegible]		[illegible]		[illegible]				[illegible]	CA	[illegible]	[illegible]	[illegible]	[illegible]		Active			
[illegible]	[illegible]	[illegible]	Withdrawn	Serial LGIP	[illegible]		[illegible]		[illegible]		[illegible]		[illegible]	CA	[illegible]	[illegible]	[illegible]	[illegible]	Complete	Active			
[illegible]	[illegible]	[illegible]	Withdrawn	Serial LGIP	[illegible]		[illegible]		[illegible]		[illegible]		[illegible]	CA	[illegible]	[illegible]	[illegible]	[illegible]	Complete	Active			
[illegible]	[illegible]	[illegible]	Withdrawn	Serial LGIP	[illegible]		[illegible]		[illegible]		[illegible]		[illegible]	CA	[illegible]	[illegible]	[illegible]	[illegible]	Complete	Active			
[illegible]	[illegible]	[illegible]	Withdrawn	Serial LGIP	[illegible]		[illegible]		[illegible]		[illegible]		[illegible]	CA	[illegible]	[illegible]	[illegible]	[illegible]	Active	Complete	Active		
[illegible]	[illegible]	[illegible]	Withdrawn	Serial LGIP	[illegible]		[illegible]		[illegible]				[illegible]	CA	[illegible]	[illegible]	[illegible]	[illegible]					
[illegible]	[illegible]	[illegible]	Withdrawn	Serial LGIP	[illegible]		[illegible]		[illegible]				[illegible]	CA	[illegible]	[illegible]	[illegible]	[illegible]	Complete				
[illegible]	[illegible]	[illegible]	Withdrawn	Serial LGIP	[illegible]		[illegible]		[illegible]				[illegible]	CA	[illegible]	[illegible]	[illegible]	[illegible]	Active				
[illegible]	[illegible]	[illegible]	Withdrawn	Serial LGIP	[illegible]		[illegible]		[illegible]				[illegible]	CA	[illegible]	[illegible]	[illegible]	[illegible]	Active				
[illegible]	[illegible]	[illegible]	Withdrawn	Serial LGIP	[illegible]		[illegible]		[illegible]				[illegible]	CA	[illegible]	[illegible]	[illegible]	[illegible]					
[illegible]	[illegible]	[illegible]	Withdrawn	Serial LGIP	[illegible]		[illegible]		[illegible]				[illegible]	CA	[illegible]	[illegible]	[illegible]	[illegible]	Complete	Active			
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]		[illegible]				[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	Active	[illegible]		
[illegible]	[illegible]	[illegible]	Withdrawn	Serial LGIP	[illegible]		[illegible]		[illegible]				[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	Complete	Active	Active		
[illegible]	[illegible]	[illegible]	Withdrawn	Serial LGIP	[illegible]		[illegible]		[illegible]				[illegible]	CA	[illegible]	[illegible]	[illegible]	[illegible]	Active				
[illegible]	[illegible]	[illegible]	Withdrawn	Serial LGIP	[illegible]		[illegible]		[illegible]		[illegible]		[illegible]	CA	[illegible]	[illegible]	[illegible]	[illegible]	Active	Active			
[illegible]	[illegible]	[illegible]	Withdrawn	Serial LGIP	[illegible]		[illegible]		[illegible]				[illegible]	CA	[illegible]	[illegible]	[illegible]	[illegible]	Active				
[illegible]	[illegible]	[illegible]	Withdrawn	Serial LGIP	[illegible]		[illegible]		[illegible]				[illegible]	CA	[illegible]	[illegible]	[illegible]	[illegible]	Complete				
[illegible]	[illegible]	[illegible]	Withdrawn	Serial LGIP	[illegible]		[illegible]		[illegible]				[illegible]	CA	[illegible]	[illegible]	[illegible]	[illegible]	Active				
[illegible]	[illegible]	[illegible]	Withdrawn	Serial LGIP	[illegible]		[illegible]		[illegible]				[illegible]	CA	[illegible]	[illegible]	[illegible]	[illegible]	Active				
[illegible]	[illegible]	[illegible]	Withdrawn	Serial LGIP	[illegible]		[illegible]		[illegible]				[illegible]	CA	[illegible]	[illegible]	[illegible]	[illegible]	Active				
[illegible]	[illegible]	[illegible]	Withdrawn	Serial LGIP	[illegible]		[illegible]		[illegible]				[illegible]	CA	[illegible]	[illegible]	[illegible]	[illegible]	Active	Active			
[illegible]	[illegible]	[illegible]	Withdrawn	Serial LGIP	[illegible]		[illegible]		[illegible]				[illegible]	CA	[illegible]	[illegible]	[illegible]	[illegible]	Active	Active			
[illegible]	[illegible]	[illegible]	Withdrawn	Serial LGIP	[illegible]		[illegible]		[illegible]				[illegible]	CA	[illegible]	[illegible]	[illegible]	[illegible]					
[illegible]	[illegible]	[illegible]	Withdrawn	Serial LGIP	[illegible]		[illegible]		[illegible]				[illegible]	CA	[illegible]	[illegible]	[illegible]	[illegible]	Active				
[illegible]	[illegible]	[illegible]	Withdrawn	Serial LGIP	[illegible]		[illegible]		[illegible]				[illegible]	CA	[illegible]	[illegible]	[illegible]	[illegible]		Active			
[illegible]	[illegible]	[illegible]	Withdrawn	Serial LGIP	[illegible]		[illegible]		[illegible]				[illegible]	CA	[illegible]	[illegible]	[illegible]	[illegible]	Complete	Active			
[illegible]	[illegible]	[illegible]	Withdrawn	Serial LGIP	[illegible]		[illegible]		[illegible]				[illegible]	CA	[illegible]	[illegible]	[illegible]	[illegible]	Complete	Active			
[illegible]	[illegible]	[illegible]	Withdrawn	Serial LGIP	[illegible]		[illegible]		[illegible]		[illegible]		[illegible]	CA	[illegible]	[illegible]	[illegible]	[illegible]	Complete	Active			
[illegible]	[illegible]	[illegible]	Withdrawn	Serial LGIP	[illegible]		[illegible]		[illegible]				[illegible]	CA	[illegible]	[illegible]	[illegible]	[illegible]	Active				
[illegible]	[illegible]	[illegible]	Withdrawn	Serial LGIP	[illegible]		[illegible]		[illegible]				[illegible]	CA	[illegible]	[illegible]	[illegible]	[illegible]	Active				
[illegible]	[illegible]	[illegible]	Withdrawn	Serial LGIP	[illegible]		[illegible]		[illegible]				[illegible]	CA	[illegible]	[illegible]	[illegible]	[illegible]	Active				
[illegible]	[illegible]	[illegible]	Withdrawn	Serial LGIP	[illegible]		[illegible]						[illegible]	CA	[illegible]	[illegible]	[illegible]		Active				
[illegible]	[illegible]	[illegible]	Withdrawn	Serial LGIP	[illegible]		[illegible]		[illegible]				[illegible]		[illegible]	[illegible]	[illegible]	[illegible]	Active				
[illegible]	[illegible]	[illegible]	Withdrawn	Serial LGIP	[illegible]		[illegible]		[illegible]				[illegible]	CA	[illegible]	[illegible]	[illegible]	[illegible]	Active	Active			
[illegible]	[illegible]	[illegible]	Withdrawn	Serial LGIP	[illegible]		[illegible]		[illegible]				[illegible]	CA	[illegible]	[illegible]	[illegible]	[illegible]	Active	Active			

California ISO

The California ISO Controlled Grid Generation Queue - CISO Withdrawn

					Generating Facility				Maximum MWs				Location		Point of Interconnection				Study Availability				
Queue Position	Interconnection Request Receive Date	Queue Date	Application Status	Study Process	Type-1	Type-2	Fuel-1	Fuel-2	Summer-1	Summer-2	Winter (Total)	Net Capability Interconnection Service Only (PDCI)	County	State	Utility	Station or Transmission Line	Proposed On-line Date (mo Start with Yr)	Current On-line Date	Feasibility Study (IFS)	System Impact Study or Phase I Cluster Study	Facilities Study (FAS) or Phase II Cluster Study	Optional Study (OS)	Interconnection Agreement Status
272	10/21/2011	10/21/2011	Withdrawn	Serial LGIP	CC		NG		559				CLARK	NV	SCE	Mohave 230kV switchyard	1/1/2013	1/1/2013	Waived	Active			
239	2/11/2011	2/11/2011	Withdrawn	Serial LGIP	PV		S		40				SAN LUIS OBISPO	CA	PGE	Nipoma-San Luis Obispo 115kV line	12/1/2012	12/1/2012	Active	Active			
241	2/16/2011	2/16/2011	Withdrawn	Serial LGIP	WT		S		210				SAN BERNARDINO	CA	SCE	Pisgah-Lugo 230kV Transmission	12/30/2013	12/30/2013	Active	Active			
244	2/16/2011	2/16/2011	Withdrawn	Serial LGIP	WT		S		120				KERN AND KING	CA	SCE	Gardner-Midway-Kern PP 115kV line	12/1/2012	12/1/2012	Active	Active			
245	2/16/2011	2/16/2011	Withdrawn	Serial LGIP	WT		S		204				RIVERSIDE	CA	SCE	Vincent-Mesa Linda 230kV line	12/1/2016	12/1/2016	Active	Active			
246	2/16/2011	2/16/2011	Withdrawn	Serial LGIP	WT		S		120				KERN	CA	SCE	Kramer Substation-Boulevard #1 115kV line	12/1/2012	12/1/2012	Active				
247	2/16/2011	2/16/2011	Withdrawn	Serial LGIP	CC		NG		95		97		MADERA	CA	PGE	Borden Substation 230kV line	5/1/2011	4/1/2012	Active	Active			
248	2/16/2011	2/16/2011	Withdrawn	Serial LGIP	WT		S		120		120		MONTEREY	CA	PGE	Moss Landing-Salinas-Natividad 115 kV #1 and #2 line & Tap MS Moss Landing-Salinas-Natividad #1	11/1/2013	11/1/2013	Complete	Active			
251	2/16/2011	2/16/2011	Withdrawn	Serial LGIP	PV		S		20				SAN BERNARDINO	CA	SCE	Lugo-Mountain Pass 115 kV line	12/1/2012	12/1/2012	Active	Active			
252	2/16/2011	2/16/2011	Withdrawn	Serial LGIP	WT		S		90				KERN	CA	PGE	Gates Substation 115 kV	12/31/2011	12/31/2011	Complete				
253	2/16/2011	2/16/2011	Withdrawn	TP	ST		S		200		200	Full Capacity	KERN	CA	SCE	Kernville Substation	12/31/2013	12/31/2013		Complete	Complete		
254	2/17/2011	2/17/2011	Withdrawn	Serial LGIP	PV		S		20				FRESNO	CA	PGE	Manning-Atwater 115kV line	4/15/2013	4/15/2013	Active				
255	2/18/2011	2/18/2011	Withdrawn	Serial LGIP	CC		NG		575				KERN	CA	PGE	New Lighthipe Substation 230kV line	6/1/2013	6/1/2013	Re-Study	Active			
256	2/18/2011	2/18/2011	Withdrawn	Serial LGIP	CC		NG		500				BUTTE	CA	PGE	Rio Oso-Table Mtn 115kV line	1/1/2013	1/1/2013	Complete	Active			
257	2/18/2011	2/18/2011	Withdrawn	Serial LGIP	CC		NG		500				SAN JOAQUIN	CA	PGE	Lone Star-Rio Oso-Table Mtn 230kV line	1/1/2013	1/1/2013	Complete	Active			
261	2/18/2011	2/18/2011	Withdrawn	Serial LGIP	CC		NG		170				LOS ANGELES	CA	SCE	Mesa Substation 230kV	12/1/2016	12/1/2016	Active				
262	2/21/2011	2/21/2011	Withdrawn	Serial LGIP	IC		NG		99.9				KERN	CA	PGE	Kern Lighting-Kernville 115 kV line	4/15/2013	4/15/2013	Active				
263	2/21/2011	2/21/2011	Withdrawn	Serial LGIP	CC		NG		634				CLARK	NV	SCE	Mountain Switching 230kV & 500 kV Mountain Substation 230kV	1/1/2011	5/1/2011	Waived	Active			
264	2/21/2011	2/21/2011	Withdrawn	Serial LGIP	WT		W		300				SAN BERNARDINO	CA	SCE	Lugo-Mohave 500kV line	12/30/2013	12/30/2013	Active	Active			
265	2/21/2011	2/21/2011	Withdrawn	Serial LGIP	PV		S		20				RIVERSIDE	CA	SCE	Devers-Valley 115kV line	12/31/2012	12/31/2012	Active				
266	2/21/2011	2/21/2011	Withdrawn	Serial LGIP	CC		NG		570		570		KERN	CA	PGE	Rio Oso Substation 230 kV line	1/1/2013	1/1/2013	Complete				
267	2/22/2011	2/22/2011	Withdrawn	Serial LGIP	IC		NG		311.5				SAN JOAQUIN	CA	PGE	Tesla-Bellota 230 kV line	4/15/2013	5/1/2013	Complete	Active	Re-Study		
268	2/22/2011	2/22/2011	Withdrawn	Serial LGIP	PV		S		250				RIVERSIDE	CA	SCE	Valley-Serrano 500 kV line	12/1/2013	12/1/2013	Active	Active			
271	2/24/2011	2/24/2011	Withdrawn	Serial LGIP	PV		S		400				SAN BERNARDINO	CA	SCE	Lugo-Mohave 500kV line	12/1/2013	12/1/2013	Active				
273	2/24/2011	2/24/2011	Withdrawn	Serial LGIP	CC		NG		90				KERN	CA	SCE	Kernville-Lamont 115 kV line	5/1/2013	5/1/2013	Waived	Active			
275	2/25/2011	2/25/2011	Withdrawn	Serial LGIP	CT		NG		500				STANISLAUS	CA	PGE	Tesla-Eight Mile 230 kV line	5/1/2017	5/1/2017	Active				
276	2/25/2011	2/25/2011	Withdrawn	Serial LGIP	CT		NG		500		500		STANISLAUS	CA	PGE	Tesla-Eight Mile 230 kV line	5/1/2017	5/1/2017	Active				
277	2/25/2011	2/25/2011	Withdrawn	Serial LGIP	WT		W		40				SAN BERNARDINO	CA	SCE	Lugo-Mohave 500kV line	12/1/2013	12/1/2013	Active				
278	2/25/2011	2/25/2011	Withdrawn	Serial LGIP	ST		NG		49.5				SAN BERNARDINO	CA	SCE	Kramer Substation	12/1/2013		Waived	Active			
279	2/25/2011	2/25/2011	Withdrawn	Serial LGIP	H		WTR		40				MARIPOSA	CA	PGE	Tulloch-Standiford 230 kV line	5/1/2013	5/1/2013	Active	Active			
280	2/25/2011	2/25/2011	Withdrawn	Serial LGIP	H		WTR		40				MARIPOSA	CA	PGE	Tulloch-Standiford 230 kV line	5/1/2013	5/1/2013	Active				
281	2/25/2011	2/25/2011	Withdrawn	Serial LGIP	CC		NG		500				SAN JOAQUIN	CA	PGE	Lone Star-Rio Oso-Table Mtn 230kV line	12/31/2016	12/31/2016	Active	Active			
282	2/25/2011	2/25/2011	Withdrawn	Serial LGIP	CT		NG		500.4				FRESNO	CA	PGE	Gates Substation 230kV line	5/1/2014	5/1/2014	Active				
283	2/25/2011	2/25/2011	Withdrawn	Serial LGIP	IC		NG		110				MERCED	CA	PGE	Gates Substation 115kV line	4/15/2013	4/15/2013	Active				
284	2/25/2011	2/25/2011	Withdrawn	Serial LGIP	WT		W		130				SAN BERNARDINO	CA	SCE	Lugo Substation 230kV	12/31/2011	12/31/2011	Active				
285	2/25/2011	2/25/2011	Withdrawn	Serial LGIP	ST		S		110				MARIPOSA	CA	PGE	Smyrna-Le Grand 115kV line	5/1/2013	5/1/2013	Active				
287	2/25/2011	2/25/2011	Withdrawn	Serial LGIP	ST		S		240				KERN	CA	SCE	Kernville Substation 230kV	6/1/2013	6/1/2013	Waived	Active			
288	2/25/2011	2/25/2011	Withdrawn	Serial LGIP	PV		S		175				SAN LUIS OBISPO	CA	PGE	Mesa Shandon-Midway #1 230kV line	5/1/2013	5/1/2013	Active				
289	2/25/2011	2/25/2011	Withdrawn	Serial LGIP	ST		S		210				SAN BERNARDINO	CA	SCE	El Dorado-Lugo 500kV line	12/1/2013	12/1/2013	Active				
290	2/25/2011	2/25/2011	Withdrawn	Serial LGIP	ST		S		750				SAN BERNARDINO	CA	SCE	Pisgah Substation 230kV	12/1/2013	12/1/2013	Active				
291	2/25/2011	2/25/2011	Withdrawn	Serial LGIP	ST		S		210				SAN BERNARDINO	CA	SCE	Lugo Substation 230kV	12/1/2013	12/1/2013	Active				
292	2/25/2011	2/25/2011	Withdrawn	Serial LGIP	ST		S		210				KERN	CA	SCE	SCE portion of Kern PP West 230kV line	6/1/2014	6/1/2014					
293	2/25/2011	2/25/2011	Withdrawn	Serial LGIP	ST		S		75				FRESNO	CA	PGE	Helm-Kerman 70kV line	5/1/2013	5/1/2013	Active				
294	2/25/2011	2/25/2011	Withdrawn	Serial LGIP	ST		S		210				SAN BERNARDINO	CA	SCE	Pisgah Substation 230kV	12/1/2011	12/31/2011	Active				
295	2/25/2011	2/25/2011	Withdrawn	Serial LGIP	ST		S		140				LOS ANGELES	CA	SCE	Antelope-Pardee 500kV line	12/1/2013	12/1/2013	Active	Active			
296	2/25/2011	2/25/2011	Withdrawn	Serial LGIP	ST		S		140				CLARK	NV	SCE	El Dorado 230kV switchyard	12/1/2011	12/1/2011	Active				
297	2/25/2011	2/25/2011	Withdrawn	TP	CC		NG		97		97	Full Capacity	KERN	CA	PGE	Kernville-Lamont 115kV line	5/1/2013	5/1/2013	Active	Complete	Complete		

California ISO

The California ISO Controlled Grid Generation Queue - CISO Withdrawn

Queue Position	Interconnection Request Receive Date	Queue Date	Application Status	Study Process	Generating Facility: Type-1	Type-2	Fuel-1	Fuel-2	Maximum MWs: Summer-1	Summer-2	Winter (Total)	Deliverability Status: Full Capacity Energy Only (FCEO)	Location: County	State	Point of Interconnection: Utility	Station or Transmission Line	Proposed On-line Date (as filed with IR)	Current On-line Date	Study Availability: Feasibility Study (FS)	System Impact Study or Phase I Cluster Study	Facilities Study (FAS) or Phase II Cluster Study	Optional Study (OS)	Interconnection Agreement Status
[illegible]	[illegible]	[illegible]	Withdrawn	[illegible]	[illegible]		[illegible]		[illegible]				[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]				
[illegible]	[illegible]	[illegible]	Withdrawn	[illegible]	[illegible]		[illegible]		[illegible]		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		Complete	Complete		
[illegible]	[illegible]	[illegible]	Withdrawn	[illegible]	[illegible]		[illegible]		[illegible]				[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]				
[illegible]	[illegible]	[illegible]	Withdrawn	[illegible]	[illegible]		[illegible]		[illegible]				[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]				
[illegible]	[illegible]	[illegible]	Withdrawn	[illegible]	[illegible]		[illegible]		[illegible]				[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]				
[illegible]	[illegible]	[illegible]	Withdrawn	[illegible]	[illegible]		[illegible]		[illegible]				[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]				
[illegible]	[illegible]	[illegible]	Withdrawn	[illegible]	[illegible]		[illegible]		[illegible]		[illegible]		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]				
[illegible]	[illegible]	[illegible]	Withdrawn	[illegible]	[illegible]		[illegible]		[illegible]				[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]				
[illegible]	[illegible]	[illegible]	Withdrawn	[illegible]	[illegible]		[illegible]		[illegible]				[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]				
[illegible]	[illegible]	[illegible]	Withdrawn	[illegible]	[illegible]		[illegible]		[illegible]		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]					
[illegible]	[illegible]	[illegible]	Withdrawn	[illegible]	[illegible]		[illegible]		[illegible]				[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]				
[illegible]	[illegible]	[illegible]	Withdrawn	[illegible]	[illegible]		[illegible]		[illegible]				[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]				
[illegible]	[illegible]	[illegible]	Withdrawn	[illegible]	[illegible]		[illegible]		[illegible]				[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]				
[illegible]	[illegible]	[illegible]	Withdrawn	[illegible]	[illegible]		[illegible]		[illegible]				[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]				
[illegible]	[illegible]	[illegible]	Withdrawn	[illegible]	[illegible]		[illegible]		[illegible]				[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]				
[illegible]	[illegible]	[illegible]	Withdrawn	[illegible]	[illegible]		[illegible]		[illegible]				[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]				
[illegible]	[illegible]	[illegible]	Withdrawn	[illegible]	[illegible]		[illegible]		[illegible]				[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]				
[illegible]	[illegible]	[illegible]	Withdrawn	[illegible]	[illegible]		[illegible]		[illegible]		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]				
[illegible]	[illegible]	[illegible]	Withdrawn	[illegible]	[illegible]		[illegible]		[illegible]				[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]				
[illegible]	[illegible]	[illegible]	Withdrawn	[illegible]	[illegible]		[illegible]		[illegible]				[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]				
[illegible]	[illegible]	[illegible]	Withdrawn	[illegible]	[illegible]		[illegible]		[illegible]		[illegible]		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]				
[illegible]	[illegible]	[illegible]	Withdrawn	[illegible]	[illegible]		[illegible]		[illegible]		[illegible]		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]				
[illegible]	[illegible]	[illegible]	Withdrawn	[illegible]	[illegible]		[illegible]		[illegible]				[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]				
[illegible]	[illegible]	[illegible]	Withdrawn	[illegible]	[illegible]		[illegible]		[illegible]				[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]				
[illegible]	[illegible]	[illegible]	Withdrawn	[illegible]	[illegible]		[illegible]		[illegible]				[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]					
[illegible]	[illegible]	[illegible]	Withdrawn	[illegible]	[illegible]		[illegible]		[illegible]				[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]					
[illegible]	[illegible]	[illegible]	Withdrawn	[illegible]	[illegible]		[illegible]		[illegible]				[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]				
[illegible]	[illegible]	[illegible]	Withdrawn	[illegible]	[illegible]		[illegible]		[illegible]				[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]				
[illegible]	[illegible]	[illegible]	Withdrawn	[illegible]	[illegible]		[illegible]		[illegible]				[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]					
[illegible]	[illegible]	[illegible]	Withdrawn	[illegible]	[illegible]		[illegible]		[illegible]				[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]					
[illegible]	[illegible]	[illegible]	Withdrawn	[illegible]	[illegible]		[illegible]		[illegible]				[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]					
[illegible]	[illegible]	[illegible]	Withdrawn	[illegible]	[illegible]		[illegible]		[illegible]				[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]					
[illegible]	[illegible]	[illegible]	Withdrawn	[illegible]	[illegible]		[illegible]		[illegible]				[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]					
[illegible]	[illegible]	[illegible]	Withdrawn	[illegible]	[illegible]		[illegible]		[illegible]				[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]					
[illegible]	[illegible]	[illegible]	Withdrawn	[illegible]	[illegible]		[illegible]		[illegible]				[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]					
[illegible]	[illegible]	[illegible]	Withdrawn	[illegible]	[illegible]		[illegible]		[illegible]				[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]					
[illegible]	[illegible]	[illegible]	Withdrawn	[illegible]	[illegible]		[illegible]		[illegible]				[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]					
[illegible]	[illegible]	[illegible]	Withdrawn	[illegible]	[illegible]		[illegible]		[illegible]				[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]					
[illegible]	[illegible]	[illegible]	Withdrawn	[illegible]	[illegible]		[illegible]		[illegible]				[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]					
[illegible]	[illegible]	[illegible]	Withdrawn	[illegible]	[illegible]		[illegible]		[illegible]				[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]			
[illegible]	[illegible]	[illegible]	Withdrawn	[illegible]	[illegible]		[illegible]		[illegible]				[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]					
[illegible]	[illegible]	[illegible]	Withdrawn	[illegible]	[illegible]		[illegible]		[illegible]				[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]					
[illegible]	[illegible]	[illegible]	Withdrawn	[illegible]	[illegible]		[illegible]		[illegible]				[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]					

California ISO

The California ISO Controlled Grid Generation Queue - CISO Withdrawn

Queue Position	Interconnection Request Receive Date	Queue Date	Application Status	Study Process	Generating Facility: Type-1	Type-2	Fuel-1	Fuel-2	Maximum MWs: Summer-1	Summer-2	Winter (Total)	Deliverability Status: Full Capacity or Energy Only (FC/EO)	Location: County	State	Point of Interconnection: Utility	Station or Transmission Line	Proposed On-line Date (as filed with IR)	Current On-line Date	Study Availability: Feasibility Study (FS)	System Impact Study or Phase I Cluster Study	Facilities Study (FAS) or Phase II Cluster Study	Optional Study (OS)	Interconnection Agreement Status
[illegible]	[illegible]	[illegible]	Withdrawn	[illegible]	[illegible]		[illegible]		[illegible]				[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]			
[illegible]	[illegible]	[illegible]	Withdrawn	[illegible]	[illegible]		[illegible]		[illegible]				[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]					
[illegible]	[illegible]	[illegible]	Withdrawn	[illegible]	[illegible]		[illegible]		[illegible]				[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]					
[illegible]	[illegible]	[illegible]	Withdrawn	[illegible]	[illegible]		[illegible]		[illegible]				[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]					
[illegible]	[illegible]	[illegible]	Withdrawn	[illegible]	[illegible]		[illegible]		[illegible]				[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]					
[illegible]	[illegible]	[illegible]	Withdrawn	[illegible]	[illegible]		[illegible]		[illegible]				[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]					
[illegible]	[illegible]	[illegible]	Withdrawn	[illegible]	[illegible]		[illegible]		[illegible]				[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]					
[illegible]	[illegible]	[illegible]	Withdrawn	[illegible]	[illegible]		[illegible]		[illegible]				[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]					
[illegible]	[illegible]	[illegible]	Withdrawn	[illegible]	[illegible]		[illegible]		[illegible]				[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]				
[illegible]	[illegible]	[illegible]	Withdrawn	[illegible]	[illegible]		[illegible]		[illegible]				[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]					
[illegible]	[illegible]	[illegible]	Withdrawn	[illegible]	[illegible]		[illegible]		[illegible]				[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]				
[illegible]	[illegible]	[illegible]	Withdrawn	[illegible]	[illegible]		[illegible]		[illegible]				[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]				
[illegible]	[illegible]	[illegible]	Withdrawn	[illegible]	[illegible]		[illegible]		[illegible]		[illegible]		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]			
[illegible]	[illegible]	[illegible]	Withdrawn	[illegible]	[illegible]		[illegible]		[illegible]		[illegible]		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]					
[illegible]	[illegible]	[illegible]	Withdrawn	[illegible]	[illegible]		[illegible]		[illegible]				[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]					
[illegible]	[illegible]	[illegible]	Withdrawn	[illegible]	[illegible]		[illegible]		[illegible]				[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]					
[illegible]	[illegible]	[illegible]	Withdrawn	[illegible]	[illegible]		[illegible]		[illegible]				[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]					
[illegible]	[illegible]	[illegible]	Withdrawn	[illegible]	[illegible]		[illegible]		[illegible]				[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]					
[illegible]	[illegible]	[illegible]	Withdrawn	[illegible]	[illegible]		[illegible]		[illegible]		[illegible]		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]					
[illegible]	[illegible]	[illegible]	Withdrawn	[illegible]	[illegible]		[illegible]		[illegible]				[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]					
[illegible]	[illegible]	[illegible]	Withdrawn	[illegible]	[illegible]		[illegible]		[illegible]				[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]					
[illegible]	[illegible]	[illegible]	Withdrawn	[illegible]	[illegible]		[illegible]		[illegible]				[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]					
[illegible]	[illegible]	[illegible]	Withdrawn	[illegible]	[illegible]		[illegible]		[illegible]				[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]					
[illegible]	[illegible]	[illegible]	Withdrawn	[illegible]	[illegible]		[illegible]		[illegible]				[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]				
[illegible]	[illegible]	[illegible]	Withdrawn	[illegible]	[illegible]		[illegible]		[illegible]				[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]					
[illegible]	[illegible]	[illegible]	Withdrawn	[illegible]	[illegible]		[illegible]		[illegible]				[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]					
[illegible]	[illegible]	[illegible]	Withdrawn	[illegible]	[illegible]		[illegible]		[illegible]				[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]					
[illegible]	[illegible]	[illegible]	Withdrawn	[illegible]	[illegible]		[illegible]		[illegible]				[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]					
[illegible]	[illegible]	[illegible]	Withdrawn	[illegible]	[illegible]		[illegible]		[illegible]				[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]					
[illegible]	[illegible]	[illegible]	Withdrawn	[illegible]	[illegible]		[illegible]		[illegible]				[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]			
[illegible]	[illegible]	[illegible]	Withdrawn	[illegible]	[illegible]		[illegible]		[illegible]				[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]					
[illegible]	[illegible]	[illegible]	Withdrawn	[illegible]	[illegible]		[illegible]		[illegible]				[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]				
[illegible]	[illegible]	[illegible]	Withdrawn	[illegible]	[illegible]		[illegible]		[illegible]				[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]			
[illegible]	[illegible]	[illegible]	Withdrawn	[illegible]	[illegible]		[illegible]		[illegible]				[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]			
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[illegible]	[illegible]	[illegible]	Withdrawn	[illegible]	[illegible]		[illegible]		[illegible]				[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]				
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[illegible]	[illegible]	[illegible]	Withdrawn	[illegible]	[illegible]		[illegible]		[illegible]		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]		
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[illegible]	[illegible]	[illegible]	Withdrawn	[illegible]	[illegible]		[illegible]		[illegible]		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]					
[illegible]	[illegible]	[illegible]	Withdrawn	[illegible]	[illegible]		[illegible]		[illegible]		[illegible]		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]					
[illegible]	[illegible]	[illegible]	Withdrawn	[illegible]	[illegible]		[illegible]		[illegible]				[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]					

California ISO

The California ISO Controlled Grid Generation Queue - CISO Withdrawn

Queue Position	Interconnection Request Receive Date	Queue Date	Application Status	Study Process	Generating Facility: Type-1	Type-2	Fuel-1	Fuel-2	Maximum MWs: Summer-1	Summer-2	Winter (Total)	Deliverability Status: Full Capacity or Energy Only (FC/EO)	Location: County	State	Point of Interconnection: Utility	Station or Transmission Line	Proposed On-line Date (as filed with IR)	Current On-line Date	Study Availability: Feasibility Study (FS)	System Impact Study or Phase I Cluster Study	Facilities Study (FAS) or Phase II Cluster Study	Optional Study (OS)	Interconnection Agreement Status
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]		[illegible]				[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]					

California ISO

The California ISO Controlled Grid Generation Queue - CISO Withdrawn

Queue Position	Interconnection Request Receive Date	Queue Date	Application Status	Study Process	Generating Facility: Type-1	Type-2	Fuel-1	Fuel-2	Maximum MWs: Summer-1	Summer-2	Winter (Total)	Deliverability Status: Full Capacity or Energy Only (FC/EO)	Location: County	State	Point of Interconnection: Utility	Station or Transmission Line	Proposed On-line Date (as filed with IR)	Current On-line Date	Study Availability: Feasibility Study (FS)	System Impact Study or Phase I Cluster Study	Facilities Study (FAS) or Phase II Cluster Study	Optional Study (OS)	Interconnection Agreement Status
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]		[illegible]		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]		
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]		[illegible]		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]			
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California ISO

The California ISO Controlled Grid Generation Queue - CISO Withdrawn

Queue Position	Interconnection Request Receive Date	Queue Date	Application Status	Study Process	Generating Facility Type-1	Type-2	Fuel-1	Fuel-2	Maximum MWs Summer-1	Summer-2	Winter (Total)	Deliverability Status: Full Capacity or Energy Only (FCDS)	Location: County	State	Point of Interconnection: Utility	Station or Transmission Line	Proposed On-line Date (as filed with IR)	Current On-line Date	Study Availability: Feasibility Study (FES)	System Impact Study or Phase I Cluster Study	Facilities Study (FAS) or Phase II Cluster Study	Optional Study (OS)	Interconnection Agreement Status
[illegible]	[illegible]	[illegible]	Withdrawn	[illegible]	[illegible]		[illegible]		[illegible]		[illegible]	[illegible]	[illegible]	CA	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]		[illegible]

California ISO

The California ISO Controlled Grid Generation Queue - CISO Withdrawn

					Generating Facility				Maximum MWs				Location		Point of Interconnection				Study Availability				
Queue Position	Interconnection Request Receive Date	Queue Date	Application Status	Study Process	Type-1	Type-2	Fuel-1	Fuel-2	Summer-1	Summer-2	Winter (Total)	Net Capacity or Energy Only (FCDS)	County	State	Utility	Station or Transmission Line	Proposed On-line Date (per Generator Interconnection Agreement)	Current On-line Date	Feasibility Study (FAS)	System Impact Study or Phase I Cluster Study	Facilities Study (FAS) or Phase II Cluster Study	Optional Study (OS)	Interconnection Agreement Status
340	12/6/2001	1/10/2002	Withdrawn	SBP-TP	PV		Sun		20			Full Capacity	KERN	CA	SCE	Rosamond 66kV Line Tap	12/31/2003	12/31/2003		Active	Active		
1053	12/6/2004	1/7/2005	Withdrawn	SBP-TP	PV		Sun		20			Full Capacity	ORANGE	CA	SCE	Santiago Sub 115 kV Bus	12/15/2011	12/15/2011		Active	Complete		
1054	12/6/2004	1/7/2005	Withdrawn	SBP-TP	PV		Sun		20		20	Full Capacity	RIVERSIDE	CA	SCE	Devers - 115kV	12/31/2011	12/31/2011		Active	Complete		
321	11/15/2004	11/22/2004	Withdrawn	SBP	ST		BIO		17.2		17.2	Energy Only	KERN	CA	PGAE	Hopper Midway 115 kV	12/31/2011	12/31/2011					
351	12/6/2004	1/7/2005	Withdrawn	ST	WT		W		199.5		199.5	Full Capacity	FRESNO	CA	PGE	Los Banos-Gates 500 kV (PG&E to Zapata)	12/31/2014	12/31/2014		Active			
1055	12/6/2004	1/7/2005	Withdrawn	ST	PV		Sun		200		200	Full Capacity	KERN	CA	PGE	Kern Sub 230 kV Bus	12/31/2012	12/31/2012		Active			
1056	12/6/2004	1/7/2005	Withdrawn	ST	WT		W		225		225	Energy Only	RIVERSIDE	CA	SCE	Wintec 115 kV Bus	12/31/2011	12/31/2011					
1057	12/6/2004	1/7/2005	Withdrawn	ST	WT		W		147		147	Energy Only	SAN BERNARDINO	CA	SCE	Vista 115 kV Bus	12/31/2011	12/31/2011					
1058	12/6/2004	1/7/2005	Withdrawn	ST	PV		S		100		100	Full Capacity	KERN	CA	PGE	Midway-Kern Junction 70 kV	6/1/2007	6/1/2007		Active			
1059	12/6/2004	1/7/2005	Withdrawn	ST	PV		S		100		100	Full Capacity	SAN BENITO	CA	PGE	Metcalf-San Jose/Evilla 70 kV	6/1/2007	6/1/2007		Active			
1060	12/6/2004	1/7/2005	Withdrawn	ST	LFG		MSW		100		100	Full Capacity	LOS ANGELES	CA	PGE	Pastoria-Gonzales #1 & #2 115 kV	4/1/2017	4/1/2017		Active			
1061	12/6/2004	1/7/2005	Withdrawn	ST	LFG		MSW		50		50	Full Capacity	FRESNO	CA	PGE	Helm-Gates #1 & #2 115 kV	4/1/2017	4/1/2017		Active			
1062	12/6/2004	1/7/2005	Withdrawn	ST	LFG		MSW		50		50	Full Capacity	FRESNO	CA	PGE	Helm-Gates #1 & #2 115 kV	4/1/2017	4/1/2017		Active			
1063	12/6/2004	1/7/2005	Withdrawn	ST	LFG		MSW		50		50	Full Capacity	FRESNO	CA	PGE	Helm-Gates #1 & #2 115 kV	4/1/2017	4/1/2017		Active			
1064	12/6/2004	1/7/2005	Withdrawn	ST	LFG		MSW		50		50	Full Capacity	FRESNO	CA	PGE	Helm-Gates #1 & #2 115 kV	4/1/2017	4/1/2017		Active			
1065	12/6/2004	1/7/2005	Withdrawn	ST	LFG		MSW		50		50	Full Capacity	FRESNO	CA	PGE	Helm-Gates #1 & #2 115 kV	4/1/2017	4/1/2017		Active			
1066	12/6/2004	1/7/2005	Withdrawn	ST	LFG		MSW		50		50	Full Capacity	FRESNO	CA	PGE	Helm-Gates #1 & #2 115 kV	4/1/2017	4/1/2017		Active			
1067	12/6/2004	1/7/2005	Withdrawn	ST	LFG		MSW		50		50	Full Capacity	FRESNO	CA	PGE	Helm-Gates #1 & #2 115 kV	4/1/2017	4/1/2017		Active			
1068	12/6/2004	1/7/2005	Withdrawn	ST	LFG		MSW		50		50	Full Capacity	FRESNO	CA	PGE	Helm-Gates #1 & #2 115 kV	4/1/2017	4/1/2017		Active			
1069	12/6/2004	1/7/2005	Withdrawn	ST	LFG		MSW		50		50	Full Capacity	FRESNO	CA	PGE	Helm-Gates #1 & #2 115 kV	4/1/2017	4/1/2017		Active			
1070	12/6/2004	1/7/2005	Withdrawn	ST	LFG		MSW		50		50	Full Capacity	FRESNO	CA	PGE	Helm-Gates #1 & #2 115 kV	4/1/2017	4/1/2017		Active			
1071	12/6/2004	1/7/2005	Withdrawn	ST	LFG		MSW		50		50	Full Capacity	FRESNO	CA	PGE	Helm-Gates #1 & #2 115 kV	4/1/2017	4/1/2017		Active			
1072	12/6/2004	1/7/2005	Withdrawn	ST	LFG		MSW		50		50	Full Capacity	FRESNO	CA	PGE	Helm-Gates #1 & #2 115 kV	4/1/2017	4/1/2017		Active			
1073	12/6/2004	1/7/2005	Withdrawn	ST	LFG		MSW		50		50	Full Capacity	FRESNO	CA	PGE	Helm-Gates #1 & #2 115 kV	4/1/2017	4/1/2017		Active			
1074	12/6/2004	1/7/2005	Withdrawn	ST	LFG		MSW		50		50	Full Capacity	FRESNO	CA	PGE	Helm-Gates #1 & #2 115 kV	4/1/2017	4/1/2017		Active			
1075	12/6/2004	1/7/2005	Withdrawn	ST	LFG		MSW		50		50	Full Capacity	FRESNO	CA	PGE	Helm-Gates #1 & #2 115 kV	4/1/2017	4/1/2017		Active			
1076	12/6/2004	1/7/2005	Withdrawn	ST	LFG		MSW		50		50	Full Capacity	FRESNO	CA	PGE	Helm-Gates #1 & #2 115 kV	4/1/2017	4/1/2017		Active			
1077	12/6/2004	1/7/2005	Withdrawn	ST	LFG		MSW		50		50	Full Capacity	FRESNO	CA	PGE	Helm-Gates #1 & #2 115 kV	4/1/2017	4/1/2017		Active			
1078	12/6/2004	1/7/2005	Withdrawn	ST	LFG		MSW		50		50	Full Capacity	FRESNO	CA	PGE	Helm-Gates #1 & #2 115 kV	4/1/2017	4/1/2017		Active			
1079	12/6/2004	1/7/2005	Withdrawn	ST	LFG		MSW		50		50	Full Capacity	FRESNO	CA	PGE	Helm-Gates #1 & #2 115 kV	4/1/2017	4/1/2017		Active			
1080	12/6/2004	1/7/2005	Withdrawn	ST	LFG		MSW		50		50	Full Capacity	FRESNO	CA	PGE	Helm-Gates #1 & #2 115 kV	4/1/2017	4/1/2017		Active			
1081	12/6/2004	1/7/2005	Withdrawn	ST	LFG		MSW		50		50	Full Capacity	FRESNO	CA	PGE	Helm-Gates #1 & #2 115 kV	4/1/2017	4/1/2017		Active			
1082	12/6/2004	1/7/2005	Withdrawn	ST	LFG		MSW		50		50	Full Capacity	FRESNO	CA	PGE	Helm-Gates #1 & #2 115 kV	4/1/2017	4/1/2017		Active			
1083	12/6/2004	1/7/2005	Withdrawn	ST	LFG		MSW		50		50	Full Capacity	FRESNO	CA	PGE	Helm-Gates #1 & #2 115 kV	4/1/2017	4/1/2017		Active			
1084	12/6/2004	1/7/2005	Withdrawn	ST	LFG		MSW		50		50	Full Capacity	FRESNO	CA	PGE	Helm-Gates #1 & #2 115 kV	4/1/2017	4/1/2017		Active			
1085	12/6/2004	1/7/2005	Withdrawn	ST	LFG		MSW		50		50	Full Capacity	FRESNO	CA	PGE	Helm-Gates #1 & #2 115 kV	4/1/2017	4/1/2017		Active			
1086	12/6/2004	1/7/2005	Withdrawn	ST	LFG		MSW		50		50	Full Capacity	FRESNO	CA	PGE	Helm-Gates #1 & #2 115 kV	4/1/2017	4/1/2017		Active			
1087	12/6/2004	1/7/2005	Withdrawn	ST	LFG		MSW		50		50	Full Capacity	FRESNO	CA	PGE	Helm-Gates #1 & #2 115 kV	4/1/2017	4/1/2017		Active			
1088	12/6/2004	1/7/2005	Withdrawn	ST	LFG		MSW		50		50	Full Capacity	FRESNO	CA	PGE	Helm-Gates #1 & #2 115 kV	4/1/2017	4/1/2017		Active			
1089	12/6/2004	1/7/2005	Withdrawn	ST	LFG		MSW		50		50	Full Capacity	FRESNO	CA	PGE	Helm-Gates #1 & #2 115 kV	4/1/2017	4/1/2017		Active			
1090	12/6/2004	1/7/2005	Withdrawn	ST	LFG		MSW		50		50	Full Capacity	FRESNO	CA	PGE	Helm-Gates #1 & #2 115 kV	4/1/2017	4/1/2017		Active			
1091	12/6/2004	1/7/2005	Withdrawn	ST	LFG		MSW		50		50	Full Capacity	FRESNO	CA	PGE	Helm-Gates #1 & #2 115 kV	4/1/2017	4/1/2017		Active			
1092	12/6/2004	1/7/2005	Withdrawn	ST	LFG		MSW		50		50	Full Capacity	FRESNO	CA	PGE	Helm-Gates #1 & #2 115 kV	4/1/2017	4/1/2017		Active			
1093	12/6/2004	1/7/2005	Withdrawn	ST	LFG		MSW		50		50	Full Capacity	FRESNO	CA	PGE	Helm-Gates #1 & #2 115 kV	4/1/2017	4/1/2017		Active			
1094	12/6/2004	1/7/2005	Withdrawn	ST	LFG		MSW		50		50	Full Capacity	FRESNO	CA	PGE	Helm-Gates #1 & #2 115 kV	4/1/2017	4/1/2017		Active			
1095	12/6/2004	1/7/2005	Withdrawn	ST	LFG		MSW		50		50	Full Capacity	FRESNO	CA	PGE	Helm-Gates #1 & #2 115 kV	4/1/2017	4/1/2017		Active			
1096	12/6/2004	1/7/2005	Withdrawn	ST	LFG		MSW		50		50	Full Capacity	FRESNO	CA	PGE	Helm-Gates #1 & #2 115 kV	4/1/2017	4/1/2017		Active			
1097	12/6/2004	1/7/2005	Withdrawn	ST	LFG		MSW		50		50	Full Capacity	FRESNO	CA	PGE	Helm-Gates #1 & #2 115 kV	4/1/2017	4/1/2017		Active			
1098	12/6/2004	1/7/2005	Withdrawn	ST	LFG		MSW		50		50	Full Capacity	FRESNO	CA	PGE	Helm-Gates #1 & #2 115 kV	4/1/2017	4/1/2017		Active			
1099	12/6/2004	1/7/2005	Withdrawn	ST	LFG		MSW		50		50	Full Capacity	FRESNO	CA	PGE	Helm-Gates #1 & #2 115 kV	4/1/2017	4/1/2017		Active			
1100	12/6/2004	1/7/2005	Withdrawn	ST	LFG		MSW		50		50	Full Capacity	FRESNO	CA	PGE	Helm-Gates #1 & #2 115 kV	4/1/2017	4/1/2017		Active			
1101	12/6/2004	1/7/2005	Withdrawn	ST	LFG		MSW		50		50	Full Capacity	FRESNO	CA	PGE	Helm-Gates #1 & #2 115 kV	4/1/2017	4/1/2017		Active			
1102	12/6/2004	1/7/2005	Withdrawn	ST	LFG		MSW		50		50	Full Capacity	FRESNO	CA	PGE	Helm-Gates #1 & #2 115 kV	4/1/2017	4/1/2017		Active			
1103	12/6/2004	1/7/2005	Withdrawn	ST	LFG		MSW		50		50	Full Capacity	FRESNO	CA	PGE	Helm-Gates #1 & #2 115 kV	4/1/2017	4/1/2017		Active			
1104	12/6/2004	1/7/2005	Withdrawn	ST	LFG		MSW		50		50	Full Capacity	FRESNO	CA	PGE	Helm-Gates #1 & #2 115 kV	4/1/2017	4/1/2017		Active			
1105	12/6/2004	1/7/2005	Withdrawn	ST	LFG		MSW		50		50	Full Capacity	FRESNO	CA	PGE	Helm-Gates #1 & #2 115 kV	4/1/2017	4/1/2017		Active			
1106	12/6/2004	1/7/2005	Withdrawn	ST	LFG		MSW		50		50	Full Capacity	FRESNO	CA	PGE	Helm-Gates #1 & #2 115 kV	4/1/2017	4/1/2017		Active			
1107	12/6/2004	1/7/2005	Withdrawn	ST	LFG		MSW		50		50	Full Capacity	FRESNO	CA	PGE	Helm-Gates #1 & #2 115 kV	4/1/2017	4/1/2017		Active			
1108	12/6/2004	1/7/2005	Withdrawn	ST	LFG		MSW		50		50	Full Capacity	FRESNO	CA	PGE	Helm-Gates #1 & #2 115 kV	4/1/2017	4/1/2017		Active			
1109	12/6/2004	1/7/2005	Withdrawn	ST	LFG		MSW		50		50	Full Capacity	FRESNO	CA	PGE	Helm-Gates #1 & #2 115 kV	4/1/2017	4/1/2017		Active			
1110	12/6/2004	1/7/2005	Withdrawn	ST	LFG		MSW		50		50	Full Capacity	FRESNO	CA	PGE	Helm-Gates #1 & #2 115 kV	4/1/2017	4/1/2017		Active			
1111	12/6/2004	1/7/2005	Withdrawn	ST	LFG		MSW		50		50	Full Capacity	FRESNO	CA	PGE	Helm-Gates #1 & #2 115 kV	4/1/2017	4/1/2017		Active			
1112	12/6/2004	1/7/2005	Withdrawn	ST	LFG		MSW		50		50	Full Capacity	FRESNO	CA	PGE	Helm-Gates #1 & #2 115 kV	4/1/2017	4/1/2017		Active			
1113	12/6/2004	1/7/2005	Withdrawn	ST	LFG		MSW		50		50	Full Capacity	FRESNO	CA	PGE	Helm-Gates #1 & #2 115 kV	4/1/2017	4/1/2017		Active			
1114	12/6/2004	1/7/2005	Withdrawn	ST	LFG		MSW		50		50	Full Capacity	FRESNO	CA	PGE	Helm-Gates #1 & #2 115 kV	4/1/2017	4/1/2017		Active			
1115	12/6/2004	1/7/2005	Withdrawn	ST	LFG		MSW		50		50	Full Capacity	FRESNO	CA	PGE	Helm-Gates #1 & #2 115 kV	4/1/2017	4/1/2017		Active			
1116	12/6/2004	1/7/2005	Withdrawn	ST	LFG		MSW		50		50	Full Capacity	FRESNO	CA	PGE	Helm-Gates #1 & #2 115 kV	4/1/2017	4/1/2017		Active			
1117	12/6/2004	1/7/2005	Withdrawn	ST	LFG		MSW		50		50	Full Capacity	FRESNO	CA	PGE	Helm-Gates #1 & #2 115 kV	4/1/2017	4/1/2017		Active			
1118	12/6/2004	1/7/2005	Withdrawn	ST	LFG		MSW		50		50	Full Capacity	FRESNO	CA	PGE	Helm-Gates #1 & #2 115 kV	4/1/2017	4/1/2017		Active			
1119	12/6/2004	1/7/2005	Withdrawn	ST	LFG		MSW		50		50	Full Capacity	FRESNO	CA	PGE	Helm-Gates #1 & #2 115 kV	4/1/2017	4/1/2017		Active			
1120	12/6/2004	1/7/2005	Withdrawn	ST	LFG		MSW		50		50	Full Capacity	FRESNO	CA	PGE	Helm-Gates #1 & #2 115 kV	4/1/2017	4/1/2017		Active			
1121	12/6/2004	1/7/2005	Withdrawn	ST	LFG		MSW		50		50	Full Capacity	FRESNO	CA	PGE	Helm-Gates #1 & #2 115 kV	4/1/2017	4/1/2017		Active			
1122	12/6/2004	1/7/2005	Withdrawn	ST	LFG		MSW		50		50	Full Capacity	FRESNO	CA	PGE	Helm-Gates #1 & #2 115 kV	4/1/2017	4/1/2017		Active			
1123	12/6/2004	1/7/2005	Withdrawn	ST	LFG		MSW		50		50	Full Capacity	FRESNO	CA	PGE	Helm-Gates #1 & #2 115 kV	4/1/2017	4/1/2017		Active			
1124	12/6/2004	1/7/2005	Withdrawn	ST	LFG		MSW		50		50	Full Capacity	FRESNO	CA	PGE	Helm-Gates #1 & #2 115 kV	4/1/2017	4/1/2017		Active			
1125	12/6/2004	1/7/2005	Withdrawn	ST	LFG		MSW		50		50	Full Capacity	FRESNO	CA	PGE	Helm-Gates #1 & #2 115 kV	4/1/2017	4/1/2017		Active			
1126	12/6/2004	1/7/2005	Withdrawn	ST	LFG		MSW		50		50	Full Capacity	FRESNO	CA	PGE	Helm-Gates #1 & #2 115 kV	4/1/2017	4/1/2017		Active			
1127	12/6/2004	1/7/2005	Withdrawn	ST	LFG		MSW		50		50	Full Capacity	FRESNO	CA	PGE	Helm-Gates #1 & #2 115 kV	4/1/2017	4/1/2017		Active			
1128	12/6/2004	1/7/2005	Withdrawn	ST	LFG		MSW		50		50	Full Capacity	FRESNO	CA	PGE	Helm-Gates #1 & #2 115 kV	4/1/2017	4/1/2017		Active			
1129	12/6/2004	1/7/2005	Withdrawn	ST	LFG		MSW		50		50	Full Capacity	FRESNO	CA	PGE	Helm-Gates #1 & #2 115 kV	4/1/2017	4/1/2017		Active			
1130	12/6/2004	1/7/2005	Withdrawn	ST	LFG		MSW		50		50	Full Capacity	FRESNO	CA	PGE	Helm-Gates #1 & #2 115 kV	4/1/2017	4/1/2017		Active			
1131	12/6/2004	1/7/2005	Withdrawn	ST	LFG		MSW		50		50	Full Capacity	FRESNO	CA	PGE	Helm-Gates #1 & #2 115 kV	4/1/2017	4/1/2017		Active			
1132	12/6/2004	1/7/2005	Withdrawn	ST	LFG		MSW		50		50	Full Capacity	FRESNO	CA	PGE	Helm-Gates #1 & #2 115 kV	4/1/2017	4/1/2017		Active			
1133	12/6/2004	1/7/2005	Withdrawn	ST	LFG		MSW		50		50	Full Capacity	FRESNO	CA	PGE	Helm-Gates #1 & #2 115 kV	4/1/2017	4/1/2017		Active			
1134	12/6/2004	1/7/2005	Withdrawn	ST	LFG		MSW		50		50	Full Capacity	FRESNO	CA	PGE	Helm-Gates #1 & #2 115 kV	4/1/2017	4/1/2017		Active			
1135	12/6/2004	1/7/2005	Withdrawn	ST	LFG		MSW		50		50	Full Capacity	FRESNO	CA	PGE	Helm-Gates #1 & #2 115 kV	4/1/2017	4/1/2017		Active			
1136	12/6/2004	1/7/2005	Withdrawn	ST	LFG		MSW		50		50	Full Capacity	FRESNO	CA	PGE	Helm-Gates #1 & #2 115 kV	4/1/2017	4/1/2017		Active			
1137	12/6/2004	1/7/2005	Withdrawn	ST	LFG		MSW		50		50	Full Capacity	FRESNO	CA	PGE	Helm-Gates #1 & #2 115 kV	4/1/2017	4/1/2017		Active			
1138	12/6/2004	1/7/2005	Withdrawn	ST	LFG		MSW		50		50	Full Capacity	FRESNO	CA	PGE	Helm-Gates #1 & #2 115 kV	4/1/2017	4/1/2017		Active			
1139	12/6/2004	1/7/2005	Withdrawn	ST	LFG		MSW		50		50	Full Capacity	FRESNO	CA	PGE	Helm-Gates #1 & #2 115 kV	4/1/2017	4/1/2017		Active			
1140	12/6/2004	1/7/2005	Withdrawn	ST	LFG		MSW		50		50	Full Capacity	FRESNO	CA	PGE	Helm-Gates #1 & #2 115 kV	4/1/2017	4/1/2017		Active			
1141	12/6/2004	1/7/2005	Withdrawn	ST	LFG		MSW		50		50	Full Capacity	FRESNO	CA	PGE	Helm-Gates #1 & #2 115 kV	4/1/2017	4/1/2017		Active			
1142	12/6/2004	1/7/2005	Withdrawn	ST	LFG		MSW		50		50	Full Capacity	FRESNO	CA	PGE	Helm-Gates #1 & #2 115 kV	4/1/2017	4/1/2017		Active			
1143	12/6/2004	1/7/2005	Withdrawn	ST	LFG		MSW		50		50	Full Capacity	FRESNO	CA	PGE	Helm-Gates #1 & #2 115 kV	4/1/2017	4/1/2017		Active			
1144	12/6/2004	1/7/2005	Withdrawn	ST	LFG		MSW		50		50	Full Capacity	FRESNO	CA	PGE	Helm-Gates #1 & #2 115 kV	4/1/2017	4/1/2017		Active			
1145	12/6/2004	1/7/2005	Withdrawn	ST	LFG		MSW		50		50	Full Capacity	FRESNO	CA	PGE	Helm-Gates #1 & #2 115 kV	4/1/2017	4/1/2017		Active			
1146	12/6/2004	1/7/2005	Withdrawn	ST	LFG		MSW		50		50	Full Capacity	FRESNO	CA	PGE	Helm-Gates #1 & #2 115 kV	4/1/2017	4/1/2017		Active			
1147	12/6/2004	1/7/2005	Withdrawn	ST	LFG		MSW		50		50	Full Capacity	FRESNO	CA	PGE	Helm-Gates #1 & #2 115 kV	4/1/2017	4/1/2017		Active			
1148	12/6/2004	1/7/2005	Withdrawn	ST	LFG		MSW		50		50	Full Capacity	FRESNO	CA	PGE	Helm-Gates #1 & #2 115 kV	4/1/2017	4/1/2017		Active			
1149	12/6/2004	1/7/2005	Withdrawn	ST	LFG		MSW		50		50	Full Capacity	FRESNO	CA	PGE	Helm-Gates #1 & #2 115 kV	4/1/2017	4/1/2017		Active			
1150	12/6/2004	1/7/2005	Withdrawn	ST	LFG		MSW		50		50	Full Capacity	FRESNO	CA	PGE	Helm-Gates #1 & #2 115 kV	4/1/2017	4/1/2017		Active			
1151	12/6/2004	1/7/2005	Withdrawn	ST	LFG		MSW		50		50	Full Capacity	FRESNO	CA	PGE	Helm-Gates #1 & #2 115 kV	4/1/2017	4/1/2017		Active			
1152	12/6/2004	1/7/2005	Withdrawn	ST	LFG		MSW		50		50	Full Capacity	FRESNO	CA	PGE	Helm-Gates #1 & #2 115 kV	4/1/2017	4/1/2017		Active			
1153	12/6/2004	1/7/2005	Withdrawn	ST	LFG		MSW		50		50	Full Capacity	FRESNO	CA	PGE	Helm-Gates #1 & #2 115 kV	4/1/2017	4/1/2017		Active			
1154	12/6/2004	1/7/2005	Withdrawn	ST	LFG		MSW		50		50	Full Capacity	FRESNO	CA	PGE	Helm-Gates #1 & #2 115 kV	4/1/2017	4/1/2017		Active			
1155	12/6/2004	1/7/2005	Withdrawn	ST	LFG		MSW		50		50	Full Capacity	FRESNO	CA	PGE	Helm-Gates #1 & #2 115 kV	4/1/2017	4/1/2017		Active			
1156	12/6/2004	1/7/2005	Withdrawn	ST	LFG		MSW		50		50	Full Capacity	FRESNO	CA	PGE	Helm-Gates #1 & #2 115 kV	4/1/2017	4/1/2017		Active			
1157	12/6/2004	1/7/2005	Withdrawn	ST	LFG		MSW		50		50	Full Capacity	FRESNO	CA	PGE	Helm-Gates #1 & #2 115 kV	4/1/2017	4/1/2017		Active			
1158	12/6/2004	1/7/2005	Withdrawn	ST	LFG		MSW		50		50	Full Capacity	FRESNO	CA	PGE	Helm-Gates #1 & #2 115 kV	4/1/2017	4/1/2017		Active			
1159	12/6/2004	1/7/2005	Withdrawn	ST	LFG		MSW		50		50	Full Capacity	FRESNO	CA	PGE	Helm-Gates #1 & #2 115 kV	4/1/2017	4/1/2017		Active			
1160	12/6/2004	1/7/2005	Withdrawn	ST	LFG		MSW		50		50	Full Capacity	FRESNO	CA	PGE	Helm-Gates #1 & #2 115 kV	4/1/2017	4/1/2017		Active			
1161	12/6/2004	1/7/2005	Withdrawn	ST	LFG		MSW		50		50	Full Capacity	FRESNO	CA	PGE	Helm-Gates #1 & #2 115 kV	4/1/2017	4/1/2017		Active			
1162	12/6/2004	1/7/2005	Withdrawn	ST	LFG		MSW		50		50	Full Capacity	FRESNO	CA	PGE	Helm-Gates #1 & #2 115 kV	4/1/2017	4/1/2017		Active			
1163	12/6/2004	1/7/2005	Withdrawn	ST	LFG		MSW		50		50	Full Capacity	FRESNO	CA	PGE	Helm-Gates #1 & #2 115 kV	4/1/2017	4/1/2017		Active			
1164	12/6/2004	1/7/2005	Withdrawn	ST	LFG		MSW		50		50	Full Capacity	FRESNO	CA	PGE	Helm-Gates #1 & #2 115 kV	4/1/2017	4/1/2017		Active			
1165	12/6/2004	1/7/2005	Withdrawn	ST	LFG		MSW		50		50	Full Capacity	FRESNO	CA	PGE	Helm-Gates #1 & #2 115 kV	4/1/2017	4/1/2017		Active			
1166	12/6/2004	1/7/2005	Withdrawn	ST	LFG		MSW		50		50	Full Capacity	FRESNO	CA	PGE	Helm-Gates #1 & #2 115 kV	4/1/2017	4/1/2017		Active			
1167	12/6/2004	1/7/2005	Withdrawn	ST	LFG		MSW		50		50	Full Capacity	FRESNO	CA	PGE	Helm-Gates #1 & #2 115 kV	4/1/2017	4/1/2017		Active			
1168	12/6/2004	1/7/2005	Withdrawn	ST	LFG		MSW		50		50	Full Capacity	FRESNO	CA	PGE	Helm-Gates #1 & #2 115 kV	4/1/2017	4/1/2017		Active			
1169	12/6/2004	1/7/2005	Withdrawn	ST	LFG		MSW		50		50	Full Capacity	FRESNO	CA	PGE	Helm-Gates #1 & #2 115 kV	4/1/2017	4/1/2017		Active			
1170	12/6/2004	1/7/2005	Withdrawn	ST	LFG		MSW		50		50	Full Capacity	FRESNO	CA	PGE	Helm-Gates #1 & #2 115 kV	4/1/2017	4/1/2017		Active			
1171	12/6/2004	1/7/2005	Withdrawn	ST	LFG		MSW		50		50	Full Capacity	FRESNO	CA	PGE	Helm-Gates #1 & #2 115 kV	4/1/2017	4/1/2017		Active			
1172	12/6/2004	1/7/2005	Withdrawn	ST	LFG		MSW		50		50	Full Capacity	FRESNO	CA	PGE	Helm-Gates #1 & #2 115 kV	4/1/2017	4/1/2017		Active			
1173	12/6/2004	1/7/2005	Withdrawn	ST	LFG		MSW		50		50	Full Capacity	FRESNO	CA	PGE	Helm-Gates #1 & #2 115 kV	4/1/2017	4/1/2017		Active			
1174	12/6/2004	1/7/2005	Withdrawn	ST	LFG		MSW		50		50	Full Capacity	FRESNO	CA	PGE	Helm-Gates #1 & #2 115 kV	4/1/2017	4/1/2017		Active			
1175	12/6/2004	1/7/2005	Withdrawn	ST	LFG		MSW		50		50	Full Capacity	FRESNO	CA	PGE	Helm-Gates #1 & #2 115 kV	4/1/2017	4/1/2017		Active			
1176	12/6/2004	1/7/2005	Withdrawn	ST	LFG		MSW		50		50	Full Capacity	FRESNO	CA	PGE	Helm-Gates #1 & #2 115 kV	4/1/2017	4/1/2017		Active			
1177	12/6/2004	1/7/2005	Withdrawn	ST	LFG		MSW		50		50	Full Capacity	FRESNO	CA	PGE	Helm-Gates #1 & #2 115 kV	4/1/2017	4/1/2017		Active			
1178	12/6/2004	1/7/2005	Withdrawn	ST	LFG		MSW		50		50	Full Capacity	FRESNO	CA	PGE	Helm-Gates #1 & #2 115 kV	4/1/2017	4/1/2017		Active			
1179	12/6/2004	1/7/2005	Withdrawn	ST	LFG		MSW		50		50	Full Capacity	FRESNO	CA	PGE	Helm-Gates #1 & #2 115 kV	4/1/2017	4/1/2017		Active			
1180	12/6/2004	1/7/2005	Withdrawn	ST	LFG		MSW		50		50	Full Capacity	FRESNO	CA	PGE	Helm-Gates #1 & #2 115 kV	4/1/2017	4/1/2017		Active			

California ISO

The California ISO Controlled Grid Generation Queue - CISO Withdrawn

					Generating Facility				Maximum MWs				Location		Point of Interconnection				Study Availability				
Queue Position	Interconnection Request Receive Date	Queue Date	Application Status	Study Process	Type-1	Type-2	Fuel-1	Fuel-2	Summer-1	Summer-2	Winter (Total)	Net Capacity per Energy Only (EODS)	County	State	Utility	Station or Transmission Line	Proposed On-line Date (per Request)	Current On-line Date	Feasibility Study (FAS)	System Impact Study or Phase I Cluster Study	Facilities Study (FAS) or Phase II Cluster Study	Optional Study (OS)	Interconnection Agreement Status
[redacted]																							
477	9/8/2011	1/11/2011	Withdrawn	G4	ST		WAT						SAN DIEGO	CA	SDGE	Penasquitos 230 kV Bus	12/1/2015	12/1/2015		Withdrawn			
[redacted]																							
484	9/8/2011	1/11/2011	Withdrawn	G4	ST		WAT						SAN DIEGO	CA	SDGE	Penasquitos 230 kV Bus	12/1/2015	12/1/2015		Withdrawn			
[redacted]																							
488	9/8/2011	1/11/2011	Withdrawn	G4	ST		WAT						SAN DIEGO	CA	SDGE	Penasquitos 230 kV Bus	12/1/2015	12/1/2015		Withdrawn			
[redacted]																							
491	9/8/2011	1/11/2011	Withdrawn	G4	ST		WAT						SAN DIEGO	CA	SDGE	Penasquitos 230 kV Bus	12/1/2015	12/1/2015		Withdrawn			
[redacted]																							
492	9/8/2011	1/11/2011	Withdrawn	G4	ST		WAT						SAN DIEGO	CA	SDGE	Penasquitos 230 kV Bus	12/1/2015	12/1/2015		Withdrawn			
[redacted]																							
493	9/8/2011	1/11/2011	Withdrawn	G4	ST		WAT						SAN DIEGO	CA	SDGE	Penasquitos 230 kV Bus	12/1/2015	12/1/2015		Withdrawn			
[redacted]																							
494	9/8/2011	1/11/2011	Withdrawn	G4	ST		WAT						SAN DIEGO	CA	SDGE	Penasquitos 230 kV Bus	12/1/2015	12/1/2015		Withdrawn			
[redacted]																							
495	9/8/2011	1/11/2011	Withdrawn	G4	ST		WAT						SAN DIEGO	CA	SDGE	Penasquitos 230 kV Bus	12/1/2015	12/1/2015		Withdrawn			
[redacted]																							
496	9/8/2011	1/11/2011	Withdrawn	G4	ST		WAT						SAN DIEGO	CA	SDGE	Penasquitos 230 kV Bus	12/1/2015	12/1/2015		Withdrawn			
[redacted]																							
497	9/8/2011	1/11/2011	Withdrawn	G4	ST		WAT						SAN DIEGO	CA	SDGE	Penasquitos 230 kV Bus	12/1/2015	12/1/2015		Withdrawn			
[redacted]																							
498	9/8/2011	1/11/2011	Withdrawn	G4	ST		WAT						SAN DIEGO	CA	SDGE	Penasquitos 230 kV Bus	12/1/2015	12/1/2015		Withdrawn			
[redacted]																							
499	9/8/2011	1/11/2011	Withdrawn	G4	ST		WAT						SAN DIEGO	CA	SDGE	Penasquitos 230 kV Bus	12/1/2015	12/1/2015		Withdrawn			
[redacted]																							
500	9/8/2011	1/11/2011	Withdrawn	G4	ST		WAT						SAN DIEGO	CA	SDGE	Penasquitos 230 kV Bus	12/1/2015	12/1/2015		Withdrawn			
[redacted]																							
501	9/8/2011	1/11/2011	Withdrawn	G4	ST		WAT						SAN DIEGO	CA	SDGE	Penasquitos 230 kV Bus	12/1/2015	12/1/2015		Withdrawn			
[redacted]																							
502	9/8/2011	1/11/2011	Withdrawn	G4	ST		WAT						SAN DIEGO	CA	SDGE	Penasquitos 230 kV Bus	12/1/2015	12/1/2015		Withdrawn			
[redacted]																							
503	9/8/2011	1/11/2011	Withdrawn	G4	ST		WAT						SAN DIEGO	CA	SDGE	Penasquitos 230 kV Bus	12/1/2015	12/1/2015		Withdrawn			
[redacted]																							
504	9/8/2011	1/11/2011	Withdrawn	G4	ST		WAT						SAN DIEGO	CA	SDGE	Penasquitos 230 kV Bus	12/1/2015	12/1/2015		Withdrawn			
[redacted]																							
505	9/8/2011	1/11/2011	Withdrawn	G4	ST		WAT						SAN DIEGO	CA	SDGE	Penasquitos 230 kV Bus	12/1/2015	12/1/2015		Withdrawn			
[redacted]																							
506	9/8/2011	1/11/2011	Withdrawn	G4	ST		WAT						SAN DIEGO	CA	SDGE	Penasquitos 230 kV Bus	12/1/2015	12/1/2015		Withdrawn			
[redacted]																							
507	9/8/2011	1/11/2011	Withdrawn	G4	ST		WAT						SAN DIEGO	CA	SDGE	Penasquitos 230 kV Bus	12/1/2015	12/1/2015		Withdrawn			
[redacted]																							
508	9/8/2011	1/11/2011	Withdrawn	G4	ST		WAT						SAN DIEGO	CA	SDGE	Penasquitos 230 kV Bus	12/1/2015	12/1/2015		Withdrawn			
[redacted]																							
509	9/8/2011	1/11/2011	Withdrawn	G4	ST		WAT						SAN DIEGO	CA	SDGE	Penasquitos 230 kV Bus	12/1/2015	12/1/2015		Withdrawn			
[redacted]																							
510	9/8/2011	1/11/2011	Withdrawn	G4	ST		WAT						SAN DIEGO	CA	SDGE	Penasquitos 230 kV Bus	12/1/2015	12/1/2015		Withdrawn			
[redacted]																							
511	9/8/2011	1/11/2011	Withdrawn	G4	ST		WAT						SAN DIEGO	CA	SDGE	Penasquitos 230 kV Bus	12/1/2015	12/1/2015		Withdrawn			

California ISO

The California ISO Controlled Grid Generation Queue - CISO Withdrawn

					Generating Facility				Maximum MWs			Deliverability Status	Location		Point of Interconnection					Study Availability			
Queue Position	Interconnection Request Receive Date	Queue Date	Application Status	Study Process	Type-1	Type-2	Fuel-1	Fuel-2	Summer-1	Summer-2	Winter (Total)	Full Capacity or Energy Only (FC/EO)	County	State	Utility	Station or Transmission Line	Proposed On-line Date (as filed with IR)	Current On-line Date	Feasibility Study (FS)	System Impact Study or Phase I Cluster Study	Facilities Study (FAS) or Phase II Cluster Study	Optional Study (OS)	Interconnection Agreement Status
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

California ISO

The California ISO Controlled Grid Generation Queue - CISO Withdrawn

					Generating Facility				Maximum MWs									Study Availability			
Queue Position	Interconnection Request Receive Date	Queue Date	Application Status	Study Process	Type-1	Type-2	Fuel-1	Fuel-2	Summer-1	Summer-2	Winter (Total)	Full Capacity Deliverability Status (FCDS)	County	State	Utility	Station or Transmission Line	Proposed On-line Date (as filed with IR)	Current On-line Date	Feasibility Study (FAS)	System Impact Study or Phase I Cluster Study	Facilities Study (FAS) or Phase II Cluster Study	Optional Study (OS)	Interconnection Agreement Status
364	6/1/2007	6/1/2007	Withdrawn	GI	PV		S		500		500	Full Capacity	KERN	CA	PGE	West Substation 230 kV Bus	12/31/2010	12/31/2010		Active			
407	10/5/2007	10/5/2007	Withdrawn	GI	PV		S		500		500	Full Capacity	MARICOPA	AZ	SCE	Hassayampa Substation 500kV	6/1/2010	6/1/2010		Active			
408	10/5/2007	10/5/2007	Withdrawn	GI	PV		S		500		500	Full Capacity	MARICOPA	AZ	SCE	Hassayampa Substation 500kV	6/1/2010	6/1/2010					
410	10/11/2007	10/11/2007	Withdrawn	GI	PV		S		100		100	Full Capacity	KERN	CA	PGE	Midway-Gill 230kV	12/31/2010	12/31/2010		Active			
411	10/12/2007	10/12/2007	Withdrawn	GI	PV		S		20		20	Full Capacity	KERN	CA	PGE	Midway Substation 115 kV Bus	12/31/2011	12/31/2011		Revoked			
412	10/12/2007	10/12/2007	Withdrawn	GI	PV		S		20		20	Full Capacity	KERN	CA	PGE	Midway Substation 115 kV Bus	12/31/2011	12/31/2011		Revoked			
413	10/12/2007	10/12/2007	Withdrawn	GI	PV		S		20		20	Full Capacity	KERN	CA	PGE	Midway Substation 115 kV Bus	12/31/2011	12/31/2011		Revoked			
417	10/24/2007	10/24/2007	Withdrawn	GI	PV		S		20		20	Full Capacity	TULARE	CA	SCE	Vestal-EXPORT 115kV	6/30/2010	6/30/2010		Active			
418	10/24/2007	10/24/2007	Withdrawn	GI	PV		S		20		20	Full Capacity	KERN	CA	PGE	La Cresta 115 kV	6/30/2010	6/30/2010		Active			
419	10/24/2007	10/24/2007	Withdrawn	GI	PV		S		20		20	Full Capacity	KERN	CA	PGE	Lerdo Substation 230 kV	12/31/2010	12/31/2010		Active			
421	10/25/2007	10/25/2007	Withdrawn	GI	PV		S		50		50	Full Capacity	KERN	CA	PGE	Kern Front 70 kV Bus	12/31/2010	12/31/2010		Active			
422	10/25/2007	10/25/2007	Withdrawn	GI	PV		S		100		100	Full Capacity	KERN	CA	PGE	Lerdo - Midway 230 kV	12/31/2010	12/31/2010		Active			
423	10/25/2007	10/25/2007	Withdrawn	GI	PV		S		20		20	Full Capacity	KERN	CA	PGE	Weedpatch Sub 70 kV	12/31/2011	12/31/2011					
424	10/25/2007	10/25/2007	Withdrawn	GI	PV		S		100		100	Full Capacity	KERN	CA	PGE	Midway-Taft 70 kV Bus	12/31/2010	12/31/2010		Active			
425	10/25/2007	10/25/2007	Withdrawn	GI	PV		S		100		100	Full Capacity	SAN LUIS OBI	CA	PGE	Midway-Todos 230 kV Bus	12/31/2010	12/31/2010		Active			
426	10/25/2007	10/25/2007	Withdrawn	GI	PV		S		20		20	Full Capacity	KERN	CA	PGE	Kregmo Sub 115 kV Bus	6/30/2010	6/30/2010		Active			
427	10/25/2007	10/25/2007	Withdrawn	GI	PV		S		20		20	Full Capacity	KERN	CA	PGE	Kern Front Sub 115 kV Bus	6/30/2010	6/30/2010		Active			
428	10/25/2007	10/25/2007	Withdrawn	GI	PV		S		20		20	Full Capacity	STANISLAUS	CA	PGE	Valley - Miller 115 kV	12/31/2010	12/31/2010					
431	10/26/2007	10/26/2007	Withdrawn	GI	PV		S		20		20	Full Capacity	FRESNO	CA	PGE	Coalinga - Gates 70 kV	12/31/2011	12/31/2011		Active			
434	10/31/2007	10/31/2007	Withdrawn	GI	PV		S		20		20	Full Capacity	MERCED	CA	PGE	Dairyland-Le Grand 115kV line	6/1/2011	6/1/2011		Revoked			
435	10/31/2007	10/31/2007	Withdrawn	GI	PV		S		100		100	Full Capacity	KERN	CA	PGE	Midway-Gates 230 kV Bus	6/1/2010	6/1/2010		Active			
436	10/31/2007	10/31/2007	Withdrawn	GI	PV		S		100			Full Capacity	MADERA	CA	PGE	Colorado River Substation 230kV Bus	12/30/2010	12/30/2010		Revoked			
437	10/31/2007	10/31/2007	Withdrawn	GI	PV		S		100		100	Full Capacity	MADERA	CA	PGE	Colorado River Substation 230kV Bus	12/31/2010	12/31/2010		Active			
440	11/1/2007	11/1/2007	Withdrawn	GI	PV		S		100		100	Full Capacity	MARICOPA	AZ	SCE	Hassayampa-North 500 kV Bus	6/1/2011	6/1/2011		Revoked			
441	11/1/2007	11/1/2007	Withdrawn	GI	PV		S		100		100	Full Capacity	KERN	CA	PGE	Midway-Gates 230kV	12/31/2010	12/31/2010		Revoked			
442	11/1/2007	11/1/2007	Withdrawn	GI	PV		S		100		100	Full Capacity	LOS ANGELES	CA	SCE	Vincent Substation 500kV	12/31/2010	12/31/2010		Revoked			
443	11/1/2007	11/1/2007	Withdrawn	GI	PV		S		100		100	Full Capacity	KERN	CA	PGE	Magunden Substation 230kV	12/31/2010	12/31/2010		Revoked			
444	11/1/2007	11/1/2007	Withdrawn	GI	PV		S		75		75	Full Capacity	KERN	CA	SCE	Kern-Tehachapi 66kV line	12/31/2010	12/31/2010		Active			
445	11/1/2007	11/1/2007	Withdrawn	GI	PV		S		100		100	Full Capacity	MARICOPA	AZ	SCE	Hassayampa-Palo Verde 500kV line	6/1/2010	6/1/2010		Active			
447	11/1/2007	11/1/2007	Withdrawn	GI	PV		S		20		20	Full Capacity	SAN BERNARDINO	CA	SCE	Eldorado-Lugo 115kV line	6/1/2010	6/1/2010		Revoked			
448	11/1/2007	11/1/2007	Withdrawn	GI	PV		S		20		20	Full Capacity	IMPERIAL	CA	SDGE	Imperial Valley Substation 230 kV Bus	12/31/2011	12/31/2011		Revoked			
449	11/1/2007	11/1/2007	Withdrawn	GI	PV		S		100		100	Full Capacity	KERN	CA	SCE	Whirlwind Substation 220kV	12/31/2010	12/31/2010		Revoked			
450	11/1/2007	11/1/2007	Withdrawn	GI	PV		S		20		20	Full Capacity	LOS ANGELES	CA	SCE	Pardee-Lugo 220kV line	12/31/2010	12/31/2010		Active			
451	11/1/2007	11/1/2007	Withdrawn	GI	PV		S		20		20	Full Capacity	CALAVERAS	CA	PGE	Gold Hill-Bellota 230kV	6/1/2011	6/1/2011		Active			
452	11/1/2007	11/1/2007	Withdrawn	GI	PV		S		20		20	Full Capacity	KERN	CA	PGE	Rosamond-Cal Cement Rdg line	6/30/2010	6/30/2010		Active			
453	11/1/2007	11/1/2007	Withdrawn	GI	PV		S		20		20	Full Capacity	KERN	CA	PGE	Wasco-Famoso 115kV line	12/31/2010	12/31/2010		Revoked			
454	11/1/2007	11/1/2007	Withdrawn	GI	PV		S		20		20	Full Capacity	KERN	CA	PGE	Wasco Substation 66/12 kV	12/31/2010	12/31/2010		Revoked			
455	11/1/2007	11/1/2007	Withdrawn	GI	PV		S		100		100	Full Capacity	TULARE	CA	SCE	Bellota-Weedpatch 230 kV line	6/30/2010	6/30/2010		Active			
456	11/1/2007	11/1/2007	Withdrawn	GI	PV		S		20		20	Full Capacity	MERCED	CA	PGE	Dairyland-Le Grand 115kV line	12/31/2010	12/31/2010		Revoked			
457	11/1/2007	11/1/2007	Withdrawn	GI	PV		S		100		100	Full Capacity	KERN	CA	PGE	Lamont-Arvin 230 kV line	12/31/2010	12/31/2010		Revoked			
458	11/1/2007	11/1/2007	Withdrawn	GI	PV		S		100		100	Full Capacity	KERN	CA	PGE	Lamont-Weedpatch 66 kV line	12/31/2010	12/31/2010		Revoked			
459	11/1/2007	11/1/2007	Withdrawn	GI	PV		S		100		100	Full Capacity	KERN	CA	PGE	Lamont 230 kV substation	12/31/2010	12/31/2010		Revoked			
460	11/1/2007	11/1/2007	Withdrawn	GI	PV		S		100		100	Full Capacity	KERN	CA	PGE	Wasco 115 kV bus	12/31/2010	12/31/2010		Active			
461	11/1/2007	11/1/2007	Withdrawn	GI	PV		S		100		100	Full Capacity	KERN	CA	PGE	Kern-Tevis 70 kV line	12/31/2010	12/31/2010					
462	11/1/2007	11/1/2007	Withdrawn	GI	PV		S		100		100	Full Capacity	KERN	CA	PGE	Colorado River Substation 230kV	12/30/2010	12/30/2010					

Re-Study of C1C2 Phase II
Appendix C

Load, Resource, and Dispatch Summary Table

Load and Resource Summary: C1C2 Phase II Re-Study for Stressed Thermal Cases

Case Names	C1C2_2_results_base	C1C2_4a_results_base
CAISO Recommended Plan Of Service *	Yes	Yes
ECO Area- Cluster 1 & Cluster 2	98	98
Imperial Valley Area - Cluster 1 & Cluster 2	1119	1119
Internal Area- Cluster 1 & Cluster 2	408	408
Season	Light Load	Heavy Summer
Load	2038	5162
Losses	134	225
Load + Losses (MW)	2872	5387

Path Capacity (PC)
Energy Only (EO)

Path 44 South of SONGS (North Bound)	230	100
Miguel 500/230 kV Bank @ 230 kV	540	1472
Central 500/230 kV Bank @ 230 kV	648	558
Talega-Otay Mesa 230 kV @ OMS	715	793
SDG&E Import Cut Plane (Total)	1773	2524

Sunrise (at N-1)	800	870
Sunrise (at CE)	1000	1000
Imperial Valley - North 500 kV (West)	366	400
Imperial Valley - ECO 500 kV (West)	33	633
ECO-Miguel 500 kV	844	1400
Path 45 SDG&E-CFE Interconnection	800	1000
Path 42 (N-S) 500 kV Intra-California Transmission	3000	4000
IV to SDGE (N-1) - (Stuart 230 kV #1 and #2)	1311	1387
Pow-wow-Mesa Loop-in (CA/SO at IV and #1 Relay)	1000	1000
Path 46 (North of Songs (south to north))	2160	5730
Path 46 East of River	4000	4000
SCIT	4000	11000

Out-of-Basin Generation

ECO/Sunrise Load Area Generation **

				Fuel Type	MAX MW
[illegible]	Solar-ECO	201	201	W	201
[illegible]	Solar-ECO	160	160	W	160
[illegible]	Solar-ECO	400	400	W	400
[illegible]	ECO - 230 kV	** 0	** 0	EO W	500
[illegible]	ECO - 230 kV	** 0	** 0	EO W	420
[illegible]	ECO - 138 kV	20	20	EO SPV	20
[illegible]	Solar-ECO	57.5	57.5	EO W	57.5
[illegible]	Solar-ECO	20	20	EO SPV	20
	Sub-total ECO Generation	859	859		1579
	Sub-total Boulevard/ECO 138 kV	459	459		498
	Sub-total Boulevard Area Cluster 1 & Cluster 2	98	98		97.5

Imperial Valley Area Generation *

					MAX
[illegible]	Solar-IV	** 0	** 0	EO	2270
[illegible]	IV-230	200	600	SPV	600
[illegible]	IV-230	100	100	EC ST	100
[illegible]	IV-230	125	125	EC SPV	125
[illegible]	Solar Foulton	239	239	EC W	239
[illegible]	IV-230	200	200	EC SPV	200
[illegible]	IV-230	200	200	EC SPV	200
[illegible]	IV-230	150	150	EC SPV	150
[illegible]	IV-230	250	250	EC SPV	250
[illegible]	IV-230	20	20	EO SPV	20
	Sub-total Imperial Valley Area	1544	1944		3014
	Sub-total Imperial Valley Area Cluster 1 & Cluster 2	1119	1119		1119

North Gila Hassayampa Area Generation

					MAX
TBD	SP North Gila 500 kV	290	290	EO SPV	290
	Sub-total North Gila Hassayampa Area	290	290		290
	Total Out-of-Basin Generation	2693	3093		4884

In-Basin Generation

Internal Generation

TBD	Sub-total	117	117		192
Priority One	[illegible]	229	455		365
	[illegible]	200	618		612
	[illegible]	0	40		40
	Sub-total	429	1148		N/A
	[illegible]	0.0	0.0		0.0
	[illegible]	0.0	0.0		299.0
	[illegible]	0.0	42.2		42.2
	[illegible]	0.0	49.0		49.0
	[illegible]	0.0	49.3		49.3
	[illegible]	0.0	0.0		41.5
	[illegible]	0.0	47.9		47.9
	[illegible]	0.0	0.0		42.0
	[illegible]	0.0	43.0		45.2
	[illegible]	0.0	45.3		45.3
	[illegible]	0.0	0.0		13.0
	[illegible]	0.0	46.0		46.0
	[illegible]	0.0	46.0		46.0
	[illegible]	30.0	30.0	IC	30.0
	[illegible]	0.0	46.3		46.3
	[illegible]	0.0	0.0		49.9
Priority Two	[illegible]	0.0	95.0		99.0
	Sub-total	30.0	562.4		N/A

CAISO Internal Cases

[illegible]	Pendleton Las Lamas Tap	0	0			301
[illegible]	[illegible]	0	0			27
[illegible]	[illegible]	0	245			245
[illegible]	[illegible]	0	0			29.4
[illegible]	[illegible]	0	245			245
TBD	Suntap	25.75	25.75	PC	SPV	25.75
TBD	Suntap	0	0	EO	SPV	25
[illegible]	Loop-in Miguel 230 kV line	100	100	PC	W	100
[illegible]	Otay Mesa	303	303	PC	W	303
	Sub-total CAISO Internal Queue	434	954			1558
	Sub-total Internal Area Cluster 1 & Cluster 2	408	408			408
	[illegible]	[illegible]	[illegible]			N/A
	Total	3722	[illegible]			

Adjusting area 24 wind area 30 generation to conservative for C1/C2 generation
* CAISO Plan of Service: Cases are Type of Miguel 230 kV and SPS as mentioned in the above report
** Q188 and Q215 were in service dates was 2016. They in service dates are 2018 and 2020 respectively. Q188 and Q215 were modeled in the base case at maximum output to determine the impacts for the 2018 year of study.
* Existing Imperial Valley generation adjusted to maintain flow on the N-S EOC Path 42 MOB below the limit of 2440 MW
+ Imperial Valley gas fired generation turned off to create a more stressed case for voltage, contingency, and transient studies
** N-1 of a single ECO-SONGS 500 kV bank isolates all generation at Boulevard and ECO. The CAISO allows a maximum of 1150 MW of generation tripping for the single contingency. Generation at ECO and Boulevard is limited to a maximum of 1150 MW.

Re-Study of C1C2 Phase II
Appendix D

Steady-State Power Flow Results:
Thermal and Voltage

PER UNIT FLOW VIOLATIONS: C1C2 Phase II Re-Study

							Heavy Summer	Light Load
							Data	
CATEGORY	COMMENT	BRANCH DESCRIPTION	CONTINGENCY DESCRIPTION	MVA1	MVA2	RVU	C1c2_hs_restudy_base	C1c2_ll_restudy_base
A	C1C2-SPS	ECO 230 ECO 138 2	Base system (n-0)	392.0	477.0	392.0	1.145	1.163
B	**	SWEETWTR 69 SWTWTRTP 69 1	TL23026 SILVEROT - BAY BLVD ckt 1	215.0	215.0	215.0	1.058	0.587
	***	SYCAMORE 69 SCRIPPS 69 1	TL230 MIGUEL - BAY BLVD #1	153.0	153.0	153.0	1.049	0.705
C	*	*BAY BLVD 230 MIGUEL 230 1	*23022 & 23023 SPS6 3F (No IV SPS, ML-MS N-2)	912.0	1176.0	1176.0	1.060	0.752
			*MISSION 230 kV 5T CB (No IV SPS, ML-MS N-2)	912.0	1176.0	1176.0	1.060	0.752
			*ML-MS 230 kV #1&#2 (No IV SPS)	912.0	1176.0	1176.0	1.060	0.752
	****	DEL MAR 69 DELMARTP 69 1	****Del Mar 69kV E Bus	50.0	50.0	50.0	1.259	0.680
	****	GARFIELD 69 EL CAJON 69 1	****Murray 69kV N Bus	97.0	102.0	102.0	1.256	0.661
	****	HORNO TP 69 JAP MESA 69 1	****TA-SO + CAP-SO 230 kV	32.0	32.0	32.0	1.055	0.491
	****	LASPULGS 69 HORNO TP 69 1	****TA-SO + CAP-SO 230 kV	32.0	32.0	32.0	1.055	0.491
	****	MURRAY 69 GARFIELD 69 1	****Murray 69kV N Bus	97.0	97.0	97.0	1.078	0.557
	****	OCNSDETP 69 STUARTTP 69 1	****TA-SO + CAP-SO 230 kV	32.0	32.0	32.0	1.472	0.706
	****	POMERADO 69 SYCAMORE 69 2	****Sycamore 69kV S Bus	174.0	179.0	179.0	1.004	0.613
	****	POWAY 69 R CARMEL 69 1	****AR-SX + SX-BE is a Cat C	97.0	114.0	114.0	1.126	0.680
	****	SANLUSRY 69 OCEANSDE 69 1	****San Luis Rey 69kV NW Bus	54.0	54.0	54.0	1.092	0.566
	****	SILVERGT 69 URBAN 69 1	****SG-CR + SG-B	85.0	100.0	100.0	1.058	0.546
	****	STUARTTP 69 LASPULGS 69 1	****TA-SO + CAP-SO 230 kV	32.0	32.0	32.0	1.418	0.678
	****/ * / ***	SYCAMORE 69 SCRIPPS 69 1	***BAY BLVD-MIGUEL & GRNTHIL-TC	153.0	153.0	153.0	*1.069	0.734
			****/ * MIGUEL 230 kV 7T A2 CB (ML-BB 230 kV & ML230/138	153.0	153.0	153.0	1.049	0.705
			***Miramar1 (OT) 69kV Bus	153.0	153.0	153.0	1.012	0.612
			***OLD TOWN 230 kV 2N CB	153.0	153.0	153.0	1.004	0.697
			***Penasquitos 69kV SE Bus	153.0	153.0	153.0	1.008	0.643
			***SX-PEN + PEN-EA-SA 230 kV	153.0	153.0	153.0	1.003	0.686
			***SX-PEN 230 kV ~ AR-SX 69 kV(verified CatC)	153.0	153.0	153.0	1.002	0.695
			***TL230 MIGUEL - OTAYMESA #1 and #2 (Otay Mesa SPS)	153.0	153.0	153.0	1.020	0.696
			***TL230 MIGUEL - OTAYMESA #1 and #2 with SPS	153.0	153.0	153.0	1.020	0.696
CFE		None						
IID		None						
SCE		None						

C1C2 SPS Overload Due to C1C2 Projects - Redispached Pre-C1C2 generation at ECO 138 kV or Boulevard Substation with Q183 or Q215, at ECO 230 kV, to the total noted above, mitigates the 230/138 kV ECO bank overload.

* Imperial Valley SPS will mitigate the overload.

** Sweetwater-Sweetwater tap 69 kV N-1 overload was identified as an N-1 overload in the 2010 & 2011/2012 TPP. The TPP proposed mitigation for an emergency rating of 250 MVA which is sufficient to mitigate this overload.

*** Sycamore-Scripps 69 kV rating of 153/153 MVA is proposed to increase to 160/160 MVA due to upgrades at Sycamore associated with SRPL construction.

* Sycamore-Scripps 69 kV rating of 160/160 MVA is insufficient

**** Overloads due to a Category C outage are mitigated by load shed in the TPP.

VOLTAGE VIOLATIONS: C1C2 Phase II Re-Study

				Heavy Summer	Light Load
				Data	
COMMENT	FULL NAME	CATEGORY	CONTINGENCY DESCRIPTION	C1c2_hs_restudy_base	C1c2_ll_restudy_base
*	ECO 500	B	50004 IMPRLVLY-ECO ck 1 (No SPS)	1.01	0.98
**		B	IV 8032 50001 & BK82 CB(No IV SPS, IV-ECO IV82 N-2)	1.01	0.98
	MIGUEL 500	B	SX-SUNCREST 230kv	1.01	0.99
*		B	50001 MIGUEL-ECO ck 1 (No SPS)	1.00	0.99
*		B	50004 IMPRLVLY-ECO ck 1 (No SPS)	1.00	0.98
*		C	IV 8032 50001 & BK82 CB(No IV SPS, IV-ECO IV82 N-2)	1.00	0.98
**	SHADOWR 138	C	SH-CC AND SH-BQ 138 kV	1.06	1.02
**		C	Shadow Ridge 138kV East Bus	1.06	1.02

* Imperial Valley SPS will mitigate the low voltage.
** High voltage not due to C1/C2

BEFORE THE ENERGY RESOURCES CONSERVATION AND DEVELOPMENT
COMMISSION OF THE STATE OF CALIFORNIA
1516 NINTH STREET, SACRAMENTO, CA 95814
1-800-822-6228 – WWW.ENERGY.CA.GOV

APPLICATION FOR CERTIFICATION
FOR THE *PIO PICO ENERGY CENTER, LLC*

Docket No. 11-AFC-1
PROOF OF SERVICE
(Revised 3/20/12)

Pio Pico Energy Center, LLC
Letter to Eric Solorio, California Energy Commission, dated June 22, 2012
Re California Independent System Operator's Re-Study of C1C2 Phase II Interconnection Study Report, Group Report for the SDG&E Area

APPLICANT

Gary Chandler, President
Pio Pico Energy Center
P.O. Box 95592
South Jordan, UT 84095
grchandler@apexpowergroup.com

David Jenkins, Project Manager
Pio Pico Energy Center, LLC
1293 E. Jessup Way
Mooresville, IN 46158
djenkins@apexpowergroup.com

APPLICANT'S CONSULTANTS

Maggie Fitzgerald
Sierra Research
1801 J Street
Sacramento, CA 95811
MFitzgerald@sierraresearch.com

COUNSEL FOR APPLICANT

John A. McKinsey
Melissa A. Foster
Stoel Rives, LLP
500 Capitol Mall, Suite 1600
Sacramento, CA 95814
jamckinsey@stoel.com
mafoster@stoel.com

INTERESTED AGENCIES

California ISO
e-mail service preferred
e-recipient@caiso.com

PETITIONERS

April Rose Sommer
Attorney for Rob Simpson
P.O. Box 6937
Moraga, CA 94570
e-mail service preferred
aprilsommerlaw@yahoo.com

ENERGY COMMISSION-DECISIONMAKERS

CARLA PETERMAN
Commissioner and Presiding Member
cpeterma@energy.state.ca.us

KAREN DOUGLAS
Commissioner and Associate Member
e-mail service preferred
kldougla@energy.state.ca.us

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

Jim Bartridge
Presiding Member's Adviser
jbartrid@energy.state.ca.us

Galen Lemei
Associate Member's Adviser
e-mail service preferred
glemei@energy.state.ca.us

ENERGY COMMISSION STAFF
Eric Solorio
Siting Project Manager
esolorio@energy.state.ca.us

Kevin W. Bell
Staff Counsel
kwbell@energy.state.ca.us

Eileen Allen
Commissioners' Technical Advisor for Facility Siting
e-mail service preferred
eallen@energy.state.ca.us

ENERGY COMMISSION – PUBLIC ADVISER
Jennifer Jennings
Energy Commission Public Adviser
e-mail service preferred
publicadviser@energy.state.ca.us

DECLARATION OF SERVICE

I, Judith M. Warmuth, declare that on June 22, 2012:

☐ I deposited copies of the aforementioned document and, if applicable, a disc containing the aforementioned document in the United States mail at 500 Capitol Mall, Suite 1600, Sacramento, California 95814, with first-class postage thereon fully prepaid and addressed to those identified on the Proof of Service list herein and consistent with the requirements of California Code of Regulations, Title 20, sections 1209, 1209.5, and 1210.

OR

☒ I transmitted the document(s) herein via electronic mail only pursuant to California Energy Commission Standing Order re Proceedings and Confidentiality Applications dated November 30, 2011. All electronic copies were sent to all those identified on the Proof of Service list herein and consistent with the requirements of California Code of Regulations, Title 20, sections 1209, 1209.5, and 1210.

OR

☐ On the date written above, I placed a copy of the attached document(s) in a sealed envelope, with delivery fees paid or provided for, and arranged for it/them to be delivered by messenger that same day to the office of the addressee, as identified on the Proof of Service list herein and consistent with the requirements of California Code of Regulations, Title 20, sections 1209, 1209.5, and 1210.

I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct, that I am employed in the county where this mailing occurred, and that I am over the age of 18 years and not a party to the proceeding.

Judith M. Warmuth