Envirepel
Energy, Inc.

September 23, 2007

Mr. James Boyd, Vice Chair
California Energy Commission
1516 Ninth Street, MS-12
Sacramento, CA 95814

Dear Mr. Boyd,

As CEO of Envirepel Energy Inc., who has worked for four years now to develop an ultra low emissions 90 MW renewable energy project for the 69 KV circuit between the Via Monserate and Pala substations, I would like to submit the following documents to the Commission Staff to review under the Comment process for the Orange Grove Energy Project proposed for the Pala Substation:

1. Letter of Opposition to be submitted to the California Public Utilities Commission
2. Letter of Opposition to this project under Title 20, Appendix B
3. Data Adequacy Worksheet comments for Six Month expedited Process
4. GE LM 6000 Estimated performance data sheet
5. Fallbrook Renewable Energy Facility Executive Summary
6. Emissions calculations for developments within the six mile study area
7. Environmental Impact Reports from some of the surrounding projects

I did not wish to be put into a position to oppose energy generation efforts in support of San Diego Gas & Electric, but after meeting with the developer, they have left our Company no choice.

The State, when given the choice between a viable renewable energy project and a conventional energy project on the same circuit, has an obligation to allow the renewable project priority over the gas fired project in support of the Bio-energy Task force that you personally chair.

I will make myself and my staff available to the Commission to answer any questions resulting from our submission.

Sincerely,

Anthony J Arand
CEO

1390 Engineer, Vista, CA 92081

Envirepel
Energy, Inc.

September 23, 2007

Commissioner Dian M. Grueneich
California Public Utilities Commission
505 Van Ness Avenue
San Francisco, CA 94102

Dear Commissioner Grueneich,

Envirepel Energy Inc. requests that the California Public Utilities Commission hold a hearing to determine if SDG&E violated the CPUC guidelines for Power Purchase Agreement negotiations between projects by awarding a Power Purchase Agreement to J-Power USA LLC during the 2006 long term RFO offering.

The J-Power Project was awarded a Power Purchase Agreement by SDG&E under fraudulent terms. Envirepel Energy bid in the same RFO as J-Power and asked specifically in writing during the bid process if our interconnection study (attached) still applied to the 69 KV circuit.

SDG&E replied in writing that the interconnection study applied which limited the maximum energy input to that circuit at 70 MW without major system upgrade costs being applied to our (or any) project. SDG&E did not state that the interconnection study only applied to Envirepel Energy and not other projects on the circuit and denied Envirepel Energy an opportunity to negotiate a PPA.

We would ask the Commission to consider that just because J-Power is selling its project to SDG&E, does that allow SDG&E to bypass the interconnection costs and constraints applied to our project and allow the J-Power project interconnection costs to be paid by the ratepayers?

I will make myself and my staff available to the Commission to answer any questions resulting from our submission.

Sincerely,

Anthony J Arand
CEO

1390 Engineer, Vista, CA 92081

Envirepel
Energy, Inc.

September 23, 2007

Mr. James Boyd, Vice Chair
California Energy Commission
1516 Ninth Street, MS-12
Sacramento, CA 95814

Dear Mr. Boyd,

Envirepel Energy Inc. requests that the Energy Commission deny the Small Power Plant Exemption for the proposed Orange Grove power Plant Project on the following grounds;

1. This project will not be used as a peaker project by SDG&E
2. This project has significant environmental impacts not disclosed by the applicant
3. Siting Regulation 2022(b)(2)(A) is not met by this project as proposed
4. Siting Regulation 2022(b)(2)(B) is not met by this project as proposed
5. Siting Regulation 2022(b)(2)(C) is not met by this project as proposed
6. Siting Regulation 2022(b)(2)(D) is not met by this project as proposed
7. Siting Regulation 2022(b)(2)(E) is not met by this project as proposed
8. Siting Regulation 2022(b)(2)(F) is not met by this project as proposed
9. Siting Regulation 2022(b)(2)(G) is not met by this project as proposed
10. Siting Regulation 2022(b)(2)(I) is not met by this project as proposed
11. Siting Regulation 2022(b)(3)(A) is not met by this project as proposed
12. Siting Regulation 2022(b)(2)(B) is not met by this project as proposed
13. Siting Regulation 2022(b)(4)(C) is not met by this project as proposed
14. Siting Regulation 2022(b)(5)(A) is not met by this project as proposed

I have expanded some of our reasons as attachments to this letter with additional documentation support our claims.

I will make myself and my staff available to the Commission to answer any questions resulting from our submission.

Sincerely,

Anthony J Arand
CEO

Additional Comments

1390 Engineer, Vista, CA 92081

1. The Project is not a "Peaker".

The Proposed "Peaker Project" is intended to be installed on a 69 KV circuit that has Grid Reliability issues, and which was the subject of a 2003 RFP by SDG&E (attached), and where our Company was awarded a contract for 45 MW of biomass energy (attached). SDG&E interconnection engineers requested that our Company modify our grid interconnection to allow SDG&E to achieve VAR stability on this circuit using the output of our project from multiple turbine generators.

In short, this circuit is failing and subject to VAR stability issues and any "peaker" project proposed for it should be considered as a traditional RMR project for it shall be utilized all year long by SDG&E to stabilize the distribution grid in Northern San Diego County, as is our Renewable Energy Project slated for the same circuit. Hence, any project proposed to interconnect to this circuit should go through the formal Title 20 process and not be allowed exemption status as a "peaker".

The appropriate process to evaluate this project is the full 12 month AFC process under Title 20, appendix B.

2. This project has significant environmental impacts not disclosed by the applicant

Within the six mile radius of environmental study for this project are two Indian casino expansion projects, 10,000 residential homes proposed, a solid waste landfill, a million square feet of industrial space, an expansion for a State College, a rock quarry, and a Renewable Energy Power Project. The Proposed Project site is also directly opposite a Native American Indian religious site (Medicine Rock) that is susceptible to air emissions erosion issues.

The County of San Diego has required the Indian tribes to do "system level" impact studies for CEQA purposes for on and off reservation impacts from their projects encompassing all the proposed projects, very similarly to that which is required under Title 20, Appendix B for Thermal Power Plants.

There are significant air quality issues in the proposed project site when one considers the 150,000 vehicle trips per day that are proposed along the banks of a river that supports many endangered species, some of which only breed in the upper San Luis Rey river basin. These are material issues as there are no air emissions offset credits to be had in the San Diego Air Basin, and the specific project site is a Non-Attainment area for Ozone and PM 10. Air impact analysis for several of the adjacent projects are included for Staff review.

The disclosure of water and gas service being brought to the site by a water district (Rainbow MWD) that does not have jurisdiction on the project site (served by the San Luis Rey MWD) is intriguing to start with, but has the Project Developer disclosed that any service to the project site must cross over the County Water Authority main water aqueducts #1 and #2?

The only place known to our Company to be viable for meeting the requirements of another entity to cross encroach on the water lines would be to cross those aqueducts in the San Luis Rey River itself, a river that is home to many endangered species which are referenced in the attached Environmental Impact Report from the Gregory Canyon Landfill Project.

Discharges from the facility would impact the Pala Band of Mission Indians as they are subject to

continuous Federal Air Quality monitoring and could potentially be fined for exceeding daily air quality standards by the proposed project. General Electric data sheets for the proposed LM 6000 power plants are attached for Staff review.

The appropriate process to evaluate this project is the full 12 month AFC process under Title 20, appendix B.

3. Siting Regulation 2022(b)(2)(A) is not met by this project as proposed

The proposed project does not meet the ambient air standards criteria when considered in combination with the other adjacent project and traffic air discharges. Wind Rose studies are attached along with project/traffic emissions estimates that indicate clearly the air quality issues for the project site, and the whole San Luis Rey river basin area east of Interstate 15.

The appropriate process to evaluate this project is the full 12 month AFC process under Title 20, appendix B.

4. Siting Regulation 2022(b)(2)(B) is not met by this project as proposed

The proposed project does not meet the ambient air standards criteria when considered in combination with the other adjacent project and traffic air discharges. Wind Rose studies are attached along with project/traffic emissions estimates that indicate clearly the air quality issues for the project site, and the whole San Luis Rey river basin area east of Interstate 15.

The appropriate process to evaluate this project is the full 12 month AFC process under Title 20, appendix B.

5. Siting Regulation 2022(b)(2)(C) is not met by this project as proposed

If the project is operated more than approximately 1100 hours per year, it will require Air Emissions offset credits for NOx and CO which are no longer available in the air basin. Grid reliability issues exist on this circuit for approximately 10 months out of the year which would make this project a full time operating facility and NOT a peaker as proposed. It was clearly demonstrated by SDG&E last summer with the Escondido based Palomar Energy Project, air emissions are waived when the Utility needs the power to avoid blackouts which would directly apply to this proposed project site.

The appropriate process to evaluate this project is the full 12 month AFC process under Title 20, appendix B.

6. Siting Regulation 2022(b)(2)(D) is not met by this project as proposed

Over 12,000 vehicle trips per day pass the project site currently inside of the 1000 foot radius of study, and this traffic volume is expected to increase to ten times this level over the life of this power project. Any accidental spill of ammonia, or partial combustion of ammonia (ammonia slip through the turbine blades) would directly impact the people driving by the site on a daily basis. If the ammonia storage tank or natural gas supply lines were to rupture in the case of an earthquake (the project site is near several faults and is in a earthquake zone 4 region), the traffic on HWY 76 would be directly exposed to the ammonia or natural gas as it escaped the project site inside of the 1000 foot radius.

The appropriate process to evaluate this project is the full 12 month AFC process under Title 20, appendix B.

7. Siting Regulation 2022(b)(2)(E) is not met by this project as proposed

The Project site is not served by the Rainbow MWD, rather it is served by the San Luis Rey MWD which has not made any agreements with the project for service. The Project does not meet the requirements of this section.

The appropriate process to evaluate this project is the full 12 month AFC process under Title 20, appendix B.

8. Siting Regulation 2022(b)(2)(F) is not met by this project as proposed

The Project site is surrounded by, and encompasses habitat and critically endangered species, as documented in the environmental documents of the surrounding projects, which are attached electronically on CD for staff review. That the developer desires to bypass the issue of Biology is understandable, however this is a project site location where the environmental evaluation of the site is material.

The appropriate process to evaluate this project is the full 12 month AFC process under Title 20, appendix B.

9. Siting Regulation 2022(b)(2)(G) is not met by this project as proposed

The Project has not disclosed the amount of ammonia to be stored on the project site and therefore has not demonstrated that the requirements for this section of the exemption have been met. Vehicles would be driving past this site within the 1000 foot radius of concern.

The appropriate process to evaluate this project is the full 12 month AFC process under Title 20, appendix B.

10. Siting Regulation 2022(b)(2)(I) is not met by this project as proposed

Same comment as #9.

The appropriate process to evaluate this project is the full 12 month AFC process under Title 20, appendix B.

11. Siting Regulation 2022(b)(3)(A) is not met by this project as proposed

Envirepel Energy holds a valid System Impact Study that documents a maximum of 70 MW load into the 69 KV circuit without major system upgrades. This System Impact Study was identified by SDG&E to be valid at the time of the PPA negotiations for the proposed project, and still valid in the 2007 RFO which Envirepel is negotiating a PPA with SDG&E currently.

How the proposed project could be rated at more than 70 MW without the addition of major system upgrades as part of the project is the subject of Envirepel Energy's opposition to the project at the CPUC.

The appropriate process to evaluate this project is the full 12 month AFC process under Title 20, appendix B.

12. Siting Regulation 2022(b)(2)(B) is not met by this project as proposed

The proposed project may be able to claim access to service for water, sewer and natural gas in theory, however the project demands are not easily met via the RMWD service district. The layout of services in the area lends itself to supplying the site services along HWY 76, which is not in the RMWD service district. Without a commitment from the County Water Authority, and Rainbow MWD, which shows the actual path that the service will be routed through, this project does not meet this requirement.

The appropriate process to evaluate this project is the full 12 month AFC process under Title 20, appendix B.

13. Siting Regulation 2022(b)(5)(A) is not met by this project as proposed

The Project was awarded a Power Purchase Agreement by SDG&E under fraudulent terms. Envirepel Energy bid in the same RFO as J-Power and asked specifically in writing during the bid process if our interconnection study (attached) still applied to the 69 KV circuit.

SDG&E replied in writing that the interconnection study applied which limited the maximum energy input to that circuit at 70 MW without major system upgrade costs being applied to our project. SDG&E did not state that the interconnection study only applied to Envirepel Energy and not other projects on the circuit and denied Envirepel Energy an opportunity to negotiate a PPA.

Envirepel Energy is currently negotiating a PPA from a follow on RFO with SDG&E for the original Fallbrook Renewable Energy Facility location on the 69 KV circuit and expects to close that negotiation by the end of October 2007. In short, there are two projects proposed for the same circuit and not enough capacity for both.

We would ask the Commission to consider that just because J-Power is selling its project to SDG&E, does that allow SDG&E to bypass the interconnection costs for the project from being paid by the developer and pass that cost onto the ratepayers?

Envirepel Energy is filing opposition to the PPA with SDG&E that grants the lease rights to J-Power for the site, and until that opposition is settled, we request the Commission stop the permitting process for the Orange Grove Power Project.

Adequacy Issue: Adequate ____ Inadequate ____

DATA ADEQUACY WORKSHEET

(Six Month Expedited Process)

Revision No. 00 Date ____

Technical Area: ____ Project: ____ Technical Staff: ____

Project Manager: ____ Docket: ____ Technical Senior: ____

SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
§2022(b)(1) (All)	Substantial evidence that the project as proposed in the application will comply with all standards, ordinances, and laws applicable at the time of certification including;			
§2022(b)(1)(A) (All)	A list of such standards, ordinances, and laws;			
§2022(b)(1)(B) (All)	Information demonstrating that the project as proposed in the application will comply with all such standards, ordinances, and laws;			
§2022(b)(1)(C) (All)	Where a standard, ordinance, or law is expected to change between the time of filing an application and certification, information from the responsible jurisdiction documenting the impending change, the schedule for enactment of the change, and whether the proposed project will comply with the changed standard, ordinance, or law.; and			
§2022(b)(1)(D) (All)	A list of the requirements for permitting by each federal, state, regional, and local agency that has jurisdiction over the proposed project or that would have jurisdiction, but for the exclusive jurisdiction of the commission, and the information necessary to meet those requirements;			
§2022(b)(2)	Substantial evidence that the project as proposed in the application will not cause a significant adverse impact on the environment, including the following:			

Adequacy Issue: Adequate ____ Inadequate ____

DATA ADEQUACY WORKSHEET

(Six Month Expedited Process)

Revision No. 00 Date ____

Technical Area: ____ Project: ____ Technical Staff: ____

Project Manager: ____ Docket: ____ Technical Senior: ____

SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
§2022(b)(2)(A) (Air Quality)	a detailed modeling analysis assessing whether the cumulative impacts of all inert criteria pollutants (NOx, SO2, CO, and PM10) from the project's typical operating mode in combination with all stationary emissions sources within a six-mile radius of the proposed site that have received construction permits, but are not yet operational, and all stationary emissions sources that are currently undergoing air district permit application review will cause or contribute to a violation of any ambient air quality standard;		No	PM10 + OZONE NON-ATTAINMENT FOR OZONE
§2022(b)(2)(B) (Air Quality)	A description of the project's planned initial commissioning phase, which is the phase between the first firing of emissions sources and the consistent production of electricity for sale to the market, including the types and durations of equipment tests, criteria pollutant emissions, and monitoring techniques to be used during such tests, and air dispersion modeling analyses of the impacts of those emissions on state and federal ambient air quality standards for NO2, SO2, CO, and PM10;		No	PM10 + OZONE NON-ATTAINMENT FOR OZONE
§2022(b)(2)(C) (Air Quality)	A detailed description of the mitigation, which an applicant shall propose, for all impacts from criteria pollutants that currently exceed state or federal ambient air quality standards, but are not subject to offset requirements under the district's new source review rule;		No	OFFSETS NOT AVAILABLE
§2022(b)(2)(D) (Air Quality, Public Health)	A modeling analysis that identifies the extent of potential public exposure to toxic substances, as identified in subsection (g)(9)(A) of Appendix B, resulting from normal facility operation;		No	

Adequacy Issue: Adequate ____ Inadequate ____

DATA ADEQUACY WORKSHEET

(Six Month Expedited Process)

Revision No. 00 Date ____

Technical Area: ____ Project: ____ Technical Staff: ____

Project Manager: ____ Docket: ____ Technical Senior: ____

SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
§2022(b)(2)(E) (Water)	If the project will result in a discharge of waste that could affect the water quality of the state, a complete report of proposed waste discharge as required by section 13260 of the Water Code. This will allow for issuance of waste discharge requirements by the appropriate regional water quality control board within 100 days after filing the application in accordance with Public Resources Code section 25550(d);		NO	NO WATER OR SEWER SERVICE TO SITE RMWD DOES NOT SERVICE THE SITE.
§2022(b)(2)(F) (Biology)	A demonstration, based on appropriate data including, but not limited to, scientific surveys taken at the appropriate time of year, that the project will have no significant impact on wetlands, plant or animal species that are endangered, threatened, or of concern under state or federal law, or the areas listed in Public Resources Code section 25527;		No	10 MAJOR DEVELOPMENTS WITH SIGNIFICANT IMPACTS WITHIN 6 MILE RADIUS. THIS PROJECT WILL IMPACT 4 SPECIES.
§2022(b)(2)(G) (Hazardous Material)	With respect to the handling of hazardous materials, a demonstration that: i) the project will not use or store any regulated substance defined in Section 25532(g) of the California Health and Safety Code or ii) the project is eligible for Program 1 status pursuant to Section 68.10 of Part 68 of Title 40 of the Code of Federal Regulations or can demonstrate that no worst case accidental release would result in a plausibility (risk greater than 1 in 1,000,000) of an impact above the Emergency Response Planning Guideline, Level 2 (ERPG 2) at the nearest public receptor.		NO	AMMONIA FOR NOX CONTROL

Adequacy Issue: Adequate ____ Inadequate ____

DATA ADEQUACY WORKSHEET

(Six Month Expedited Process)

Revision No. 00 Date ____

Technical Area: ____ Project: ____ Technical Staff: ____

Project Manager: ____ Docket: ____ Technical Senior: ____

SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
§2022(b)(2)(H) (Hazardous Material)	If the project will store or use a regulated substance defined in Section 25532(g) of the Health and Safety Code, a demonstration either that the boundary of the powerplant site will not be within1000 feet of any residential area, school, general acute care hospital, long-term health care facility, or child day care facility as such terms are defined in section 25534.1 of the Health and Safety Code or that the project will pose no plausible potential for exposure at such facilities from an accidental release of the regulated substance; and			
§2022(b)(2)(I) (Hazardous Material)	A demonstration that the proposed facility will not require storage of gaseous flammable or explosive materials in quantities greater than 25000 standard cubic feet;		NO	AMMONIA TANKS FOR NOx CONTROL
§2022(b)(3) (TSE)	Substantial evidence that the project will not cause a significant adverse impact on the electrical system, including all of the following:			
§2022(b)(3)(A) (TSE)	An interconnection study identifying the electrical system impacts and a discussion of the mitigation measures considered and those proposed to maintain conformance with NERC, WSCC, Cal-ISO or other applicable reliability or planning criteria based on load flow, post transient, transient, and fault current studies performed by or for the transmission owner in accordance with all applicable Cal-ISO or other interconnection authority's tariffs, operating agreements, and scheduling protocols and		NO	EBI HAS A VALID INTERCONNECTION STUDY SHOWING 67-70MW AS MAX INPUT TO CIRCUIT W/O MAJOR SYSTEM UPGRADES

Adequacy Issue: Adequate ____ Inadequate ____

DATA ADEQUACY WORKSHEET

(Six Month Expedited Process)

Revision No. 00 Date ____

Technical Area: ____ Project: ____ Technical Staff: ____

Project Manager: ____ Docket: ____ Technical Senior: ____

SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
§2022(b)(2)(B) (TSE/FD)	A full description of the facilities, if any, that are required for interconnection, including all such facilities beyond the point where the outlet line joins with the interconnected system and a full description of the environmental setting, environmental impacts, and any recommended mitigation measures proposed by the applicant for any required facilities beyond the point where the outlet joints with the interconnected system;		NO	NATURAL GAS MUST BE PROVIDED TO THE SITE THRU SPECIES HABITAT THAT WILL CAUSE IMPACTS, ALSO IMPACTS TO CWA PIPELINES #2 THAT MUST BE CONSIDERED
§2022(b)(4) (Any area that addresses disproportionate impacts; environmental justice)	A discussion of the potential for disproportionate impacts from the project on minority or low-income people; such discussion shall include, but not be limited to, all of the following:			
§2022(b)(4)(A) (Land Use, Socioeconomics)	Demographic information by census tract, based on the most recent census data available, showing the number and percentage of minority populations and people living below the poverty level within six miles of the proposed site;			
§2022(b)(4)(B) (Land Use, Socioeconomics)	One or more maps at a scale of 1:24,000 showing the distribution of minority populations and low-income populations and significant pollution sources within six miles of the proposed site, such as those permitted by the U.S. Environmental Protection Agency (Toxic Release Inventory sites), the local air quality management district, or the California Department of Toxic Substances Control; and			
§2022(b)(4)(C) (Public Health)	Identification of available health studies concerning the potentially affected population(s) within a six-mile radius of the proposed power plant site;		NO	SEE BIOLOGY COMMENTS

Adequacy Issue: Adequate ____ Inadequate ____

DATA ADEQUACY WORKSHEET

(Six Month Expedited Process)

Revision No. 00 Date _____

Technical Area: _____ Project: _____ Technical Staff: _____

Project Manager: _____ Docket: _____ Technical Senior: _____

SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
§2022(b)(5)	The following information to demonstrate that the project, if certified, is likely to be constructed and operated;			
§2022(b)(5)(A) (Project Description)	Information demonstrating the applicant's control, by ownership, lease, option, or other legally binding agreement, that the Commission finds acceptable, of the proposed site and			
§2022(b)(5)(B) (Water)	A will-serve letter or similar document from each provider of water to the project, indicating each provider's willingness to provide water to the project and describing all conditions under which the water will be provided, and a discussion of all other contractual agreements with the applicant pertaining to the provision of water to the project.		NO	NO WATER SERVICE TO PROJECT, NO WATER RIGHTS ON SDOTF PARCEL. RMWD DOES NOT HAVE SERVICE IN THIS AREA

Estimated Average Engine Performance NOT FOR GUARANTEE

GE Aero Energy Products
A GE Power Systems Business

Performance By: **MORTONAN**
Project Info: **LM6000 PC Sprint Water Injection VIGV Varying Temps**

Engine: **LM6000 PC-SPRINT w/ VIGVs**
Deck Info: **GE125M - 81p.scp**
Generator: **290ERT 60Hz, 13.8kV, 0.9PF (14839)**
Fuel: **Gas Fuel #10-1, 19000 Btu/lb,LHV**

Date: **6/11/2003**
Time: **8:51:43 AM**
Version: **2.4.0**

Case #	100	101	102	103	104	105	106	
Control Parameters								
HP Speed, RPM	10545	10552	10552	10552	10552	10552	10552	
LP Speed, RPM	3600	3600	3600	3600	3600	3600	3600	
CDP, psia	454.4	454.3	454.3	454.3	454.3	454.3	454.3	
CDT, °F	1001	1001	1001	1001	1001	1001	1001	
T48, °R	2027	2030	2030	2030	2030	2030	2030	
Exhaust Parameters								
Temperature, °F	819	821	821	821	821	821	821	
lb/sec	296.6	296.2	296.2	296.2	296.2	296.2	296.2	
lb/hr	1067760.0	1066320.0	1066320.0	1066320.0	1066320.0	1066320.0	1066320.0	**0.1**
Energy, Btu/s- ref 0 °R	97801	97955	97955	97955	97955	97955	97955	
Cp, Btu/lb-R	0.2751	0.2755	0.2755	0.2755	0.2755	0.2755	0.2755	
Emissions (NOT FOR USE IN ENVIRONMENTAL PERMITS, REF @ 15% O2)								
NOx, ppmvd	25	25	25	25	25	25	25	
NOx, lb/hr	42	42	42	42	42	42	42	
CO, ppmvd	37	32	32	32	32	32	32	
CO, lb/hr	38	33	33	33	33	33	33	
HC, ppmvd	4	4	4	4	4	4	4	
HC, lb/hr	2	2	2	2	2	2	2	

$42\ \#/HR \times 2 = 84\ \#/HR\ NOx$

$50\ TONS = 100000\ \# \Rightarrow 100{,}000\ \# / 84\ \#_{HR}\ NOx$

$38\ \#/HR\ CO \times 2 = 76\ \#/HR\ CO = \underline{1190\ HRS/YR}$ TO STAY UNDER 50 TONS NOx

$50\ TONS \Rightarrow 100{,}000\ \# \Rightarrow \underline{1316\ HRS}$

$\Rightarrow$ MAX 49 DAYS OF OPERATION TO MEET NOx

Estimated Average Engine Performance NOT FOR GUARANTEE

GE Aero Energy Products
A GE Power Systems Business

Performance By: **MORTONAN**
Project Info: **LM6000 PC Sprint Water Injection VIGV Varying Temps**

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Deck Info: **GE125M - 81p.scp**
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Fuel: **Gas Fuel #10-1, 19000 Btu/lb,LHV**

Date: **6/11/2003**
Time: **8:51:43 AM**
Version: **2.4.0**

Case #	100	101	102	103	104	105	106
Ambient Conditions							
Dry Bulb, °F	45.0	55.0	65.0	75.0	85.0	95.0	71.0
Wet Bulb, °F	40.7	49.8	58.8	67.8	73.8	74.8	64.2
RH, %	70.0	70.0	70.0	70.0	60.0	40.0	70.0
Altitude, ft	500.0	500.0	500.0	500.0	500.0	500.0	500.0
Engine Inlet							
Temperature, °F	45.0	45.0	45.0	45.0	45.0	45.0	45.0
RH, %	70.0	95.0	95.0	95.0	95.0	95.0	95.0
Conditioning	HEAT	CHILL	CHILL	CHILL	CHILL	CHILL	CHILL
Tons or kBtu	0	255	741	1331	1796	1876	1081
Pressure Losses							
Inlet Loss, inH20	5.00	5.00	5.00	5.00	5.00	5.00	5.00
Volute Loss, inH20	4.00	4.00	4.00	4.00	4.00	4.00	4.00
Exhaust Loss, inH20	12.00	12.00	12.00	12.00	12.00	12.00	12.00
kW, Gen Terms	48761	48820	48820	48820	48820	48820	48820
Est. Btu/kW-hr, LHV	8525	8522	8522	8522	8522	8522	8522
Fuel Flow							
MMBtu/hr, LHV	415.7	416.0	416.0	416.0	416.0	416.0	416.0
lb/hr	21878	21896	21896	21896	21896	21896	21896
Water Injection							
lb/hr	23223	22805	22805	22805	22805	22805	22805
Temperature, °F	100	100	100	100	100	100	100
Steam Injection							
lb/hr	0	0	0	0	0	0	0
Temperature, °F	0	0	0	0	0	0	0
SPRINT	HPC	HPC	HPC	HPC	HPC	HPC	HPC
lb/hr	3185	3185	3185	3185	3185	3185	3185

Conversion factor	Therm Cost
10 therms/mmbtu	$ 1.00
	$ 0.90
	$ 0.85
	$ 0.80

1.0 Executive Summary

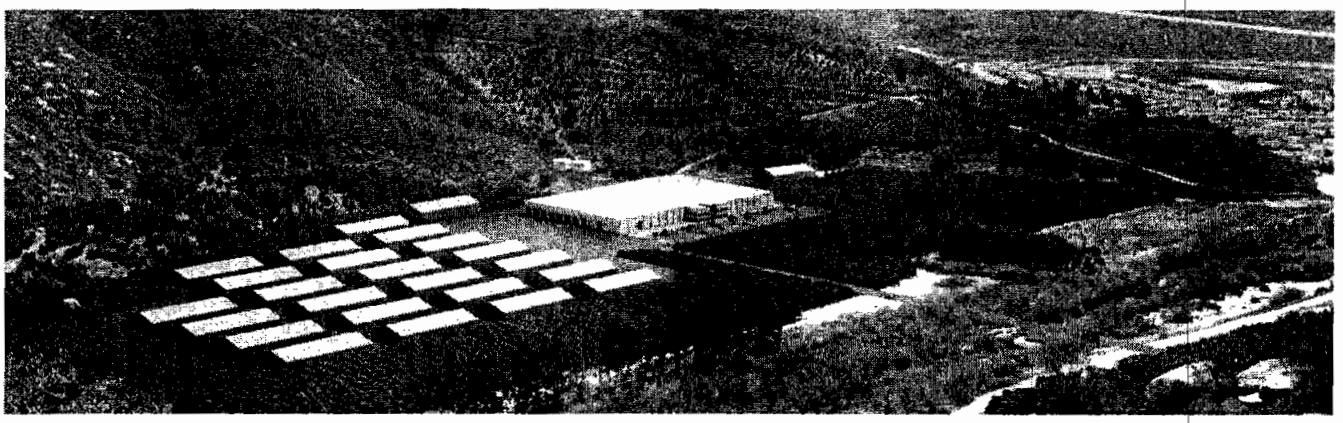
Title 20, Appendix B, (a) (1) Project Overview

Fallbrook Renewable Energy Facility (FREF)

1.0 PROJECT DESCRIPTION

Title 20, Appendix B, (a) (1) (A)

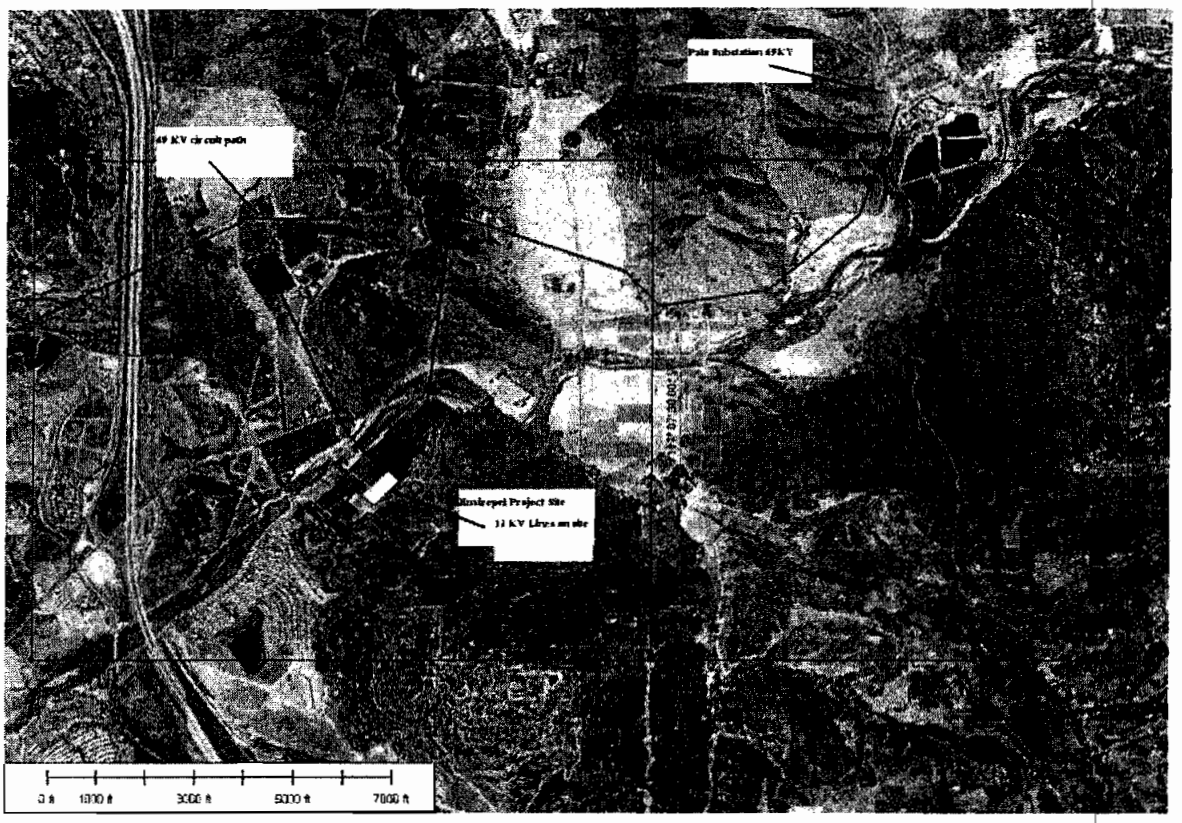
The Fallbrook Renewable Energy Facility (FREF) is a multiple purpose energy facility converting biomass materials that would normally go into landfills, into thermal and electrical energy with an ultra low emissions process. High reliability and low emissions are achieved by using multiple combustion units, boilers, dust filters, wet and dry scrubbing units, and low temperature catalytic reduction units (converters) for reduction of Carbon Monoxide and NOx compounds.



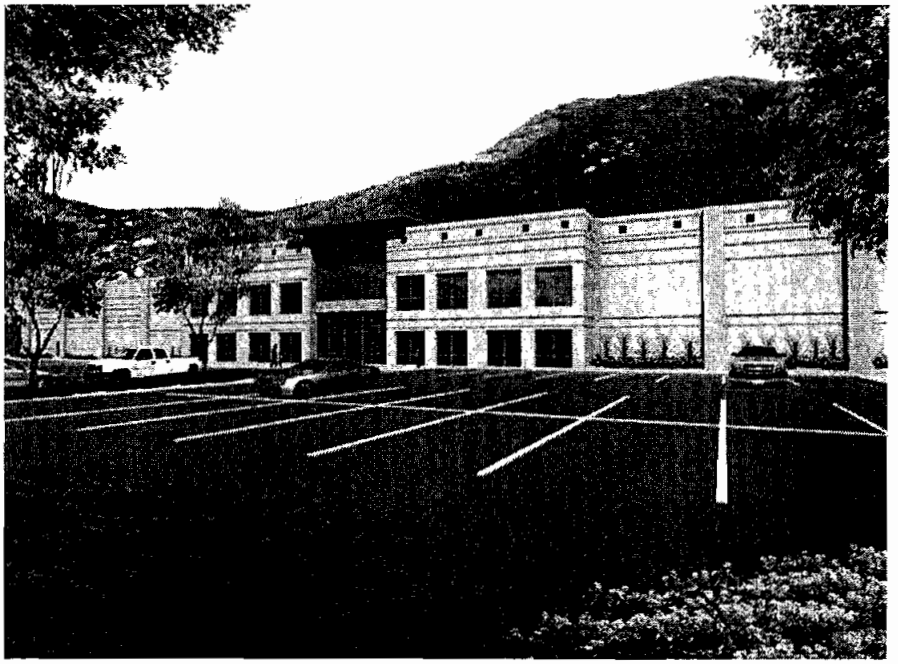
This photo is an example of how the new Energy Facility concept would look when completed.

The facility is designed to export to the grid, approximately 54 MW on a continuous basis after consideration of internal loads. Development of the Project will be in two phases, Phase 1 will be 60 MW installed electrical generation capacity consisting of two 30 MW steam turbines being driven by steam from twelve (12) water-tube boilers being directly heated by twenty-four (24) individual combustion units.

Phase 2, would be to add a third 30 MW turbine in the future as load needs of the 69 KV circuit between the Via Monserate and Pala substations increase over time as part of an amendment of the AFC permit at some time in the future. The 69 KV local distribution circuit is approximately one mile from the Project site, located on the Pankey Ranch, due east of the intersection of Inters tate 15 and Highway 76 in the Pala Mesa Valley, which is in the greater Fallbrook planning area in North San Diego County.



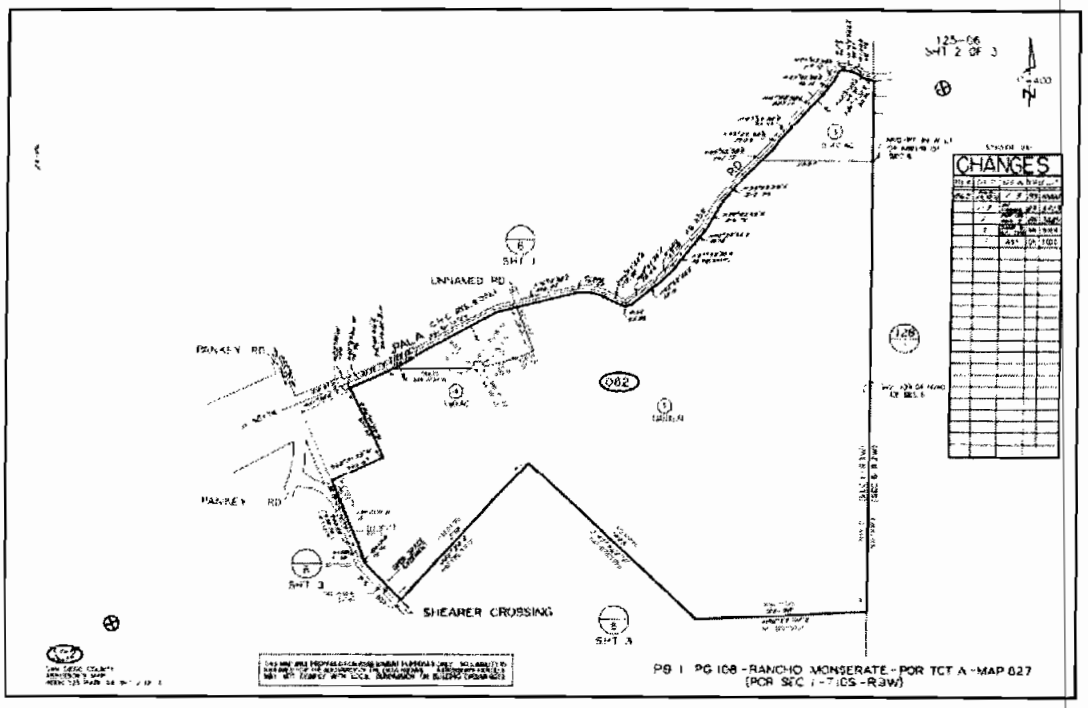
This photo shows the Project location in reference to the 69 KV circuit and Pala substation.

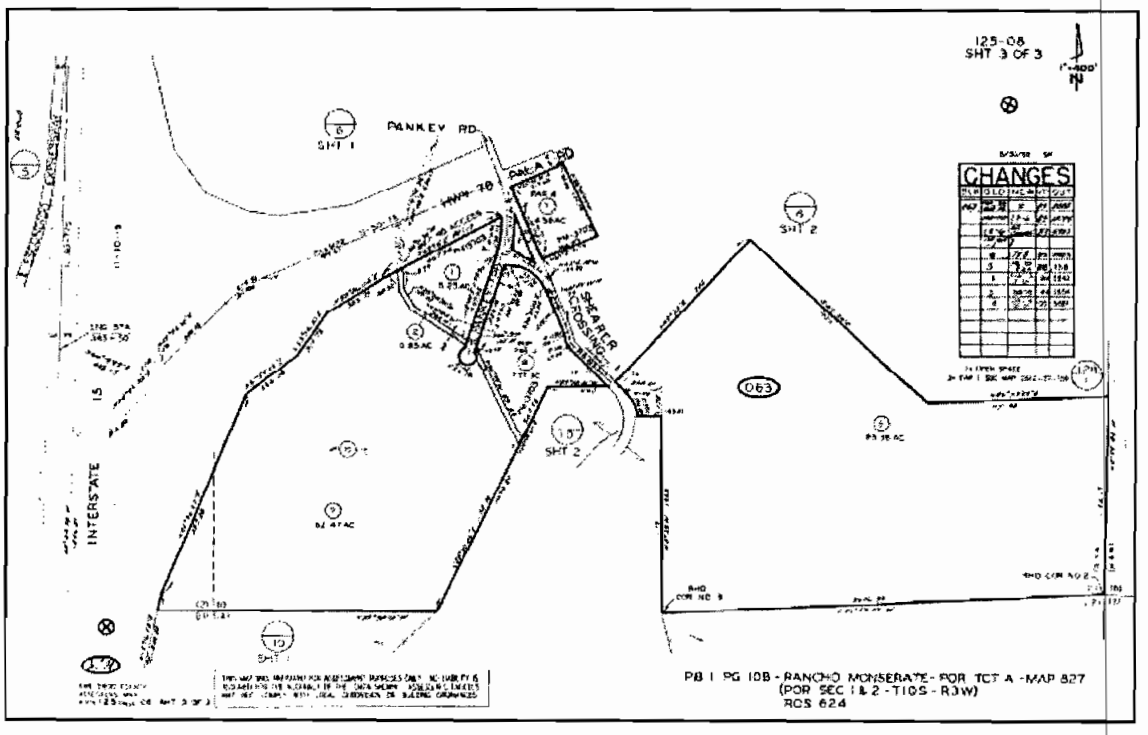


This artist rendition of the FREF Facility Main Lobby .

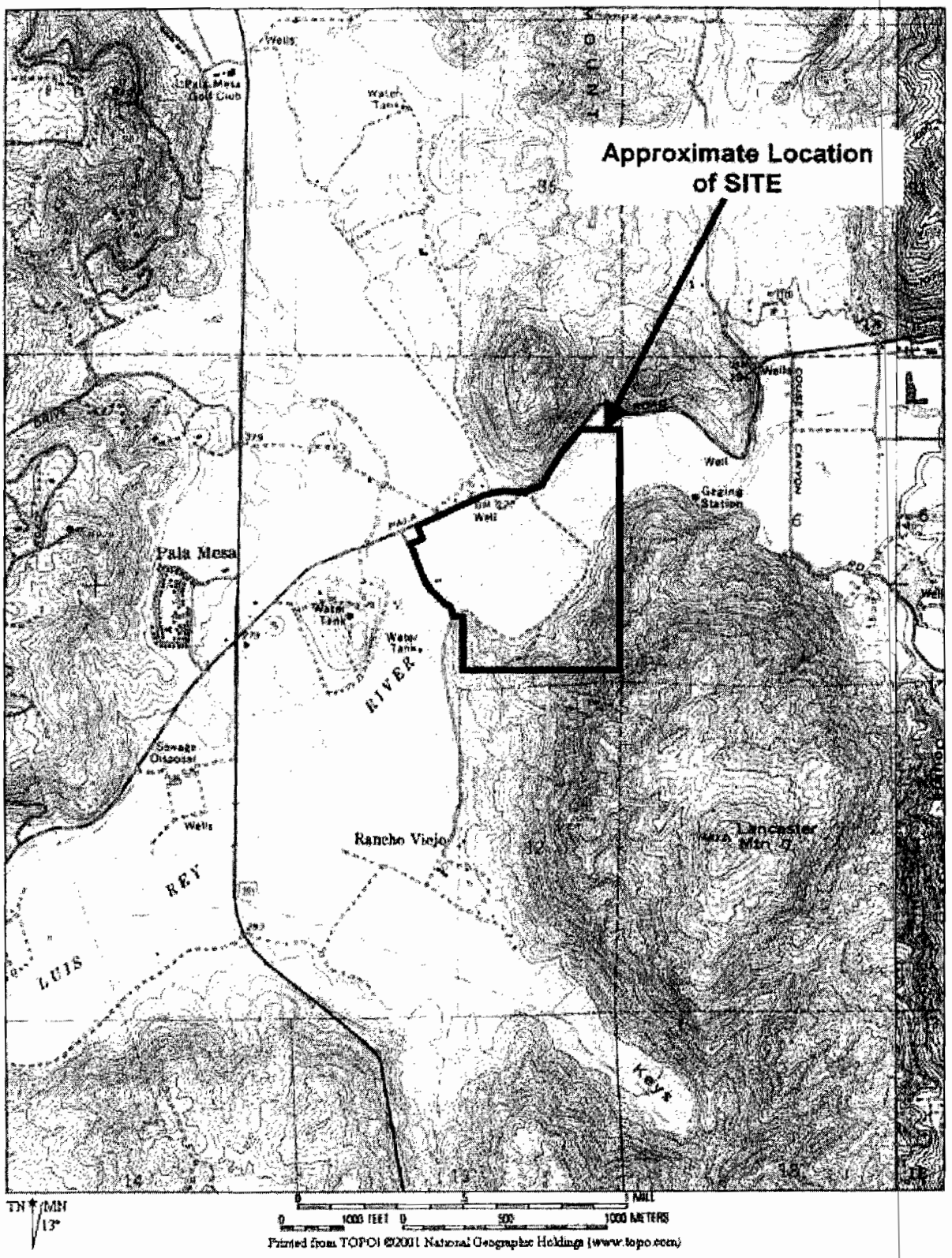
1.2 SITE DESCRIPTION AND AGRICULTURAL SETTING
Title 20, Appendix B, (a)(1)(B)

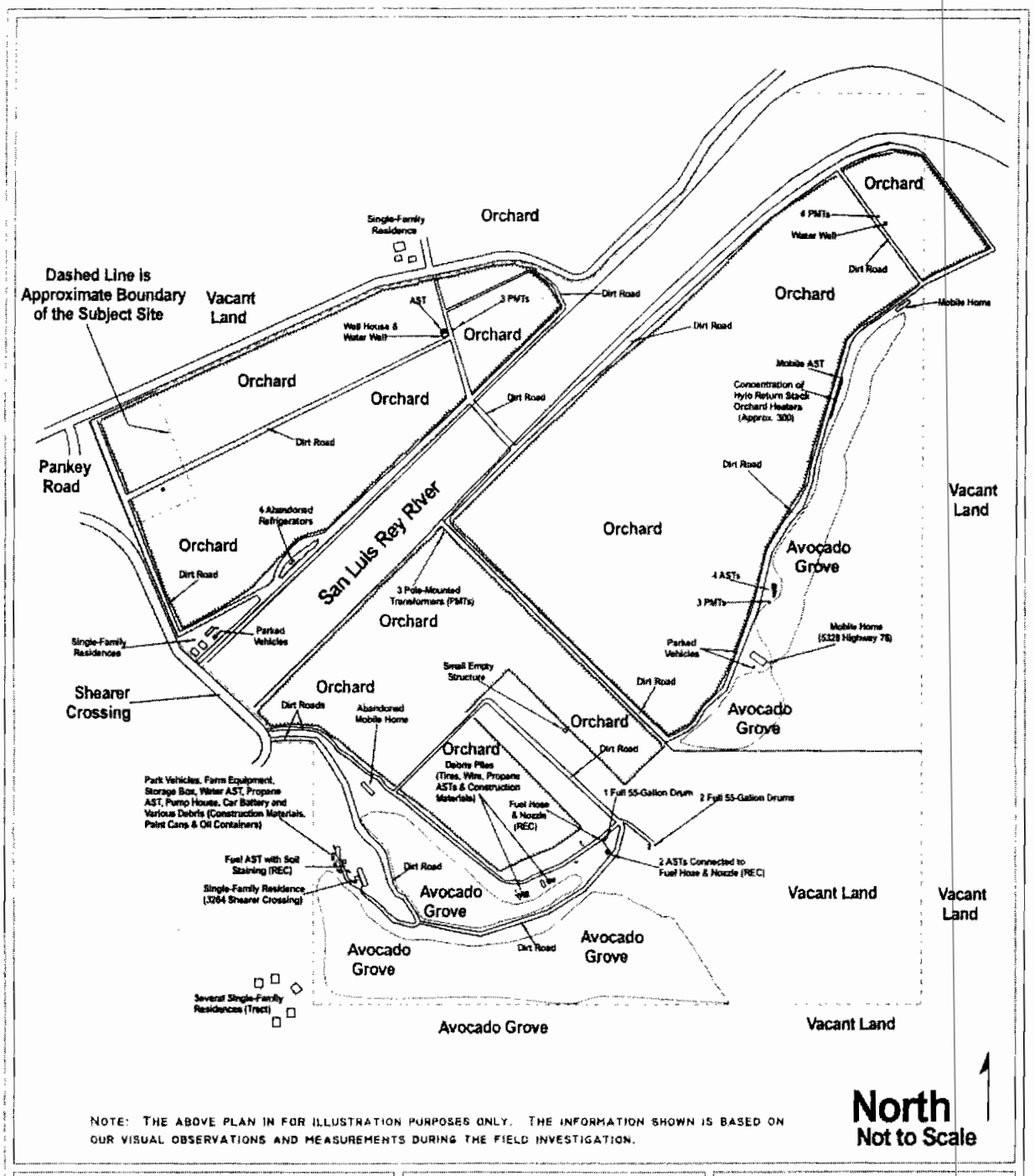
The FREF Project is proposed to be located on approximately 80 acres of a old citrus orchard that has reached the end of its production life and is sched uled to be removed for development if the proposed power plant is not constructed on the site. Assessor's Office parcel maps identify the two parcels to be used for the project site. These map sheet numbers are 125 -06 sheet 2, and 125-06 sheet 3.





Title 20, Appendix B, (a)(1)(C
The location of the project site is shown below:





NOTE: THE ABOVE PLAN IN FOR ILLUSTRATION PURPOSES ONLY. THE INFORMATION SHOWN IS BASED ON OUR VISUAL OBSERVATIONS AND MEASUREMENTS DURING THE FIELD INVESTIGATION.

DDC & Associates, Inc.
Power Plant & Private School Site
Bonsall Area, California

Figure 2
Site Map

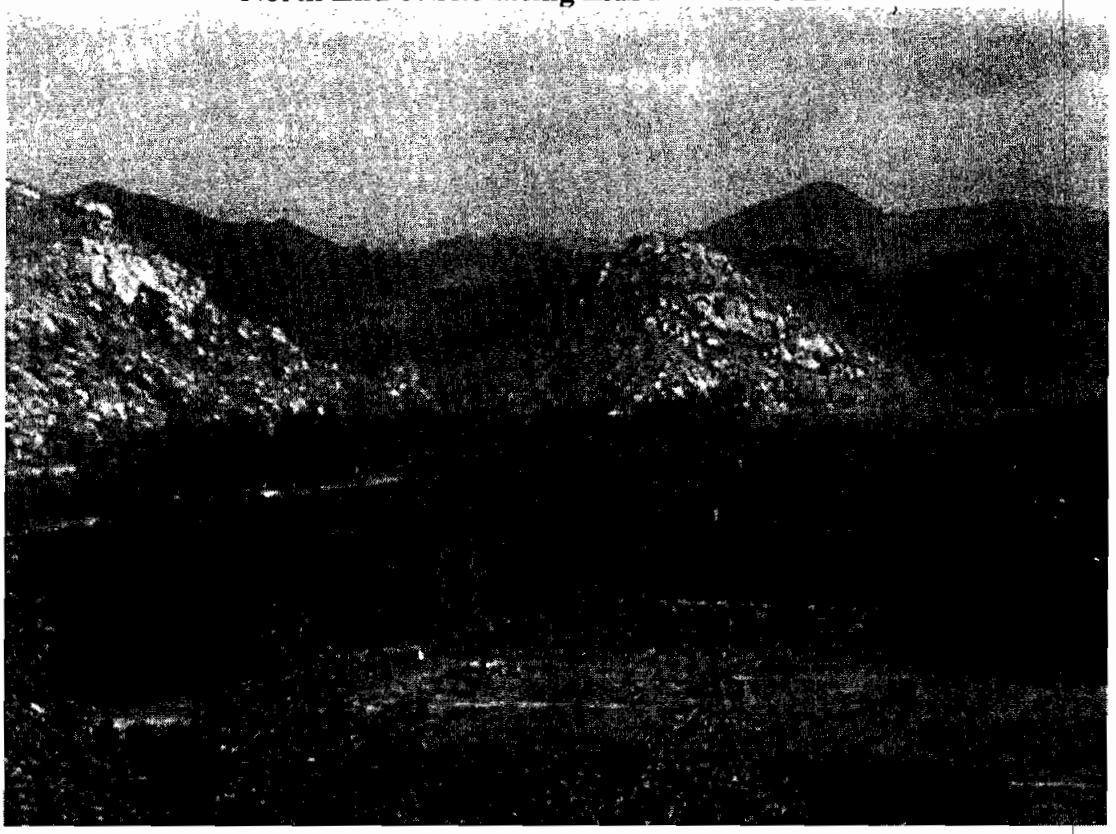
Project No.: 2690SD3 | September 23, 2004

GEOTEK, INC.
1384 Poinsettia Ave., Suite A
Vista, CA 92081-8505

Title 20, Appendix B, (a)(1)(D)

CURRENT VISUAL APPEARANCE OF SITE AND ADJACENT PARCELS

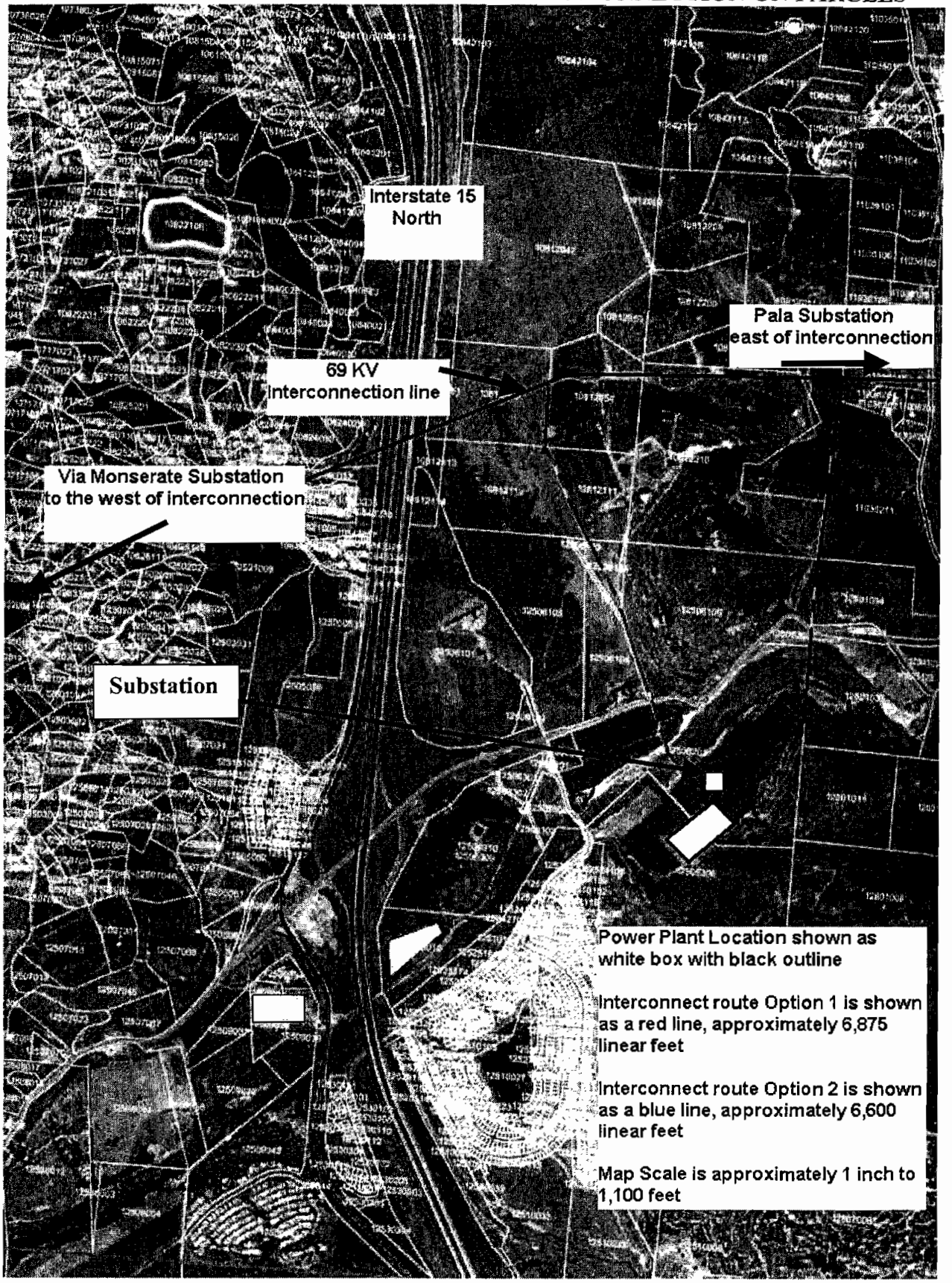
North End of Site facing EAST in Fall of 2004



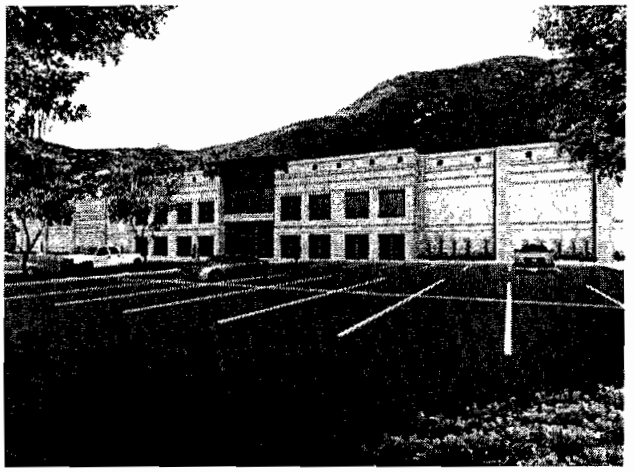
South End of Site Facing EAST in Fall of 2004

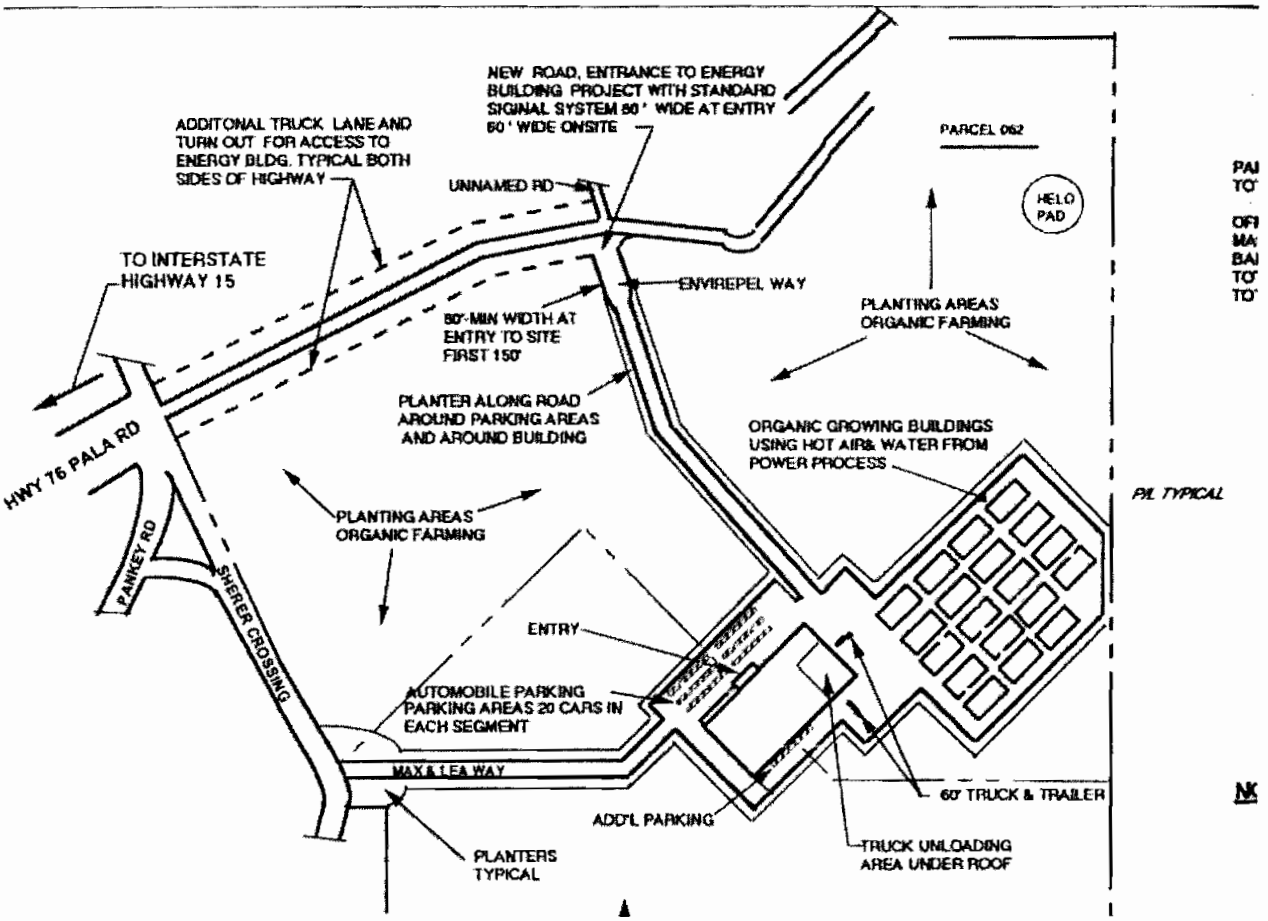
LOCATION OF ENERGY FACILITY ON PARCELS

LOCATION OF ENERGY FACILITY INTERCONNECTION ON PARCELS



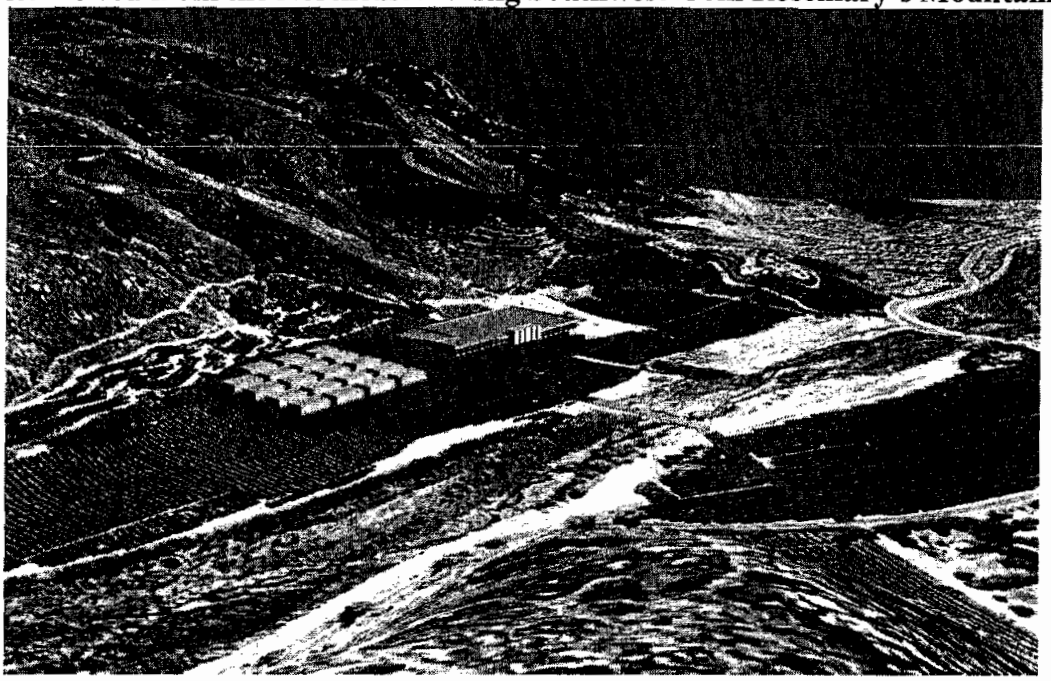
BUILDING DESIGN AND FACILITY LAYOUT ON PARCELS





ARTIST RENDITION OF FACILITY LAYOUT ON PARCELS

Site viewed from the Northeast looking Southwest from Rosemary's Mountain



Green buildings to the left are the "greenhouse" cooling system depiction, and th e main energy facility is shown in the center of the site. The small red structures at the front edge of the site represent the SDG&E substation. Existing power poles are on the site exiting the location along side the road and bridge access for interconnection to the 69KV circuit, which is behind this slide's vantage point.

Vehicle access to the facility is an existing Arizona crossing over the San Luis Rey River in from State Highway 76 on the north face of the site, with secondary access from Shearer C rossing to the west.

Viewed from above the Interstate 15 corridor looking Southeast

1.3 ENVIRONMENTAL INFORMATION

1.3.1 Contents of this AFC

1.3.2 Air Quality

The FREF project is not classified as a major source (>100 tons per year) of nitrogen oxides (NOx), carbon monoxide (CO), and particulate matter (PM10 or PM2.5). The FREF project does not require air emissions offset credits (ERC's) and stays below SDAPCD minimum regulatory threshold levels of 50 tons per year of nitrogen oxides (NOx), carbon monoxide (CO), and particulate matter (PM10 or PM2.5).

The project will set new standards for Best Available Control Technology (BACT) to control air emissions to levels previously not attained by a biomass type facility setting a new standard for "ultra-low" emissions.

Emissions sources during project construction will consist of exhaust from heavy equipment and fugitive dust from disturbed areas. Control measures during construction will include application of water to control dust, and measures that minimize exhaust emissions will be used to the extent practical.

1.3.3 Biological Resources

In accordance with CEC guidelines, biological surveys were conducted of the FREF site and the surrounding areas. In addition to the general vegetation and wildlife surveys, pro tocol-level surveys were conducted for a number of special -status species.

The river channel between the banks is considered potential habitat for several animal species. The Arroyo Southwestern toad, Least Bell's Verio, and the California Gnatcatcher, all Federally listed endangered species are known to be within several miles of the site and prefer this river-bank habitat.

The San Luis Rey River from Lake Henshaw out to Oceanside is a corridor for many species of animals to travel from inland areas out to Coastal areas in and around Camp Pendleton where the U.S. Marine Corps. does an exceptional job of maintaining, and preserving large tracks of coastal habitat.

No special-status animal, or plant species were found on the FREF project site, in th e river channel or on easements to the site. With the existing Arizona crossing on the project site through the river channel (has an existing exemption from the Corp of Engineers), this potential habitat is not threatened by the project construction or o peration activities. The FREF Facility design requirements were developed specifically not to impact this important wildlife corridor.

1.3.4 Water Resources

The FREF project will conserve water by utilizing on site water resources from shallow wells located on site. Municipal water supplies are not available to the site, either for drinking water or reclaimed water. The FREF project below ground cooling system design incorporates

recirculation designs using conventional heat exchangers, not above ground evap oratory cooling as conventional plants. The next water use on site is for drinking, facility maintenance, landscape irrigation, fire emergency, boiler make -up water and emissions scrubbing equipment.

The project will not result in any significant adverse impacts with regard to storm water runoff or other local water resource issues, but in the future may be included in the local municipal water districts plans for building new infrastructure.

Storm water Pollution Prevention Plan (SWPPP), Best Manageme nt Practices (BMP's), and drainage, erosion, and sediment control measures will be implemented to prevent surface water impacts during project construction and operation.

1.3.5 Geologic Resources and Hazards

The FREF project will not adversely affect geologic resources of recreational, commercial, or scientific value. The facilities will be designed in conformance with Uniform Building Code (UBC) criteria for Seismic Zone 4. The power plant site and roads are not located near any known faults, rupture zones, landslide areas, subsidence areas, or other geologic hazards. The surface and subsurface geologic units are unique, and the potential for encountering rare minerals is minimal.

1.3.6 Agriculture and Soils

The unique FREF project approach will not cause signif icant adverse overall impacts to production agriculture or soils, however the project's recirulatory cooling system may increase the production levels of the existing orchard. The power plant site currently is partly disturbed and undeveloped. The east half of the project site (citrus grove) is considered Unique Farmland, and may be considered Prime Farmland or Farmland of Statewide Importance. The project will remove approximately ten acres of older citrus trees for the main facility and roads, but also is replanting the balance of the site with younger trees and ornamentals (endangered rose garden) that will continue to remain in production agriculture for the life cycle of the project.

During excavations (e.g. foundations and utilities) and finish g rading for the power plant, site soils may be susceptible to erosion. Given the unique nature of the site (e.g. sand and a high level water table) Erosion control plans and Storm water Pollution Prevention Plans will be prepared prior to construction and implemented during and after construction. Construction activities will be in conformance with all applicable regulatory requirements and sound, conservative construction industry practices.

1.3.7 Land Use

The FREF project will be located in a citrus grove south of the San Luis Rey River, approximately one mile east of Interstate 15. The County of San Diego classifies the site at the Pankey Ranch as an allowed use for a Renewable Energy Facility as the following: "This 227.23-acre site is zoned (A70) Limited Agriculture and (A72) General Agriculture. It has a General Plan Land Use Designation of (18) Multiple Rural Use and (24) Impact Sensitive. The County of San Diego classifies the proposed use, a renewable energy facility, as Major Impact

Utilities and Facilities. This use is allowed in the aforementioned Zoning and General Plan categories with approval of a Major Use Permit."

The alternate location proposed on the Gregory Canyon site shares the same base zoning as the Pankey Ranch, a recently completed EIR of the site, easier road and substation access, and provides for additional of 120 MW of natural gas fired generation that could be developed as a future phase of the project.

1.3.8 Socioeconomics

The SDG&E Power Purchase Agreement with Envirepel Energy is a Grid Reliability contract, and a renewable energy contract. The 69 KV circuit between the Via Monserate and Pala substations is in a critical load state, for it supplies most of the electrical needs of north Oceanside, Camp Pendleton, Fallbrook, Bonsall, Pala Mesa, Pala, Pauma Valley, and Lake Henshaw before it goes out towards the desert areas. The SDG&E system impact study determined that this circuit was capable of taking an additional 66 MW of energy with no significant system upgrades required. The simple voltage support to this circuit will provide lower line losses to deliver energy to these areas, which will indirectly beneficially impact all electrical customers in the area to some degree.

Construction and operation of the FREF project will have a positive impact on fiscal resources in the region. The project will bring sales tax and property tax to the County of San Diego, as well as construction payrolls, operations payrolls, and purchases of materials and supplies from local area businesses. On site project construction is expected to require 9 months for completion and will provide short-term job opportunities.

Given the large construction workforce included among San Diego County's population of almost 3 million, project construction needs will be filled mostly by San Diego County workers, with only a small percentage of specialized labor coming from outside of the County. The operations workforce of about 60 full-time personnel will not cause population growth that could adversely impact local schools or law enforcement, fire, emergency, medical, or utility services.

The Envirepel business plan that gave birth to the FREF facility provides for after tax revenues from the operation of the facility to be re-invested into the agricultural community of North San Diego County providing much needed support of the agricultural businesses and infrastructure needs of the local school districts. The long-term impacts of this business plan will be to slow high-density housing development in the region to a pace where infrastructure can keep up, ease traffic issues, and stabilize local agricultural markets.

1.3.9 Noise

Given the agricultural setting of the project site at the foot of a mountain, with the retention of the citrus orchards between the site and the roadway system, project noise during construction and operation of the facility will not cause significant adverse impacts. In accordance to CEC guidelines noise level studies were conducted at five locations on the project site to document existing noise levels, and noise attenuation due to the abundance of vegetation on the site.

1.3.10 Visual Resources

Impacts from the FREF project on visual resources are expected to be less than significant. The proposed plant site on the Pankey Ranch is protect ed by hillsides extending well above the project site to the south and west, and blocked by citrus groves to the north and east. This terrain will provide effective visual screening so that the plant will most likely not be visible from outside the project boundaries on local roads.

The project site is located in an area of existing agricultural zones where the topography of the site does not allow for direct viewing of the FREF project site, unless the vantage point is above the site on the slopes of the mountain south of the project, which are natural habitat areas and not suitable for development, or directly north of the site on a mountain face, also not suitable for development.

1.3.11 Traffic and Transportation

Construction of the FREF project will add a moderate amount of traffic during the peak construction period to the Hwy 76 corridor east of Interstate 15. However, the increase in traffic will be temporary and will not cause significant adverse impacts on traffic volume and flow conditions on affected roadways.

Long term traffic associated with operation of the FREF project includes the operations workforce, delivery of hazardous and non-hazardous materials, hauling of wastes generated during operations, but the main traffic flow to and from the site will be fuel supply trucks bringing the biomass fuels to the site. The small traffic volumes from the workforce and deliveries combined with the fuel supply traffic, still is less than one (1) percent of the existing traffic volume on Hwy 76, which indic ates that the project will create minimal traffic impacts.

1.3.12 Hazardous Materials Handling

The FREF project will implement accident prevention and mitigation measures regarding the use and storage of hazardous materials. These measure include risk manageme nt plans, hazard assessments, release prevention programs, emergency response programs, process management systems, employee training, and adherence to sound design standards and operating procedures.

Hazardous materials that will be used and stored ons ite during operation of the power plant include various water treatment and cleaning chemicals, and dry granular urea for NOx control and fuel stability. With implementation of planned mitigation measures, no significant impacts are expected as a result of the FREF project.

1.3.13 Waste Management

Wastes generated by the FREF project during construction and operation include non-hazardous solid and liquid wastes (e.g. scrap metal, concrete, wood waste), as well as small quantities of hazardous solid and liquid wastes (e.g. spent NOx catalyst cartridges, waste lubrication grease and lube oil). Recycling will be implemented where practicable. Appropriate procedures and personnel training will ensure that non-hazardous and hazardous wastes are managed to prevent significant adverse impacts to the environment or to worker/public health and safety.

1.3.14 Worker Safety

FREF project construction, operation, and maintenance activities may expose workers to physical and chemical hazards. Worker exposure to these hazards wi ll be minimized through adherence to appropriate engineering design criteria, adherence to sound construction and operation practices, implementation of appropriate safety and administrative procedures, use of personal protective equipment, and compliance with applicable health and safety regulations.

1.3.15 Public Health

Neither construction nor operation of the FREF Project is expected to pose significant risks to public health, and no significant cumulative health risks are expected. Construction related ai r emissions will be temporary and localized. The estimated cancer risk from diesel particulate emissions during construction for the maximum exposed resident, for the maximum exposed worker in the nearest structure to the FREF site, and at the FREF projec t property line, all are below the California Air Resources Board (ARB) and San Diego Air Pollution District (APCD) significance level of 10-in-one-million.

1.3.16 Cultural Resources

Literature, archival reviews, a recent County sponsored EIR, and site surveys indicate that there is minimal potential for impacts on cultural resources as a result of FREF Project efforts. There is one known cultural artifact site within one mile of the FREF site, on the north side of the San Luis Rey River from the Project.

1.3.17 Paleontological Resources

Literature, archival reviews, a recent County sponsored EIR, site soil conditions and site surveys indicate that there is minimal potential for impacts on paleontological resources as a result of FREF Project efforts. There is one known paleontological site within one mile of the FREF site, on the north side of the San Luis Rey River from the Project.

1.3.18 Special Considerations

There are some very unique technical features to the Facility design that were intended to address the environmental and land use concerns normally voiced when the topic of permitting an Thermal Power Plant is discussed. This is underscored for the location of the FREF project on agricultural land, supporting an electrical circuit in a very rural area, where there are no imported or reclaimed water supplies to the site other than ground water, no sewer services, no local governmental oversight, and a long history of County neglect of infrastructure needs and environmental concerns.

In context with the other developments proposed for the immediate area of the project site (there are 6 other major projects; three high density housing developments, a sewer plant, a rock quarry, and a class III landfill), the Fallbrook Renewable Energy Facility may actually

become the environmental watchdog in the area for it will be the project most environmentally impacted by the other project developments under County jurisdiction. If this were to happen, Envirepel believes that it would be a first for a Thermal Power Plant project in the State's history.

Envirepel believes that the combination of the project being an "allowed use" under current zoning, integrated with production agriculture, under the minimum significance thresholds of all environmental concerns, provides a unique opportunity for a unincorporated area of San Diego County to stand up and defend itself from over-development by a County whose actions seem mostly political, and driven to provide for the long term needs of the City of San Diego, not the local residents.

The AFC permitting process and environmental review requirements under CCR Title 20, Appendix B(3) "Land Use", could have some very beneficial environmental impacts on the Bonsall, Fallbrook, Pala Mesa valley, and Pala Valley planning group areas, residents, and native wildlife, and in light of these statements Envirepel has spent significant effort in this AFC permit to correctly define each issue for Staff review.

In light of the April 25th Executive Order regarding the Use of Biomass, Envirepel believes that the FREF AFC Application will be the first opportunity for this Executive Order to be implemented in a material fashion.

Envirepel hopes to have met State goals for a viable, low cost, and reliable Renewable Energy Facility with this facility design, which can be adapted for many geographic regions (urban and rural) not normally suited for energy generation and may be the start of a viable distributed generation concept for renewable energy facilities, and selected urban waste disposal.

1.4 PROJECT SCHEDULE MILESTONES

Title 20, Appendix B, (a)(2)(A)
Major Project Schedule Milestones:

Item	Date
Award of first SDG&E Contract	October, 2003
PUC Approval of first Contract	June, 2004
CAISO application	August, 2004
First Round Project financing	September, 2004
Payment for Interconnect Studies	December, 2004
Interconnect Studies by SDG&E	January, 2005
Engineering Development and Design completion	August, 2005
Civil Engineering and site design completi on	August, 2005
SDG&E Reliability PPA cancellation	March, 2006
SDG&E long term RFO submission	August 2006
SDG&E long term RFO submission	March 2007
SDG&E short listing of project for PPA	August 2007
AFC Submission to CEC	September 2007
Data Adequacy Estimate	December 2007
SDG&E PPA contract signature date if selected	December, 2007
Equipment procurement initiation	December, 2007
Project Financing and Fuel Supply agreements signed	October, 2007
General Contractor award	March 2007
AFC award by CEC	October, 2007
Construction Start Date	December, 2008
Equipment installation Start Date	April, 2009
First full scale capacity testing	December, 2009
On line operation	December, 2009

Title 20, Appendix B, (a)(3)(A), (a)(3)(B), and (a)(3)(C)
Project Ownership

The Project owner and applicant submitting this Application for Certification (AFC) is Envirepel Energy Inc., a California Corporation. The Fallbrook Renewable Energy Facility is among those resources that have been identified as a Re newable Portfolio Standard qualified Facility as part of San Diego Gas and Electric's (SDG&E) twenty percent RPS requirement.

The proposed electric transmission facilities are to be owned and operated by SDG&E including the on site substation and switchya rd as specified in the SDG&E Power Purchase Agreement (PPA) in Appendix 'S'.

There is no legal relationship between Envirepel Energy Inc., a California Corporation, and SDG&E, a Sempra Utilities Company.

Housing Development Emissions Assumptions

Project Acres (Approximate)	102
Houses	500
House Size (Ft^2)	3500
Condominiums	450
Condominium Size (Ft^2)	2000
Time to Construct (years)	2
Construction days per year	261

All Emission information taken from Tables 9-1 thru 9-7 in the South Coast Air Quality District CEQA Air Quality Handbook

Housing Development Emissions

Construction*

Tons

	ROC	NOx	CO	PM_{10}
Houses	20.70	304.27	66.17	21.60
Condominiums	9.59	140.84	30.63	10.00

* Emission numbers taken from Table 9-1 of the South Coast Air Quality Management District CEQA Air Quality Handbook

Grading**

Tons

	PM_{10}
Project	2.81

** Emission numbers taken from Table 9-2 of the South Coast Air Quality Management District CEQA Air Quality Handbook
Assumes 75 work days to grade the Housing development,

Operation***

Tons per Year

	ROC	NOx	CO	PM_{10}
Houses	24.64	20.99	302.95	1.83
Condominiums	13.14	13.14	156.86	0.82

*** Emission numbers taken from Table 9-7 of the South Coast Air Quality Management District CEQA Air Quality Handbook

Totals

	ROC	NOx	CO	PM_{10}
Construction (Tons)	30.29	445.11	96.79	34.41
Operation (Tons/year)	37.78	34.13	459.81	2.65

Housing Projects Total
3 P's, Rice/Couser Canyon, Warner Ranch

	ROC	NOx	CO	PM_{10}
Construction (Tons)	324.47	4768.76	1037.02	301.70
Operation (Tons per Year)	529.80	395.20	6098.42	41.25

ESTIMATED EMISSIONS FOR THE GRANITE ASPHALT PLANT

	Lb/hr	LB/day	Lb/yr	ton/yr	
NOX	3.95	39.54	7,908.5	3.95	
CO	30.43	304.31	60,862.5	30.43	
VOC's	3.52	35.23	7,045.6	3.52	
SO2	1.70	17.00	3,400.0	1.70	
PM10	5.84	58.41	11,682.0	5.84	

Note: This emissions are related ONLY to the Asphalt Plant itself and NOT to the rock quarry, crushing and screening Plant which I calculated separately.
I will be giving that other piece of information soon.

Rainbow Municipal Water District (RMWD) Sewer Plant

	CO	VOC	Nox	Sox	PM10
Operations Air Emission* tons/year	12.31	2.78	1.99	0.05	0.61

* Emissoin Data taken from the actual emissions measured from the Encina Waste Water Authority conventional activated sludge wastewater treatment facility for the year 2002. This facility processes over 20 Million Gallons per Day (MGD) and since the RMWD serwer system plans on 5 MGD. Therefor these numbers represent 20% of the Encina numbers as found on the San Diego Air Pollution Control District web site.

Gregory Canyon Yearly Operational Emissions

Equipment Type	# on site	Est HP each	Fuel Type	Avg. Load Factor %	Avg. Daily Hours	Adj. Daily Hours	Total Days	Total Hours	Total HP-Hrs
		(a)	(b)	(c)	(d)	(e)	(f)	(g)	
Dozer	[redacted]	103	D	59.0	[redacted]	23.60	[redacted]	7245.2	746255.6
Compactor	[redacted]	356	D	70.0	[redacted]	14.00	[redacted]	4298.0	1530088.0
Scraper	[redacted]	267	D	66.0	[redacted]	13.20	[redacted]	4052.4	1081990.8
Water Truck	[redacted]	150	D	38.0	[redacted]	3.80	[redacted]	1166.6	174990.0
Grader	[redacted]	157	D	57.5	[redacted]	5.75	[redacted]	1765.3	277144.3
Portable Rock Crusher	[redacted]	127	D	78.0	[redacted]	7.80	[redacted]	2394.6	304114.2
Fuel Truck	[redacted]	75	D	25.0	[redacted]	2.50	[redacted]	767.5	57562.5
Mobile Tire Shredder	[redacted]	540	D	80.0	[redacted]	8.00	[redacted]	2456.0	1326240.0

(a) Ref: South Coast AQMD-CEQA Handbook, Table A9-8-c
(b) D=diesel G=gasoline
(c) Ref (a) Table A9-8-D
(d) Ref (a) Table A9-8-C (at 100% load)
(e) Adjusted daily hours at average load factor
(f) Total estimated days on site from construction schedule
(g) Total operating hours during construction phase at average load factor

Operations Equipment Emissions per Year

Equipment Type	CO			VOC			Nox			Sox			PM10		
	lbs/hr	lbs/day	tons	lbs/hr	lbs/day	tons	lbs/hr	lbs/day	tons	lbs/hr	lbs/day	tons	lbs/hr	lbs/day	tons
Dozer	1.13	26.74	4.10	0.21	4.86	0.75	2.37	55.91	8.58	0.21	4.86	0.75	0.10	2.43	0.37
Compactor	3.56	49.84	7.65	0.71	9.97	1.53	7.48	104.66	16.07	0.71	9.97	1.53	0.18	2.49	0.38
Scraper	2.94	38.77	5.95	0.27	3.52	0.54	5.07	66.96	10.28	0.53	7.05	1.08	0.40	5.29	0.81
Water Truck	0.90	3.42	0.52	0.30	1.14	0.17	3.15	11.97	1.84	0.30	1.14	0.17	0.23	0.86	0.13
Grader	1.26	7.22	1.11	0.16	0.90	0.14	2.98	17.15	2.63	0.31	1.81	0.28	0.24	1.35	0.21
Portable Rock Crusher	2.54	19.81	3.04	0.38	2.97	0.46	3.05	23.77	3.65	0.25	1.98	0.30	0.19	1.49	0.23
Fuel Truck	0.45	1.13	0.17	0.15	0.38	0.06	1.58	3.94	0.60	0.15	0.38	0.06	0.11	0.28	0.04
Mobile Tire Shredder	17.28	138.24	21.22	2.70	21.60	3.32	14.04	112.32	17.24	1.08	8.64	1.33	1.08	8.64	1.33
Totals	25.36	208.59	32.02	3.96	30.51	4.68	29.87	236.12	36.24	2.63	20.99	3.22	2.24	17.90	2.75

Light Duty Support Trucks & Mechanics Truck

Type	Distance	Speed	Trips	CO	VOC	Nox	Pm10(e)	Pm10(i)
Light Duty Vehicles (6)	[redacted]	[redacted]	[redacted]	0.043	0.006	0.022	0.001	0.001
Mechanics Truck (1)	[redacted]	[redacted]	[redacted]	0.021	0.003	0.011	0.000	0.000
Cold Start*				127.662	6.722	9.609		
Hot Start**				0.399	0.060	0.117		

* 1 cold start per day. 307 days
** 1 Hot start per trip

Totals per year (tons) 0.065 0.004 0.006 0.000 0.000

Haul Trucks on Site

	1	20	625	0.021	0.003	0.011	0.000	0.000
Totals per year (tons)				0.007	0.001	0.003	0.000	0.000

Vehicles

Total Yearly Emissions (tons)

CO	VOC	Nox	Sox	PM10
32.09	4.69	36.25	3.22	2.75

Comparison of the Sycamore Landfill actual CO numbers & Envirepel estimates to the Gregory Canyon EIR

Envirepel Calculations

Sycamore LF total CO for 2003 (tons)

1.413

Gregory Conyon LF CO from Equipment (tons)

32.09

From Gregory Canyon EIR

Equipment (tons)

108.9

Flare and Landfill Emissions

Sycamore LF total CO for 2003 (tons)

3.253

Gregory Canyon EIR

Not in EIR

Comparison of the Sycamore Landfill actual Nox numbers & Envirepel estimates to the Gregory Canyon EIR

Envirepel Calculations

Sycamore LF total Nox for 2003 (tons)

16.893

Gregory Conyon LF Nox from Equipment (tons)

36.25

From Gregory Canyon EIR

Equipment (tons)

91.3

Flare and Landfill Emissions

Sycamore LF total Nox for 2003 (tons)

20.523

Gregory Canyon EIR

Not in EIR

Comparison of the Sycamore Landfill actual Pm10 numbers & Envirepel estimates to the Gregory Canyon EIR

Envirepel Calculations

Sycamore LF total Pm10 for 2003 (tons)

113.091

Gregory Conyon LF Pm10 from Equipment (tons)

2.75

Approximate Pm10 from other sources (tons)

110.34

From Gregory Canyon EIR

Equipment (tons)

0.7

Other sources (tons)

38.7

Flare and Landfill emissions (tons)

7.4

Other sources include:
Cover Operations
Wind erosion from stockpiles
Travel on unpaved roads
Travel on paved roads

Flare and Landfill Emissions

Sycamore LF total Nox for 2003 (tons)

3.922

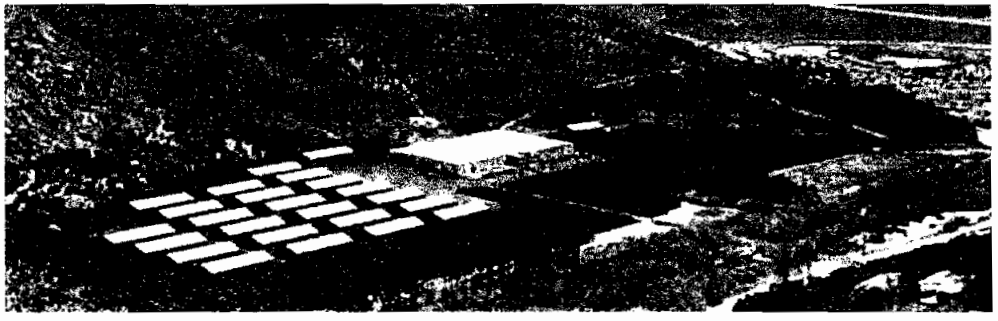
Gregory Canyon EIR

7.4

Anthony J Arand

From: "Fritts Golden" <FGolden@aspeneg.com>
To: <tony@envirepel.com>
Cc: "Susan Lee" <SLee@aspeneg.com>
Sent: Monday, September 24, 2007 11:15 AM
Subject: Use of artist's rending of Fallbrook

Tony
I am writing to ask Envirepel's permission to reproduce the perspective view of the Fallbrook facility as a Figure in the Sunrise Powerlink EIR/EIS being prepared by Aspen Environmental Group on behalf of the CPUC and the BLM. The figure would be in a section of the document discussing Biomass and Biogas facilities and would be labeled as "Rendering of Proposed Fallbrook Renewable Energy Facility" or similar words. It is the image from you web page, at the top of the discussion of the Fallbrook facility.



Cordially,

Fritts

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Aspen Environmental Group
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"In accordance with the "Non-Disclosure and Use of Information Agreement" (the "Agreement") between SDG&E and the CAISO, the CAISO must cause each of its employees who will have access to this confidential information to acknowledge that they have read the Agreement and agree to abide by all of its terms regarding use and disclosure of this confidential information, and must cause such persons to execute Individual Agreements in the form attached as Attachment A to the "Agreement."

System Impact Study

Final Draft

Project Developer

Anthony J. Arand - Envirepel Energy

Project Name

Envirepel Energy

May 23, 2005

Study Performed for Envirepel

By San Diego Gas & Electric Company and Utility System Efficiencies, Inc.

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EXECUTIVE SUMMARY

PROJECT DESCRIPTION
Envirepel Energy ("Envirepel") requested San Diego Gas & Electric (SDG&E) to perform a System Impact Study (the "Study") to interconnect a new 70 MW biomass project at the Envirepel Energy facility ("Project") located at 3264 Shearer Crossing, Fallbrook, California. The proposed Project would be located east of Interstate 15 and south of Highway 76. Envirepel's original Interconnection Application was received by the California Independent System Operator ("CAISO") on July 29, 2004 and was accepted by SDG&E and CAISO with an effective date of July 29, 2004.

PROJECT IN-SERVICE DATE
Envirepel's application stated a proposed testing date of April 1, 2006 and a commercial operation date of June 1, 2006. Subsequent to the application, Envirepel changed the proposed testing date to September 1, 2006 and the commercial operation date to October 1, 2006. (See regulatory approval, material procurement, and construction discussion on pages 7 & 10.)

INTERCONNECTION POINT
Envirepel's application and subsequent communication stated that the interconnection configuration for their project would be a loop-in of the existing Monserate Tap - Pala 69 kV line (TL698E), approximately three (3) miles from the Pala 69 kV Substation. Envirepel would install and interconnect three steam driven generators fueled by biomass. The generators are manufactured by General Electric Canada.

PROJECT CAPACITY
Envirepel's application stated an interconnection net capacity of 70 MW to the interconnection point. Originally, the Project consisted of six identical 15 MW generators. Subsequent information stated that the Project would remain at 70 MW net capacity but would consist of three identical 30 MW generators. For this Study, the Project was modeled as three 25 MW steam driven generators and 5 MW of auxiliary load.

SYSTEM IMPACT STUDY DESCRIPTION
This Study constitutes a "System Impact Study" in accordance with the California Independent System Operator ("CAISO") Tariff and SDG&E's Transmission Owner Tariff ("TO Tariff"). The CAISO will be responsible for approval of the final Study report provided to Envirepel and the recommended plan of service articulated in this report.

This Study includes power flow and short circuit studies, a preliminary analysis of the impact this project may have on the tax-exempt status of interest on the Local Furnishing Bonds, and identifies a preliminary transmission plan of service. By

mutual agreement between Envirepel and SDG&E, costs are not presented in this Study. Transient stability and post-transient voltage stability analyses have not been performed for this Study. These analyses, as well as costs, will be included, as appropriate, in the Detailed Facility Study (DFS) if Envirepel wishes to proceed with further study.[1]

[1] Envirepel may also choose to expedite the processing of its Interconnection Application by requesting Expedited Interconnection Procedures pursuant to SDG&E's TO Tariff section 10.11.

SYSTEM IMPACT STUDY CONCLUSIONS

To interconnect Envirepel to SDG&E's transmission system, a switchyard and a 1.3 mile loop-in from the new switchyard to TL698E (Monserate Tap - Pala) would be constructed. The majority of the switchyard is defined as "Reliability Upgrades" for a standard profile, single breaker, single bus design with a bus tie breaker. The balance of the switchyard is defined as "Direct Assignment Facilities" for two generator breakers and four generator disconnects. The 1.3 mile loop-in with transmission facilities sized to accommodate the full 70 MW of net output capability, is defined as "Reliability Upgrades."[2]

Under Category B (single contingency) simulations, the power flow analysis identified the need to upgrade approximately eight (8) miles of SDG&E's TL698E, from the Monserate Tap to Pala 69 kV Substation, in order to accommodate the full 70 MW of net output capability of the project. This reconductor is defined as a "Delivery Upgrade." The use of the terms "Reliability Upgrades," "Direct Assignment Facilities," and "Delivery Upgrades" in this report are intended to be consistent with the definitions and uses of those terms in the ISO tariff currently in effect (Amendment 39). Refer to Appendix A - Definitions for an explanation of terms.[3]

Pursuant to SDG&E's Transmission Owner Tariff and CAISO applicable tariff provisions, Envirepel will be responsible for absorbing the costs of the "Direct Assignment Facilities." Should SDG&E build these facilities on behalf of Envirepel, Envirepel will be required to pay SDG&E in advance.

Envirepel is obligated to advance funds to SDG&E for the construction of the facilities described as Reliability Upgrades. SDG&E will build the improvements and, upon commercial operation of the Envirepel Project and FERC approval, SDG&E will reimburse Envirepel for the funds advanced.

Envirepel may elect to advance funds to SDG&E for the construction of the facility improvements described as Delivery Upgrades, in which case SDG&E will build the improvements and, upon commercial operation and FERC approval of the Envirepel Project, reimburse Envirepel for the funds advanced. If Envirepel elects not to advance the construction funds to SDG&E, SDG&E is under no obligation to construct the improvements. Assuming the improvements are not built, Envirepel's exposure to dispatch constraints required pursuant to CAISO congestion management and grid operation protocols, may be at a level that is unacceptable to Envirepel. Construction of the identified improvements will reduce the frequency and magnitude of such dispatch constraints.

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[2] The "Reliability Upgrades" are required regardless of the net output of the generating facilities.

[3] CAISO and SDG&E have filings pending at FERC regarding implementation of FERC Orders 2003, 2003-A, and 2003-B concerning standardized pro forma interconnection procedures and agreement.

Because there are numerous possible system conditions that could be studied, the Study results should be considered valid only for the indicated Study assumptions. It is Envirepel's responsibility to assess whether the benefits to Envirepel of constructing the identified Delivery Upgrades are sufficient to offset the cost of, and risks associated with, advancing construction funds to SDG&E.

The Short Circuit analysis identified no overstressed breakers requiring upgrades for the Envirepel interconnection to SDG&E's transmission system.

On a preliminary basis, there does not appear to be an impairment of the tax-exempt status of the interest on Local Furnishing Bonds. This will be further evaluated in the Detailed Facility Study.

The Study results presented in this report are preliminary, non-binding, and subject to revision as additional information is obtained, additional studies are conducted, and a more detailed analysis is performed.

Should Envirepel choose to proceed with their Project, a Detailed Facility Study will need to be completed prior to interconnection unless Envirepel chooses Expedited Interconnection Procedures pursuant to SDG&E TO Tariff Section 10.11.[4] A DFS will determine a final transmission interconnection plan of service, budget class cost estimates and project lead-time requirements.

[4] However, even if Envirepel elects Expedited Interconnection Procedures, additional study work may be required by the CAISO, such as transient stability analysis.

INTRODUCTION AND OBJECTIVES

Pursuant to Envirepel's interconnection application and request, SDG&E conducted a System Impact Study to interconnect three 25 MW steam driven generators with 5 MW of maximum on-site auxiliary load. The Project includes the loop-in of the existing TL698E (Monserate Tap – Pala) 69 kV line. The Study analyzes the interconnection of the Project, with a maximum net output of 70 MW to the SDG&E transmission system. Refer to Figure 1: Envirepel Project Vicinity Map, TL698E Reconductor, and Loop-in and Figure 2: Envirepel Project Interconnection One-Line Diagram and Cost Responsibility for interconnection details.

Envirepel's revised testing date is September 1, 2006 and revised commercial operation date is October 1, 2006. This Study was conducted before revisions to the testing and operation dates were submitted to SDG&E. The assumptions were testing would commence on April 1, 2006 and Envirepel would be commercially operational on June 1, 2006. Thus, a 2006 Heavy Summer scenario was modeled for the Study based on the case used by SDG&E for its own internal transmission expansion studies. The power flow case developed within the CAISO Stakeholder process in 2004 is being used as the pre-Project case. A complete set of projects needed by SDG&E due to its internal system load growth, new generator interconnection requests that are ahead of the Envirepel project in the ISO's interconnection queue, and inter-regional transmission expansion planning (the WECC planning process), was established in the 2003 Stakeholder process. This provided a benchmark upon which to perform these generation interconnection studies. The Detailed Facility Study will evaluate the impact of this project in the 2007 base case.

SDG&E believes that the commercial operation date of October 1, 2006 is not achievable given the time required for permitting, engineering, material procurement, and construction of the transmission and substation facilities.

The length of time required for environmental review and permitting processes for new transmission or transmission upgrades is uncertain. Required lead times depend on many factors, including whether exemption(s) from the California Public Utilities Commission's (CPUC's) G.O. 131-D Certificate of Public Convenience and Necessity (CPCN) process, or the CPUC's Permit To Construct (PTC) process, can be obtained. For example, absent an exemption, the process of obtaining a PTC for the 1.3 mile loop-in and/or the reconductor of eight miles of TL698E, could take one to two years, possibly even longer.

SDG&E believes that the ability to obtain exemptions from the CPCN and PTC processes (in which case an advice letter filing with the CPUC should be sufficient for obtaining the CPUC's approval to proceed with construction) will be enhanced if Envirepel includes in its application to the CEC the full scope of

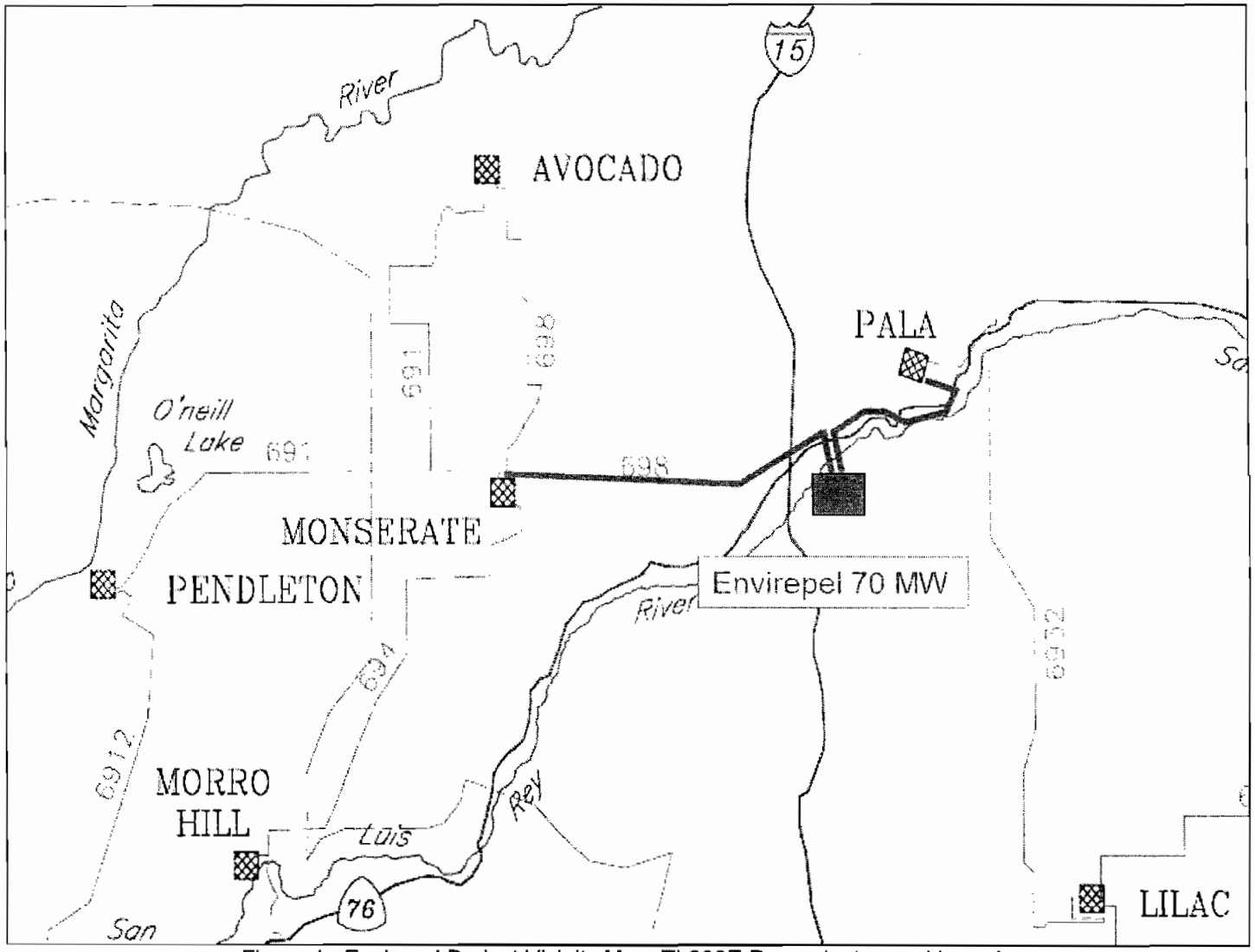


Figure 1: Envirepel Project Vicinity Map, TL698E Reconductor, and Loop-in

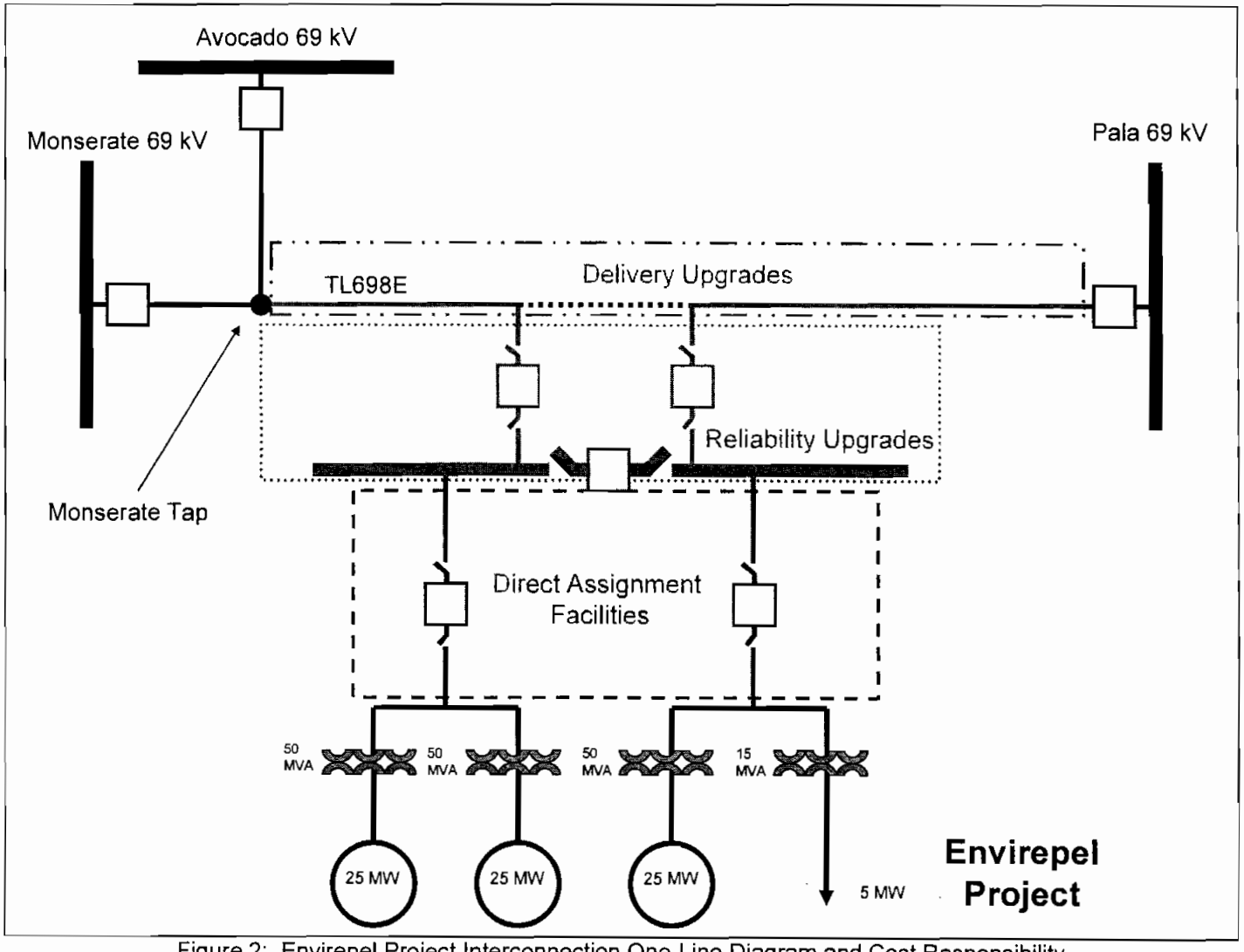


Figure 2: Envirepel Project Interconnection One-Line Diagram and Cost Responsibility

transmission and substation additions and upgrades that will be part of the project.

Envirepel should also be aware that once the necessary environmental review and permits are obtained, lead time will be required for SDG&E to procure and construct the interconnection facilities. At this time, SDG&E expects that the procurement and construction period for these upgrades will be from one to two years, depending on which facilities Envirepel elects to fund. These construction lead times will be refined once the final plan of service is identified pursuant to the results of the Detailed Facility Study and execution of an Interconnection Agreement. The installation of these facilities is contingent on obtaining binding commitments for the land and easements necessary for SDG&E to construct and maintain the new equipment. SDG&E believes that Envirepel can assist in obtaining these commitments. Any delay in obtaining these commitments, however, may delay construction of the transmission and substation facilities and ultimately cause Envirepel's proposed testing date of September 1, 2006, and the subsequent commercial operation date to be delayed.

Should Envirepel choose to modify or change the information provided in the application (i.e. generator information), it may result in the need to update and/or modify the Study, cause a significant delay in completing the Study, and result in additional Study costs.

The Direct Assignment Facility requirements in the preliminary transmission plan of service were developed on the basis that the full interconnection capacity requested by Envirepel can be delivered to the first point of interconnection with the SDG&E system under normal operating conditions. However, even with Direct Assignment Facilities and Reliability Upgrades there could be transmission congestion limits further downstream that would require the CAISO to constrain the output of the proposed generator(s). SDG&E has attempted to identify suitable mitigation measures in the Delivery Upgrades.

STUDY RESULTS AND PLAN OF SERVICE DEVELOPMENT

Power flow analysis results are provided in Appendix B – Power Flow Analysis and Appendix C – Power Flow Plots to show the anticipated flows on affected SDG&E transmission lines for NERC Category A, Category B and selected Category C and D conditions. Refer to Appendix A – Definitions for an explanation of terms.

The cases that were developed simulate the SDG&E system with all planned transmission elements in-service for 2006. These cases include high import with heavy system load.

Power Flow Results

Table 1 summarizes the overloads identified in the power flow analysis due to the interconnection of the Project.

There were no Category A overloads identified with the addition of the Envirepel Project.

Two Category B overloads were identified with the addition of the Envirepel Project. The overloads on the Envirepel – Pala 69 kV and Monserate Tap – Envirepel 69 kV transmission lines, will be eliminated with the reconductoring of TL698E, from Monserate Tap to Pala 69 kV Substation. These overloads can also be eliminated by reducing Envirepel's net output to 66 MW. These overloads are highlighted in Appendix B – Power Flow Analysis and Appendix C – Power Flow Plots.

One Category C overload was identified with the addition of the Envirepel Project. The overload on the Escondido - Felicita Tap 69 kV line (TL689C), approximately five (5) miles, can be eliminated by reducing Envirepel's net output to 30 MW.[5] This overload is highlighted in Appendix B – Power Flow Analysis and Appendix C – Power Flow Plots.

[5] Because Category C contingencies are considered highly unlikely events, SDG&E did not attempt to identify Delivery Upgrades that would accommodate the full 70 MW of net generation output under this contingency condition.

Table 1: Overloads Due to Project

Contingency Condition	Outage	Overload	% Overload
Category A - Base Case	None	None	-
Category B - Single Contingency	Pala - Envirepel	Monserate Tap - Envirepel	4.4%
Category B - Single Contingency	Monserate Tap - Envirepel	Pala – Envirepel	3.3%
Category C & D Contingencies	Felicita South Bus	Escondido - Felicita Tap	0.5%

Short Circuit Results

SDG&E conducted detailed short circuit studies with three line-to-ground and single line-to-ground faults to examine the impact of the Envirepel project on the system. The Aspen Version 9.0 program was used for conducting the short circuit study. Two scenarios were studied:

- Pre-Project (without Envirepel)
- Post-Project (with Envirepel)

Study results indicate that there are no overstressed breakers due to the Envirepel interconnection.

Based on SDG&E's planning criteria, an overstress of 115% of short circuit duty (nameplate rating) is permissible for existing non-generator substation breakers, 230 kV and below, and 100% of short circuit duty for existing generator breakers.

Three line-to-ground (3LG) and single line-to-ground (SLG) faults were simulated with and without the project at all buses in the system, 69 kV and above. Table 2 summarizes the fault duties for buses in the vicinity of the Envirepel project. The one-line plots for these buses are shown in Appendix D – Short Circuit Plots.

A listing of breakers with fault duties greater than 90% of their ratings pre-Project and post-Project is shown in Appendix E – Breakers with Fault Duty > 90% Rating.

Table 2: 3LG and SLG Fault Duties for Selected Buses

Faulted Bus	Breaker Rating (Amps)	Pre-Project		Post-Project	
		Max 3LG Bus Fault (Amps)	Max SLG Bus Fault (Amps)	Max 3LG Bus Fault (Amps)	Max SLG Bus Fault (Amps)
Envirepel 69 kV	To Be Determined	7,041	4,575	8,723	4,995
Pala 69 kV	40,000	6,766	4,077	7,722	4,292
Monserate 69 kV	40,000	8,797	7,391	9,820	7,855

Local Furnishing Bonds

Based on a preliminary analysis, there does not appear to be an impairment of the tax-exempt status of the interest on Local Furnishing Bonds. This will be further evaluated in the Detailed Facility Study.

Transmission Upgrades

Based on the Study results, Table 3 summarizes the scope of transmission reinforcements needed for interconnection. New wood structures with 636 ACSR/AW will be installed for the 1.3 mile loop-in. The eight mile reconductor of TL698E from the Monserate Tap to Pala 69 kV Substation will involve the installation of 636 ACSR/AW on existing overhead structures. According to current CAISO tariff filings, Envirepel is not obligated to sponsor the facility improvements described as Delivery Upgrades, and SDG&E is not obligated to build these upgrades. However, Envirepel will be subject to any dispatch constraints that may be required according to CAISO congestion management protocols. If Envirepel wants to minimize the possibility of such dispatch constraints, Envirepel must send a request to SDG&E to construct these system upgrades according to Section 3.2.1.1.3 of the CAISO Tariff. If the upgrades require the advancement of transmission projects that would still be needed without the proposed generation, as part of SDG&E's plan to reliably serve customer loads, Envirepel's obligation for advancing construction funds would be limited to the incremental construction costs, accounting for the time value of money, associated with building the planned upgrades sooner than would have been required without Envirepel's proposed generation.

Table 3: Category Assignment of Transmission Upgrades

Facility	Direct Assignment Facilities[6]	Reliability Upgrades[7]	Delivery Upgrades[8]
Envirepel Switchyard (New Facility Owner)	X		
Envirepel Switchyard (Participating Transmission Owner)		X	
Loop-in 1.3 miles from TL698E to Envirepel Switchyard		X	
Reconductor 8 miles of TL698E (Monserate Tap - Envirepel - Pala)			X

[6] The New Facility Owner (NFO) is financially responsible for the Direct Assignment Facilities.
[7] The NFO is obligated to advance funds to SDG&E for Reliability Upgrades and will be reimbursed upon commercial operation of the plant and approval by FERC.
[8] The NFO may elect to advance funds to SDG&E for Delivery Upgrades and will be reimbursed upon commercial operation of the plant and approval by FERC. If the NFO does not advance funds, the NFO will be subject to dispatch constraints.

BASE CASE ASSUMPTIONS AND DEVELOPMENT

Assumptions were made in selecting a base case and in developing the Study's base cases for power flow and short circuit studies.

Power Flow Database

1. Pre-Project

The pre-Project case (benchmark case) was based on the 2006 Heavy Summer power flow case used by SDG&E for its internal system planning studies. This case was used during the CAISO Stakeholder process in 2004, and the outcome of this process was the development of the projects needed within the SDG&E system to accommodate the projected load growth, upgrades that accommodate generators ahead of Envirepel in the ISO's interconnection queue, and new inter-regional transmission projects identified through the WECC planning process. This case, which did not include the proposed Project, was used as a benchmark case for this Study[9].

The heavy summer benchmark case simulates a condition with 4636 MW of load + losses, 2850 MW of simultaneous import, and 1786 MW of on-system generation dispatched. Internal generation was dispatched according to CAISO Reliability Must-Run (RMR) dispatch protocol. Refer to Appendix F – Load and Resource Table for more details.

2. Post-Project

From the pre-Project case, a case was developed to simulate the addition of the 70 MW Envirepel Project. The simultaneous import was reduced by 70 MW, due to the addition of the Envirepel Project, to 2780 MW.[10] Refer to Appendix B – Power Flow Analysis and Appendix C – Power Flow Plots for the results of these studies.

[9] The General Electric Positive Sequence Load Flow (GE PSLF) model, version 13.4 and version 14.2, were used in the performance of the study.

[10] This was done to maintain stressed system conditions. High imports are generally the most stressed condition for the SDG&E system.

Short Circuit Database

1. Pre-Project

The database for determining if any overstressed breakers exist pre-Project included all generation in the queue in SDG&E's service territory that have applications predating the proposed Envirepel project.

2. Post-Project

From the pre-Project case, a case was developed to simulate the Envirepel addition. The generator data from the original application was used in the analysis:

- X"1 – positive sequence subtransient reactance: 0.23 pu
- X"2 – negative sequence subtransient reactance: 0.21 pu
- X"0 – zero sequence subtransient reactance: 0.08 pu

Subsequent information was provided and the X"0 changed slightly to 0.07 pu. The impact was negligible.

STUDY ASSUMPTIONS

The following assumptions were used during the course of this Study. The Study results and recommendations may vary if these assumptions are changed.

1. Unless specifically known, typical data for generators and associated system upgrades such as lines, transformers, etc. were used for setting up the power flow base cases and the short circuit database.

2. The power flow and short circuit analyses were based on the dates provided in the Interconnection Application, a proposed testing date of April 1, 2006 and commercial operation date of June 1, 2006. Subsequent information dated April 5, 2005 and provided to SDG&E on April 19, 2005, delayed the testing date to September 1, 2006 and commercial operation date to October 1, 2006. The Detailed Facility Study will evaluate the impact of this project in 2007.

3. Per mutual agreement between Envirepel and SDG&E, detailed cost estimates were not developed for this report.

4. SDG&E has financed substantial portions of its transmission and distribution systems with proceeds from Local Furnishing Bonds (also know as Industrial Development Bonds or IDBs) issued by the City of San Diego and the City of Chula Vista. Interest on these bonds is tax-exempt. Pursuant to IRS requirements, if the proposed Project would cause impairment of these bonds, Envirepel would need to mitigate the resulting costs to SDG&E. This issue was addressed on a preliminary basis in this System Impact Study. The Detailed Facility Study will further evaluate any potential impact on IDBs.

5. Any potential overloads or voltage problems, which exist in the pre-Project case, but have not been aggravated by the generation interconnection, have been ignored for the purpose of this System Impact Study.

6. Impacts of other proposed transmission or generation pertaining to interconnection studies have not been investigated in the power flow study. However, generators in the queue in SDG&E's service territory (as of March 14, 2005, positions 1 through 28 likely to be in-service by Envirepel's commercial operation date) were modeled in the power flow. The CAISO Interconnection Application Queue is shown in Appendix E – Interconnection Application Queue.

7. All prior generators in the queue in SDG&E's service territory (as of March 14, 2005, positions 1 through 28) were modeled for the short circuit analysis.

8. The SDG&E document entitled, "Technical Standards for Load and Non-SDG&E Owned Generator Interconnections" located on the SDG&E web site provides additional information about the SDG&E technical standards. The Envirepel Project must meet SDG&E technical standards.

Appendix A – Definitions

Category A Contingency	All facilities in service, no contingency.
Category B Contingency	Event resulting in the loss of a single element.
Category C Contingency	Event resulting in the loss of two or more (multiple) elements.
Category D Contingency	Extreme event resulting in two or more (multiple) elements removed or cascading out of service.
Delivery Upgrade	The transmission facilities, other than Direct Assignment Facilities and Reliability Upgrades, necessary to relieve Constraints on the ISO Controlled Grid and to ensure the delivery of energy from a New Facility to load.
Direct Assignment Facility	The transmission facilities necessary to physically and electrically interconnect a New Facility Operator to the ISO Controlled Grid at the point of interconnection.
Reliability Upgrade	The transmission facilities, other than Direct Assignment Facilities, beyond the first point of interconnection necessary to interconnect a New Facility safely and reliably to the ISO Controlled Grid, which would not have been necessary but for the interconnection of a New Facility, including network upgrades necessary to remedy short circuit or stability problems resulting from the interconnection of a New Facility to the ISO Controlled Grid. Reliability Upgrades also include, consistent with WECC practice, the facilities necessary to mitigate any adverse impact a New Facility's interconnection may have on a path's WECC path rating.

Appendix B – Power Flow Analysis

CATEGORY A – BASE CASE OVERLOADS (ALL FACILITIES IN SERVICE)

Thermal Analysis: MVA1

MVA1Trigger	>MVA1
Base or Cont	Base

Legend

06hs_pre001	2006 Heavy Summer, Pre-Project
06hs_pst001	2006 Heavy Summer, with Envirepel

MVA1 pu Loading				CaseName	
Monitored Element	Contingency Description	MVA1	MVA2	06hs_pre001	06hs_pst001
[NONE]					

CATEGORY B – SINGLE ELEMENT CONTINGENCIES

Thermal Analysis: MVA2

MVA2Trigger	>MVA2
Base or Cont	Cont

Legend

06hs_pre001 2006 Heavy Summer, Pre-Project
06hs_pst001 2006 Heavy Summer, with Envirepel

MVA2 pu Loading				CaseName	
Monitored Element	Contingency Description	MVA1	MVA2	06hs_pre001	06hs_pst001
LINE FRIARS 138kV-MISSION 138kV ck1	ENCINA 4 1 22.0kV	150.8	150.8[11]	1.083	1.061
LINE ENVIREPL 69kV-MNSRATTP 69kV ck1	PALA - ENVIREPL 1 69kV	68.2	68.2		1.044
LINE PALA 69kV-ENVIREPL 69kV ck1	MONSRATE - MNSRATTP 1 69kV	68.2	68.2		1.033

[11] There is a project proposed for 2006 to reconductor this line and approximately double the rating.

CATEGORY C AND D CONTINGENCIES

Thermal Analysis: MVA2

MVA2Trigger	>MVA2
Base or Cont	Cont

Legend

06hs_pre001 2006 Heavy Summer, Pre-Project
06hs_pst001 2006 Heavy Summer, with Envirepel

MVA2 pu Loading				CaseName	
Monitored Element	Contingency Description	MVA1	MVA2	06hs_pre001	06hs_pst001
LINE ESCNDIDO 69kV-FELCTATP 69kV ck1	Escondido 69kV SE Bus	102.1	102.1	1.013	1.005
	Escondido 69kV SW Bus	102.1	102.1	1.041	1.014
	Felicita 69kV S Bus	102.1	102.1	0.985	1.005
TRAN SOUTHBAY 69kV-SOUTHBAY 138kV ck1	SOUTHBAY 2T Breaker	140	164	1.070	1.069
	SOUTHBAY-MAIN CORRIDOR	140	164	1.277	1.275
LINE MIGUEL 69kV-JAMACHA 69kV ck2	Miguel 69kV S Bus	136.8	143.4	1.083	1.079
LINE EL CAJON 69kV-JAMACHA 69kV ck1	MIGUEL 230 CORRIDOR North of ML	136.8	143	1.021	1.009
LINE EL CAJON 69kV-LOSCOCHS 69kV ck1	Murray 69kV N Bus	55.1	55.1	1.175	1.180
LINE GARFIELD 69kV-EL CAJON 69kV ck1	Murray 69kV N Bus	97	102.1	1.213	1.211
LINE MURRAY 69kV-GARFIELD 69kV ck1	Murray 69kV N Bus	102.1	102.1	1.030	1.028
LINE SOUTHBAY 69kV-IMPRLBCH 69kV ck1	Otay 69kV Bus	55.1	55.1	1.146	1.146
LINE BERNARDO 69kV-R.CARMEL 69kV ck1	Poway 69kV Bus	68.2	72.5	1.313	1.311
LINE PENSQTOS 69kV-MIRAMRTP 69kV ck1	MR-PQ 69KV + PQ-MRM 69KV	97.5	102.1	1.004	1.004
LINE SOUTHBAY 69kV-OTAY 69kV ck2	Southbay 69kV N Bus	100.6	100.6	1.011	1.011

Thermal Analysis: MVA2

MVA2Trigger	>MVA2
Base or Cont	Cont

Legend

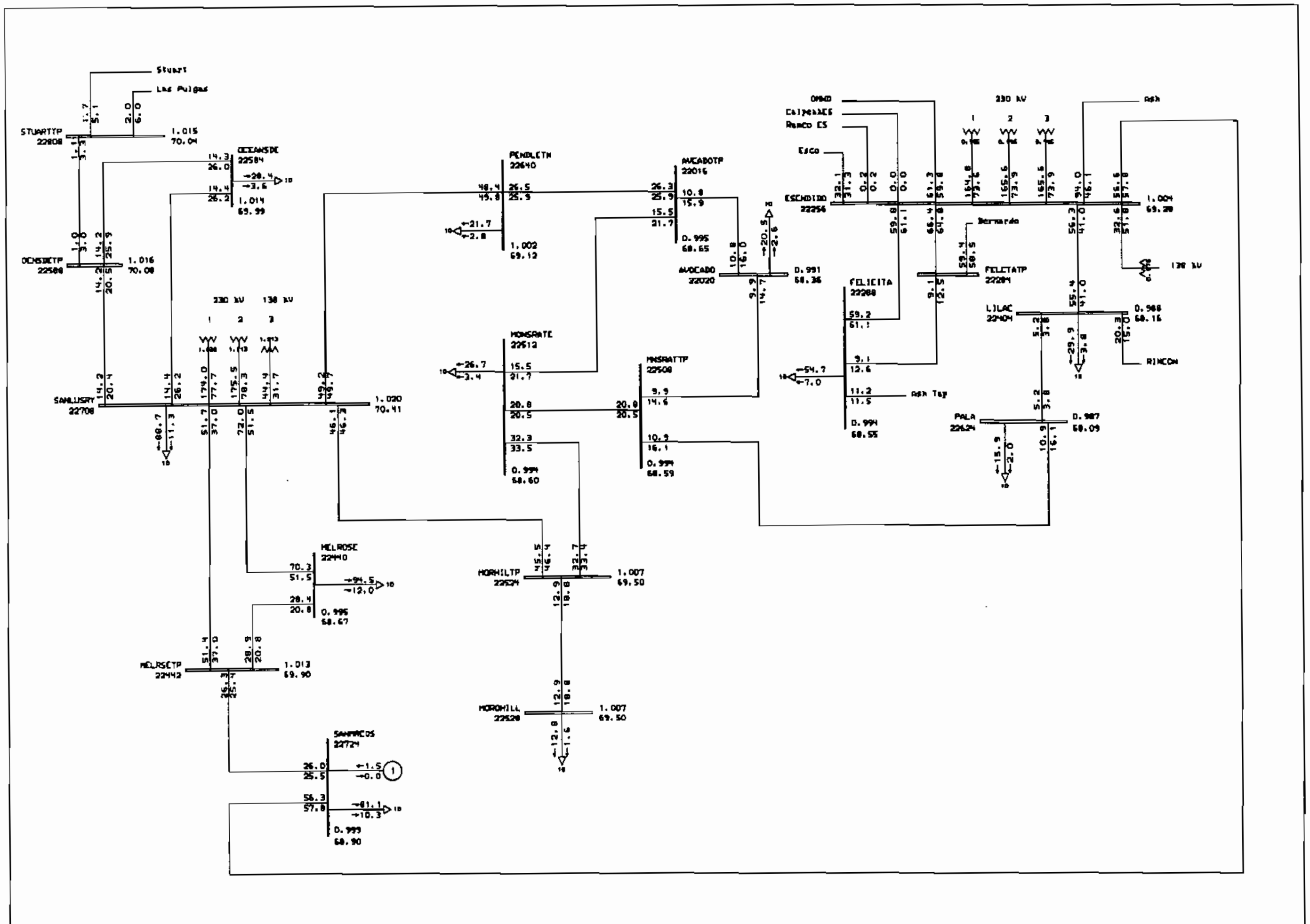
06hs_pre001 2006 Heavy Summer, Pre-Project
06hs_pst001 2006 Heavy Summer, with Envirepel

MVA2 pu Loading				CaseName	
Monitored Element	Contingency Description	MVA1	MVA2	06hs_pre001	06hs_pst001
LINE POWAY 69kV-POMERADO 69kV ck1	EPP-ES + ES-EA-SA 230KV	97.5	136.8[12]	1.009	0.969
TRAN MIGUEL 230kV-MIGUEL 138kV ck1	MIGUEL 230 CORRIDOR West of SN	392	468	1.013	1.004
LINE TALEGA 138kV-MARGARTA 138kV ck1	TALEGA JCT to CAPISTRANO 138 ck 1	273.7	273.7	1.302	1.302
	TALEGA JCT to TALEGA 138 ck 1	273.7	273.7	1.302	1.302
LINE TALEGA 138kV-SANMATEO 138kV ck1	TA-TB + TA-PI 138KV	136.8	150	1.011	1.011

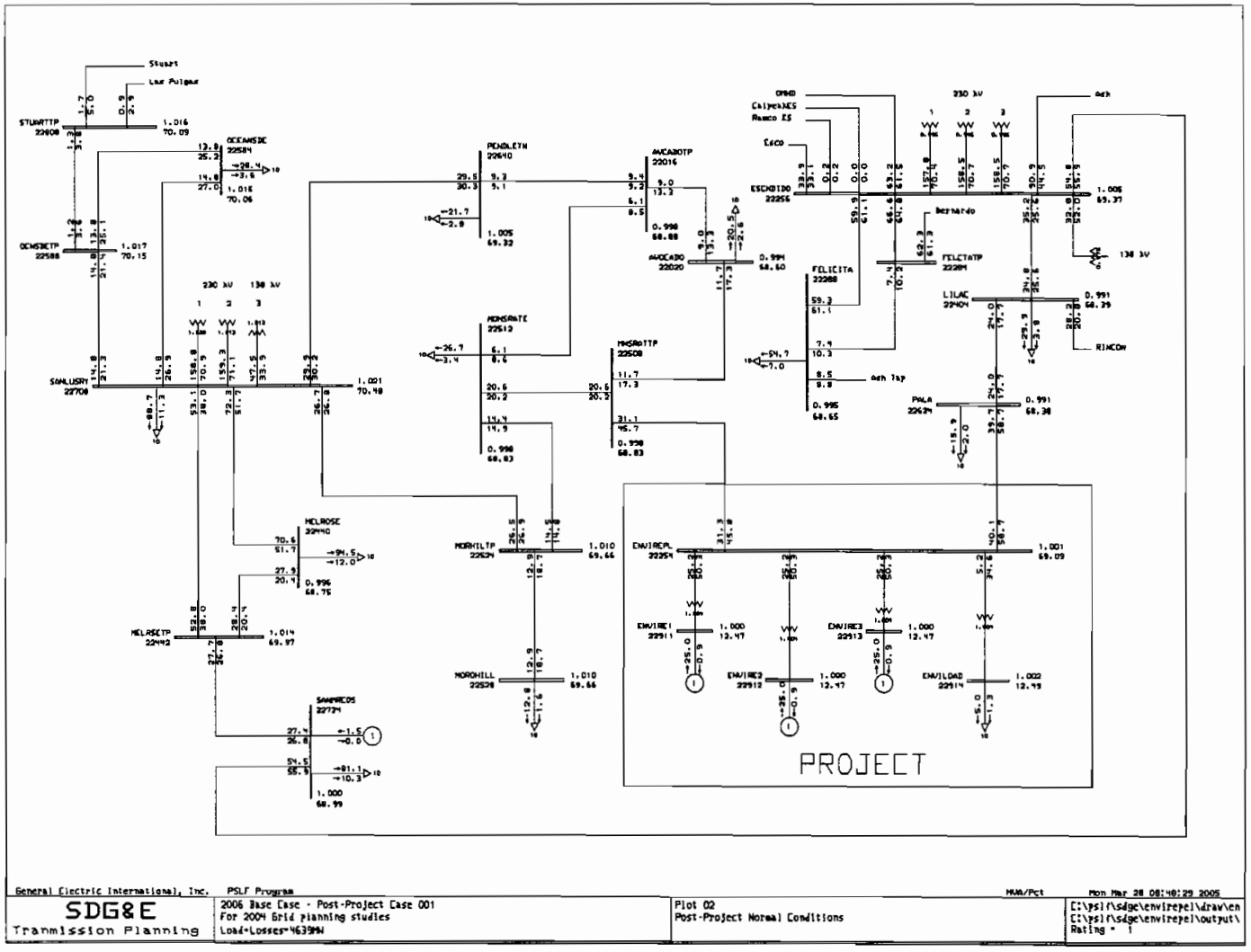
[12] There is a project proposed for completion in 2005 to increase the emergency rating, MVA2, to 145 MVA and continuous rating, MVA1, to 137 MVA. Another project is proposed for 2008 to increase the continuous rating to 161 MVA.

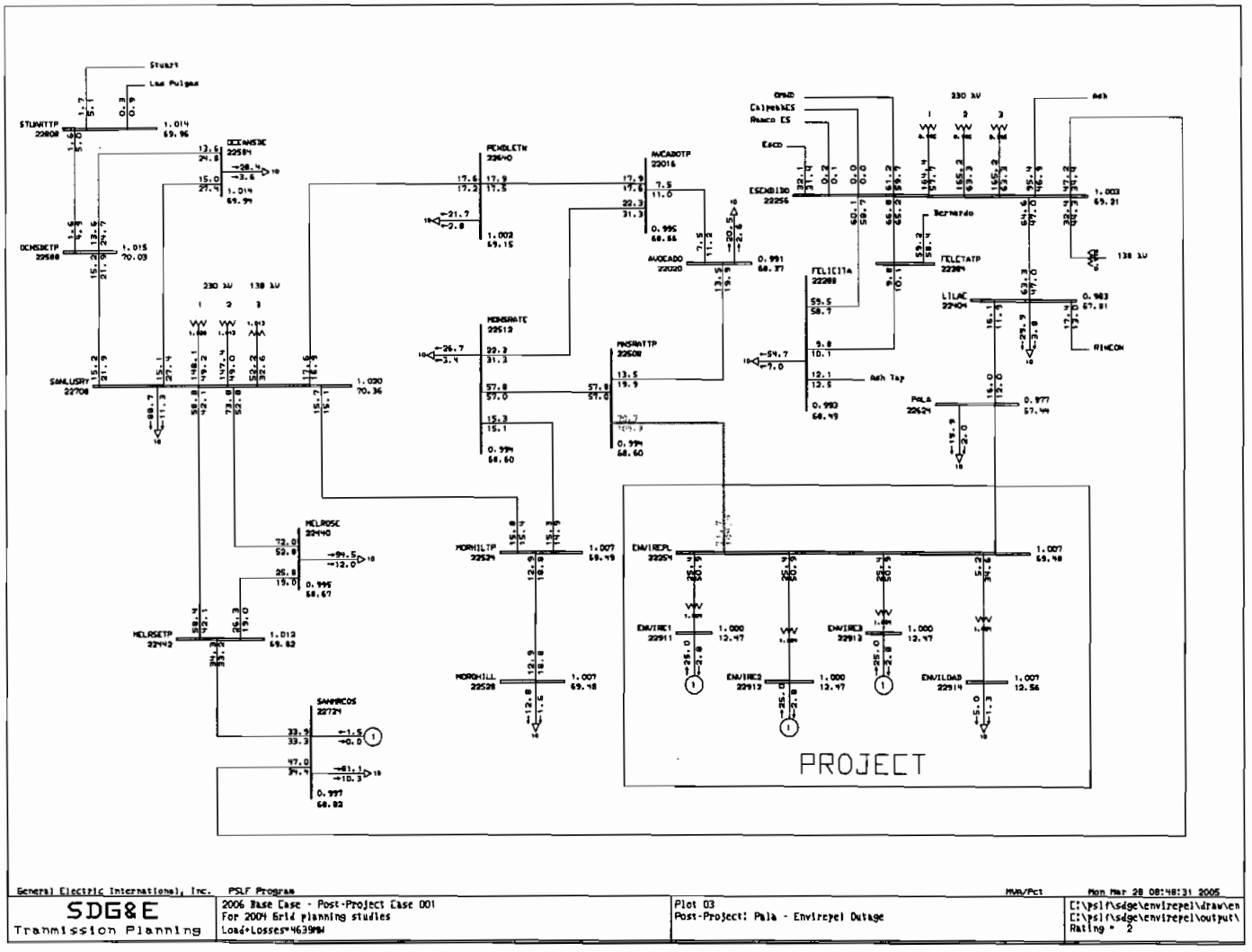
Appendix C – Power Flow Plots

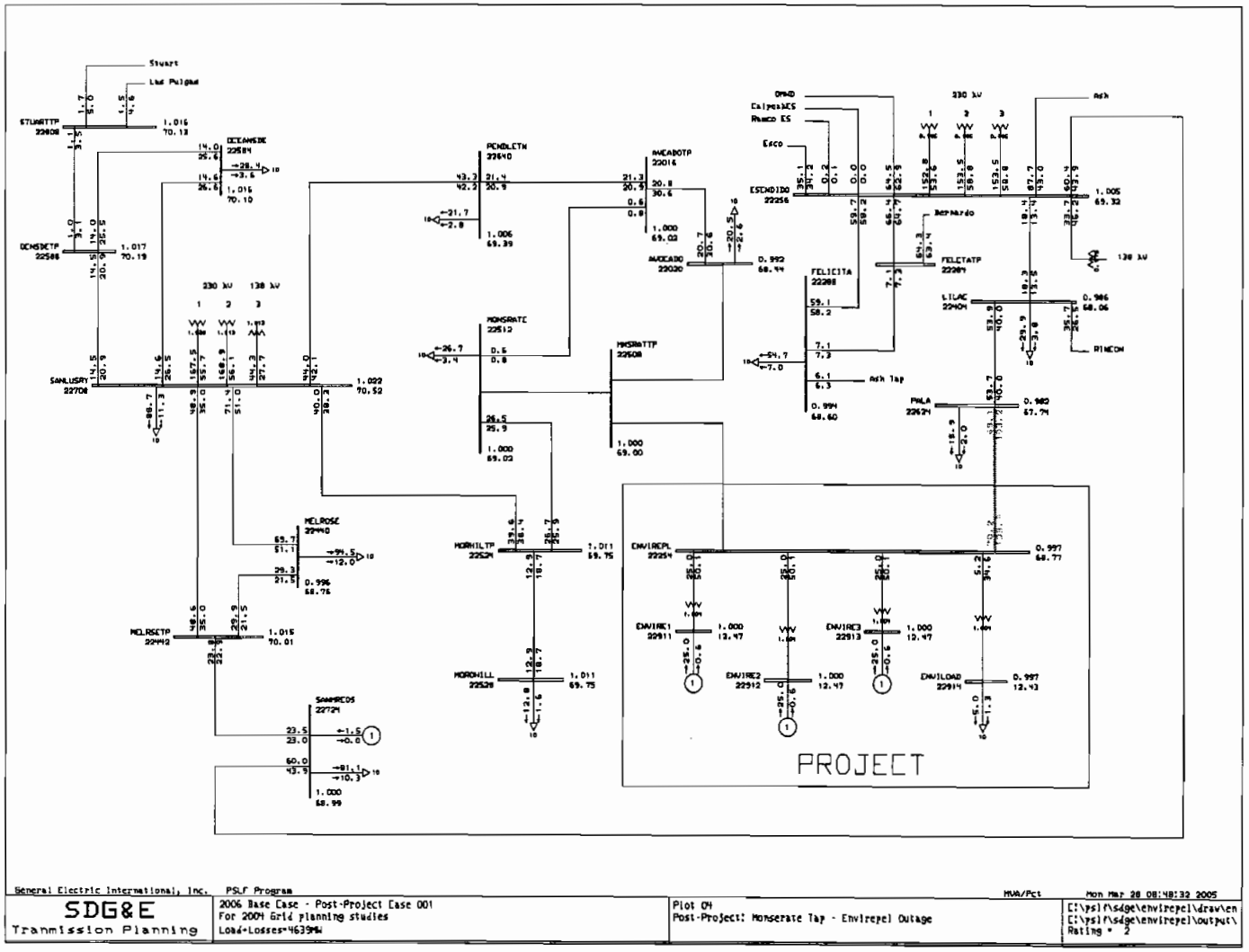
Plot	Description
Plot #1	2006 Heavy Summer Category A Pre-Project (MVA/Percent)
Plot #2	2006 Heavy Summer Category A Post-Project (MVA/Percent)
Plot #3	2006 Heavy Summer Category B Post-Project: Pala - Envirepel Outage (MVA/Percent)
Plot #4	2006 Heavy Summer Category B Post-Project: Monserate Tap - Envirepel Outage (MVA/Percent)
Plot #5	2006 Heavy Summer Category C Pre-Project: Felicita South Bus Outage (MVA/Percent)
Plot #6	2006 Heavy Summer Category C Post-Project: Felicita South Bus Outage (MVA/Percent)

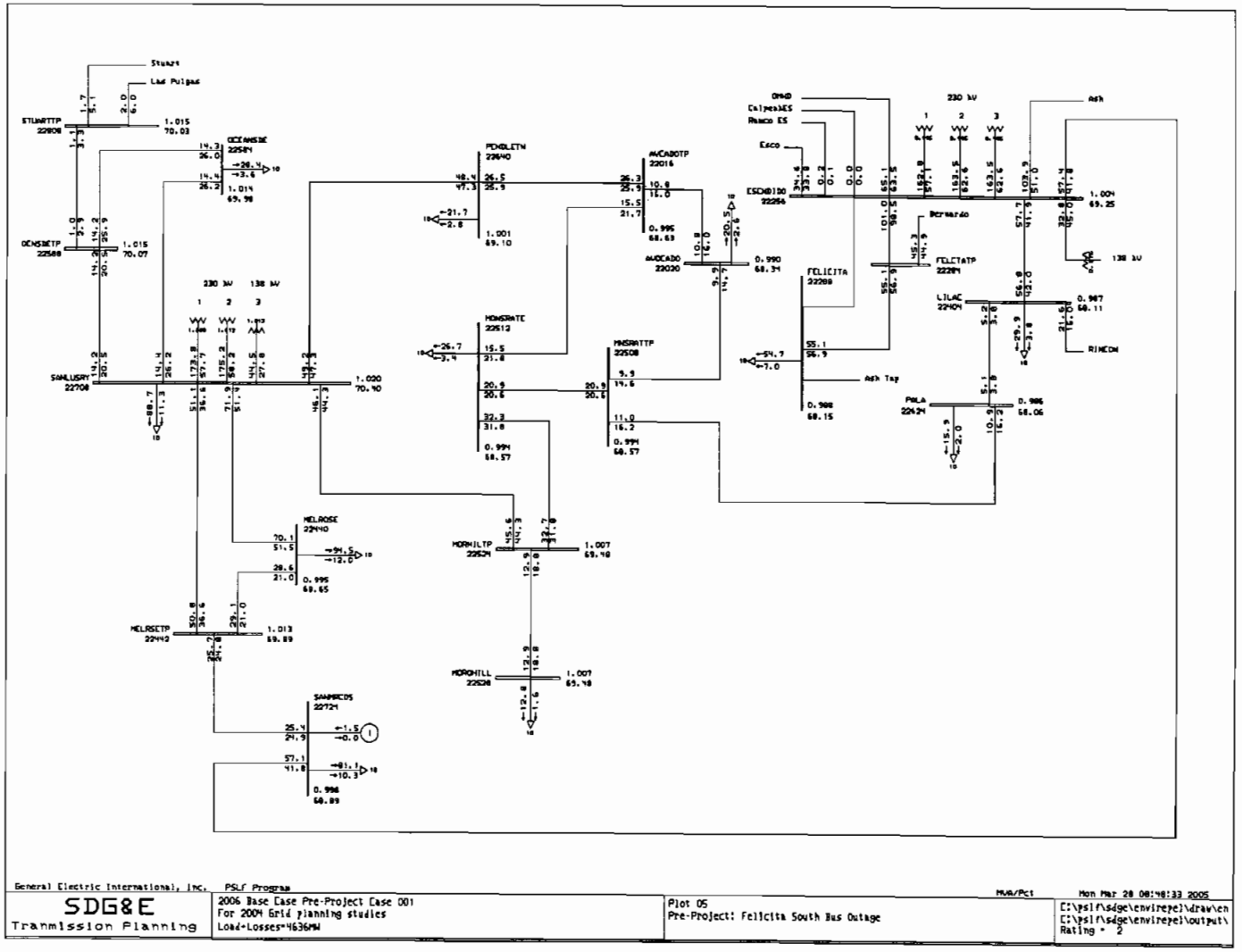


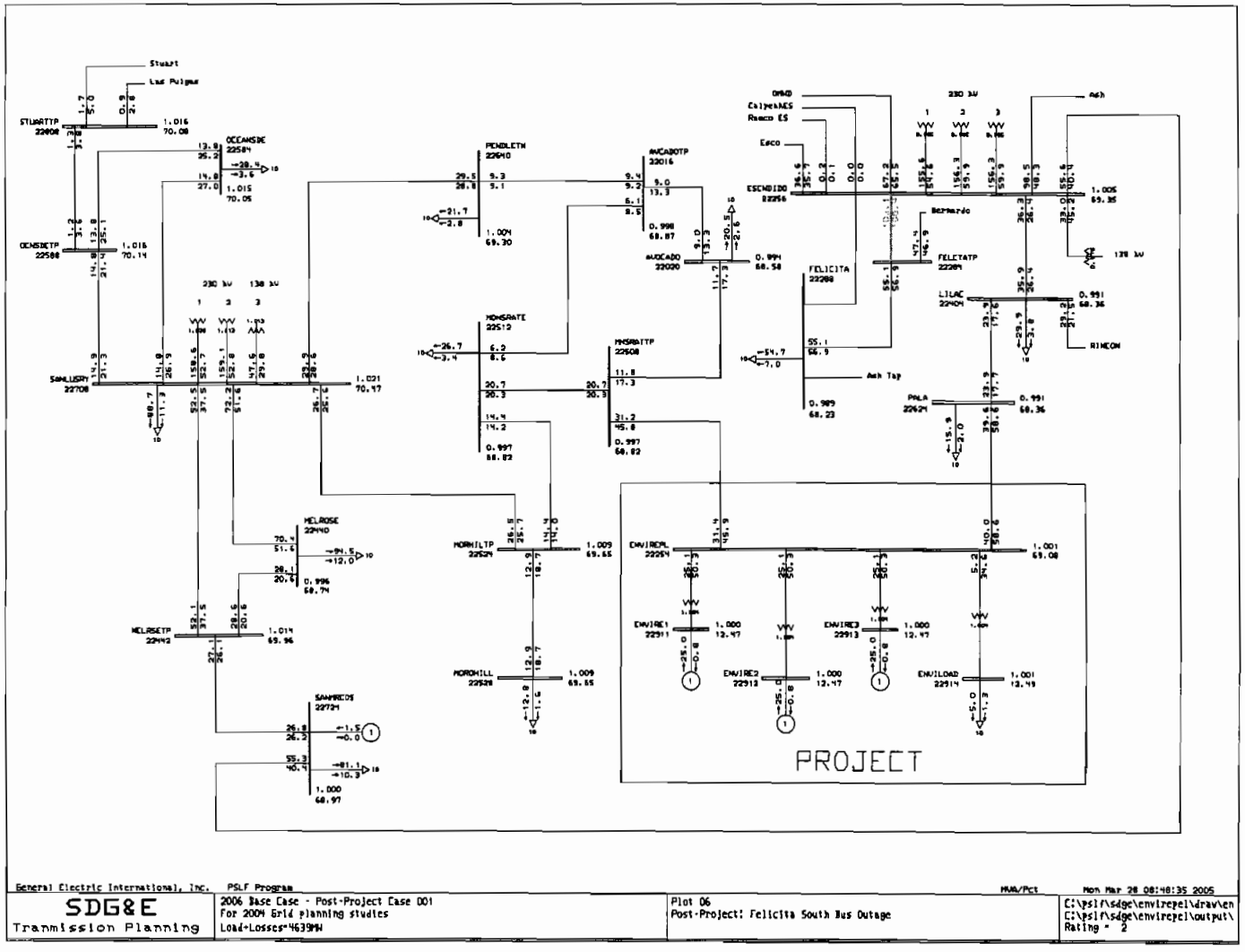
General Electric International, Inc.	PSLF Program		MVA/Pct / Mon Mar 28 08:48:27 2005
SDG&E Tranmission Planning	2006 Base Case Pre-Project Case 001 For 2004 Grid planning studies Load+Losses=4636MW	Plot 01 Pre-Project Normal Conditions	C:\pslf\sdge\envirepel\draw\en C:\pslf\sdge\envirepel\output\ Rating = 1


PROJECT
SDG&E
Transmission Planning
2006 Base Case - Post-Project Case 001
For 2004 Grid planning studies
Load+Losses=4639MW
Plot 02
Post-Project Normal Conditions
PSLF Program
Mon Mar 28 08:40:29 2005


PROJECT
General Electric International, Inc.
PSLF Program
MVA/Pct
Mon Mar 28 08:48:31 2005
SDG&E
Transmission Planning
2006 Base Case - Post-Project Case 001
For 2009 Grid planning studies
Load+Losses=4639MW
Plot 03
Post-Project: Pala - Envirepel Outage
C:\psl\sdge\envirepel\draw\en
C:\psl\sdge\envirepel\output\
Rating = 2

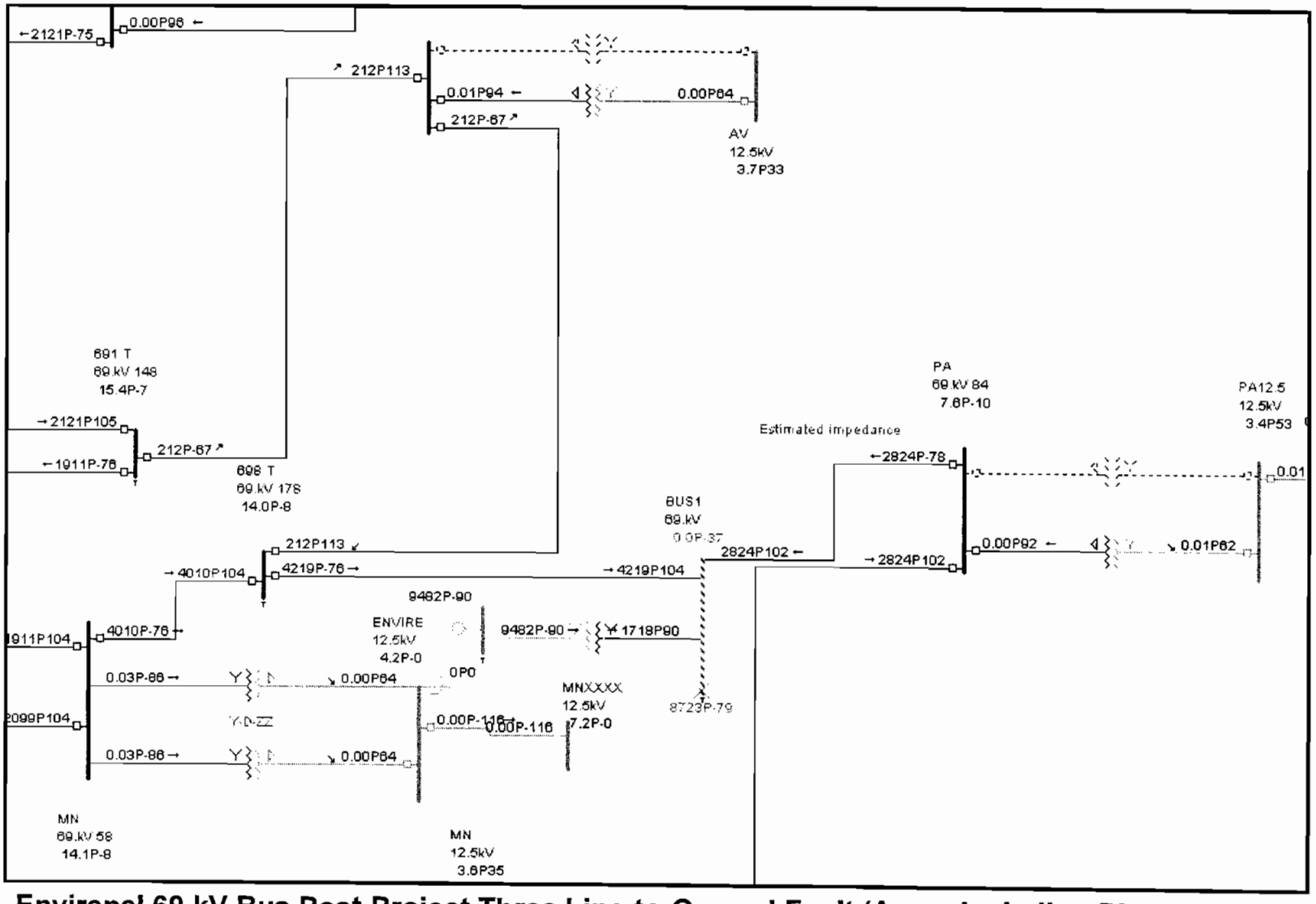

Stuart
Los Pulgas
STUARTTP
22808
OCEANSIDE
22584
OCNSDETP
22586
SANLUSA1
22708
PENBLETN
22640
MONSRATC
22512
MNSRATTP
22508
MELROSE
22440
MELRSETP
22442
MORNHLTP
22524
MORNHILL
22528
SAMPRCOS
22724
AMCADOTP
22016
AMCADO
22030
ESCNDIDO
22256
Esco
Rancho ES
CalpeakES
DMND
Bernardo
FELICITA
22288
FELCTATP
22284
LILAC
22404
RINCON
PALA
22624
Rch Tap
ENVIREPL
22254
ENVIREC1
22911
ENVIREC2
22912
ENVIREC3
22913
ENVILOAD
22914
PROJECT
230 kV
138 kV
General Electric International, Inc.
PSLF Program
MVA/Pct
Mon Mar 28 08:48:32 2005
SDG&E
Transmission Planning
2006 Base Case - Post-Project Case 001
For 2004 Grid planning studies
Load+Losses=4639MW
Plot 04
Post-Project: Monserate Tap - Envirepel Outage
C:\psl\sdge\envirepel\draw\en
C:\psl\sdge\envirepel\output\
Rating = 2


Stuart
Las Pulgas
STUARTTP 22808 1.015 70.03
OCEANSIDE 22584
OCNSIDTP 22588 1.015 70.07
230 kV
138 kV
SANLUSRY 22708 1.020 70.40
PENDLETN 22640
MONSRATE 22512
MNSRATTP 22508
AVCADOTP 22016
AVOCADO 22030 0.990 68.34
ESCNDIDO 22256 1.004 69.25
OMAR
CalpeakES
Ranco ES
Esco
Ash
Bernardo
FELICITA 22209
FELCTATP 22284
LILAC 22404 0.987 68.11
RINCON
Ash Tap 0.988 68.15
PALA 22424 0.986 68.06
MELROSE 22440
MELRSETP 22442 1.013 69.89
MORNILTP 22654 1.007 69.48
MORGHILL 22528 1.007 65.48
SANMRCOS 22721 0.996 68.89
General Electric International, Inc. PSLf Program
MVA/Pct
Mon Mar 28 08:48:33 2005
SDG&E
Transmission Planning
2006 Base Case Pre-Project Case 001
For 2004 Grid planning studies
Load+Losses=4636MW
Plot 05
Pre-Project: Felicita South Bus Outage
C:\pslf\sdge\envirepe\draw\cn
C:\pslf\sdge\envirepe\output\
Rating = 2

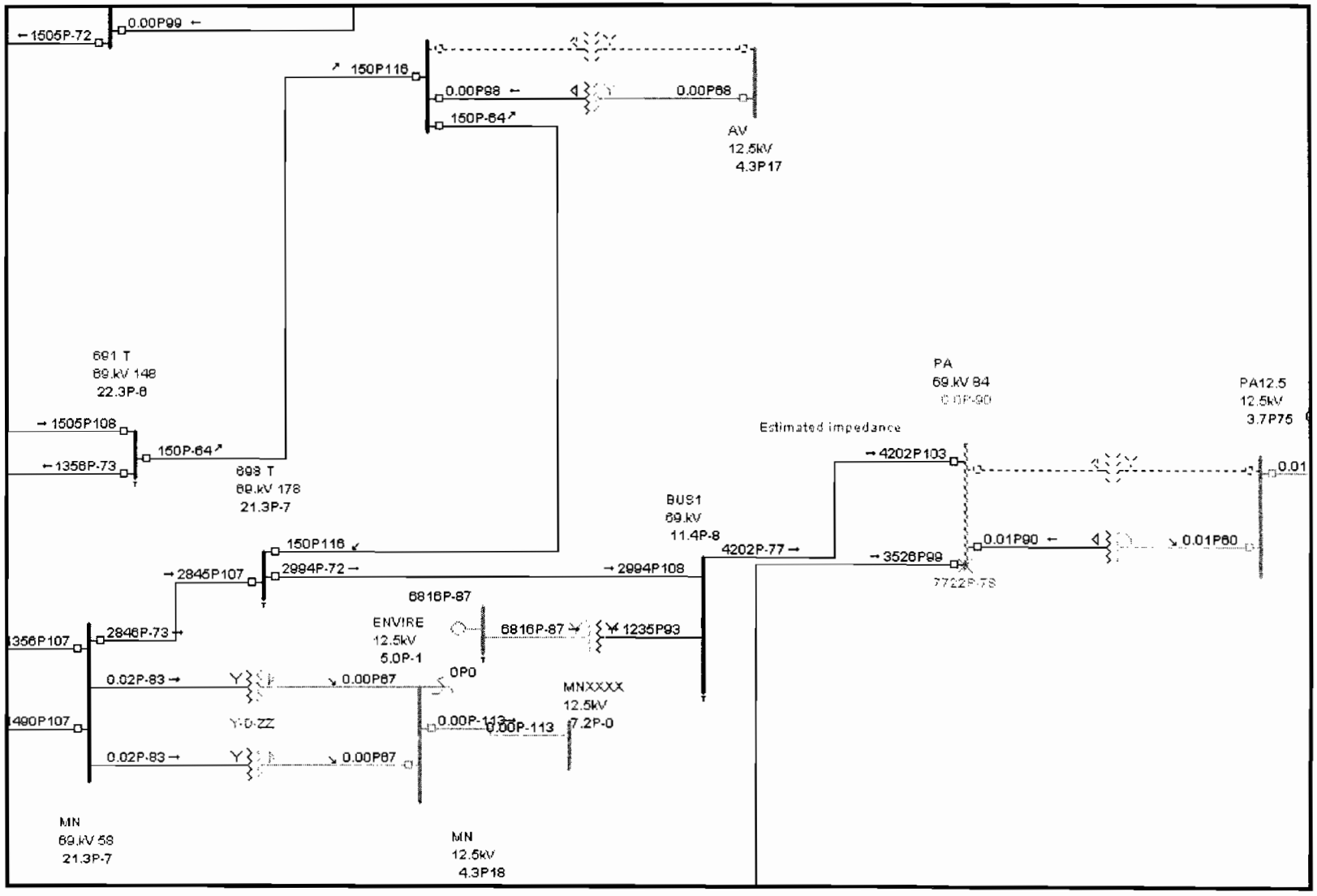

PROJECT
General Electric International, Inc. PSLF Program
SDG&E
Transmission Planning
2006 Base Case - Post-Project Case 001
For 2004 Grid planning studies
Load+Losses=4639MW
Plot 06
Post-Project: Felicita South Bus Outage
MVA/Pct
Mon Mar 28 08:48:35 2005
C:\pslf\sdge\envirepel\draw\en
C:\pslf\sdge\envirepel\output\
Rating - 2

Appendix D – Short Circuit Plots

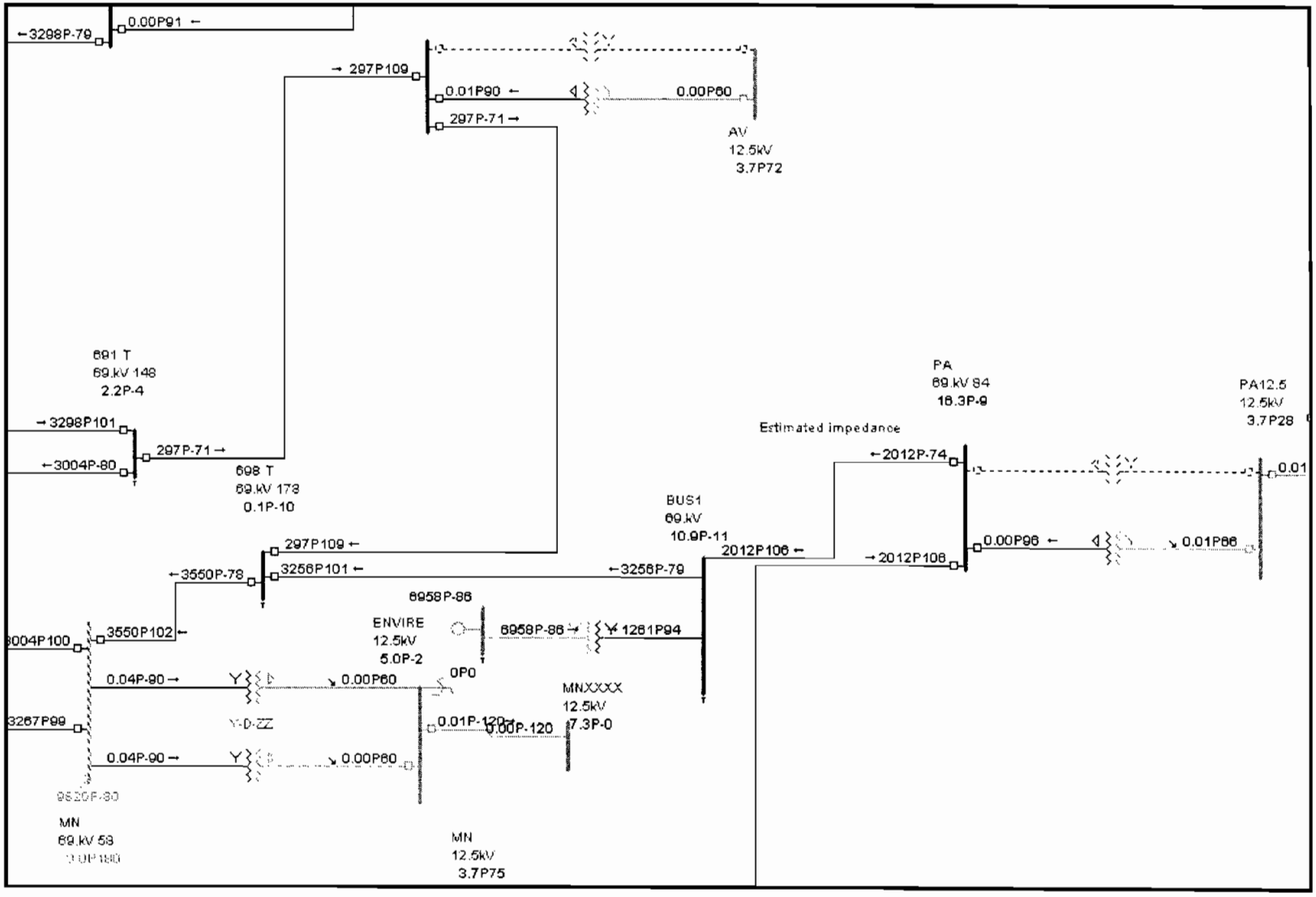
Plot	Description
Plot #1	Envirepel 69 kV Bus Post-Project Three Line-to-Ground Fault
Plot #2	Pala 69 kV Bus Post-Project Three Line-to-Ground Fault
Plot #3	Monserate 69 kV Bus Post-Project Three Line-to-Ground Fault
Plot #4	Envirepel 69 kV Post-Project Single Line-to-Ground Fault
Plot #5	Pala 69 kV Bus Post-Project Single Line-to-Ground Fault
Plot #6	Monserate 69 kV Bus Post-Project Single Line-to-Ground Fault



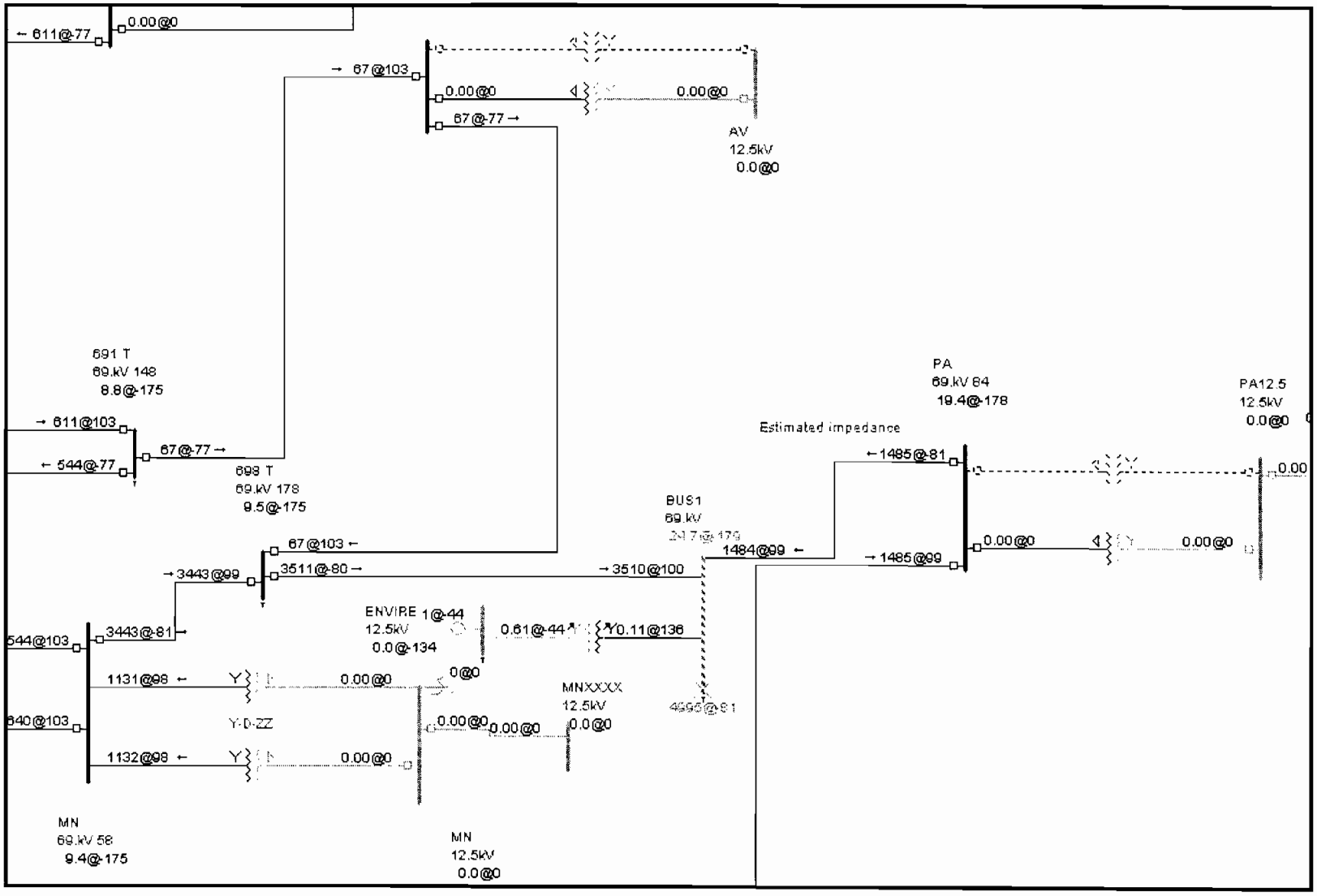
Envirepel 69 kV Bus Post-Project Three Line-to-Ground Fault (Amps Including Phase Angle)



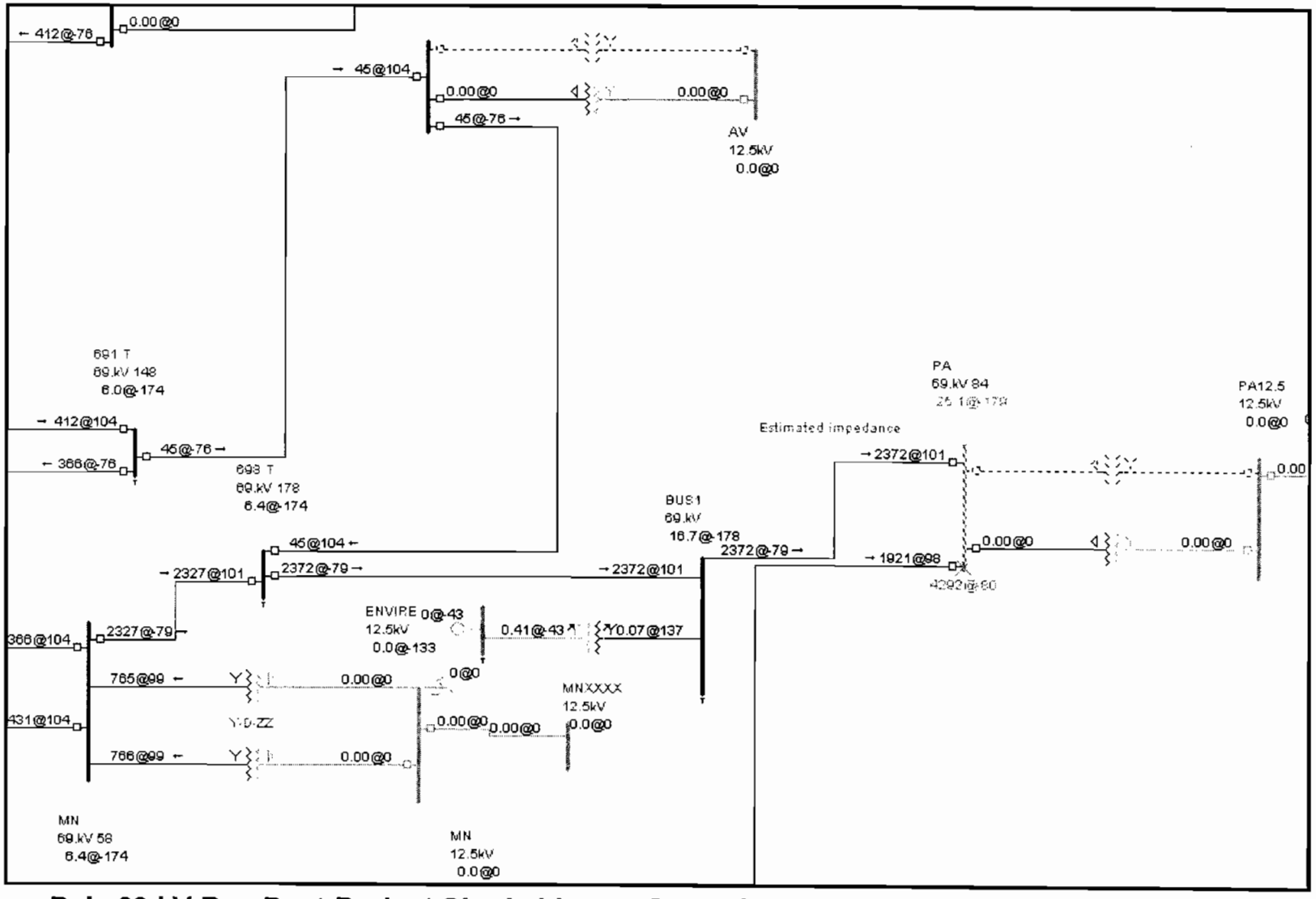
Pala 69 kV Bus Post-Project Three Line-to-Ground Fault (Amps Including Phase Angle)



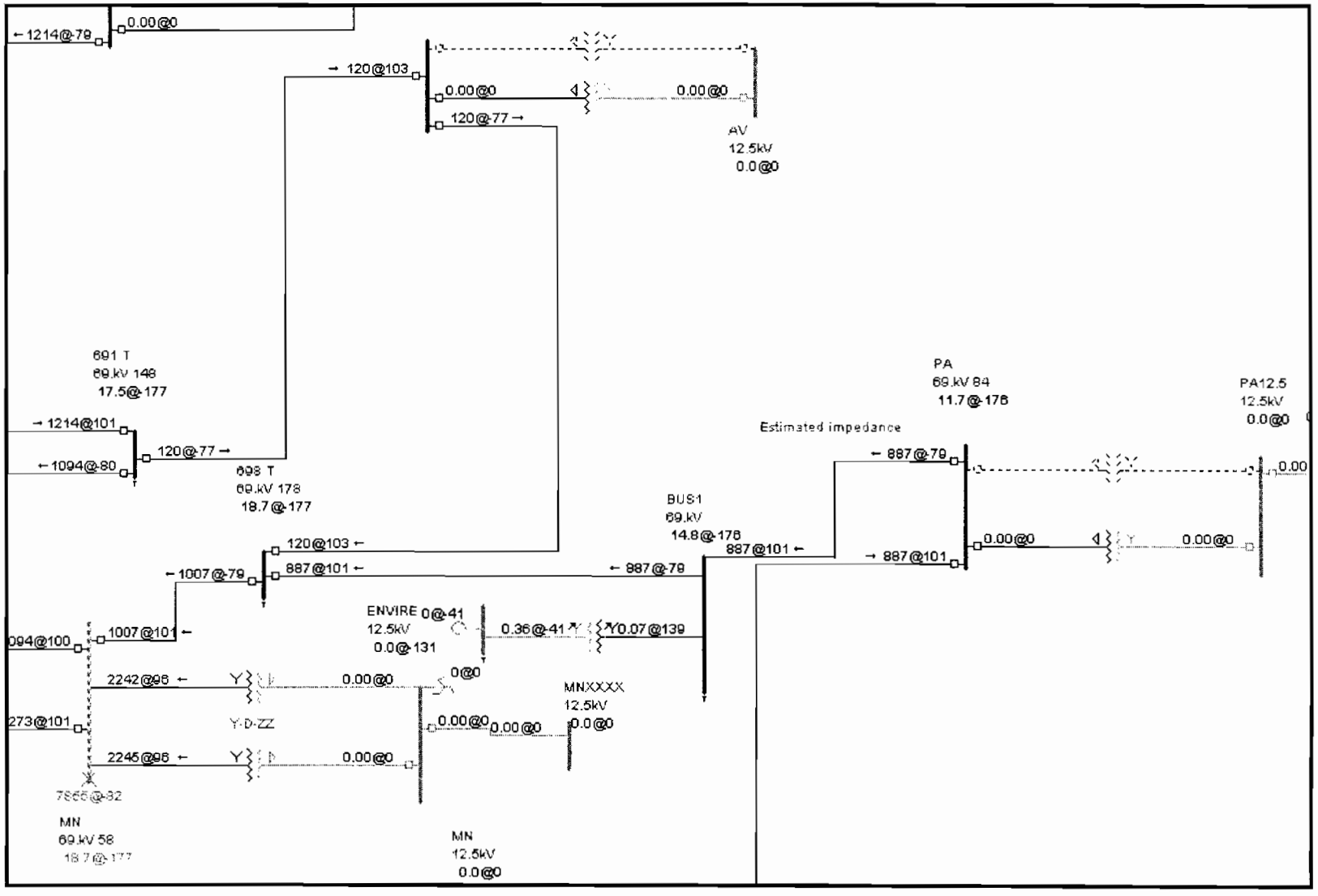
Monserate 69 kV Bus Post-Project Three Line-to-Ground Fault (Amps Including Phase Angle)



Envirepel 69 kV Bus Post-Project Single Line-to-Ground Fault (Amps Including Phase Angle)



Pala 69 kV Bus Post-Project Single Line-to-Ground Fault (Amps Including Phase Angle)



Monserate 69 kV Bus Post-Project Single Line-to-Ground Fault (Amps Including Phase Angle)

Appendix E – Breakers with Fault Duty >90% Rating

Breakers with Fault Duty > 90% Rating

Duty	CaseID	
Breaker	Pre_Envirepel	Post_Envirepel
BE33	92.3	92.5
CS614	104.9	104.9
CS622	104.9	104.9
CS640	104.9	104.9
EC624	108.6	108.7
EL636	109.9	109.9
EL671	109.9	109.9
ES30	95.1	96.0
ES31	95.1	96.0
ES32	95.1	96.0
ES50	95.1	96.0
ES616	95.1	96.0
ES679	95.1	96.0
ES684	95.1	96.0
ES688	95.1	96.0
ES689	95.1	96.0
ES6908	95.1	96.0
ES696	95.1	96.0
ES70	95.1	96.0
ES71	95.1	96.0
ES72	95.1	96.0
GD672	93.6	93.6
GE31	97.0	97.1
GE665	97.0	97.1
GE6905	97.0	97.1
IB623	121.4	121.5
KY30	101.3	101.3
KY31	108.8	108.8
KY32	108.8	108.8
KY663	101.3	101.3
LCEAST31	98.9	98.9
LCWEST32	98.9	99.0
ME32	120.1	121.4
ME33	120.1	121.4
ML23021	94.5	94.6
ML23022	94.5	94.6
ML23040	94.5	94.6
ML60	94.5	94.6
ML70	94.5	94.6
ML71	94.5	94.6
ML80	94.5	94.6
MRGT664	93.5	93.6
MS30	116.3	116.4
MS31	116.3	116.4
MS32	116.3	116.4
MS33	116.3	116.4
MS50	113.5	113.6
MS51	113.5	113.6
MS52	113.5	113.6
MS618	110.8	110.9
MS619	116.3	116.4
MS653	116.3	116.4
MS654	116.3	116.4
MS663	110.8	110.9
MS670	110.8	110.9
MS671	116.3	116.4
MS676	116.3	116.4
MS70	116.3	116.4

Duty	CaseID	
Breaker	Pre_Envirepel	Post_Envirepel
MY30	95.8	95.8
MY31	95.8	95.8
MY32	95.8	95.8
OY30	106.4	106.4
OY623	106.4	106.4
OY649	106.4	106.4
OY6929	106.4	106.4
PQ13810	96.7	96.8
PQ50	105.0	105.2
PQ51	116.1	116.3
PQ52	116.1	116.3
PQ610	105.0	105.2
PQ661	105.0	105.2
PQ662	105.0	105.2
PQ664	116.1	116.3
PQ665	110.3	110.5
PQ666	110.3	110.5
PQ667	110.3	110.5
PQ674	105.0	105.2
PQ675	105.0	105.2
PQ6905	105.0	105.2
PQ6906	116.1	116.3
PQ70	110.3	110.5
PQ71	116.1	116.3
RN617	115.2	115.2
RN661	115.2	115.2
RN673	93.0	93.1
RN6927	115.2	115.2
SA34	110.4	112.9
SA35	110.4	112.9
SA680	110.4	112.9
SA6912	110.4	112.9
SA693	110.4	112.9
SA694	94.6	96.8
SA697	110.4	112.9
SF616	111.6	111.7
SR608	91.5	91.5
SY1	93.1	93.1
TB13833	90.2	90.2
TB13834	90.2	90.2
TB40	90.2	90.2
TB41	90.2	90.2
TB43	90.2	90.2
WA651	108.5	108.5
WA652	108.5	108.5

Breakers with Fault Duty > 90% Rating

Substation Legend:
B=B Station
BE=Bernardo
CAN=Cannon
CR=Coronado
CS=Chollas
DI=Division
EA=Encina
EC=El Cajon
EL=Elliot
ES=Escondido
F=F Station
GD=General Dynamics
GE=Genesee
IB=Imperial Beach
KE=Kettner
KY=Kearny
LC=Los Coches
LI=Lilac
ME=Melrose
MG=Montgomery
MI=Main
MRGT=Miramar GT
MN=Monserate
MS=Mission
MY=Murray
NIM=North Island Metering
OT=Old Town
OY=Otay
PL=Point Loma
PQ=Penasquitos
RN=Rose Canyon
S=Sampson
SA=San Luis Rey
SF=Ranco Santa Fe
SM=San Marcos
SO=San Onofre
SX=Sycamore Canyon
SY=South Bay
TB=Trabuco
UCM=University of California Metering
WA=Wabash

Appendix F – Interconnection Application Queue

INTERCONNECTION APPLICATION QUEUE

In June of 2002, FERC approved Amendment 39 to the CAISO tariff which transfers the responsibility for queuing new Generators Interconnection Applications from the Participating Transmission Owners to the California CAISO. Here is the current status of the CAISO queue:

	Applicant Name	Project Name	Nearest Substation	Capacity (MW)	Yr. Ops. To Begin	Status
1	CONFIDENTIAL	CONFIDENTIAL	SCE Mountain Pass Substation	63	2004	Active
2	CONFIDENTIAL	CONFIDENTIAL	High Winds/Contra Costa PP	150	2005	Active
3	San Diego County Water Authority	Olivenhain-Hodges Pumped Storage	Escondido	40	2007	Active
4	Calpine	Otay Mesa	Miguel-Tijuana *615 -total capacity, 550 MW in SDGE queue	615	2004	Active
5	CONFIDENTIAL	CONFIDENTIAL	Mountain Pass	50	2004	Active
6	Gaviota Energy/Global Renewable	Lompoc Wind Power Project	Cabrillo	120	2006	Active
7	CONFIDENTIAL	CONFIDENTIAL	Devers	560	2006	Active
8	CONFIDENTIAL	CONFIDENTIAL	Antelope	200	2005	Active
9	Eurus Energy	Eurus Oasis Project	West Wind - Vincent	65	2004	Active
10	Kings River Conservation District	KRCD Peaking Project	Malaga	97	2004	Active
11	CONFIDENTIAL	CONFIDENTIAL	Crestwood	46	2005	Active
12	CONFIDENTIAL	CONFIDENTIAL	Antelope	300	2006	Active
13	FPL Energy, LLC	High Winds III	Birds Landing Switching Station	38	2005	Active
14	Mountainview Power Co. LLC	Mountainview Power Project	San Bernadino * 72 Additional MW	72	2004	Active
15	CONFIDENTIAL	CONFIDENTIAL	High Winds/Contra	150	2006	Active

			Costa PP			
16	CONFIDENTIAL	CONFIDENTIAL	Crestwood	117	2005	Active
17	CONFIDENTIAL	CONFIDENTIAL	Warner	64.5	2006	Active
18	CONFIDENTIAL	CONFIDENTIAL	Crestwood	36	2006	Active
19	Duke Energy South Bay, LLC	South Bay Replacement - Option 1	138/69 kV South Bay (650 MW CC)	650	2010	Active
20	Duke Energy South Bay, LLC.	South Bay Replacement - Option 2	138/69 kV South Bay (640 MW CT-SC)	640	2010	Active
21	City and County of San Francisco	S. F. Electric Reliability Generating Plant	Potrero 115 kV Sub	145.1	2006	Active
22	CONFIDENTIAL	CONFIDENTIAL	Collector Substation at Geysers #17 & Fulton 230 kV line	201	2006	Active
23	City and County of San Francisco	San Francisco Airport Electric Reliability Plant	SF Airport Substation	48.7	2006	Active
24	CONFIDENTIAL	CONFIDENTIAL	Monolith Substation	201	2007	Active
25	CONFIDENTIAL	CONFIDENTIAL	Boulevard - Crestwood 69-kV transmission line	201	2008	Active
26	Caithness Dixie Valley, LLC	Caithness Dixie Valley, LLC	Bishop Control Sub	10	1988	Active
27	CONFIDENTIAL	CONFIDENTIAL	Monolith Substation	300	2007	Active
28	CONFIDENTIAL	CONFIDENTIAL	Miramar GT Substation	48.5	2005	Active
29	Envirepel	Envirepel	TL698 69 kV SDG&E Line	70	2006	Active
30	NRG Energy Center San Francisco LLC	San Francisco Cogeneration	Mission Sub @ 8th & Mission or Embarcadero Sub @ 1st & Flsm	13.76	2006	Active
31	CONFIDENTIAL	CONFIDENTIAL	PG&E 115 KV	99.9	2006	Active

			Panoche Sub			
32	CONFIDENTIAL	CONFIDENTIAL	PG&E's 115 kV Tesla - Stockton Cogen Trans. Line.	99.9	2006	Active
33	D. Milne Associated, LLC	Ripon Generation	PG&E Tesla Substation	96.9	2007	Active
34	Duke Energy North America, LLC	Duke Energy Oakland, LLC Option 1	Oakland "C" 115 kV Substation	320	2009	Active
35	Duke Energy North America, LLC	Duke Energy Oakland, LLC Option 2	Oakland "C: 115kV Substation	315	2009	Active
36	CONFIDENTIAL	CONFIDENTIAL	Humboldt Power Plant Substation	146.4	2008	Active
37	CONFIDENTIAL	CONFIDENTIAL	Proposed Birds Landing Switching Station	200	2008	Active
38	CONFIDENTIAL	CONFIDENTIAL	Eastshore Substation	118	2007	Active
39	CONFIDENTIAL	CONFIDENTIAL	Pease Sub Station	99.9	2007	Active
40	Pastoria Energy Center LLC	Pastoria Expansion	Pastoria	158.8	2006	Active
41	CONFIDENTIAL	CONFIDENTIAL	PG&E's McCall Substation	300	2007	Active
42	CONFIDENTIAL	CONFIDENTIAL	PG&E Borden Substation 230 kV Bus	126.5	2008	Active
43	CONFIDENTIAL	CONFIDENTIAL	PG&E Tesla-Bellota 230 kV line	168.7	2008	Active
44	Three Mountain Power, LLC	Three Mountain Power Project	PG&E Pit1-Pit 3 & Pit 1-Cottonwood 230kV	295	2007	Active
45	CONFIDENTIAL	CONFIDENTIAL	FMC Sub Station	300	2007	Active
46	Calpine	Russell City Energy Center	Eastshore substation	361	2006	Active
47	Calpine	Wolfskill II	Vaca-Dixon -	50	2007	Active

			Suisun 115 kV line			
48	Calpine	East Altamont Energy Center - Option 1	Tracy (WAPA)	806	2008	Active
49	Calpine	East Altamont Energy Center - Option 2	Tesla-Tracy #1 230 kV Line - Tracy Sub	541	2006	Active
50	CONFIDENTIAL	CONFIDENTIAL	Evergreen-San Jose "B" 115 kV line	94.5	2008	Active
51	CONFIDENTIAL	CONFIDENTIAL	Herndon - Kearney 230 kV line	200.6	2008	Active
52	CONFIDENTIAL	CONFIDENTIAL	Contra Costa Power Plant 230 kV Substation	590	2009	Active
53	Cal Peak Power, LLC	Vaca-Dixon	Vaca-Dixon Sub	52	2008	Active
54	CONFIDENTIAL	CONFIDENTIAL	Devers Substation	100.5	2006	Active
55	Fresno Cogeneration Partners, LP	Fresno Cogen ICE Unit	70 kV Kerman-Helm transmission line	.55	2005	Active
56	Calpine Corporation	Inland Empire Energy Center	SCE Valley Substation	810	2008	Active
57	Cummins West, Inc.	Willits Power Plant	Adjacent to Mendocino-Ft. Bragg-Willits 60kV lines	32	2007	Active
58	Cummins West, Inc.	West Sacramento Peaker	115kV Rio Oso-West Sac	49	2007	Active
59	CONFIDENTIAL	CONFIDENTIAL	Panoche Sub Station	428	2008	Active
60	CONFIDENTIAL	CONFIDENTIAL	Pleasant Grove Sub Station	116.8	2008	Active
61	Cal Peak Power, LLC.	Lodi	City of Lodi Sub	104	2008	Active
62	Northwest Energy Systems Co.	Oroville Energy II, LLC	Palermo-Oroville #2 60 kV	65	2008	Active
63	CONFIDENTIAL	CONFIDENTIAL	Round	99.4	2008	Active

			Mountain-Cottonwood 230kV transmission line			
64	CONFIDENTIAL	CONFIDENTIAL	Glenn-Vaca-Dixon 230 kV transmission line	99.4	2008	Active
65	CONFIDENTIAL	CONFIDENTIAL	Logan Creek - Vaca-Dixon 230 kV transmission line	99.4	2008	Active
66	Ramco Generating Two	West Fresno Energy Facility	PG&E West Fresno Substation	118	2007	Active
67	CONFIDENTIAL	CONFIDENTIAL	Malaga-McCall 115 kV	116	2008	Active
68	CONFIDENTIAL	CONFIDENTIAL	Los Banos Substation	165	2008	Active
69	CalPeak Power, LLC	Panoche	PG&E Panoche Sub	104	2008	Active
70	CONFIDENTIAL	CONFIDENTIAL	PG&E California Ave tap into West Fresno-McCall 115 kV t lin	99.9	2006	Active
71	Calpine	San Joaquin Valley Energy Center - Option 1	PG&E Helm substation	791	2008	Active
72	Calpine	Calpine Pittsburg Power Plant - Unit 1	Pittsburg Swichyard	83.7	2007	Active
73	Sempra Energy Resources	Copper Mountain Project	SEC El Dorado Switchyard (230 kV)	581	2007	Active
74	E & L Westcoast, LLC	CPV Colusa	Between Cottonwood and Vaca-Dixon	715	2010	Active
75	CONFIDENTIAL	CONFIDENTIAL	Bishop-Control Substation	62	2007	Active
76	Wellhead Power Panoche, LLC	Wellhead Power Panoche ICE	Panoche Sub	.35	2005	Active

77	Wellhead Power GAtes, LLC	Wellhead Power Gates ICE	Gates Sub	.35	2005	Active

List current as of: March 14, 2005

The CAISO queue can be found:
http://www2.caiso.com/thegrid/planning/geninterconnect/isointconqueue.html

Appendix G – Load and Resource Table

Load and Resource Table for Envirepel Project

Values are in MW

Case Name		2006 Heavy Summer Pre-Project		2006 Heavy Summer + Envirepel	
SDGE Import		2850		2780	
SDGE Load		4542		4547	
SDGE Loss		94		92	
SDGE Generation Dispatch		1786		1859	
QF's (16)		173.8		173.8	
Encina					
	1	0	106	0	106
	2	0	103	0	103
	3	0	109	0	109
	4	289.2	9.8	287.4	11.6
	5	327	2	327	2
		Total *616.2*		*Total* *614.4*	
South Bay					
	1	143	2	143	2
	2	145	4	145	4
	3	172	2	172	2
	4	0	221	0	221
		Total *460*		*Total* *460*	
Miramar GTs		0		0	
Kearny GTs		0		0	
Other GTs		0		0	
Border Peaker		0		0	
Escondido Peaker		0		0	
El Cajon Peaker		0		0	
Miramar 69 kV		0		0	
EPP		536		536	
Envirepel		0		75	
Area 99 Generation		949.2		949.2	
Area 20 Export - CFE		0		0	
SWPL		1395.2		1377.8	
EOR		4376.3		4370.4	
WOR		4708.2		4702.5	
SCIT		12629.2		12562.1	

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

ORANGE GROVE POWER PLANT REPLACEMENT PROJECT **SMALL POWER PLANT EXEMPTION**	**Docket No. 07-SPPE -2** **PROOF OF SERVICE**

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

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DECLARATION OF SERVICE

I, Dora Gomez, declare that on September 27, 2007, I deposited copies of the attached Comments from Anthony Arand/Envirepel for Orange Grove Energy, L.P. (07-SPPE-2) in the United States mail at Sacramento, California with first-class postage thereon fully prepaid and addressed to those identified on the Proof of Service list above.

OR

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

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

Dora Gomez