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San Diego Gas & Electric

December 19, 2005

VIA ELECTRONIC MAIL AND FEDERAL EXPRESS

Maria Vengerova
California Public Utilities Commission
Docket Office
505 Van Ness Avenue, Room 2001
San Francisco, CA 94102

Re: A.05-12-014, Supplement to Application of San Diego Gas & Electric Company (U 902-E) for a Certificate of Public Convenience and Necessity for the Sunrise Powerlink.

Dear Ms. Vengerova,

Per our telephone conversation, enclosed please find for filing an original and fourteen copies (to be inserted in both the public and confidential versions) of the Supplement to San Diego Gas & Electric Company's ("SDG&E") above-referenced Application. In the initial filing, thirty-seven pages that comprise Appendix V of Chapter V of the "Sunrise Powerlink Transmission Project Purpose and Need" report, which served as prepared testimony for the above referenced application filed at the CPUC on December 14, 2005, were inadvertently omitted. No material has been redacted from the attached as confidential, so you may treat this supplement as "public."

Please contact me with any questions. Thank you for your assistance in this matter.

Sincerely,

E. Gregory Barnes

E. Gregory Barnes /ep
Attorney for
San Diego Gas & Electric Company

Enclosure

cc: w/ enc (via e-mail): Service lists in R.04-04-003 and I.05-09-005.

BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA

In the Matter of the Application of San Diego Gas & Electric Company (U 902-E) for a Certificate of Public Convenience and Necessity for the Sunrise Powerlink Transmission Project	Application No. 05-12-014 (Filed December 14, 2005)

SUPPLEMENT TO APPLICATION OF SAN DIEGO GAS & ELECTRIC COMPANY (U 902-E) FOR A CERTIFICATE OF PUBLIC CONVENIENCE AND NECESSITY FOR THE SUNRISE POWERLINK

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December 19, 2005

BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA

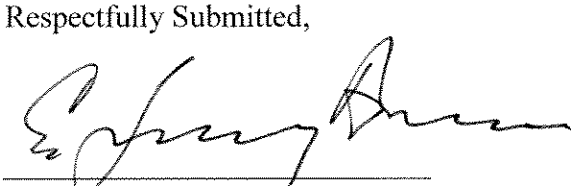
In the Matter of the Application of San Diego Gas & Electric Company (U 902-E) for a Certificate of Public Convenience and Necessity for the Sunrise Powerlink Transmission Project	Application No. 05-12-014 (Filed December 14, 2005)

SUPPLEMENT TO APPLICATION OF SAN DIEGO GAS & ELECTRIC COMPANY (U 902-E) FOR A CERTIFICATE OF PUBLIC CONVENIENCE AND NECESSITY FOR THE SUNRISE POWERLINK

On December 14, 2005, San Diego Gas & Electric Company ("SDG&E") filed an Application for a Certificate of Public Convenience and Necessity for the Sunrise Powerlink (the "Application"). In this filing, the thirty-seven pages that comprise Appendix V to Chapter V of the "Sunrise Powerlink Transmission Project Purpose and Need" report, which served as prepared testimony for the application, were inadvertently omitted. This supplement provides those omitted pages

Please note that SDG&E considers all of the material in the supplement to be "public" – i.e., not subject to confidential treatment. Also note that the verification submitted with the original application included the material in this supplement.

Respectfully Submitted,



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December 19, 2005

APPENDIX V

ASSUMPTIONS

This Appendix discusses the various assumptions underlying the RMR and energy dispatch analysis presented in this chapter. Sections A through E below address the areas of electricity demand, energy efficiency, demand response, self-served load and larger generation. The assumptions used in this analysis are consistent with SDG&E's Long-Term Resource Plan ("LTRP"), as adopted by the Commission in D.04-12-048.

A. Electricity Demand

A critical input to the reliability analysis is the long-term forecast of electricity demand. Two load conditions are used for the analysis. For the RMR cost savings estimate, SDG&E forecasts the system peak load in each year that has a 20% chance of occurrence (i.e., once in five years). This is also referred to as the "80/20" peak load condition or forecast. The 80/20 peak load forecast is what the CAISO currently uses to establish the quantity of in-area generating capacity that will be subject to RMR contracts. For the assessment of energy dispatch benefits presented in this chapter and also used in Chapter VI, Alternatives, SDG&E forecasts the system peak load in each year that has a 50% chance of occurrence (i.e., once in two years). This is referred to as the "50/50" peak load condition or forecast.

SDG&E uses econometric and statistical techniques to develop forecasts for system energy requirements and system peak load. In general, the forecasting models integrate input assumptions regarding demographics, economic indicators and activity, weather, energy prices, building and appliance standards, energy efficiency, self-served load, and other measurable factors that affect electricity consumption. Resources were added according to the Commission's preferred loading order as follows:

- First, forecasted load is reduced by expected future levels of energy efficiency.
- Second, demand reduction programs are incorporated to further reduce the resource need.
- Third, renewable power is added to meet an accelerated Renewable Portfolio Standard ("RPS") target of 20% of energy needs by 2010.
- Finally, conventional resources are added to meet the remaining need. SDG&E tailors resource additions so that in combination with the existing resources, the resource mix includes a combination of base loaded, intermediate and peaking resources to meet the overall load shape for the San Diego service area.

The 80/20 and 50/50 peak demand forecasts reflect the embedded impact of historical energy efficiency achievements and self-served load. These forecasts also include reductions due to future incremental energy efficiency savings and self-served load, as shown below. The forecasts are further adjusted to reflect the impact of certain expected demand response programs, as discussed in Section C below.

80/20 Peak Load Condition

(MW)	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Peak Forecast (80/20)	**4,513**	**4,618**	**4,723**	**4,850**	**4,995**	**5,137**	**5,275**	**5,406**	**5,559**	**5,720**	**5,871**
Less:											
Uncommitted Energy Efficiency	0	0	0	30	86	137	182	223	280	342	405
Self-Served Load (DG)	6	8	10	12	14	16	18	20	22	24	26
Peak Load (80/20)	**4,507**	**4,610**	**4,713**	**4,808**	**4,895**	**4,984**	**5,074**	**5,163**	**5,257**	**5,354**	**5,441**
Less DRP:											
BIP											
Clean Backup											
DLC											
RBRP											
Smart Thermostat											
DRP Subtotal:	29	58	58	58	58	58	58	58	58	58	58
Uncommitted – Price Sensitive (2)	0	0	0	0	0	0	0	0	0	0	0
DRP Total:	29	58	58	58	58	58	58	58	58	58	58
Net Demand (80/20)	**4,478**	**4,552**	**4,655**	**4,750**	**4,837**	**4,926**	**5,016**	**5,105**	**5,199**	**5,296**	**5,383**

50/50 Peak Load Condition

(MW)	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Peak Forecast (50/50)	**4,282**	**4,380**	**4,478**	**4,599**	**4,739**	**4,874**	**5,006**	**5,132**	**5,278**	**5,432**	**5,578**
Less:											
Uncommitted Energy Efficiency	0	0	0	30	86	137	182	223	280	342	405
Self-Served Load (DG)	6	8	10	12	14	16	18	20	22	24	26
Peak Load (50/50)	**4,276**	**4,372**	**4,468**	**4,557**	**4,639**	**4,721**	**4,806**	**4,889**	**4,976**	**5,066**	**5,148**
Less DRP:											
BIP	6	6	6	6	6	6	6	6	6	6	6
Clean Backup	25	25	25	25	25	25	25	25	25	25	25
DLC	20	31	31	31	31	31	31	31	31	31	31
RBRP	24	24	24	24	24	24	24	24	24	24	24
Smart Thermostat	0	0	0	0	0	0	0	0	0	0	0
DRP Subtotal:	75	86	86	86	86	86	86	86	86	86	86
Uncommitted Price Sensitive (2)	147	188	192	196	200	204	208	212	216	220	224
DRP Total:	222	274	278	282	286	290	294	298	302	306	310
Net Demand (50/50)	**4,054**	**4,098**	**4,190**	**4,275**	**4,353**	**4,431**	**4,512**	**4,591**	**4,674**	**4,7608**	**4,838**

B. Energy Efficiency

In D.04-09-060 the CPUC established goals for electricity and natural gas energy efficiency savings for the four largest IOUs, including SDG&E. This decision adopted annual and cumulative goals for energy savings and demand reductions for 2006 through 2013, as shown below. For projecting beyond 2013, SDG&E has estimated future energy efficiency savings based on the trend reflected by past energy efficiency activities.

D.04-09-060 requires the California IOUs to reflect in their resource acquisition and procurement plans full recognition of the aggressive energy savings goals that were adopted (see D.04-09-060 at Ordering Paragraph 6). Accordingly, SDG&E's demand forecast includes the projected energy savings and demand reduction impacts as follows:

SDG&E Electricity Savings Goals for Energy Efficiency

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Total Annual Savings Goal (GWh/yr)	268.4	268.4	280.5	285.1	284.4	282.3	273.6	262.5	221.7	214.9
Total Cumulative Savings Goal (GWh/yr)	268.0	536.8	817.3	1102.4	1386.8	1669.1	1942.7	2205.2	2426.9	2641.8
Annual Peak Savings Goal (MW/yr)	50.4	50.3	54.6	54.2	54.0	53.6	52.0	49.9	42.1	40.8
Cumulative Peak Savings Goal (MW)	50.4	100.7	155.3	209.5	263.5	317.1	369.1	419.0	461.1	501.9
Annual Uncommitted Energy Efficiency (2009-2013)—(3), (4)	0.0	0.0	0.0	0.0	0.0	30.0	56.0	51.0	45.0	41.0
Cumulative Uncommitted Energy Efficiency (2009-2013)—(3), (4)	0.0	0.0	0.0	0.0	0.0	30.0	86.0	137.0	182.0	223.0

(1) Total savings = all savings from energy efficiency programs funded by public goods charge and procurement funding. This total includes savings from energy efficiency programs already in the CEC's demand forecast.

(2) MW savings derived by multiplying GWh Savings by 0.19, the average value GWh to peak savings for 2004/2005 applications. This is an estimate of average peak savings during all the peak hours; = GWh savings in peak period/560 hours in period.

(3) The CPUC's goals are annual goals that SDG&E assumed will be installed by the end of each program year. However, for resource planning purposes, SDG&E assumed that only a portion of the expected annual MW will be installed in time to impact each year's summer demand.

(4) Program years with CPUC-approved budgets are considered "committed". Program years 2006-2008 are currently part of the committed energy efficiency resources as the budgets were approved in D.05-09-043. Future program years, 2009 onwards are considered uncommitted.

The energy efficiency goals adopted specifically for SDG&E are very aggressive.

This was articulated by the Commission as follows:

> "[W]e adopt a cumulative GWh savings goal for SDG&E that is somewhat higher than the maximum achievable potential presented in the disaggregated study for SDG&E's service territory, but that does not increase the numbers above the maximum achievable potential for all three electric IOUs combined. As a result, our adjustments result in an adopted trajectory of GWh savings goals for SDG&E that is 118% of the cumulative maximum achievable potential presented in the disaggregated Secret Energy Surplus Study, whereas the adopted GWh savings goals for PG&E and SCE are more on the order of 88% the cumulative maximum achievable potential presented in that study." (D.04-09-060, at p.27)

Clearly, achieving this level of energy efficiency savings will be quite challenging but SDG&E is fully committed to this essential effort. Given the level of these assumed future savings, however, SDG&E does not believe it is wise to plan on the assumption that significantly more energy efficiency savings could be realistically achieved as an alternative to the Sunrise Powerlink transmission project. Moreover, it is quite likely that when the CPUC updates its energy savings goals for the next program cycle (2009-2011), it will moderate its expectations and reduce SDG&E's goals to be more consistent with future energy efficiency potential study estimates for the SDG&E service area. These studies will be conducted jointly by the CPUC and CEC within the next two years.

C. Demand Response

Demand response offers an alternative to maintaining system reliability through capacity additions by providing customers opportunities to participate in demand-side management while seeking to limit the impact on their operations. The various type of demand response programs are discussed below.

It should be noted that demand response effects are not considered by the CAISO when applying its G-1/N-1 reliability criteria. The CAISO has expressed uncertainty over whether these programs would be triggered during the period of time covered by the G-1/N-1 contingencies that form the basis for application of its reliability criteria. As a result, only some of the demand response programs and impacts discussed below are reflected in the reliability or economics assessment presented by SDG&E in support of the Sunrise Powerlink. These assumed demand reductions are significant. Moreover, it should be noted that although demand response can make an important contribution to meeting system reliability requirements, demand response programs generally have

operational characteristics that limit their availability during many hours of the year. As a result, other sources of reliability support—such as enhanced import capability and/or additional in-area generating resources—are still needed.

Demand response programs are designed to target the top 80-100 hours of the year when energy costs are at its highest. However, to meet customer expectations and help to minimize the impact on business operations, demand response programs have requirements that limit how often and/or when they can be called. Most notably, some programs have a maximum number of hours per week, month and year that they can be called. Additionally, some programs can only operate during the summer months and many are restricted to weekdays only. This limitation restricts when and how often SDG&E can call on these resources.

Generally, demand response is categorized into two types: "price-triggered" and "reliability-triggered" programs. D.05-01-056 further defines "price-triggered" programs as those that are called a day ahead while "reliability-triggered" programs "are called on a shorter time frame, the day of, hour of, or as late as 15 minutes before, being needed." [1] Although most demand response is divided into the categories of Day-Ahead and Day-Of programs, SDG&E further divides Day-of programs to include dispatchable programs and non-dispatchable programs. Dispatchable program resources meet two important criteria. They can be dispatched within 10-minutes notice and controlled by the utility.

1. <u>Resource Adequacy: Day-Ahead Programs</u>

Day-Ahead programs are typically triggered based on weather and system forecasts. They can also be triggered when the CAISO calls a Stage Alert or the utility's

[1] D. 05-01-056. mimeo at p.5.

control area is faced with system constraints. SDG&E has included in its planning the annual demand response targets as established by the Commission[2]. These programs meet Resource Adequacy requirements and, for purposes of this analysis, their potential impact is included as a reduction to the peak load that would otherwise have to be met with generating resources. Accordingly, this particular demand response effect is also included in the economic dispatch assessment performed by SDG&E.

2. Reliability-Must-Run: Day-Of Programs

Day-Of programs are initiated when the CAISO declares a Warning or Stage Emergency or when the utility's control area is facing system constraints. These programs can be dispatched immediately, as described below for Dispatchable Programs, or they may require the utilities to notify customers as much as three hours in advance.

SDG&E also has available its Peak Generation (Rolling Blackout Reduction) program. This program is unique to San Diego and offers customers the opportunity to operate back-up generation in an effort to minimize rolling blackouts. Although 24 MW in reduction from the grid is available through this program, this amount is excluded from reliability planning resources because the program is triggered when the CAISO calls a Stage 3 emergency and firm curtailment is imminent.

3. Grid Reliability: Dispatchable Programs

In 2003, SDG&E recognized that as a result of continued customer growth on its system, there would be a deficiency in grid reliability as early as 2005. D.04-06-011 authorized SDG&E to finalize agreements with two demand response providers. These

[2] D. 03-06-032 established a target of 5% of annual system peak demand by 2007. mimeo at p. 9.

projects are expected to grow over time and will be able to provide up to 56 MW of additional reliability-based demand reductions by 2007.

D. Self-Served Load

Self-served load and distributed generation ("DG") include certain renewable generation resources, such as wind and solar photovoltaic systems, and non-renewable generation resources, such as fossil-fueled combined heat and power ("CHP") and microturbine systems. DG systems range in size and type and typically include residential applications that are less than 5 kW and commercial and smaller industrial applications from 30 kW to 5 MW. DG installation is supported through a number of programs including the CPUC's Self-Generation Incentive Program ("SGIP") and the CEC's Emerging Renewables Program ("ERP")

Self-generation and DG resources reduce the peak demand that would otherwise have to be served by generation delivered over the SDG&E transmission system. As a result, projected impacts are incorporated as a reduction to the demand forecast.

SDG&E developed a forecast of new self-served load and DG as part of its July 2004 Long-Term Resource Plan.[3] This forecast was based on historical information collected from existing installations and includes reasonable assumptions concerning the likely expansion of the various self-generation and DG technologies across the SDG&E system over time. The input used in the forecast is as follows:

(MW)	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Self-Served Load – DG	6	8	10	12	14	16	18	20	22	24	26

[3] R.04-04-003, See Direct Testimony of Thomas O. Bialek, July 9, 2004.

E. Larger Generation

The RMR cost savings analysis presented in this chapter uses as input, with certain exceptions, the in-area resources the CAISO has historically relied upon during the G-1/N-1 event that is the precursor to the subsequent outage condition the CAISO uses to evaluate the San Diego area transmission system performance under adverse weather conditions**.** To determine the quantity of *existing* in-area resources that can be relied upon for meeting the CAISO's reliability criteria, SDG&E has typically used the CAISO's determination of available capacity within the San Diego area for purposes of establishing RMR contract requirements. The available capacity is generally based on the amount of energy which was actually generated by each resource during historical peak load periods. Existing in-area resources include all existing resources regardless of ownership or contractual arrangements.

For *future* in-area resource additions, SDG&E has included only those resources for which there are firm commitments to build the new capacity. The one exception to this is the capacity of the 50 MW Kumeyaay Wind Project, whose construction in eastern San Diego County is now nearing completion. This project is not included because the CAISO has been not been willing to count wind capacity for purposes of satisfying its G-1/N-1 reliability requirement absent historical evidence that some portion of wind capability can be relied upon during peak periods.

In summary, the major generation resource assumptions are shown below.

- Palomar provides 541 MW beginning in 2006 and each year thereafter.
- Otay Mesa provides 561 MW beginning in 2008 and each year thereafter.
- Miramar provides 46 MW each year.

- SDG&E area QFs and renewable resources provide 174 MW in total each year.
- Total San Diego area DWR contracts provide a total of 126 MW through 2010 and these facilities continue at this level as merchant units thereafter.
- Encina provides a total of 960 MW each year.
- South Bay provides a total of 702 MW through 2009 but retires by 2010.
- San Diego area generation is projected to increase from 2,273 MW in 2005 to 2,837 MW in 2016, an increase of 564 MW or 25%.

This concludes this discussion.

Table V-1

Effective Generating Capacity Used to Estimate San Diego Area RMR Requirements With Sunrise Powerlink (Assuming No New In-Area Generation) For the Month of August

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
SDG&E Area Utility-Owned Resources												
subtotal Palomar Combined Cycle	0.0	541.0	541.0	541.0	541.0	541.0	541.0	541.0	541.0	541.0	541.0	541.0
SDGE Miramar GT	46.0	46.0	46.0	46.0	46.0	46.0	46.0	46.0	46.0	46.0	46.0	46.0
Total SDG&E Area Utility-Owned Resources	**46.0**	**587.0**	**587.0**	**587.0**	**587.0**	**587.0**	**587.0**	**587.0**	**587.0**	**587.0**	**587.0**	**587.0**
SDG&E Area Existing Bilateral Contracts												
subtotal SDG&E Area QFs	**186.0**	**186.0**	**186.0**	**186.0**	**186.0**	**186.0**	**186.0**	**186.0**	**186.0**	**186.0**	**186.0**	**186.0**
Envirepel (Biomass)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Subtotal Otay Mesa Combined Cycle	0.0	0.0	0.0	561.0	561.0	561.0	561.0	561.0	561.0	561.0	561.0	561.0
Lake Hodges Pump Storage Hydro Plant	0.0	0.0	0.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0
Total SDG&E Area Existing Bilateral Contracts	**186.0**	**186.0**	**186.0**	**787.0**	**787.0**	**787.0**	**787.0**	**787.0**	**787.0**	**787.0**	**787.0**	**787.0**
San Diego Area DWR Contracts												
Calpeak Border	42.0	42.0	42.0	42.0	42.0	42.0	42.0	0.0	0.0	0.0	0.0	0.0
Calpeak El Cajon	42.0	42.0	42.0	42.0	42.0	42.0	42.0	0.0	0.0	0.0	0.0	0.0
Calpeak Escondido (Enterprise)	42.0	42.0	42.0	42.0	42.0	42.0	42.0	0.0	0.0	0.0	0.0	0.0
Total San Diego Area DWR Contracts	**126.0**	**126.0**	**126.0**	**126.0**	**126.0**	**126.0**	**126.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**

New Capacity - Inside San Diego Area												
Local Generation (CC)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Local Generation (CT)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Capacity - Inside San Diego	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
Merchant Units												
Calpeak Border	0.0	0.0	0.0	0.0	0.0	0.0	0.0	42.0	42.0	42.0	42.0	42.0
Calpeak El Cajon	0.0	0.0	0.0	0.0	0.0	0.0	0.0	42.0	42.0	42.0	42.0	42.0
Calpeak Escondido (Enterprise)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	42.0	42.0	42.0	42.0	42.0
Electrovest (Otay)	0.0	42.0	42.0	42.0	42.0	42.0	42.0	42.0	42.0	42.0	42.0	42.0
Elctrovest (Escondido)	0.0	42.0	42.0	42.0	42.0	42.0	42.0	42.0	42.0	42.0	42.0	42.0
El Cajon GT	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0
Encina 1	106.0	106.0	106.0	106.0	106.0	106.0	106.0	106.0	106.0	106.0	106.0	106.0
Encina 2	103.0	103.0	103.0	103.0	103.0	103.0	103.0	103.0	103.0	103.0	103.0	103.0
Encina 3	109.0	109.0	109.0	109.0	109.0	109.0	109.0	109.0	109.0	109.0	109.0	109.0
Encina 4	299.0	299.0	299.0	299.0	299.0	299.0	299.0	299.0	299.0	299.0	299.0	299.0
Encina 5	329.0	329.0	329.0	329.0	329.0	329.0	329.0	329.0	329.0	329.0	329.0	329.0
Encina GT	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0
Kearny GT 1	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0
Kearny 2A (Kearny GT2)	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0
Kearny 2B (Kearny GT2)	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0
Kearny 2C (Kearny GT2)	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0
Kearny 2D (Kearny GT2)	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0
Kearny 3A (Kearny GT3)	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0
Kearny 3B (Kearny GT3)	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0
Kearny 3C (Kearny GT3)	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0
Kearny 3D (Kearny GT3)	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0
Larkspur Border 1	46.0	46.0	46.0	46.0	46.0	46.0	46.0	46.0	46.0	46.0	46.0	46.0
Larkspur Border 2	46.0	46.0	46.0	46.0	46.0	46.0	46.0	46.0	46.0	46.0	46.0	46.0
Miramar GT 1A	17.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0
Miramar GT 1B	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0
South Bay 1	145.0	145.0	145.0	145.0	145.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
South Bay 2	149.0	149.0	149.0	149.0	149.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
South Bay 3	174.0	174.0	174.0	174.0	174.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
South Bay 4	221.0	221.0	221.0	221.0	221.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
South Bay GT	13.0	13.0	13.0	13.0	13.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Total Merchant Capacity	**1927.0**	**2011.0**	**2011.0**	**2011.0**	**2011.0**	**1309.0**	**1309.0**	**1435.0**	**1435.0**	**1435.0**	**1435.0**	**1435.0**
Total San Diego Area Capacity	**2285.0**	**2910.0**	**2910.0**	**3511.0**	**3511.0**	**2809.0**	**2809.0**	**2809.0**	**2809.0**	**2809.0**	**2809.0**	**2809.0**
N-1 Import Capability	**2500**	**2500**	**2500**	**2500**	**2500**	**3500**	**3500**	**3500**	**3500**	**3500**	**3500**	**3500**
San Diego Area Peak Demand												
Forecast Total Peak Demand (80/20) (3)		4,513	4,618	4,723	4,850	4,995	5,137	5,275	5,406	5,559	5,720	5,871
Less:												
Uncommitted Energy Efficiency (2009-2016) (2)		0	0	0	30	86	137	182	223	280	342	405
Distributed Generation		6	8	10	12	14	16	18	20	22	24	26
Peak Load (80/20)		**4507**	**4610**	**4713**	**4808**	**4895**	**4984**	**5074**	**5163**	**5257**	**5354**	**5441**
Less:												
Demand Reduction Items												
BIP												
Clean Backup Generation												
DLC												
RBRP												
Smart Thermostat												
Subtotal of Demand Reduction Items		**29.0**	**58.0**	**58.0**	**58.0**	**58.0**	**58.0**	**58.0**	**58.0**	**58.0**	**58.0**	**58.0**
Uncommitted Price Sensitive DR Programs (2)		0	0	0	0	0	0	0	0	0	0	0
Total of Demand Reduction Items		**29**	**58**	**58**	**58**	**58**	**58**	**58**	**58**	**58**	**58**	**58**
Net Peak Demand (80/20)	4058	4478.0	4552.0	4655.0	4750.0	4837.0	4926.0	5016.0	5105.0	5199.0	5296.0	5383.0

Extracted From WithOtayMesa10414
(1) "LTRP 2005_Compliance Case.xls" ("System Peak")
(2) Assumes impacts are limited to SDG&E's bundled customers.
(3) "Supply Form S-1 Compliance Case.xls"
(4) Reflects a 64% discount from installed capacity to reflect wind variability.

Table V-2

PROJECTED RMR CONTRACTS IN YELLOW	Determination of San Diego Area RMR Contract Requirements With Sunrise Powerlink (Assuming No New In-area Generation) For the Month of August											
	2005	**2006**	**2007**	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**
SDG&E Area Utility-Owned Resources												
subtotal Palomar Combined Cycle	0.0	541.0	541.0	541.0	541.0	541.0	541.0	541.0	541.0	541.0	541.0	541.0
SDGE Miramar GT	46.0	46.0	46.0	46.0	46.0	46.0	46.0	46.0	46.0	46.0	46.0	46.0
Total SDG&E Area Utility-Owned Resources	**46.0**	**587.0**	**587.0**	**587.0**	**587.0**	**587.0**	**587.0**	**587.0**	**587.0**	**587.0**	**587.0**	**587.0**
SDG&E Area Existing Bilateral Contracts												
subtotal SDG&E Area small Renewable Contracts												
subtotal SDG&E Area QFs	**186.0**	**186.0**	**186.0**	**186.0**	**186.0**	**186.0**	**186.0**	**186.0**	**186.0**	**186.0**	**186.0**	**186.0**
Envirepel (Biomass)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
subtotal Otay Mesa Combined Cycle	0.0	0.0	0.0	561.0	561.0	561.0	561.0	561.0	561.0	561.0	561.0	561.0
Lake Hodges Pump Storage Hydro Plant	0.0	0.0	0.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0
Total SDG&E Area Existing Bilateral Contracts	**186.0**	**186.0**	**186.0**	**787.0**	**787.0**	**787.0**	**787.0**	**787.0**	**787.0**	**787.0**	**787.0**	**787.0**
San Diego Area DWR Contracts												
Calpeak Border	42.0	42.0	42.0	42.0	42.0	42.0	42.0	0.0	0.0	0.0	0.0	0.0
Calpeak El Cajon	42.0	42.0	42.0	42.0	42.0	42.0	42.0	0.0	0.0	0.0	0.0	0.0
Calpeak Escondido (Enterprise)	42.0	42.0	42.0	42.0	42.0	42.0	42.0	0.0	0.0	0.0	0.0	0.0
Total San Diego Area DWR Contracts	**126.0**	**126.0**	**126.0**	**126.0**	**126.0**	**126.0**	**126.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
New Capacity - Inside San Diego Area												
Local Generation (CC)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Local Generation (CT)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Capacity - Inside San Diego	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**

Merchant Units												
Calpeak Border	0.0	0.0	0.0	0.0	0.0	0.0	0.0	42.0	42.0	42.0	42.0	42.0
Calpeak El Cajon	0.0	0.0	0.0	0.0	0.0	0.0	0.0	42.0	42.0	42.0	42.0	42.0
Calpeak Escondido (Enterprise)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	42.0	42.0	42.0	42.0	42.0
Electrovest (Otay)	0.0	42.0	42.0	42.0	42.0	42.0	42.0	42.0	42.0	42.0	42.0	42.0
Elctrovest (Escondido)	0.0	42.0	42.0	42.0	42.0	42.0	42.0	42.0	42.0	42.0	42.0	42.0
El Cajon GT	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0
Encina 1	106.0	106.0	106.0	106.0	106.0	0.0	106.0	0.0	106.0	0.0	0.0	106.0
Encina 2	103.0	103.0	103.0	103.0	103.0	103.0	103.0	103.0	103.0	0.0	103.0	103.0
Encina 3	109.0	109.0	109.0	0.0	109.0	0.0	0.0	109.0	109.0	109.0	109.0	109.0
Encina 4	299.0	0.0	299.0	299.0	299.0	0.0	0.0	0.0	0.0	299.0	299.0	299.0
Encina 5	329.0	329.0	329.0	329.0	329.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Encina GT	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0
Kearny GT 1	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0
Kearny 2A (Kearny GT2)	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0
Kearny 2B (Kearny GT2)	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0
Kearny 2C (Kearny GT2)	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0
Kearny 2D (Kearny GT2)	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0
Kearny 3A (Kearny GT3)	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0
Kearny 3B (Kearny GT3)	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0
Kearny 3C (Kearny GT3)	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0
Kearny 3D (Kearny GT3)	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0
Larkspur Border 1	0.0	0.0	46.0	46.0	46.0	46.0	46.0	46.0	46.0	46.0	46.0	46.0
Larkspur Border 2	0.0	0.0	46.0	46.0	46.0	46.0	46.0	46.0	46.0	46.0	46.0	46.0
Miramar GT 1A	17.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0
Miramar GT 1B	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0
South Bay 1	145.0	145.0	145.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
South Bay 2	149.0	149.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
South Bay 3	174.0	174.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
South Bay 4	221.0	221.0	221.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
South Bay GT	13.0	13.0	13.0	13.0	13.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Merchant Capacity	**1835.0**	**1620.0**	**1688.0**	**1213.0**	**1322.0**	**466.0**	**572.0**	**701.0**	**807.0**	**897.0**	**1000.0**	**1106.0**
Total San Diego Area Capacity	**2193.0**	**2519.0**	**2587.0**	**2713.0**	**2822.0**	**1966.0**	**2072.0**	**2075.0**	**2181.0**	**2271.0**	**2374.0**	**2480.0**
Less:												
"G-1" Generation	329.0	541.0	541.0	561.0	561.0	561.0	561.0	561.0	561.0	561.0	561.0	561.0
Total San Diego Area Capacity after G-1	**1864.0**	**1978.0**	**2046.0**	**2152.0**	**2261.0**	**1405.0**	**1511.0**	**1514.0**	**1620.0**	**1710.0**	**1813.0**	**1919.0**
"N-1" Import Capability	**2500**	**2500**	**2500**	**2500**	**2500**	**3500**	**3500**	**3500**	**3500**	**3500**	**3500**	**3500**
Combined In-Area Generation Capability + "N-1" Import Capability	**4364.0**	**4478.0**	**4546.0**	**4652.0**	**4761.0**	**4905.0**	**5011.0**	**5014.0**	**5120.0**	**5210.0**	**5313.0**	**5419.0**

San Diego Area Peak Demand												
Forecast Total Peak Demand (80/20) (3)		4,513	4,618	4,723	4,850	4,995	5,137	5,275	5,406	5,559	5,720	5,871
Less:												
Uncommitted Energy Efficiency (2009-2016) (2)		0	0	0	30	86	137	182	223	280	342	405
Distributed Generation		6	8	10	12	14	16	18	20	22	24	26
Peak Load (80/20)		**4507**	**4610**	**4713**	**4808**	**4895**	**4984**	**5074**	**5163**	**5257**	**5354**	**5441**
Less:												
Subtotal of Demand Reduction Items		**29.0**	**58.0**	**58.0**	**58.0**	**58.0**	**58.0**	**58.0**	**58.0**	**58.0**	**58.0**	**58.0**
Uncommitted Price Sensitive DR Programs (2)		0	0	0	0	0	0	0	0	0	0	0
Total of Demand Reduction Items		**29**	**58**	**58**	**58**	**58**	**58**	**58**	**58**	**58**	**58**	**58**
Net Peak Demand (80/20)	4058	4478.0	4552.0	4655.0	4750.0	4837.0	4926.0	5016.0	5105.0	5199.0	5296.0	5383.0
Surplus of Combined Capability over Net Peak Demand (80/20)	**306**	**0**	**(6)**	**(3)**	**11**	**68**	**85**	**(2)**	**15**	**11**	**17**	**36**

Extracted From WithOtayMesa10414
(1) "LTRP 2005_Compliance Case.xls" ("System Peak")
(2) Assumes impacts are limited to SDG&E's bundled customers.
(3) "Supply Form S-1 Compliance Case.xls"

Table V-3(a)

PROJECTED RMR CONTRACTS IN YELLOW	Determination of San Diego Area RMR Contract Requirements Without Sunrise Powerlink (Assuming New In-Area Generation) For the Month of August											
	2005	**2006**	**2007**	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**
SDG&E Area Utility-Owned Resources												
subtotal Palomar Combined Cycle	0.0	541.0	541.0	541.0	541.0	541.0	541.0	541.0	541.0	541.0	541.0	541.0
SDGE Miramar GT	46.0	46.0	46.0	46.0	46.0	46.0	46.0	46.0	46.0	46.0	46.0	46.0
Total SDG&E Area Utility-Owned Resources	**46.0**	**587.0**	**587.0**	**587.0**	**587.0**	**587.0**	**587.0**	**587.0**	**587.0**	**587.0**	**587.0**	**587.0**
SDG&E Area Existing Bilateral Contracts												
subtotal SDG&E Area small Renewable Contracts												
subtotal SDG&E Area QFs	**186.0**	**186.0**	**186.0**	**186.0**	**186.0**	**186.0**	**186.0**	**186.0**	**186.0**	**186.0**	**186.0**	**186.0**
Envirepel (Biomass)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
subtotal Otay Mesa Combined Cycle	0.0	0.0	0.0	561.0	561.0	561.0	561.0	561.0	561.0	561.0	561.0	561.0
Lake Hodges Pump Storage Hydro Plant	0.0	0.0	0.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0
Total SDG&E Area Existing Bilateral Contracts	**186.0**	**186.0**	**186.0**	**787.0**	**787.0**	**787.0**	**787.0**	**787.0**	**787.0**	**787.0**	**787.0**	**787.0**
San Diego Area DWR Contracts												
Calpeak Border	42.0	42.0	42.0	42.0	42.0	42.0	42.0	0.0	0.0	0.0	0.0	0.0
Calpeak El Cajon	42.0	42.0	42.0	42.0	42.0	42.0	42.0	0.0	0.0	0.0	0.0	0.0
Calpeak Escondido (Enterprise)	42.0	42.0	42.0	42.0	42.0	42.0	42.0	0.0	0.0	0.0	0.0	0.0
Total San Diego Area DWR Contracts	**126.0**	**126.0**	**126.0**	**126.0**	**126.0**	**126.0**	**126.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
New Capacity - Inside San Diego Area												
Local Generation (CC)	0.0	0.0	0.0	0.0	0.0	1000.0	1000.0	1000.0	1000.0	1000.0	1000.0	1000.0
Local Generation (CT)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Capacity - Inside San Diego	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**1000.0**	**1000.0**	**1000.0**	**1000.0**	**1000.0**	**1000.0**	**1000.0**

Merchant Units												
Calpeak Border	0.0	0.0	0.0	0.0	0.0	0.0	0.0	42.0	42.0	42.0	42.0	42.0
Calpeak El Cajon	0.0	0.0	0.0	0.0	0.0	0.0	0.0	42.0	42.0	42.0	42.0	42.0
Calpeak Escondido (Enterprise)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	42.0	42.0	42.0	42.0	42.0
Electrovest (Otay)	0.0	42.0	42.0	42.0	42.0	42.0	42.0	42.0	42.0	42.0	42.0	42.0
Elctrovest (Escondido)	0.0	42.0	42.0	42.0	42.0	42.0	42.0	42.0	42.0	42.0	42.0	42.0
El Cajon GT	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0
Encina 1	106.0	106.0	106.0	106.0	106.0	0.0	106.0	0.0	106.0	0.0	0.0	106.0
Encina 2	103.0	103.0	103.0	103.0	103.0	103.0	103.0	103.0	103.0	0.0	103.0	103.0
Encina 3	109.0	109.0	109.0	0.0	109.0	0.0	0.0	109.0	109.0	109.0	109.0	109.0
Encina 4	299.0	0.0	299.0	299.0	299.0	0.0	0.0	0.0	0.0	299.0	299.0	299.0
Encina 5	329.0	329.0	329.0	329.0	329.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Encina GT	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0
Kearny GT 1	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0
Kearny 2A (Kearny GT2)	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0
Kearny 2B (Kearny GT2)	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0
Kearny 2C (Kearny GT2)	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0
Kearny 2D (Kearny GT2)	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0
Kearny 3A (Kearny GT3)	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0
Kearny 3B (Kearny GT3)	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0
Kearny 3C (Kearny GT3)	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0
Kearny 3D (Kearny GT3)	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0
Larkspur Border 1	0.0	0.0	46.0	46.0	46.0	46.0	46.0	46.0	46.0	46.0	46.0	46.0
Larkspur Border 2	0.0	0.0	46.0	46.0	46.0	46.0	46.0	46.0	46.0	46.0	46.0	46.0
Miramar GT 1A	17.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0
Miramar GT 1B	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0
South Bay 1	145.0	145.0	145.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
South Bay 2	149.0	149.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
South Bay 3	174.0	174.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
South Bay 4	221.0	221.0	221.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
South Bay GT	13.0	13.0	13.0	13.0	13.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Merchant Capacity	**1835.0**	**1620.0**	**1688.0**	**1213.0**	**1322.0**	**466.0**	**572.0**	**701.0**	**807.0**	**897.0**	**1000.0**	**1106.0**
Total San Diego Area Capacity	**2193.0**	**2519.0**	**2587.0**	**2713.0**	**2822.0**	**2966.0**	**3072.0**	**3075.0**	**3181.0**	**3271.0**	**3374.0**	**3480.0**
Less:												
"G-1" Generation	329.0	541.0	541.0	561.0	561.0	561.0	561.0	561.0	561.0	561.0	561.0	561.0
Total San Diego Area Capacity after G-1	**1864.0**	**1978.0**	**2046.0**	**2152.0**	**2261.0**	**2405.0**	**2511.0**	**2514.0**	**2620.0**	**2710.0**	**2813.0**	**2919.0**
"N-1" Import Capability	**2500**	**2500**	**2500**	**2500**	**2500**	**2500**	**2500**	**2500**	**2500**	**2500**	**2500**	**2500**
Combined In-Area Generation Capability + "N-1" Import Capability	**4364.0**	**4478.0**	**4546.0**	**4652.0**	**4761.0**	**4905.0**	**5011.0**	**5014.0**	**5120.0**	**5210.0**	**5313.0**	**5419.0**

San Diego Area Peak Demand												
Forecast Total Peak Demand (80/20) (3)		4,513	4,618	4,723	4,850	4,995	5,137	5,275	5,406	5,559	5,720	5,871
Less:												
Uncommitted Energy Efficiency (2009-2016) (2)		0	0	0	30	86	137	182	223	280	342	405
Distributed Generation		6	8	10	12	14	16	18	20	22	24	26
Peak Load (80/20)		**4507**	**4610**	**4713**	**4808**	**4895**	**4984**	**5074**	**5163**	**5257**	**5354**	**5441**
Less:												
Subtotal of Demand Reduction Items		**29.0**	**58.0**	**58.0**	**58.0**	**58.0**	**58.0**	**58.0**	**58.0**	**58.0**	**58.0**	**58.0**
Uncommitted Price Sensitive DR Programs (2)		0	0	0	0	0	0	0	0	0	0	0
Total of Demand Reduction Items		**29**	**58**	**58**	**58**	**58**	**58**	**58**	**58**	**58**	**58**	**58**
Net Peak Demand (80/20)	4058	4478.0	4552.0	4655.0	4750.0	4837.0	4926.0	5016.0	5105.0	5199.0	5296.0	5383.0
Surplus of Combined Capability over Net Peak Demand (80/20)	**306**	**0**	**(6)**	**(3)**	**11**	**68**	**85**	**(2)**	**15**	**11**	**17**	**36**

Extracted From WithOtayMesa10414
(1) "LTRP 2005_Compliance Case.xls" ("System Peak")
(2) Assumes impacts are limited to SDG&E's bundled customers.
(3) "Supply Form S-1 Compliance Case.xls"

Table V-3(b)

PROJECTED RMR CONTRACTS IN YELLOW	Determination of San Diego Area RMR Contract Requirements Without Sunrise Powerlink (Assuming No New In-Area Generation) for the Month of August											
	2005	**2006**	**2007**	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**
SDG&E Area Utility-Owned Resources												
subtotal Palomar Combined Cycle	0.0	541.0	541.0	541.0	541.0	541.0	541.0	541.0	541.0	541.0	541.0	541.0
SDGE Miramar GT	46.0	46.0	46.0	46.0	46.0	46.0	46.0	46.0	46.0	46.0	46.0	46.0
Total SDG&E Area Utility-Owned Resources	**46.0**	**587.0**	**587.0**	**587.0**	**587.0**	**587.0**	**587.0**	**587.0**	**587.0**	**587.0**	**587.0**	**587.0**
SDG&E Area Existing Bilateral Contracts												
subtotal SDG&E Area small Renewable Contracts												
subtotal SDG&E Area QFs	**186.0**	**186.0**	**186.0**	**186.0**	**186.0**	**186.0**	**186.0**	**186.0**	**186.0**	**186.0**	**186.0**	**186.0**
Envirepel (Biomass)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
subtotal Otay Mesa Combined Cycle	0.0	0.0	0.0	561.0	561.0	561.0	561.0	561.0	561.0	561.0	561.0	561.0
Lake Hodges Pump Storage Hydro Plant	0.0	0.0	0.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0
Total SDG&E Area Existing Bilateral Contracts	**186.0**	**186.0**	**186.0**	**787.0**	**787.0**	**787.0**	**787.0**	**787.0**	**787.0**	**787.0**	**787.0**	**787.0**
San Diego Area DWR Contracts												
Calpeak Border	42.0	42.0	42.0	42.0	42.0	42.0	42.0	0.0	0.0	0.0	0.0	0.0
Calpeak El Cajon	42.0	42.0	42.0	42.0	42.0	42.0	42.0	0.0	0.0	0.0	0.0	0.0
Calpeak Escondido (Enterprise)	42.0	42.0	42.0	42.0	42.0	42.0	42.0	0.0	0.0	0.0	0.0	0.0
Total San Diego Area DWR Contracts	**126.0**	**126.0**	**126.0**	**126.0**	**126.0**	**126.0**	**126.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
New Capacity - Inside San Diego Area												
Local Generation (CC)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Local Generation (CT)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Capacity - Inside San Diego	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
Merchant Units												

Calpeak Border	0.0	0.0	0.0	0.0	0.0	0.0	0.0	42.0	42.0	42.0	42.0	42.0
Calpeak El Cajon	0.0	0.0	0.0	0.0	0.0	0.0	0.0	42.0	42.0	42.0	42.0	42.0
Calpeak Escondido (Enterprise)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	42.0	42.0	42.0	42.0	42.0
Electrovest (Otay)	0.0	42.0	42.0	42.0	42.0	42.0	42.0	42.0	42.0	42.0	42.0	42.0
Elctrovest (Escondido)	0.0	42.0	42.0	42.0	42.0	42.0	42.0	42.0	42.0	42.0	42.0	42.0
El Cajon GT	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0
Encina 1	106.0	106.0	106.0	106.0	106.0	106.0	106.0	106.0	106.0	106.0	106.0	106.0
Encina 2	103.0	103.0	103.0	103.0	103.0	103.0	103.0	103.0	103.0	103.0	103.0	103.0
Encina 3	109.0	109.0	109.0	0.0	109.0	109.0	109.0	109.0	109.0	109.0	109.0	109.0
Encina 4	299.0	0.0	299.0	299.0	299.0	299.0	299.0	299.0	299.0	299.0	299.0	299.0
Encina 5	329.0	329.0	329.0	329.0	329.0	329.0	329.0	329.0	329.0	329.0	329.0	329.0
Encina GT	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0
Kearny GT 1	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0
Kearny 2A (Kearny GT2)	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0
Kearny 2B (Kearny GT2)	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0
Kearny 2C (Kearny GT2)	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0
Kearny 2D (Kearny GT2)	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0
Kearny 3A (Kearny GT3)	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0
Kearny 3B (Kearny GT3)	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0
Kearny 3C (Kearny GT3)	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0
Kearny 3D (Kearny GT3)	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0
Larkspur Border 1	0.0	0.0	46.0	46.0	46.0	46.0	46.0	46.0	46.0	46.0	46.0	46.0
Larkspur Border 2	0.0	0.0	46.0	46.0	46.0	46.0	46.0	46.0	46.0	46.0	46.0	46.0
Miramar GT 1A	17.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0
Miramar GT 1B	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0
South Bay 1	145.0	145.0	145.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
South Bay 2	149.0	149.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
South Bay 3	174.0	174.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
South Bay 4	221.0	221.0	221.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
South Bay GT	13.0	13.0	13.0	13.0	13.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Merchant Capacity	**1835.0**	**1620.0**	**1688.0**	**1213.0**	**1322.0**	**1309.0**	**1309.0**	**1435.0**	**1435.0**	**1435.0**	**1435.0**	**1435.0**
Total San Diego Area Capacity	**2193.0**	**2519.0**	**2587.0**	**2713.0**	**2822.0**	**2809.0**	**2809.0**	**2809.0**	**2809.0**	**2809.0**	**2809.0**	**2809.0**
Less:												
"G-1" Generation	329.0	541.0	541.0	561.0	561.0	561.0	561.0	561.0	561.0	561.0	561.0	561.0
Total San Diego Area Capacity after G-1	**1864.0**	**1978.0**	**2046.0**	**2152.0**	**2261.0**	**2248.0**	**2248.0**	**2248.0**	**2248.0**	**2248.0**	**2248.0**	**2248.0**
"N-1" Import Capability	**2500**	**2500**	**2500**	**2500**	**2500**	**2500**	**2500**	**2500**	**2500**	**2500**	**2500**	**2500**
Combined In-Area Generation Capability + "N-1" Import Capability	**4364.0**	**4478.0**	**4546.0**	**4652.0**	**4761.0**	**4748.0**	**4748.0**	**4748.0**	**4748.0**	**4748.0**	**4748.0**	**4748.0**

San Diego Area Peak Demand												
Forecast Total Peak Demand (80/20) (3)		4,513	4,618	4,723	4,850	4,995	5,137	5,275	5,406	5,559	5,720	5,871
Less:												
Uncommitted Energy Efficiency (2009-2016) (2)		0	0	0	30	86	137	182	223	280	342	405
Distributed Generation		6	8	10	12	14	16	18	20	22	24	26
Peak Load (80/20)		**4507**	**4610**	**4713**	**4808**	**4895**	**4984**	**5074**	**5163**	**5257**	**5354**	**5441**
Less:												
Subtotal of Demand Reduction Items		**29.0**	**58.0**	**58.0**	**58.0**	**58.0**	**58.0**	**58.0**	**58.0**	**58.0**	**58.0**	**58.0**
Uncommitted Price Sensitive DR Programs (2)		0	0	0	0	0	0	0	0	0	0	0
Total of Demand Reduction Items		**29**	**58**	**58**	**58**	**58**	**58**	**58**	**58**	**58**	**58**	**58**
Net Peak Demand (80/20)	4058	4478.0	4552.0	4655.0	4750.0	4837.0	4926.0	5016.0	5105.0	5199.0	5296.0	5383.0
Surplus of Combined Capability over Net Peak Demand (80/20)	**306**	**0**	**(6)**	**(3)**	**11**	**(89)**	**(178)**	**(268)**	**(357)**	**(451)**	**(548)**	**(635)**

Extracted From WithOtayMesa10414
(1) "LTRP 2005_Compliance Case.xls" ("System Peak")
(2) Assumes impacts are limited to SDG&E's bundled customers.
(3) "Supply Form S-1 Compliance Case.xls"

Tables V-4A and V-B

See Discussion at page V-7.

Table V-5

See Discussion at page V-13.

Table V-6

See Discussion at page V-19.

Table V-7

Peak Demand Scenarios						
(Annual Peak in MW) [Is this coincident or non-coincident?]						
	2010			2015		
	High	Expected	Low	High	Expected	Low
REGION						
ALBERTA	10,434	9,694	8,954	11,274	10,475	9,674
AQUILA (CANADA)	1,001	930	859	1,082	1,004	928
ARIZONA	18,746	17,416	16,086	21,251	19,743	18,235
B.C. HYDRO	10,122	9,404	8,686	10,937	10,161	9,384
IDAHO	4,216	3,917	3,617	4,555	4,232	3,908
IMPERIAL (IID)	984	914	844	1,098	1,020	941
LADWP	6,076	5,645	5,214	6,232	5,789	5,348
MEXICO	2,190	2,034	1,879	2,401	2,231	2,061
MONTANA	1,776	1,650	1,524	1,920	1,783	1,647
NEVADA	7,443	6,915	6,387	8,438	7,840	7,240
NEW MEXICO	5,158	4,791	4,425	5,847	5,432	5,016
NORTHWEST	30,488	28,325	26,161	32,941	30,604	28,267
PACE (PACIFICORP)	8,339	7,748	7,156	9,011	8,371	7,732
PG&E	28,155	26,157	24,159	29,980	27,853	25,725
PS COLORADO	7,896	7,336	6,775	8,899	8,267	7,635
SAN DIEGO	4,994	4,639	4,285	5,453	5,066	4,679
SIERRA	2,235	2,076	1,918	2,414	2,243	2,072
SO CAL (SCE)	24,572	22,828	21,085	26,061	24,212	22,364
WAPA L.C.	1,301	1,208	1,116	1,474	1,369	1,265
WAPA R.M.	5,181	4,813	4,446	5,839	5,424	5,010
WAPA U.M.	267	248	230	289	268	249

Table V-8

Energy Consumption Scenarios						
Annual Energy Consumption in (GWh)						
	2010			2015		
	High	Expected	Low	High	Expected	Low
REGION						
ALBERTA	71,953	66,623	61,293	77,333	71,604	65,876
AQUILA (CANADA)	5,816	5,385	4,954	6,256	5,793	5,329
ARIZONA	87,685	82,803	77,921	98,723	93,226	87,729
B.C. HYDRO	58,730	54,380	50,029	63,567	58,858	54,150
IDAHO	22,240	21,001	19,763	24,338	22,983	21,628
IMPERIAL (IID)	4,112	3,883	3,654	4,591	4,335	4,078
LADWP	28,327	26,750	25,173	29,430	27,791	26,154
MEXICO	10,839	10,298	9,632	11,955	11,290	10,624
MONTANA	11,676	11,026	10,376	12,777	12,066	11,355
NEVADA	31,169	29,434	27,698	35,093	33,139	31,186
NEW MEXICO	31,535	29,779	28,023	35,505	33,528	31,550
NORTHWEST	189,435	178,888	168,342	207,310	195,768	184,228
PACE (PACIFICORP)	47,519	44,874	42,228	52,003	49,109	46,213
PG&E	141,129	132,187	124,394	153,316	140,698	132,402
PS COLORADO	37,670	35,573	33,475	41,754	39,429	37,105
SAN DIEGO	24,166	22,820	21,475	26,437	24,966	23,493
SIERRA	14,132	13,345	12,558	15,465	14,605	13,743
SO CAL (SCE)	120,656	113,939	107,222	128,462	121,312	114,159
WAPA L.C.	5,962	5,630	5,298	6,712	6,339	5,965
WAPA R.M.	28,932	26,789	23,272	29,027	27,411	25,796
WAPA U.M.	1,504	1,421	1,337	1,646	1,555	1,463

Table V-9

Gas Prices Scenarios ($/MMBTU) (Annual Average Price in nominal dollars						
	2010			2015		
	High	Medium	Low	High	Medium	Low
REGION	$	$	$	$	$	$
ALBERTA	11.30	5.65	2.83	13.14	6.57	3.29
AQUILA (CANADA)	11.30	5.65	2.83	13.14	6.57	3.29
ARIZONA	12.04	6.02	3.01	13.88	6.94	3.47
B.C. HYDRO	11.30	5.65	2.83	13.14	6.57	3.29
IDAHO	11.49	5.74	2.87	13.33	6.66	3.33
IMPERIAL (IID)	12.77	6.39	3.19	14.61	7.31	3.65
LADWP	12.77	6.39	3.19	14.61	7.31	3.65
MEXICO	12.77	6.39	3.19	14.61	7.31	3.65
MONTANA	11.45	5.72	2.86	13.29	6.64	3.32
NEVADA	12.04	6.02	3.01	13.88	6.94	3.47
NEW MEXICO	12.03	6.02	3.01	13.87	6.94	3.47
NORTHWEST	11.53	5.76	2.88	13.37	6.68	3.34
PACE (PACIFICORP)	11.45	5.72	2.86	13.29	6.64	3.32
PG&E	13.01	6.50	3.25	14.85	7.42	3.71
PS COLORADO	11.45	5.72	2.86	13.29	6.64	3.32
SAN DIEGO	12.77	6.39	3.19	14.61	7.31	3.65
SIERRA	11.45	5.73	2.86	13.29	6.65	3.32
SO CAL (SCE)	12.77	6.39	3.19	14.61	7.31	3.65
WAPA L.C.	12.04	6.02	3.01	13.88	6.94	3.47
WAPA R.M.	11.45	5.72	2.86	13.29	6.64	3.32
WAPA U.M.	11.45	5.72	2.86	13.29	6.64	3.32

Table V-10

Hydroelectric Production Scenarios						
Annual Energy Production in GWh						
	2010			2015		
REGION	Wet	Average	Dry	Wet	Average	Dry
ALBERTA	6,350.91	5,525.29	4,699.67	6,350.91	5,525.29	4,699.67
AQUILA	5,336.01	4,642.33	3,948.65	5,336.01	4,642.33	3,948.65
ARIZONA	103.16	89.75	76.34	103.16	89.75	76.34
BC HYDRO	68,514.57	67,966.45	67,418.33	68,514.57	67,966.45	67,418.33
IDAHO	9,345.01	8,130.16	6,915.31	9,345.01	8,130.16	6,915.31
IMPERIAL (IID)	683.34	594.51	505.67	683.34	594.51	505.67
LADWP	1,109.02	964.85	820.67	1,109.02	964.85	820.67
MEXICO (CFE)	0	0	0	0	0	0
MONTANA	3,476.00	3,024.12	2,572.24	3,476.00	3,024.12	2,572.24
NEVADA	0	0	0	0	0	0
NEW MEXICO	23.66	20.59	17.51	23.66	20.59	17.51
NORTHWEST	130,120.80	130,120.80	94,105.22	130,120.80	130,120.80	94,105.22
PACIFICORP	2,622.48	2,281.56	1,940.63	2,622.48	2,281.56	1,940.63
PG&E	42,900.40	31,413.84	19,927.28	42,900.40	31,413.84	19,927.28
PS COLORADO	366.25	318.64	271.02	366.25	318.64	271.02
SDG&E	0	0	0	0	0	0
SIERRA PACIFIC	0	0	0	0	0	0
SCE	5,778.04	5,026.90	4,275.75	5,778.04	5,026.90	4,275.75
WAPA L.C	7,905.55	6,877.83	5,850.11	7,905.55	6,877.83	5,850.11
WAPA R.M.	3,106.29	2,702.48	2,298.66	3,106.29	2,702.48	2,298.66
WAPA U.M.	324.82	282.6	240.37	324.82	282.6	240.37

Table V-11

Sunrise Powerlink Sensitivities	Case No.	Load Growth	Gas Prices	Hydro Condition	Probability
Reference Case					
No Sunrise Powerlink, no in-area generation	00	Expected	Medium	Average	15.3%
No Sunrise Powerlink, no in-area generation	25	Expected	Medium	Dry	13.8%
No Sunrise Powerlink, no in-area generation	26	Expected	Medium	Wet	18.2%
No Sunrise Powerlink, no in-area generation	27	High	Medium	Average	17.7%
No Sunrise Powerlink, no in-area generation	28	Low	Medium	Average	17.7%
No Sunrise Powerlink, no in-area generation	29	Expected	High	Average	3.2%
No Sunrise Powerlink, no in-area generation	30	Expected	Low	Average	14.1%
Transmission					
Sunrise Powerlink	1	Expected	Medium	Average	15.3%
Sunrise Powerlink w/ wind generation in Mexico	5	Expected	Medium	Average	Sensitivity only
Sunrise Powerlink	7	Expected	Medium	Dry	13.8%
Sunrise Powerlink	9	Expected	Medium	Wet	18.2%
Sunrise Powerlink	11	High	Medium	Average	17.7%
Sunrise Powerlink	13	Low	Medium	Average	17.7%
Sunrise Powerlink	15	Expected	High	Average	3.2%
Sunrise Powerlink	17	Expected	Low	Average	14.1%
Sunrise Powerlink w/wind at Warners instead of Boulevard	22	Expected	Medium	Average	Sensitivity only
Sunrise Powerlink w/ LEAPS connection to Talega-Escondido	23	Expected	Medium	Average	Sensitivity only
Sunrise Powerlink w/ LEAPS connection at Central	24	Expected	Medium	Average	Sensitivity only

Table V-12

See Discussion at page V-24.

Table V-13

See Discussion at page V-25.

Table V-14

Sunrise Powerlink – Applicable Transmission And Generation Assumptions

		Transmission			Generation				
Project Sensitivities	Assumed In-Service Date	"Low" Capital Costs w/ AFUDC (nominal $)	"High" Capital Costs w/ AFUDC (nominal $)	Fixed O&M ($ millions 2005$)	Capital Costs w/ AFUDC (nominal $)	Fixed O&M ($/kW-year in 2005$)	Average Heat Rate (BTU/ kWh)	Pump-Back Efficiency	Variable O&M costs ($/MWh in 2005$)
Sunrise Powerlink	2010	$1015	$1437	$10/yr	N/A	N/A	N/A	N/A	N/A
Sunrise Powerlink w/ Mexico wind	2010	$1015	$1437	$10/yr	$560	$5.69/kW-yr	N/A	N/A	N/A
Sunrise Powerlink w/ LEAPS (Talega-Escondido)	2010	$1391	$1813	$14/yr	$470	$5.69/ kW-yr	N/A	83.3%	N/A
Sunrise Powerlink w/LEAPS completing "full loop"	2010	$1391	$1813	$14/yr	$470	$5.69/ kW-yr	N/A	83.3%	N/A

Table V-15

WECC Generation Capacity Additions by Region

By Year 2010			By Year 2015		
Generator	Rating (MW)	Region	Generator	Rating (MW)	Region
Mesquite CC 3	625	Arizona	Genessee CC	500	Alberta
Mesquite CC 4	625	Arizona	Arlington Valley 2	600	Arizona
Panda Gila River 5	600	Arizona	Bowie CC1	500	Arizona
Panda Gila River 6	600	Arizona	Bowie CC2	500	Arizona
Blythe CC1	600	Arizona	Harquahala CC2	1,000	Arizona
Redhawk CC1	500	Arizona	Palo Verde CC	1,200	Arizona
Saguaro CC1	500	Arizona	Santan	825	Arizona
Santan CC1	850	Arizona	Fourcorners Coal	400	Arizona
Mesquite CC	625	Arizona	Vancouver Island 1	500	B.C. Hydro
BC Hydro CC1	250	B.C. Hydro	Haynes CC	575	LADWP
BC Hydro CC2	250	B.C. Hydro	Magnolia	315	LADWP
BC Hydro CC3	250	B.C. Hydro	Malburg	135	LADWP
BC Hydro CC4	250	B.C. Hydro	Silver Bow	500	Montana
Grayson 9	49	LADWP	Copper Mtn	500	Nevada
Valley CC2	520	LADWP	Silver Hawk	570	Nevada
Glenarm GT 3-4	94	LADWP	Cosumnes	458	PG&E
Clark CC2	500	Nevada	Metcalf	600	PG&E
Clark CC3	500	Nevada	BluSprc2	500	PS Colorado
H Allen CC1	500	Nevada	Front Range CC2	600	PS Colorado
H Allen CC2	500	Nevada	Rocky Mtn EC1	585	PS Colorado
Pico	147	PG&E	Rocky Mtn EC2	585	PS Colorado
Ripon	90	PG&E	Rocky Mtn EC3	585	PS Colorado
Walnut CC	240	PG&E	Comanch2	750	PS Colorado
Kings River	85	PG&E	Wadsworth 1	540	Sierra
Rocky Mtn EC1	585	PS Colorado			
Rocky Mtn EC2	585	PS Colorado			
Rocky Mtn EC3	585	PS Colorado			
Otay Mesa	510	San Diego			
Palomar	546	San Diego			
Mountainview	1,132	SoCalif			
Total	**13,693**		**Total**	**13,823**	

Table V-16

Economic Benefits of Sunrise Powerlink (assuming "low" capital cost)
Market Sensitivities

	Levelized Energy Savings (2010-2049; millions)			Levelized Fixed Costs (millions)			
	Energy Savings	**RMR Savings**	**Total Energy Savings**	**Transmission (2010-2049) "Low Cost"**	**Generation (2010-2043)**	**Total Fixed Costs**	**Benefit/ Cost Ratio**
Sunrise Powerlink (low load forecast, medium gas price, average hydro conditions)	**$58**	**$114**	**$172**	**$153**	**$0**	**$153**	**1.12/1**
Sunrise Powerlink (high load forecast, medium gas price, average hydro conditions)	**$181**	**$114**	**$295**	**$153**	**$0**	**$153**	**1.93/1**
Sunrise Powerlink (medium load forecast, low gas price, average hydro conditions)	**$40**	**$114**	**$154**	**$153**	**$0**	**$153**	**1.00/1**
Sunrise Powerlink (medium load forecast, high gas price, average hydro conditions)	**$169**	**$114**	**$283**	**$153**	**$0**	**$153**	**1.85/1**
Sunrise Powerlink (medium load forecast, medium gas price, dry hydro conditions)	**$117**	**$114**	**$231**	**$153**	**$0**	**$153**	**1.51/1**
Sunrise Powerlink (medium load forecast, medium gas price, wet hydro conditions)	**$75**	**$114**	**$189**	**$153**	**$0**	**$153**	**1.23/1**

Table V-17

Economic Benefits of Sunrise Powerlink (assuming "high" capital cost)
Market Sensitivities

	Levelized Energy Savings (2010-2049) (millions)			Levelized Fixed Costs (millions)			
	Energy Savings	**RMR Savings**	**Total Energy Savings**	**Transmission (2010-2049) "High Cost"**	**Generation (2010-2043)**	**Total Fixed Costs**	**Benefit/ Cost Ratio**
Sunrise Powerlink (low load forecast, medium gas price, average hydro conditions)	**$58**	**$114**	**$172**	**$212**	**$0**	**$212**	**0.81/1**
Sunrise Powerlink (high load forecast, medium gas price, average hydro conditions)	**$181**	**$114**	**$295**	**$212**	**$0**	**$212**	**1.39/1**
Sunrise Powerlink (medium load forecast, low gas price, average hydro conditions)	**$40**	**$114**	**$154**	**$212**	**$0**	**$212**	**0.73/1**
Sunrise Powerlink (medium load forecast, high gas price, average hydro conditions)	**$169**	**$114**	**$283**	**$212**	**$0**	**$212**	**1.33/1**
Sunrise Powerlink (medium load forecast, medium gas price, dry hydro conditions)	**$117**	**$114**	**$231**	**$212**	**$0**	**$212**	**1.08/1**
Sunrise Powerlink (medium load forecast, medium gas price, wet hydro conditions)	**$75**	**$114**	**$189**	**$212**	**$0**	**$212**	**0.89/1**

Table V- 18

In-Area Installed Capacity Available for Energy Dispatch
With Sunrise Powerlink (no new in-area generation)

San Diego Area
Calendar Year In-Area Installed Capacity Available for Energy Dispatch with Sunrise Powerlink
For the Month of August

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
SDG&E Area Utility-Owned Resources												
Palomar 1	0.0	247.0	247.0	247.0	247.0	247.0	247.0	247.0	247.0	247.0	247.0	247.0
Palomar 2	0.0	247.0	247.0	247.0	247.0	247.0	247.0	247.0	247.0	247.0	247.0	247.0
Palomar Duct Fire 1	0.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0
Palomar Duct Fire 2	0.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0
subtotal Palomar Combined Cycle	0.0	542.0	542.0	542.0	542.0	542.0	542.0	542.0	542.0	542.0	542.0	542.0
SDGE Miramar GT	46.0	46.0	46.0	46.0	46.0	46.0	46.0	46.0	46.0	46.0	46.0	46.0
Total SDG&E Area Utility-Owned Resources	**46.0**	**588.0**	**588.0**	**588.0**	**588.0**	**588.0**	**588.0**	**588.0**	**588.0**	**588.0**	**588.0**	**588.0**
SDG&E Area Existing Bilateral Contracts												
Goal Line QF	50.0	50.0	50.0	50.0	50.0	50.0	50.0	50.0	50.0	50.0	50.0	50.0
Kelco Nutrasweet QF	15.0	15.0	15.0	15.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Kelco Nutrasweet QF Continued	0.0	0.0	0.0	0.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0
Naval Station QF	47.0	47.0	47.0	47.0	47.0	47.0	47.0	47.0	47.0	47.0	47.0	47.0
North Island QF	36.0	36.0	36.0	36.0	36.0	36.0	36.0	36.0	36.0	36.0	36.0	36.0
Navy Training Center QF	23.0	23.0	23.0	23.0	23.0	23.0	23.0	23.0	23.0	23.0	23.0	23.0
Navy Training Center QF - Steam Turbine	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1
subtotal non-renewable QFs	173.1	173.1	173.1	173.1	173.1	173.1	173.1	173.1	173.1	173.1	173.1	173.1
Alvarado Hydro facility	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Miramar Hydro facility	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
Olivenhain Municipal Water District	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
San Francisco Peak Hydro Plant	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
Badger Filteration Plant	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
GRS San Marcos Landfill Plant	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	0.0	0.0
GRS Sycamore Landfill Plant	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	0.0	0.0	0.0
Kumeyaay Wind (4)	0.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0
MM Prima Deshecha Energy LLC	5.0	5.0	5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MM San Diego LLC - Miramar Landfill	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	0.0	0.0	0.0	0.0

MM San Diego LLC - North City Bio Plant	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	0.0	0.0	0.0	0.0
New San Diego Area - Bio Gas	0.0	4.0	4.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0
New San Diego Area - Biomass	0.0	0.0	0.0	0.0	0.0	10.0	10.0	20.0	30.0	30.0	60.0	100.0
New San Diego Area – Hydro	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
New San Diego Area - Solar Photovoltaic	0.0	0.0	1.3	2.5	5.0	7.5	10.0	12.5	15.6	15.6	15.6	15.6
New San Diego Area - Solar Thermal	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
New San Diego Area - Wind (4)	0.0	0.0	11.6	11.6	11.6	23.2	23.2	40.6	69.6	95.7	110.2	110.2
Otay Landfill 1	1.8	1.8	1.8	1.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Otay Landfill 2	1.8	1.8	1.8	1.8	1.8	1.8	0.0	0.0	0.0	0.0	0.0	0.0
San Diego MWD	4.8	4.8	4.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
San Marcos Landfill (SO4)	1.3	1.3	1.3	1.3	1.3	1.3	0.0	0.0	0.0	0.0	0.0	0.0
SDCWA - Rancho Penasquitos	0.0	0.0	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Sycamore Landfill (SO4)	1.3	1.3	1.3	1.3	1.3	1.3	0.0	0.0	0.0	0.0	0.0	0.0
subtotal SDG&E Area small Renewable Contracts	28.5	50.5	67.9	70.3	71.0	95.1	93.2	123.1	161.3	184.9	228.4	268.4
subtotal SDG&E Area QFs	**201.6**	**223.6**	**241.0**	**243.4**	**244.1**	**268.2**	**266.3**	**296.2**	**334.4**	**358.0**	**401.5**	**441.5**
Envirepel (Biomass)	0.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0
Otay Mesa 1	0.0	0.0	0.0	237.5	237.5	237.5	237.5	237.5	237.5	237.5	237.5	237.5
Otay Mesa 2	0.0	0.0	0.0	237.5	237.5	237.5	237.5	237.5	237.5	237.5	237.5	237.5
Otay Mesa Duct Fire 1	0.0	0.0	0.0	43.5	43.5	43.5	43.5	43.5	43.5	43.5	43.5	43.5
Otay Mesa Duct Fire 2	0.0	0.0	0.0	43.5	43.5	43.5	43.5	43.5	43.5	43.5	43.5	43.5
subtotal Otay Mesa Combined Cycle	0.0	0.0	0.0	562.0	562.0	562.0	562.0	562.0	562.0	562.0	562.0	562.0
Lake Hodges Pump Storage Hydro Plant	0.0	0.0	0.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0
Total SDG&E Area Existing Bilateral Contracts	**201.6**	**263.6**	**281.0**	**885.4**	**886.1**	**910.2**	**908.3**	**938.2**	**976.4**	**1000.0**	**1043.5**	**1083.5**
San Diego Area DWR Contracts												
Calpeak Border	45.0	45.0	45.0	45.0	45.0	45.0	45.0	0.0	0.0	0.0	0.0	0.0
Calpeak El Cajon	42.0	42.0	42.0	42.0	42.0	42.0	42.0	0.0	0.0	0.0	0.0	0.0
Calpeak Escondido	45.0	45.0	45.0	45.0	45.0	45.0	45.0	0.0	0.0	0.0	0.0	0.0
Total San Diego Area DWR Contracts	**132.0**	**132.0**	**132.0**	**132.0**	**132.0**	**132.0**	**132.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
New Capacity - Inside San Diego Area												
Local Generation (CC)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Local Generation (CT)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Capacity - Inside San Diego	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**

Merchant Units												
Calpeak Border	0.0	0.0	0.0	0.0	0.0	0.0	0.0	45.0	45.0	45.0	45.0	45.0
Calpeak El Cajon	0.0	0.0	0.0	0.0	0.0	0.0	0.0	42.0	42.0	42.0	42.0	42.0
Calpeak Escondido	0.0	0.0	0.0	0.0	0.0	0.0	0.0	45.0	45.0	45.0	45.0	45.0
Electrovest (Otay)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Elctrovest (Escondido)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
El Cajon GT	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0
Encina 1	106.0	106.0	106.0	106.0	106.0	106.0	106.0	106.0	106.0	106.0	106.0	106.0
Encina 2	103.0	103.0	103.0	103.0	103.0	103.0	103.0	103.0	103.0	103.0	103.0	103.0
Encina 3	109.0	109.0	109.0	109.0	109.0	109.0	109.0	109.0	109.0	109.0	109.0	109.0
Encina 4	299.0	299.0	299.0	299.0	299.0	299.0	299.0	299.0	299.0	299.0	299.0	299.0
Encina 5	329.0	329.0	329.0	329.0	329.0	329.0	329.0	329.0	329.0	329.0	329.0	329.0
Encina GT	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0
Kearny GT 1	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0
Kearny 2AB (Kearny GT2)	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0
Kearny 2AB (Kearny GT2)	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0
Kearny 2CD (Kearny GT2)	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0
Kearny 2CD (Kearny GT2)	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0
Kearny 3AB (Kearny GT3)	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0
Kearny 3AB (Kearny GT3)	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0
Kearny 3CD (Kearny GT3)	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0
Kearny 3CD (Kearny GT3)	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0
Larkspur Border 1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Larkspur Border 2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Miramar GT 1	17.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0
Miramar GT 2	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0
South Bay 1	145.0	145.0	145.0	145.0	145.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
South Bay 2	149.0	149.0	149.0	149.0	149.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
South Bay 3	174.0	174.0	174.0	174.0	174.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
South Bay 4	221.0	221.0	221.0	221.0	221.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
South Bay GT	13.0	13.0	13.0	13.0	13.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Merchant Capacity	**1835.0**	**1835.0**	**1835.0**	**1835.0**	**1835.0**	**1133.0**	**1133.0**	**1265.0**	**1265.0**	**1265.0**	**1265.0**	**1265.0**
Total San Diego Area Capacity	**2214.6**	**2818.6**	**2836.0**	**3440.4**	**3441.1**	**2763.2**	**2761.3**	**2791.2**	**2829.4**	**2853.0**	**2896.5**	**2936.5**
"N-0" Import Capability	**2850**	**2850**	**2850**	**2850**	**2850**	**4000**	**4000**	**4000**	**4000**	**4000**	**4000**	**4000**
San Diego Area Peak Demand												
Forecast Total Peak Demand (50/50) (3)		4,282	4,380	4,478	4,599	4,739	4,874	5,006	5,132	5,278	5,432	5,578
Less:												
Uncommitted Energy Efficiency (2009-2016) (2)		0	0	0	30	86	137	182	223	280	342	405
Distributed Generation		6	8	10	12	14	16	18	20	22	24	26
Peak Load (50/50) (1)		**4276**	**4372**	**4468**	**4557**	**4639**	**4721**	**4806**	**4889**	**4976**	**5066**	**5148**

Less:												
Demand Reduction Items												
BIP		6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Clean Backup Generation		25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0
DLC		20.0	31.0	31.0	31.0	31.0	31.0	31.0	31.0	31.0	31.0	31.0
RBRP		24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0
Smart Thermostat		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Subtotal of Demand Reduction Items		**75.0**	**86.0**	**86.0**	**86.0**	**86.0**	**86.0**	**86.0**	**86.0**	**86.0**	**86.0**	**86.0**
Uncommitted Price Sensitive DR Programs (2)		147	188	192	196	200	204	208	212	216	220	224
Total of Demand Reduction Items		**222**	**274**	**278**	**282**	**286**	**290**	**294**	**298**	**302**	**306**	**310**
Net Peak Demand	4058	4054.2	4098.2	4189.7	4274.5	4352.7	4430.8	4511.8	4591.1	4674.0	4759.8	4838.0

Extracted From WithOtayMesa10414
(1) "LTRP 2005_Compliance Case.xls" ("System Peak")
(2) Assumes impacts are limited to SDG&E's bundled customers.
(3) "Supply Form S-1 Compliance Case.xls"
(4) Reflects a 64% discount from installed capacity to reflect wind variability.

Table V-19

Assumed Generation Capacity in the Imperial Valley

By Year 2010			By Year 2015		
Generator	**Generator Technology**	**Rating (MW)**	**Generator**	**Generator Technology**	**Rating (MW)**
BRAWLEY_1	Natural gas	27	BRAWLEY_1	Natural gas	27
CEUNIT1_1	Geothermal	200	CEUNIT1_1	Geothermal	200
COACHLA1_1	Hydro	20	COACHLA1_1	Hydro	20
COACHLA2_1	Hydro	20	COACHLA2_1	Hydro	20
COACHLA3_1	Hydro	20	COACHLA3_1	Hydro	20
COACHLA4_1	Hydro	20	COACHLA4_1	Hydro	20
COLMAC_1	???	50	COLMAC_1	???	50
DELRANCH_1	Geothermal	42	DELRANCH_1	Geothermal	42
DPWR#3_1	Natural gas	50	DPWR#3_1	Natural gas	50
DROP1_1	Hydro	5.8	DROP1_1	Hydro	5.8
DROP2_1	Hydro	10	DROP2_1	Hydro	10
DROP3_1	Hydro	6	DROP3_1	Hydro	6
DROP3_2	Hydro	4	DROP3_2	Hydro	4
DROP4 1_1	Hydro	9.8	DROP4 1_1	Hydro	9.8
DROP4 2_1	Hydro	9.8	DROP4 2_1	Hydro	9.8
DROP5_1	Hydro	4	DROP5_1	Hydro	4
EARTHE1_1	Geothermal	0	EARTHE1_1	Geothermal	0
EARTHE2_1	Geothermal	0	EARTHE2_1	Geothermal	0
ELSTM 2_1	Natural gas	30	ELSTM 2_1	Natural gas	30
ELSTM 3_1	???	40	ELSTM 3_1	???	40
ELSTM 4_1	???	85	ELSTM 4_1	???	85
ESTHIGHL_1	Geothermal	0	ESTHIGHL_1	Geothermal	0
GEM2_1	Geothermal	0	GEM2_1	Geothermal	0
GEM3_1	Geothermal	0	GEM3_1	Geothermal	0
HEBERSCE_1	Natural gas	0	HEBERSCE_1	Natural gas	0
JJELMORE_1	Geothermal	42	JJELMORE_1	Geothermal	42
LEATHERS_1	Geothermal	0	LEATHERS_1	Geothermal	0
ORM11G_1	Geothermal	33.5	ORM11G_1	Geothermal	33.5
ORM11M_1	Geothermal	0	ORM11M_1	Geothermal	0
ORM1EG_1	Geothermal	12.9	ORM1EG_1	Geothermal	12.9
ORM1EM_1	Geothermal	1.3	ORM1EM_1	Geothermal	1.3
ORM1HG_1	Geothermal	12.9	ORM1HG_1	Geothermal	12.9
ORM1HM_1	Geothermal	0.0	ORM1HM_1	Geothermal	0.0
ORM21G_1	Geothermal	12.9	ORM21G_1	Geothermal	12.9
ORM21M_1	Geothermal	0.0	ORM21M_1	Geothermal	0.0
ORM22G_1	Geothermal	12.9	ORM22G_1	Geothermal	12.9
ORM22M_1	Geothermal	0	ORM22M_1	Geothermal	0
PILOTKNB_1	Hydro	32	PILOTKNB_1	Hydro	32
REPU2_1	Natural gas	85	REPU2_1	Natural gas	85
ROCKWOD1_1	???	25	ROCKWOD1_1	???	25
ROCKWOD2_1	???	25	ROCKWOD2_1	???	25
SALTSEA4_1	Geothermal	42	SALTSEA4_1	Geothermal	42

SIGC13.8_1	Natural gas	0	SIGC13.8_1	Natural gas	0
SS07_1	Solar thermal	285	SS07_1	Solar thermal	285
SS08_1	Geothermal	230	SS08_1	Geothermal	230
SS09_1	Geothermal	85	SS09_1	Geothermal	85
UNIT5L_1	Natural gas	50	SS10_1	Geothermal	200
VULCAN1_1	Geothermal	0	SS11_1	Geothermal	200
VULCAN1_2	Geothermal	0	SS12_1	Geothermal	200
WPOWER#2_1	Geothermal	0	SS13_1	Geothermal	200
YUCCGT21_1	Natural gas	22	SS14_1	Geothermal	200
			SS15_1	Geothermal	200
			SS16_1	Geothermal	200
			UNIT5L_1	Natural gas	50
			VULCAN1_1	Geothermal	0
			VULCAN1_2	Geothermal	0
			WPOWER#2_1	Geothermal	0
			YUCCGT21_1	Natural gas	22

Table V-20

Assumed Modifications to the IID Transmission System
By Year 2010
Export capacity: 645 MW Lines: Upgrade Highline to El Centro and to IV substations, 40 miles New Geo Collector substation 1 to Midway, approx. 15 miles Substations: New Geothermal Collector substation 1, 230 kV Expand El Centro substation; expand Midway substation
By Year 2015
Export capacity: 2200 MW Lines: New Bannister to San Felipe substation, 20 miles, 230 kV Upgrade existing El Centro to Bannister, approx. 25 miles New IID Collector substation 2 to Bannister, 230 kV Upgrade existing Coachella Valley to Mirage/Devers, 40 miles Upgrade existing Bannister to Coachella Valley, 55 miles Tie Bannister to Collector substations to Midway, 1 mile Substations: New Geothermal Collector substation 1 230 kV Expand El Centro substation; expand Midway substation Expand Coachella Valley substation (Upgrades to west of Devers Substation not included)

CERTIFICATE OF SERVICE

I hereby certify that a copy of the **SUPPLEMENT TO APPLICATION OF SAN DIEGO GAS & ELECTRIC COMPANY (U 902-E) FOR A CERTIFICATE OF PUBLIC CONVENIENCE AND NECESSITY FOR THE SUNRISE POWERLINK** has been served on all parties of record in R.04-04-003 and I.05-09-005 via electronic mail.

Dated at San Diego, California, this 19th day of December, 2005.

Annie Ruiz