

Exhibit No.: _____
Commissioner: Loretta Lynch
Administrative Law Judge: Meg Gottstein
Witness: _____

**BEFORE THE PUBLIC UTILITIES COMMISSION OF
THE STATE OF CALIFORNIA**

Order Instituting Investigation into) I.00-11-001
implementation of Assembly Bill 970 regarding)
the identification of electric transmission and)
distribution constraints, actions to resolve those)
constraints, and related matters affecting the)
reliability of electric supply.)
_____)

**PREPARED DIRECT TESTIMONY OF LINDA P. BROWN
ON SAN DIEGO GAS & ELECTRIC COMPANY'S
INPUTS TO SCENARIO ANALYSIS**

E. Gregory Barnes

101 Ash Street
San Diego, California 92101
Telephone: (619) 699-5019
Facsimile: (619) 699-5027
gbarnes@sempra.com

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Attorney for
SAN DIEGO GAS & ELECTRIC COMPANY

1 **PREPARED DIRECT TESTIMONY OF LINDA P. BROWN ON SAN DIEGO GAS &**
2 **ELECTRIC COMPANY’S INPUTS TO SCENARIO ANALYSIS**

3 **Q.** Please state your name, title, business address, and qualifications.
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5 **A.** My name is Linda P. Brown. I am a Senior Engineer in the Engineering Services
6 Department of San Diego Gas & Electric Company (“SDG&E”). My business address is 8316
7 Century Park Court, San Diego, California 92123-1582. I have appended my qualifications to
8 this testimony.
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10 **Q.** Please describe the purpose of your testimony.

11 **A.** My testimony describes the inputs SDG&E provided for the scenario analysis submitted
12 in Phase 2 of this proceeding jointly by the utility respondents, the ISO and the CEC. These
13 inputs include forecasts of load, generation and interconnection transfer capability to/from
14 Mexico.
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16 **Q.** Please describe the load forecast SDG&E submitted.

17 **A.** SDG&E provided an average load and "80/20" load forecast as input parameters to the
18 scenario analysis matrix. The "80/20" forecast was based on SDG&E’s October, 2000 forecast.
19 This forecast is described in more detail in the prepared direct testimony of Stephen J. Jack,
20 SDG&E’s Pricing & Forecasting Manager.
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22 SDG&E currently forecasts demand only for the next five years, so SDG&E’s October,
23 2000 forecast is through the year 2005. For purposes of the scenario analysis, an annual growth
24 rate of 2.5% was assumed for years 2006 - 2011. Peak load is based on system growth and
25 average weather conditions (20-year average).
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27 **Q.** Please describe the inputs SDG&E provided for the scenario analysis with respect to
28 generation.

1 A. SDG&E provided generation data for the scenario analysis matrix, which included
2 existing San Diego generation and proposed new generation in San Diego and Mexico. The
3 existing San Diego generation of 2107 MW is based on the summer capacity rating of the units
4 as follows:

6 Encina	939 MW
7 South Bay	689 MW
8 Gas Turbines	305 MW
9 QFs	174 MW
10 TOTAL	2107 MW

11 The maximum new generation for the San Diego area represents the generation
12 interconnection requests in SDG&E's application queue as of 4/30/01 (see table next page):

14 The medium generation scenario represents the same assumptions as the CEC forecast
15 and is based on CEC tracked projects with categories 1-3.

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Electric Interconnection Status Summary – San Diego

Applicant Name	Project Description	Net Generation (MW)	Modified In-Service Date
DG Power, Inc.	BORDER Generating Project	49	5/1/01
DG Power, Inc.	ESCONDIDO Generating Project	49	5/1/01
DG Power, Inc.	EL CAJON Generating Project	49	5/1/01
DG Power, Inc.	MISSION Generating Project	49	5/1/01
Applied Energy, Inc.	North Island	49	5/31/01
	Naval Station	49	5/31/01
	MCRD (Point Loma)	49	5/31/01
RAMCO, Inc.	Chula Vista Generating Plant	49.5	6/1/01
RAMCO, Inc.	Escondido Generating Plant	49.5	6/1/01
Wildflower Energy LP	LARKSPUR ENERGY FACILITY (Formerly Border No. 1)	49.9	6/1/01
Coral Power	Pala Peaking Generation Project	49.9	6/1/01
Coral Power	San Ysidro	49	6/1/01
Coral Power	Escondido	49	6/1/01
Wildflower Energy LP	LARKSPUR ENERGY FACILITY (Formerly Border No. 2)	49	6/1/01
The Hanover Company	Escondido Generating Station	49.9	7/1/01
RAMCO, Inc.	Chula Vista Expansion Project	57.6	9/1/01
Cabrillo Power II, LLC (CalPeak Power, LLC)	Kearny 1 GT	49	1/1/02
	Kearny Block 2	120	1/1/02
	Kearny Block 3	120	1/1/02
	NTC GT	49	1/1/02
	Division GT	49	1/1/02
	EI Cajon GT	49	1/1/02
	North Island GTs	49	1/1/02
	Miramar GTs	49	1/1/02
Naval Station GT	49	1/1/02	
Goal Line, LP	Gas Turbine Gas Fired Peaker Plant	50	6/1/03
Otay Mesa Generating Company, LLC	Otay Mesa Generating Project	550	6/30/03
Goal Line, LP	Goal Line Generating Plant	50	6/30/03
Cabrillo Power I, LLC	Encina Generation Project	900	1/1/04
Sempra Energy Resources	Escondido 500MW Power Project	521	5/31/04
ENPEX	San Diego Community Power Generating Station I	750	6/1/04
Whitewater-Canyon	Wind Energy Project	<u>400</u>	
Total		4600.3	

Assumptions for maximum generation development in Baja California, Mexico are based on applications in SDG&E interconnection queue as shown below. The medium potential level of available generation scenario was based on an assumption of 20% availability of the highest external generation levels.

Electric Interconnection Status Summary - in Mexico

Applicant Name	Project Description	Net Generation (MW)	Modified In-Service Date
AEP Resources Inc.	West Coast Project 1	250	1/1/03
	West Coast Project 2	250	1/1/03
InterGen Project #1	750MW Generating Facility Project -- But 250 MW to United States	250	4/1/03
InterGen Project #2	600MW Generating Facility Project location is Mexicali, Baja California, Mexico	600	4/1/03
Sempra Energy Resources	Imperial Valley 600MW Generation Project I	600	6/1/03
Sempra Energy Resources	Imperial Valley 600MW Generation Project II	600	5/31/05
Total		2550	

Q. What assumptions were used regarding transfer capability from Mexico?

A. The current transfer capability from Mexico to/from San Diego is 408 MW as determined by the Imperial Valley - La Rosita 230 kV line rating. Results from the matrix scenario analysis show that the range of potential stranded resources from Mexico into California is 232 MW in 2002 to 2,142 MW by 2005 based on the maximum generation scenario. The medium generation scenario demonstrates that the maximum potential for stranded resources is only 102 MW and doesn't occur until 2005. SDG&E is investigating a number of options that would increase the current transfer capability including:

- Transmission Line Upgrades to Miguel - Tijuana 230 kV line
- Transmission Line Upgrades of the IV - ROA 230 kV line
- Transmission Line Upgrade of the Miguel - Mission 138 kV line

Preliminary studies indicate that this combination of upgrades could increase the Mexico to SDG&E path rating to approximately 800 - 1200 MW.

1 **Q.** Did SDG&E provide information for purposes of the scenario analysis regarding
2 constraints within SDG&E's system or between SDG&E and other California electric systems?

3 **A.** No. The scenario matrix analysis that has been presented in this testimony assumes the
4 Southern California region as a single entity and has not attempted to define transmission
5 bottlenecks internal to SDG&E or to Southern California. These transmission bottlenecks, along
6 with other transmission upgrades needed to maintain a reliable transmission system, are
7 identified during the grid assessment studies that are performed by each PTO and through the
8 Control Area Assessment studies performed by the ISO on an annual basis.
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11 **Q.** What is the approximate line mileage for the Rainbow - Miguel and Rainbow - Imperial
12 Valley 500 kV conceptual lines that are presented in the Economics Section of the joint
13 testimony?

14 **A.** The Rainbow - Miguel 500 kV line is approximately 100 miles. The Rainbow - Imperial
15 Valley 500 kV line is approximately 189 miles.
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17 **Q.** Does this conclude your testimony?

18 **A.** Yes.
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1 **Statement of Qualifications**

2 **Linda P. Brown**

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5 Linda P. Brown is a Senior Engineer in the Engineering Services Department of San
6 Diego Gas & Electric Company. Her responsibilities include a leadership role in overseeing
7 technical studies for transmission grid expansion projects.

8 Ms. Brown's educational background includes a Bachelor of Science in Electrical
9 Engineering from Southern Illinois University, Carbondale, Illinois and a Community College
10 Teaching Credential in Engineering.
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12 She is a licensed Professional Engineer in the State of California.

13 Ms. Brown has spent the past 17 months in the Transmission Planning Section. Prior
14 experience includes 11 years in the Operations Planning and Grid Control areas and 2 years in
15 Distribution Engineering.
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17 Ms. Brown taught in the Electronics Department at Mesa College from 1986 through
18 1990.
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