

CALIFORNIA
ENERGY
COMMISSION

ENERGY FACILITY LICENSING PROCESS

Natural Gas
Supply Information

STAFF PAPER/DRAFT

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Gray Davis, *Governor*

**California Energy Commission
Green Team Developer Assistance**

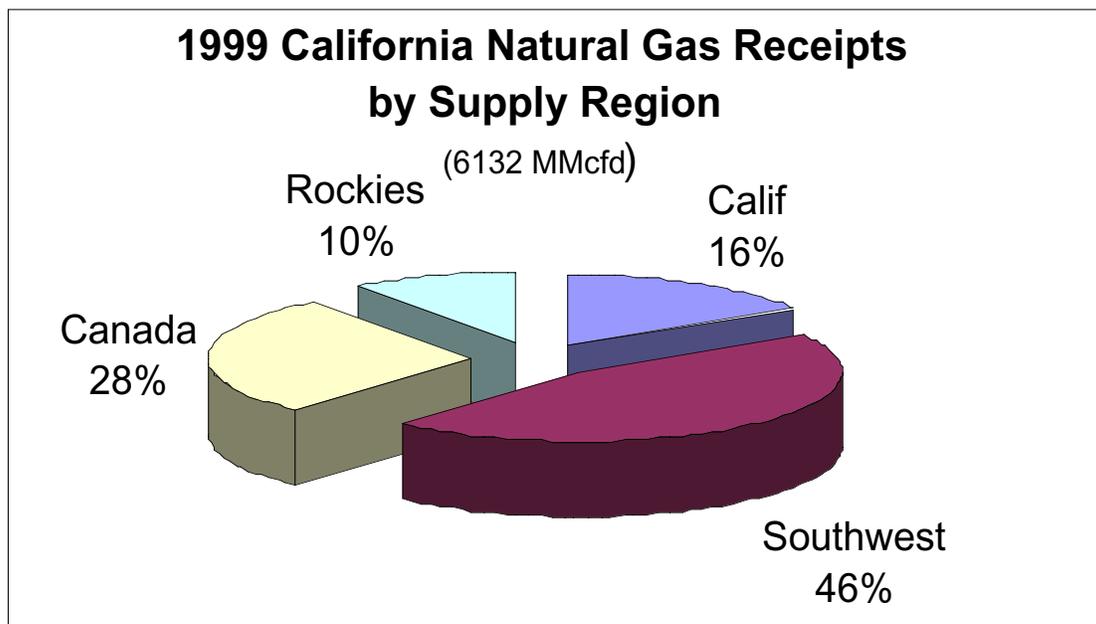
NATURAL GAS SUPPLY INFORMATION

Introduction

This paper was prepared in response to AB 970 in an effort to provide additional assistance to potential thermal power plant developers. This paper focuses on natural gas supply issues, specifically how a developer could obtain gas supplies to meet the needs of a new power plant.

Natural Gas Supply Background

Traditional natural gas supply sources for California include the Province of Alberta in Canada, the Rocky Mountains, southwest US production basins and native production in California. The proven and potential reserves of natural gas in these basins are sufficient to meet the needs of power generation in California for the foreseeable future. This includes the needs of the power plants that are subject to the provision of Assembly Bill 970. Figure 1 shows the levels of supply California received in 1999 from each of these supply areas.

Figure 1

There are four active interstate pipelines that have sufficient capacity to natural gas to California. These include El Paso Natural Gas Company, Transwestern Pipeline Company, Kern River Transportation System and PG&E Transmission Northwest. Figure 2 indicates the supply and demand areas served by these pipelines.

Depending on facility location, deliveries may be made using several options. The most obvious method for receiving supply is through the three natural gas utilities: Pacific Gas and Electric Company (PG&E), Southern California Gas Company (SoCalGas),

and San Diego Gas and Electric Company (SDG&E). Direct deliveries may be made off the Kern River and Mojave interstate pipelines. Mojave receives supply from El Paso and Transwestern at the California Border for delivery in California. Finally, supply may be obtained directly from California production using a variety of pipeline options. Again, the site for the proposed facility will determine which of the options is applicable.

PG&E and SoCal Gas have the flexibility to meet increased demand through multiple supply points and storage. That is not the case for SDG&E. For the summer of 2000 its pipeline system ran nearly full, with little or no room for adding new customers without adding to the potential for natural gas supply curtailment. New delivery capacity via additional pipelines from SoCalGas to SDG&E is proposed for operation in the summer of 2001. This would boost SDG&E's delivery ability by 70 million cubic feet per day (MMcfd), which will just about match the natural gas demand of the Rosarito 540 MW facility, located in Rosarito Beach, Mexico, which will begin operation by the summer of 2001. If this new facility operates at its full capacity, SDG&E will have the same situation it experienced this past summer, operating at or near the limits of its natural gas delivery capacity with little flexibility to meet peak day demand.

Figure2



Natural Gas Prices

Prices for natural gas may be expected to remain high for the next few years. Summer time prices for electric generation are expected to be in the range of \$4.80 per million British thermal units (mmBtu) in 2001 and in the area of \$4.20 per mmBtu in 2002. Figures 3 and 4 provide the staff's monthly electric generation natural gas price estimates for the next three-years in northern and southern California. These are based on regressing past monthly NYMEX future contract prices against actual California border spot prices, then applying the regression to future monthly contract prices.

Figure 3

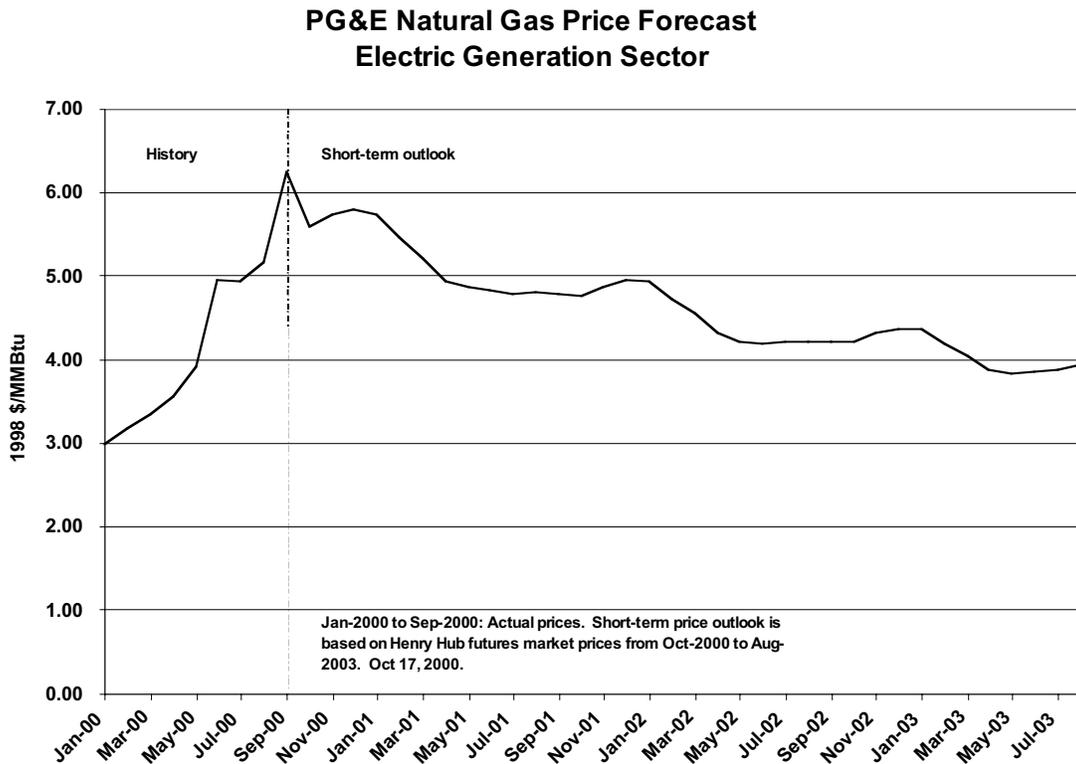
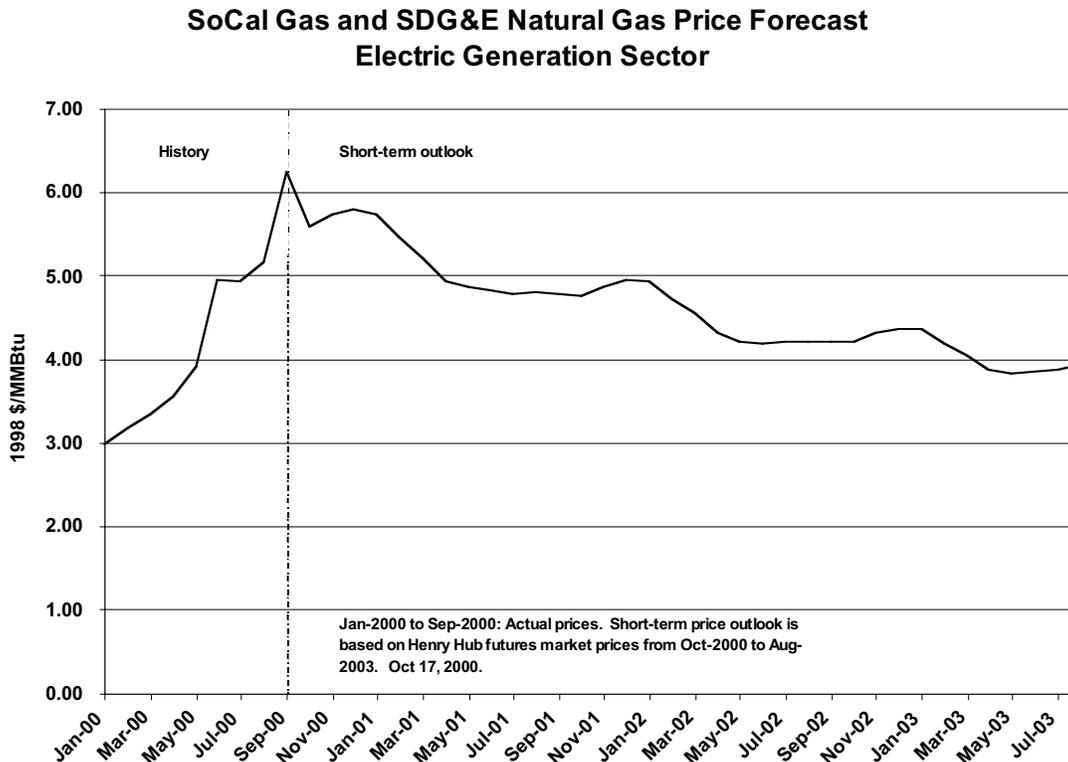


Figure 4



Obtaining Natural Gas Supply

Facilities that consume more than 20,800 therms per month are considered as noncore customers in California. Most power plants natural gas consumption exceed this threshold. Noncore customers are responsible for both obtaining their own supply and lining up the necessary pipeline capacity to have the supply delivered to their facilities.

There are several options available for obtaining the needed natural gas supply. The first option is for the developer to contact one of the many natural gas marketers that operate in northern and southern California. The marketers make the arrangements needed to purchase supply and have it delivered to the facility site. A list of the marketers for northern California is in Appendix A and southern California marketers (including the San Diego area) are listed in Appendix B.

Second, power plant developer can independently purchase its own supply and arrange for transport through existing pipelines. However, constant attention is needed to insure that supply and pipeline capacities continue to be available. It is not uncommon for supply to be delayed or not even be available because of production or natural gas conditioning problems and possibly pipeline congestion. If a developer chooses to follow this path, they can purchase supplies directly from producers or from others at any point along the transportation system. Producers are too numerous to list here. Transport would have to be arranged for each segment of the delivery system. Appendix C provides a list of contacts to arrange transportation on the interstate pipelines. Natural gas utility contacts are provided in Appendix D.

In obtaining fuel supply for peaking facilities, the power plant developer should consider that their plants will run for short periods of time and not necessarily every day. Natural gas may take several days to travel from the well head to the point of use. Purchasing supply then entails anticipating several days in advance how much supply is needed and what specific hour it is needed. The supply flows continuously in the pipeline system, even when the power plant is not running. Thus, arrangements must also be made with the interstate pipelines or the natural gas utility to park or store the flowing supply when it is not needed.

Finally, to meet part or all of the generation needs, the developer can make spot market purchases at the time of need from marketers or others that have flowing gas supply. However, supply will not always be available or could be very expensive to purchase.

A fuller discussion of current natural gas issues may be found in the Energy Commission's Staff Report *California Natural Gas Market Analysis and Issues*, Pub No. 200-00-006, November 21, 2000.

Appendix A
Southern California Natural Gas Marketers

List of Natural Gas Suppliers on the PG&E System

Last updated October 5, 2000

http://www.pge.com/pipeline/library/resources/industry_links/mkrlist.html

This list of gas suppliers has been compiled and provided by PG&E solely as a convenience to energy users. Neither the CEC, PG&E nor any of its employees:

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- Assumes any liability with respect to the use of, or for damages resulting from the use of, this information.

This list will be updated periodically. Natural gas suppliers who would like to be included on future lists, or those with changes or corrections to this list may contact their [CGT Account Services Representative](#)

AEC Marketing (US) Inc.

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Senior Marketing Representative,
421 - 7th Avenue SW, Suite 3900
Calgary, Alberta T2P 4K9
Canada
Telephone: (403) 266-8270

Amoco Energy Trading Corporation

Scott Bond
Director of Southern California
Operations
4590 MacArthur Blvd., Suite 500
Newport Beach, CA 92660
Telephone: (714) 251-8696
Fax: (714) 251-0230

Burlington Resources

Dave Kohler
Marketing Representative
5051 Westheimer, Suite 1400
Houston, TX 77056
Telephone: (713) 624-9069
Fax: (713) 624-9606

California Energy Exchange Corp.

Derek Jones
Brian Habersack
Principals
2981 Gold Canal Drive
Rancho Cordova, CA 95670
Telephone: (916) 859-4710
Fax: (916) 859-4747
E-mail: Gasbiz@aol.com

**California Gas Producer's
Cooperative Association**

Brian Sway
1524 Jasmine Court
Davis, CA 95616-6405
Telephone: (916) 756-4202
Fax: (916) 756-3162

**Calpine Energy Services, L.P. / CPN
Gas Marketing Company**

Hank Delony
Manager, Fuel Procurement
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Houston, TX 77002
Telephone: (713) 830-8622
Fax: (713) 830-8722
e-mail: hankd@calpine.com

CanWest Gas Supply USA

Richard Englehardt
Senior Marketing Representative
2200 Scotia Centre
700 - 2nd Street SW, 22nd Floor
Calgary, AB T2P 2W1
Canada
Telephone: (403) 205-7300
Fax: (403) 205-2562

Conoco Natural Gas Co.

Carla Johnson
Coordinator, Gas Marketing
600 North Dairy Ashford
Houston, TX 77079-6651
Telephone: (281) 293-4148
Fax: (281) 293-1720

Coral Energy Resources

Brian Bates
Malcolm Reinhardt
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Pleasanton, CA 94566
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Fax: (925) 426-7182

DEKALB Energy Company

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Coordinator, Oil & Gas Sales
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Calgary, Alberta T2P 3V4
Canada
Telephone: (403) 261-1332
Fax: (403) 264-7142

Duke Energy Trading & Marketing

Gary Venz
4 Triad Center, Suite 1000
Salt Lake City, UT 84180
Telephone: (801) 537-3986

Dynegy, Inc.

Mike McElroy
Director, Marketing - California
5976 W. Los Positas Blvd., Suite 200
Pleasanton, CA 94588
Telephone: (925) 469-2304
Fax: (925) 469-2301

Edison Source

Bob Howey - Gas Product Manager
Paul Reid - National Account Manager
15191 Crossroads Parkway North
City of Industry, CA 941746
Telephone: (562) 463-3007 (Bob)
Telephone: (562) 463-3019 (Paul)
Fax: (562) 463-3001

Engage Energy

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Director Gas Marketing
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Fax: (619) 702-5379

Enron Energy Services

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Sales Manager
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San Ramon, CA 94583
Telephone: (925) 543-3866
Fax: (925) 543-3554

Enserco Energy, Inc.

Kurt Kittleson
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7333 West Jefferson Ave., Suite 170
Lakewood, CO 80235
Telephone: (303) 984-2332
Fax: (303) 984-9450

IGI Resources, Inc.

Kirk Ketcherside
Director, Natural Gas & Power Market
Services
48 Hawk Hill
Mission Viejo, CA 92692
Telephone: (714) 380-9800
Fax: (714) 380-9820

Inland Pacific Energy

Jim Langley
Manager Energy Services
1095 W. Pender St., Suite 1600
Vancouver, BC V6E 2M6
Canada
Telephone: (604) 895-3503
Fax: (604) 895-3524

Jonan Gas Marketing, Inc.

Les Strong, President
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Calgary, Alberta T2X 1Z2
Canada
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2094
Fax: (403) 254-4571

PanCanadian Energy Services

Jay Cattermole
Director of Marketing
515 Sycamore Valley Road West
Danville, CA 94526
Telephone: (925) 831-6850
Fax: (925) 831-6870

PG&E Energy Services.

Jack Maccoun
Manager, Integrated Services
345 California Street, 32nd Floor
San Francisco, CA 94104
Telephone: (415) 733-4734
Fax: (415) 733-4955

PG&E Energy Trading Corporation

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Los Angeles, CA 90071-1630
Telephone: (213) 489-6880
Fax: (213) 489-6889

Poco Petroleum, Inc.

Dan McAstocker
Senior Marketing Representative
250 Sixth Avenue S.W., Suite 3500
Calgary, Alberta T2P 3H7
Canada
Telephone: (403) 260-8057
Fax: (403) 269-8236

Producers Energy Marketing, LLC

Rod Banks
Manager, Gas Marketing
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Houston, TX 77090
Telephone: (281) 583-6271
Fax: (281) 583-4353

ProGas U.S.A., Inc.

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Canada
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Fax: (403) 266-0354

Reliant

Kirby Bosley
Manager, West Origination
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Denver, CO 80265-1450
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SCANA Energy Trading

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Petaluma, CA 94954
Telephone: (707) 789-9100
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Sempra Energy Solutions

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Los Angeles, CA 90013
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e-mail: energysales@sempra-slms.com
Web site: www.sempraenergysales.com
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Fax: (502) 584-1794
Toll Free: (877) 2SEMPRA (273-6772)
e-mail: energysales@sempra.slms.com
Web site:
www.sempraenergysales.com/midwest/

Sempra Energy Trading

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State of California

DGS Natural Gas Program (Public
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Sacramento, CA 95814
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Fax: (916) 324-4460

Suncor, Inc.

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Western Natural Gas Marketing
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Canada
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Fax: (403) 269-6201

Texas-Ohio Energy

Bryan Bartlett
Marketing Manager
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Fax: (415) 342-7040

Tractebel Energy Marketing, Inc.

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Trading
Martha Murphy
Scheduling
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Houston, TX 77027
Telephone: (713) 985-3854 (David)
Telephone: (713) 985-3853 (Martha)
Fax: (713) 548-5151

TXU Energy Services

C. Michael Williamson
VP, Marketing
39650 Liberty Street, Suite 400
Fremont, CA 94538
Telephone: (510) 226-5777
Fax: (510) 226-5778

Utilicorp/Aquila

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Columbus, Ohio 43235
Telephone: (614) 786-1800
Fax: (614) 781-5243

Appendix B

Southern California Natural Gas Marketers

SOUTHERN CALIFORNIA GAS COMPANY

(Contracted Marketers as of 10/11/00*)

This list of gas suppliers has been compiled and provided by SoCalGas solely as a convenience to energy users. Neither the CEC, SoCalGas nor any of its employees:

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(http://www.socalgas.com/candi/customer_choice/find_marketteers.shtml)

Company Name	Contact	Phone Number	Fax Number
Astra Power, L.L.C.	Parks Wesson	(714) 969-6569	(714) 969-8687
BP Energy	Scott Bond	(949) 251-8696	(949) 251-0230
Burlington Resources Trading, Inc.	David Kohler	(713) 624-9069	(713) 624-9119
Coral Energy Resources, L.P.	Stan Lyons	(949) 863-0600	(949) 225-0225
Defense Energy Supply Center**	Veronica Jones	(703) 767-8552	(703) 767-8757
Dynegy Marketing and Trade	David Ellis	(925) 469-2308	(925) 469-2301
Engage Energy US, L.P.	Robert Turner	(619) 702-9504	(619) 702-5379
Enron Administrative Services	Chris Foster	(713) 853-6313	(713) 646-2492
Enron Energy Services	Roger Ponce	(562) 901-3804	(562) 437-5035
IDACORP Energy Solutions, L.P.	Gordon Pickering	(208) 388-2440	(208) 388-6905
Occidental Energy Marketing	Mike Bucher	(713) 215-7138	(713) 215-7486
PanCanadian Energy Services, Inc.	Ben King	(949) 472-2909	(949) 472-2914
PG&E Energy Trading	Paul Gendron	(415) 675-6423	(415) 981-4735
Reliant Energy Services	Kirby Bosley	(303) 620-9999	(303) 620-9696
SCANA Energy Trading	Dave Jones	(707) 789-9100	(707) 789-9200
Sempra Energy Sales	Robert Nielsen	(213) 244-3062	(213) 689-3264
Sempra Energy Trading	Perssy Mergonian	(714) 557-5142	(714) 444-4924
Southern Company Energy Marketing	John Hogan	(678) 579-3205	(678) 579-5766
State of Calif. — General	Bill Knox	(916) 322-9838	(916) 322-5377

Services**			
TXU Energy Services	Michael Williamson	(510) 266-5777	(510) 226-5778
Utilicorp Energy Solutions	Deanna Sharpe	(614) 781-5231	(614) 781-5242
Williams Energy Services Co.	John O Dell	(918) 588-4070	(918) 561-6446

*These marketers are currently approved to participate in Southern California Gas Company's contracted marketer program.

**Represents state facilities only

San Diego Gas and Electric Company Service Area Gas Service Providers

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- Assumes any liability with respect to the use of, or for damages resulting from the use of, this information.

ACN Energy, Inc.

7926 Jones Branch Dr., Suite 500
McLean, Virginia 22102

CONTACT: Brian Cameron

Phone: (703) 893-9002

Fax: (703) 893-9121

e-mail: brain.cameron@acnenergy.com

Duke Energy

18300 Von Karman Ave. Ste. 620
Irvine, CA 92612

Contact : Debbie Young

Phone: (946) 260-7007

Fax: (949) 724-8396

Email: dayoung@duke-energy.com

Dynegy Marketing and Trade

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Fax: (713) 507-6541

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Enron Energy Services

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Long Beach, CA 90802-4040

Contact : Dave Childress

Phone: (562) 901-9811

Fax: (562) 495-1332

Email: dchildre@enron.com

IDACORP Energy

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Phone: (208) 388-2440

Fax: (208) 388-6905

Email: gpickering@idahopower.com

IGI Resources, Inc

7173 Pintail Drive
Carlsbad, CA 92009

Contact : Kirt Ketcherside

Phone: (760) 918-0001

Fax: (760) 918-0003

Email: igi@nctimes.net

Coral Energy

6601 Koll Center Parkway, Ste. 245
Pleasanton, CA 94566

Contact : Chris P. Smith

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Fax: (619) 454-6688

Email: csmith@coral-energy.com

Sempra Energy Solutions

P.O. BOX 126211
San Diego, CA 92111-6211

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Phone: (213) 895-5827

Fax: (213) 689-3264

Email: gborrego@sempra-slus.com

SCANA Energy Trading, LLC

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Encinitas, CA 92024

Contact : Teresa Yakou

Phone: (760) 436-9800

Fax: (760) 436-9988

Email: tyakou@scana.com

Tiger Natural Gas, Inc

1-G West 41st Street
San Springs, OK 74063

Contact : Teresa Mashburn

Phone: (918) 491-6998

Fax: (918) 491-6659

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TXU Energy Trading Company

353 Sacramento Street, Suite 400
San Francisco, CA 94111

Contact : Cathy Hawes

Phone: (415) 982-2980 x328

Fax: (415) 981-2988

Email: chawes@txuenergy.com

Utilicorp Energy Solutions

125 Dillmont Dr., #200
Columbus, OH 43235

Contact : Terry Miller

Phone: (614) 781-5265

Fax: (614) 781-5242

Email: tmillert@ucmohi.com

Appendix C
Interstate Pipeline Transportation Contacts

PG&E Transmission - Northwest

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Title: Vice President, Pipeline Marketing & Development

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(713) 371-6611

Fax: (503) 833-4913

e-mail: Peter.Lund@neg.pge.com

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Title: Executive Assistant
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Fax: (503) 833-4913
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Name: Ferron-Jones, Leslie
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Fax: (503) 833-4925
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Name: Knudsen, Steve
Title: Account Director, Generation Markets
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Address: 1400 SW 5th Avenue, Suite 900, Portland OR 97201

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Address: 2100 S.W. River Parkway, Portland OR 97201

Kern River Transmission System

Kevin Billings
Business Development Representative
Gas Pipelines West
295 Chipeta Way
P.O. Box 5890
Salt Lake City, UT 84158-0900

801-5884-6867

El Paso Natural Gas Company

Jerry Strang
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P.O. Box 1492
El Paso, TX 79978-1492

915-496-3139

strangj@epenergy.com

801-584-6768 Fax

Appendix D California Natural Gas Utility Transport Contacts

PG&E CGT Representative

Transportation And Storage Traders

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Allen DeBrum	(415) 973-0141	add2@pge.com

Market Center Traders

Matt Mullins	(415) 973-6349	smmn@pge.com
Jaime Rincon	(415) 972-5961	jarx@pge.com

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Siov Ly	(415) 973-0005	skl0@pge.com
Denise Silverthorne	(415) 973-6159	dmsa@pge.com
Tilda Tannehill	(415) 973-6908	tft1@pge.com
Bev Torrens	(415) 973-7376	bxt2@pge.com

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Laura Lapera, Acting Scheduling Supervisor

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Tony Lew	(415) 973-2424	tsl3@pge.com
Ken McPherson	(415) 973-2424	ktm5@pge.com
Cheryl Morones	(415) 973-2424	cam6@pge.com
Marty Nepper	(415) 973-2424	mana@pge.com
Linda Skrifvars	(415) 973-2424	ljs1@pge.com