

RE: BRITISH COLUMBIA TRANSMISSION CORPORATION (“BCTC”)
PROJECT NO. 3698539
AN APPLICATION TO AMEND THE BCTC OPEN ACCESS TRANSMISSION TARIFF
 (“OATT”)

AND

A COMPLAINT BY TRANSCANADA ENERGY LTD. (“TCE”)
REGARDING A SERVICE AGREEMENT BETWEEN TCE AND BCTC
FOR LONG TERM FIRM POINT-TO-POINT TRANSMISSION SERVICE

DIRECT TESTIMONY OF
CRAIG R. ROACH, Ph.D.

ON BEHALF OF
TRANSCANADA ENERGY LTD.

MARCH 13, 2009

BOSTON PACIFIC COMPANY, INC.

1 Q. Please state your name, position and business address.

2 A. My name is Craig R. Roach. I am the President of Boston Pacific Company, Inc.
3 (“Boston Pacific”). My business address is 1100 New York Avenue, NW, Suite 490
4 East, Washington, DC 20005.

5
6 Q. What is the purpose of your testimony?

7 A. The purpose of my testimony is to comment on British Columbia Transmission
8 Corporation’s (“BCTC”) proposed Conditional Firm Service (“CFS”) as outlined in
9 section 3.4 of its “Application to Amend the Open Access Transmission Tariff” filed
10 before the British Columbia Utilities Commission (“BCUC”) on November 21, 2008.
11 My comments were requested by TransCanada Energy Ltd. (“TCE”).

12
13 Section 3.4 also describes BCTC’s proposal for providing planning re-dispatch service. I
14 have only been asked to address the proposal for CFS in this testimony.

15
16 Q. What is your relationship to TCE?

17 A. I am an independent expert engaged by TCE.

18
19 Q. Please briefly summarize your qualifications.

20 A. I have over 30 years of experience working on investments in, policies for, and litigation
21 concerning the electricity and natural gas businesses and other energy businesses. From
22 1975 to 1979, I was an Economist with the U.S. Congressional Budget Office. From
23 1979 to 1982, I was a Project Manager with ICF Incorporated, an energy and

1 environmental consulting firm. I founded Boston Pacific, and have worked under the
2 Boston Pacific name since 1983, first in San Francisco and since 1987 in Washington,
3 DC. Boston Pacific is a consulting and investment services firm specializing in the
4 electricity and natural gas businesses. Our clients include the full range of stakeholders:
5 public utility commissions, regional transmission organizations, competitive power
6 suppliers, electric utilities, electric gas marketers, gas pipeline companies, trade
7 associations, government agencies, and energy consumers.

8
9 I have served many times as an expert witness throughout North America, having
10 testified or submitted comments to 22 State Commissions, to the Federal Energy
11 Regulatory Committee (“FERC”) in more than 30 proceedings, to two Canadian
12 Provincial Boards, and to a City Council. I have also served as an expert in arbitrations,
13 in U.S. Federal Court, in State Court, and before a U.S. Congressional Subcommittee.
14 My full resume and list of publications is included as an attachment to this testimony.

15
16 Q. What is your opinion on BCTC’s CFS proposal?

17 A. I support BCTC’s effort to create CFS. Providing CFS can give transmission customers
18 more opportunities to obtain service by offering them priority that is in between firm and
19 non-firm service.

20
21 However, BCTC’s CFS proposal does nothing to allay my more general concern – in
22 fact, it may increase my concern – that transmission over the British Columbia to Alberta
23 (“BC>AB”) intertie has been and will continue to be oversold, causing the transmission

1 rights of Long-Term Firm Point-to-Point (“LTF PTP”) service customers to be
2 degraded.¹ I recommend that the Commission not rule on the CFS proposal until it
3 settles the issue of BCTC’s ATC calculation.

4
5 Q. What are the origins of the CFS requirement in the United States?

6 A. In Order No. 890, which made significant reforms to Open Access Transmission Tariff
7 (“OATT”) requirements, FERC began to require the provision of CFS as a way to
8 prevent discrimination and non-transparency in the provision of transmission services.²
9 Reducing opportunities for undue discrimination and increasing transparency were the
10 two overarching purposes of FERC Order No. 890.³

11
12 Prior to that order, a transmission provider could deny firm transmission service (and,
13 with it, the ability to designate a generation asset as a network resource) to non-affiliate
14 customers if transmission was expected to be undeliverable during any portion of the
15 requested service period – even if that portion was as short as a single hour out of an
16 entire year, or if the service was only undeliverable during certain system conditions.⁴
17 However, some transmission providers were willing to designate affiliate assets as
18 network resources in similar scenarios, and would simply re-dispatch other assets or

¹ See Complaint by TransCanada Energy Ltd. Regarding a Service Agreement between TCE and BCTC for Long Term Firm Point-to-Point Transmission Service, filed before the British Columbia Utilities Commission, October 9, 2008, accessed at http://www.bcuc.com/Documents/Proceedings/2008/DOC_20582_10-09_TransCanda%20Energy%20Complaint.pdf.

² *Preventing Undue Discrimination and Preference in Transmission Service (Order No. 890)*, FERC Docket Nos. RM05-17-000 and RM05-25-000, February 16, 2007 at paragraphs 73 and 78.

³ *Ibid.*, at Summary.

⁴ *Ibid.*, at paragraphs 73 and 86.

1 apply unit-specific operating guidelines to accommodate those resources that had firm
2 transmission available less than one hundred percent of the time.⁵

3
4 In order to remedy this discrimination between affiliated and non-affiliated assets, among
5 other measures, FERC required transmission providers to offer *conditional* firm
6 transmission service to customers seeking firm point-to-point service for services period
7 of more than one year. As envisioned by FERC, CFS would be given the same
8 curtailment priority as LTF PTP transmission service under most “unconditional”
9 circumstances. However, FERC allowed CFS to be curtailed by the transmission
10 provider at the same priority as secondary service, *before long-term firm point-to-point*
11 *service*, either (i) up to a certain number of hours per year, or (ii) under certain system
12 conditions.⁶

13
14 Q. How does the case at hand compare to that FERC narrative?

15 A. BCTC has essentially done the opposite of what initially prompted FERC to require CFS.
16 As discussed above, prior to FERC 890, utilities would withhold firm transmission
17 service even if it was expected to be *unavailable* for only a small portion of the year. In
18 contrast, BCTC has sold firm transmission service even though it is *available* for only a
19 small portion of the year, and even though doing so requires the curtailment of pre-
20 existing long-term firm transmission service.⁷

⁵ See, for example, Direct and Answering Testimony of Craig R. Roach on behalf of Calpine Corporation regarding Entergy Services, Inc. and EWO Marketing, LP, before the Federal Energy Regulatory Commission, FERC Docket Nos. ER03-583-000, ER03-681-000, ER03-682-000, ER03-682-000, and ER03-744-000, November 23, 2003 [Public version released December 30, 2003], at page 35.

⁶ *Preventing Undue Discrimination and Preference in Transmission Service (Order No. 890-A)*, FERC Docket Nos. RM05-17-001, 002 and RM05-25-001, 002, December 28, 2007, at paragraph 566.

⁷ Complaint by TCE, at page 7.

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For example, imagine that a transmission provider did a system impact study on a tie-line that showed that 500 MW could be transmitted over it on a firm, year-round basis under normal circumstances (that is, excepting system emergencies or during maintenance). Additionally, the study revealed that, under certain other system conditions, another 100 MW of transmission capacity was available. Under Order 890, FERC would view this study's results as suggesting that 500 MW of long-term firm point-to-point service was available, along with 100 MW of CFS that would be provided unconditionally whenever the certain other conditions prevailed and that would be subject to curtailment down to 0 MW whenever those conditions did not prevail. In sharp contrast, BCTC's over-selling of capacity on the BC>AB line is analogous to a scenario in which this hypothetical transmission provider sells all 600 MW as if it was all long-term firm service, and then curtails all 600 MW on a pro-rata basis all the time when the study shows only 500 MW actually was available.

- Q. Why do you say that BCTC's proposal increases your concern regarding over-subscription on the BC>AB intertie?
- A. BCTC defines an approach in which it calculates upfront "Monthly Firm Transfer Capacities Available for CFS for Various Paths." Using these, BCTC will make path-specific CFS offers. The starting point to calculate these are BCTC's monthly firm ATC calculations.⁸

⁸ *Application to Amend the Open Access Transmission Tariff*, BCTC, November 21, 2008, at pages 54-57.

1 Under normal circumstances, this would be a reasonable process – naturally, the amount
2 of CFS available for sale will be closely related to ATC over any given transmission line.
3 However, BCTC’s computation of ATC over this intertie fails to take account of import
4 limits on the Alberta system.⁹ Because of this aspect of the BCTC ATC calculation,
5 more capacity is made available for sale than Alberta is actually able to accept, which
6 causes curtailments for all LTF PTP customers on that line when BCTC sells capacity
7 above the real-world system limitations.¹⁰ Making CFS available in addition to the
8 already existing services, *without conditioning the provision of that CFS on Alberta’s*
9 *ability to accept the transmission volumes*, will simply increase the opportunity to
10 oversell transmission on that line, and further degrade the quality and reliability of the
11 LTF PTP service over the BC>AB intertie.

12
13 Q. Do you have any final comments?

14 A. Yes. While I support CFS in general, BCTC’s proposal needs to address the concern that
15 BCTC should not be allowed to sell long-term firm point-to-point transmission service to
16 Alberta above and beyond what Alberta’s system is able to accept.

17
18 Indeed, BCTC recognizes that the issues are linked when it states that it (BCTC)
19 “acknowledges that the implementation of CFS on the BC>AB path will have to be
20 consistent with the resolution of the issues with respect to additional sales of LTF PTP
21 service to Alberta.”¹¹ While I support the provision of CFS in concept, unless and until
22 this question is settled, I am concerned that BCTC’s CFS proposal would simply increase

⁹ *Application*, at page 118.

¹⁰ Complaint by TCE, at page 7.

¹¹ *Application*, at Appendix H, page 18.

1 the overselling of capacity on the BC>AB intertie and further degrade the service given
2 to TransCanada and other existing customers. Therefore, my recommendation is that the
3 Commission not rule on CFS until settling the issue of BCTC's ATC calculation.

4

5 Q. Does this conclude your testimony?

6 A. Yes.

ATTACHMENT

RESUME AND LIST OF TESTIMONY AND OTHER PUBLICATIONS
FOR CRAIG ROACH, Ph.D.

CRAIG R. ROACH

Craig Roach has more than thirty years of experience working on investments in, policies for, and litigation concerning the electricity, natural gas, and other energy businesses. Craig founded and incorporated Boston Pacific in Washington, DC in 1987.

Craig leads the Boston Pacific Team which has served for four years as the Independent Market Monitor/External Market Advisor (EMA) for the Southwest Power Pool Regional Transmission Organization (SPP RTO). As the IMM/EMA, the Boston Pacific Team is responsible for developing the Market Monitoring Plan and Market Power Mitigation Measures for the SPP RTO and has won Federal Energy Regulatory Commission (FERC) approval in this regard. The EMA also plays a significant role in market design for SPP's new real-time market which successfully started operations on February 1, 2007.

Craig oversees the Boston Pacific Teams which manage and monitor major power auctions such as those in Illinois, New Jersey, Maryland, Delaware, and the District of Columbia. Boston Pacific also manages and monitors unit contingent solicitations such as those in Oregon, Oklahoma, and the U.S. Virgin Islands.

Craig has extensive experience as an expert witness on the electricity and natural gas businesses. He has provided testimony, affidavits or comments on thirty occasions before FERC, to twenty-two state commissions (some on multiple occasions) plus two Canadian Provincial Boards, and a City Council. He also has served as an expert in arbitrations, in Federal Court, in State Court, and before a Congressional Subcommittee.

The great variety of topics in Craig's testimonies documents the breadth and depth of his experience in the electricity and natural gas businesses. He has served as an expert witness on issues such as market power (antitrust), market design, competitive bidding, transmission tariffs, ratemaking by both electric and gas utilities, finance for both competitive power suppliers and utilities, system reliability, prudence of power purchases, and contract abrogation. His expertise also is reflected in the fact that he is a widely sought-after speaker. A list of his testimonies and speeches is attached.

In previous years, Boston Pacific also had extensive, hands-on experience supplementing the in-house asset transaction teams of our clients for power project development and acquisition. We have done so throughout the U.S. and in two dozen countries around the world. Prior to founding Boston Pacific, Craig was a Project Manager with ICF Incorporated. While at ICF, Craig developed an engineering-economic model to forecast industrial fuel choice, assessed the impact of air pollution regulations on coal markets, and identified opportunities for coal exports to Asia and Europe. From 1975 to 1979, Craig was a Principal Analyst for the U.S. Congressional Budget Office. He provided analyses on energy and environmental legislation through written reports and testimony to Congressional committees.

Craig holds a Ph.D. in Economics from the University of Wisconsin. Craig earned his B.S. in Economics, *cum laude*, from John Carroll University. He now currently serves on an Advisory Board to the Department of Economics at the University of Wisconsin.

BOSTON PACIFIC COMPANY, INC.

**LIST OF TESTIMONY AND OTHER PUBLICATIONS
FOR CRAIG R. ROACH, Ph.D.**

TESTIMONY

Report responding to the Commission's inquiries on emissions costs, construction costs, and fuel costs, Minnesota Public Utility Commission Docket No. CN-05-619 [October 2008]. For the Minnesota Commission.

Testimony concerning the design of the 2008 RFP, Oklahoma Corporation Commission Cause No. PUD 200700418 [June 2008]. Filed as the Oklahoma Commission's Independent Evaluator.

Comments concerning PacifiCorp's proposed acquisition of the Chehalis power plant, Oregon Public Utility Commission Docket No. UM 1374 [June 2008]. Filed as the Oregon Independent Evaluator.

Reply comments concerning the 2008 Procurement Process, before the Illinois Commerce Commission [May 2008]. Filed as the Procurement Monitor.

Comments concerning the 2008 Procurement Process, before the Illinois Commerce Commission [May 2008]. Filed as the Procurement Monitor.

Direct Testimony concerning the proposed acquisition of TXU by private equity investors, Public Utility Commission of Texas Docket No. 34077 [September 2007]. For the Texas Commission.

Comments concerning PacifiCorp's proposal to amend and delay its 2012 RFP, Oregon Public Utility Commission Docket No. UM 1208. [November 2007]. Filed as the Oregon Independent Evaluator.

Affidavit concerning allegations of above-market prices and price manipulation in the 2006 Illinois Auction, Federal Energy Regulatory Commission Docket No. EL07-47-000. [June 2007]. Filed as the Auction Monitor.

Support for settlement of an electric transmission rate case, Federal Energy Regulatory Commission Docket No. ER06-186-000. [March and April 2006]. For the City of Vernon.

Testimony concerning market power mitigation measures for the Southwest Power Pool energy imbalance services market, Federal Energy Regulatory Commission Docket No. ER06-451-000. [January 2006]. Filed as the Southwest Power Pool's Independent Market Monitor.

Comments on the Maryland procurement process for Standard Offer Service, Maryland Senate Special Commission on Electric Utility Deregulation Implementation. [August 2005]. Appearing as the Technical Consultant for the Maryland Public Service Commission.

Direct and Supplemental Testimony concerning market power mitigation measures for the Southwest Power Pool energy imbalance services market, Federal Energy Regulatory Commission Docket No. ER05-1118-000. [June and August 2005]. Filed as the Southwest Power Pool's Independent Market Monitor.

Comments on the open access status of a transmission line, Federal Energy Regulatory Commission Docket No. ER05-1072-000. [June 2005]. Filed as the Southwest Power Pool's Independent Market Monitor.

Direct Testimony regarding the benefit of continuing PUCT Capacity Auctions in Texas, Public Utility Commission of Texas, Docket No. 30882. [May 2005]. For Reliant Energy, Inc.

Expert Report regarding the basis for and quantification of damages, 249th Judicial District Court (Texas) Cause No. C-2002-00267. [March 2005]. For Ponderosa Pine Energy, L.L.C.

Panelist on transmission market power and barriers to entry, Federal Energy Regulatory Commission Technical Conference Docket No. RM04-7-000, Washington, DC. [December 2004].

Expert Report concerning damage estimates regarding power sales contract, American Arbitration Association Case No. 71 198 00323 01. [October 2004]. For Ponderosa Pine Energy Partners, LTD.

Panelist on solicitation processes for public utilities, Federal Energy Regulatory Commission Technical Conference Docket No. PL04-6-000, Washington, DC. [June 2004].

Affidavit and Supplemental Affidavit concerning the competitive effects of the proposed acquisition of Illinois Power by Ameren Corp., Federal Energy Regulatory Commission Docket No. EC04-81-000, Washington, DC. [May and June 2004]. For Aquila Merchant Services, Inc.

Direct Testimony on FirstEnergy's proposed Rate Stabilization Plan, Public Utilities Commission of Ohio Case No. 03-2144 EL-ATA, EL-AAM, EL-UNC. [February 2004]. For Reliant Resources, Inc. and Constellation Power Source.

Panelist on market power mitigation and measurement, Federal Energy Regulatory Commission Technical Conference on Supply Margin Assessment Screen and Alternatives Docket No. PL02-8-000, Washington, DC. [January 2004].

Direct and Answering Testimony concerning approval of affiliate power purchases by Entergy under the *Edgar* standard using a competitive solicitation test. Federal Energy

Regulatory Commission Docket No. ER03-583-000. [November 2003 and April 2004].
For Calpine Corporation.

Direct and Answering Testimony and Cross-Answering Testimony concerning approval of an affiliate acquisition by AmerenUE under the *Edgar* standard using a competitive solicitation and benchmark data. Federal Energy Regulatory Commission Docket No. EC03-53-000. [August and September 2003]. For the Electric Power Supply Association.

Affidavit concerning the application of the *Mobile-Sierra* doctrine to a Standard Offer Wholesale Sales Agreement for a supplier in bankruptcy. United States District Court (District of Columbia) Case No. 03-1189. [July 2003]. For NRG Power Marketing Inc.

Direct Testimony concerning Entergy's proposed Agreement in Principle including certain affiliate power sales, New Orleans City Council Docket Nos. UD-01-04 and UD-03-01. [April 2003] For Reverend C.S. Gordon, Jr., et al.

Expert Report concerning correct interpretation of power sales contract standards, American Arbitration Association Case No. 71 198 00323 01. [April 2003] For Tenaska IV Texas Partners, LTD.

Expert Report concerning the correct discount rate to be used in determining an award, American Arbitration Association Case No. 00 199 00199 02. [March 2003]. For TM Delmarva Power L.L.C.

Affidavit concerning market-based rate authority using the Supply Margin Assessment (SMA), Federal Energy Regulatory Commission Docket No. ER03-618-000. [March 2003]. For Reliant Energy Choctaw, LLC.

Expert Report concerning opportunities for reverse tolling transactions with Entergy, utility dispatch rules, and antitrust damages, Louisiana State Court Suit No. 467,116; Div. "N". [January 2003]. For Energy Transfer Group.

Affidavit concerning market-based rate authority using the Supply Margin Assessment (SMA), Federal Energy Regulatory Commission Docket No. ER03-382-000. [January 2003]. For Reliant Energy Solutions, LLC.

Direct and Rebuttal Testimony concerning Track B issues including types of competitive solicitation, products to be procured, and affiliate codes of conduct, Arizona Corporation Commission Docket No. E-00000A-02-0051, et al. [November 2002]. For Panda Gila River, L.P.

Panelist concerning the Resource Adequacy Requirement within the Standard Market Design, Federal Energy Regulatory Commission Technical Conference Docket No. RM01-12-000, Washington, DC. [November 2002].

Affidavit concerning market-based rate authority using the Supply Margin Assessment (SMA), Federal Energy Regulatory Commission Docket No. ER03-81-000. [October 2002]. For Reliant Energy Solutions West, LLC.

Affidavit concerning the method for determining natural gas prices for purposes of calculating refunds in California, Federal Energy Regulatory Commission Docket Nos. EL00-95-045, et al. [October 2002]. For Reliant Energy Power Generation, Inc.

Direct and Surrebuttal Testimony concerning affiliate asset transaction and competitive procurement, Wisconsin Public Service Commission Docket No. 05-CE-117. [August and September 2002]. For Midwest Independent Power Suppliers.

Direct and Responsive Testimony concerning affiliate asset transfer and competitive procurement, Indiana Utility Regulatory Commission Cause No. 42145. [July and October 2002]. For Midwest Independent Power Suppliers.

Direct and Rebuttal Testimony concerning Track A issues including asset transfer, market power, and codes of conduct, Arizona Corporation Commission Docket No. E-00000A-02-0051, et al. [May and June 2002]. For Panda Gila River, L.P.

Affidavit concerning the triennial update for market-based rate authority using the Supply Margin Assessment (SMA), Federal Energy Regulatory Commission Docket No. ER01-3103-002. [June 2002]. For Reliant Resources, Inc.

Affidavit concerning market-based rate authority using the Supply Margin Assessment (SMA), Federal Energy Regulatory Commission Docket No. ER02-1762-000. [May 2002]. For Reliant Energy Solutions East, LLC.

Direct Testimony concerning Arizona Public Service Company's request for approval of variance and affiliate power purchase agreement, Arizona Corporation Commission Docket No. E-00000A-02-0051, et al. [March 2002]. For Panda Gila River, L.P.

Direct Evidence concerning a proposal for transmission congestion management and expansion cost allocation, Alberta Energy and Utilities Board Application No. 1248859. [March 2002]. For TransCanada Energy Ltd.

Direct Evidence concerning competitive procurement and pricing for transmission must-run and other ancillary services, Alberta Energy and Utilities Board Application No. 1244140. [February 2002]. For Ancillary Services Group.

Comments concerning market power mitigation by RTOs, Federal Energy Regulatory Commission Technical Conference on Standard Electricity Market Design Docket No. RM01-12-000, Washington, DC. [February 2002].

Direct Testimony concerning prices and other terms and conditions for imbalance energy from Entergy, Federal Energy Regulatory Commission Docket EL02-46-000. [January 2002]. For Generator Coalition.

Direct Testimony concerning energy market conditions and energy availability in New Orleans, City Council of New Orleans Docket No. UD-00-2. [January 2002]. For Thomas Lowenburg, et al.

Initial and Reply Comments concerning the development of market-based mechanisms to evaluate proposals to construct or acquire generating capacity, Louisiana Public Service Commission Docket No. R-26,172. [December 2001 and January 2002]. For Sempra Energy Resources.

Expert Witness concerning abrogation of power sales agreement by Entergy, State of Alabama Circuit Court for Jefferson County, Civil Action Number CV9925070. [2001]. For Southern Company Services.

Direct Testimony and Supplemental Direct concerning the competitive effects of the proposed merger of Orion Power Holdings, Inc. and Reliant Resources Inc., Federal Energy Regulatory Commission Docket No. EC02-11-000. [October 2001 and January 2002]. For Applicants.

Comments and Request For Intervention concerning a proposed refund condition for market-based rates and methods of measuring market power, Federal Energy Regulatory Commission Docket No. EL01-118-000. [December 2001]. For Boston Pacific Company, Inc.

Comments concerning the role of market monitoring by RTOs, Federal Energy Regulatory Commission Conference on Electricity Market Design and Structure Docket No. RM01-12-000. [October 2001].

Affidavit concerning updated market power analysis in support of Carr Street Generating Station, L.P.'s market-based rate application, Federal Energy Regulatory Commission Docket No. ER98-4095-001. [October 2001]. For Orion Power Holdings, Inc.

Expert Report concerning calculation of damages due to a breach of contract, United States District Court (Eastern Texas) Case No. 1:00CV-283. [August 2001]. For EPCO Carbon Dioxide Products, Inc.

Direct Testimony concerning prudence of Wisconsin Electric Power Company's Power The Future-2 proposal, Public Service Commission of Wisconsin Docket No. 6630-DR-104. [June 2001]. For Midwest Independent Power Suppliers Coordination Group.

Direct Evidence Concerning Hydro Quebec's transmission rate application, Régie de L'Énergie Case R-3401-98. [February 2001]. For Ontario Power Generation, Inc.

Presentation of guiding principles for monitoring market power in markets run by the California ISO, Federal Energy Regulatory Commission Technical Conference Docket Nos. EL00-95-000, et al. [January 2001]. For the Electric Power Supply Association.

Affidavit concerning breach of contract by a utility and the resulting damages through the imposition of a cap on a rate discount known as the LEE Credit, Louisiana Public Service Commission Docket No. U-22801. [August 2000]. For Star Enterprise.

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Affidavit concerning the competitive effects of the proposed merger of Sempra Energy and KN Energy, Inc., Federal Energy Regulatory Commission Docket No. EC99-48-000. [May 1999]. For Questar Pipeline Company.

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Direct and Rebuttal Testimony concerning claims for damages by Public Service of Colorado based on alleged improper billings under a power purchase agreement with Tri-State, American Arbitration Association No. 77 Y 181 00230 97. [September and October 1998]. For Tri-State Generation and Transmission Association, Inc.

Testimony concerning a public records request, 19th Judicial District Court, Parish of East Baton Rouge, State of Louisiana Suit No. 449,691 Div. "A". [August 1998]. For CII Carbon, L.L.C.

Direct, Cross-Answering, and Surrebuttal Testimony concerning standby rates for self-generators, Louisiana Public Service Commission Docket No. U-20925-SC. [June, July, and August 1998]. For CII Carbon, L.L.C.

Direct and Surrebuttal Testimony concerning reliability, market power, functional unbundling, divestiture, default supplier, balancing and other restructuring issues, New Jersey Board of Public Utilities Docket No. EX94120585Y, et al. [March and April 1998]. For Mid-Atlantic Power Supply Association.

Declaration concerning antitrust issues made by Florida Power in a motion for summary judgment, United States District Court (Miami, Florida) Case No. 96-594-CIV-LENARD. [February 1998]. For Metropolitan Dade County and Montenay Power.

Comments concerning market power, market structure, reliability, and related topics in restructuring, Arkansas Public Service Commission Docket Nos. 97-451-U, 97-452-U, and 97-453-U. [February 1998]. For Arkansas Electric Energy Consumers.

Direct, Rebuttal, and Surrebuttal Testimony concerning a methodology for determining avoided cost prices, Louisiana Public Service Commission Docket No. U-22739. [November and December 1997; January 1998]. For CII Carbon, L.L.C.

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Rebuttal Testimony concerning rules for affiliate transactions in the proposed merger of Pacific Enterprises and Enova Corporation, California Public Utilities Commission No. A.96-10-038. [August 1997]. For Kern River Gas Transmission Company.

Direct Testimony concerning the proposed merger of Pacific Enterprises and Enova Corporation, California Public Utilities Commission No. A.96-10-038. [August 1997]. For Kern River Gas Transmission Company.

Rebuttal Testimony concerning the calculation of damages for the Abrogation of Tenaska's power purchase agreement by BPA, American Arbitration Association No. 77-198-0224-95. [July 1997]. For Tenaska, Inc.

Testimony concerning Ex-Im Bank and OPIC, before the Subcommittee on Tax, Finance, and Exports, Committee on Small Business, U.S. House of Representatives. [May 1997].

Testimony concerning the abrogation of Tenaska's power purchase agreement by BPA, American Arbitration Association No. 77-198-0224-95. [February 1997]. For Tenaska, Inc.

Direct Testimony concerning rolled-in rates on Transco, Federal Energy Regulatory Commission Docket Nos. RP95-197-000 and RP95-197-001 (Phase II). [January 1996]. For KCS Energy Marketing, Inc.

Direct Testimony concerning estimates of avoided costs by Louisiana Power & Light, Louisiana Public Service Commission Docket No. U-21384. [October 1995]. For Calcliner Industries, Inc.

Surrebuttal Testimony concerning estimates of avoided costs by Empire District Electric Company, Missouri Public Service Commission Case No. EC-95-28. [June 1995]. For Ahlstrom Development Corporation.

Affidavit concerning Duke's market power study, Federal Energy Regulatory Commission Docket No. ER95-760-000. [April 1995]. For North Carolina Municipal Power Agency Number 1 and Piedmont Municipal Power Agency.

Direct Testimony concerning estimates of avoided costs by Empire District Electric Company, Missouri Public Service Commission Case No. EC-95-28. [January 1995]. For Ahlstrom Development Corporation.

Direct Testimony concerning a proposal for rolled-in rates by Pacific Gas Transmission, Federal Energy Regulatory Commission Docket No. RP94-149-000. [November 1994]. For Alberta Department of Energy.

Direct Testimony concerning proposal for market-based rates under Rate-K, Michigan Public Service Commission Case No. U-10625. [October 1994]. For Michigan Cogeneration Coalition.

Preliminary Written Comments concerning the need for and form of a request for proposals (RFP) by Carolina Power & Light, South Carolina Public Service Commission Docket No. 94-469-E. [August 1994]. For Carolina Competitive Energy Producers.

Initial and Reply Comments concerning guidelines for evaluation of unsolicited private power proposals, North Carolina Utilities Commission Docket No. E-100, Sub 64. [September and October 1993]. For Carolina Competitive Energy Producers.

Direct Testimony concerning Section 712 issues, Florida Public Service Commission Docket No. 921288-EU. [September 1993]. For Florida Competitive Energy Producer's Association.

Oral Testimony concerning Section 712 issues, Maryland Public Service Commission Case No. 8568. [August 1993]. For Mid-Atlantic Independent Power Producers.

Direct Testimony concerning Section 712 issues, Georgia Public Service Commission Docket No. 4384-U. [July 1993]. For Electric Generation Association.

Direct Testimony concerning the proposed merger of Entergy and Gulf States, Federal Energy Regulatory Commission Dockets Nos. EC92-21-000 and ER92-806-000. [March 1993]. For Arkansas Electric Energy Consumers.

Direct Testimony concerning New York curtailment proposals, New York Public Service Commission Case Nos. 92-E-0814 and 88-E-081. [February 1993]. For J. Makowski Associates, Inc.

Direct Testimony concerning Georgia Power Company's Integrated Resource Plan, Georgia Public Service Commission Dockets No. 4131-U and 4134-U. [June 1992]. For Mission Energy Company.

Direct and Rebuttal Testimony concerning Baltimore Gas and Electric's CPCN filing and Cogen Technologies' proposed QF, Maryland Public Service Commission Case No. 8241-Phase II. [August and September 1991]. For Mission Energy Company.

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