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BEFORE THE PUBLIC SERVICE COMMISSION OF UTAH

In the Matter of the Application of Questar Gas Company to File a General Rate Case	Docket No. 07-057-13
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PREFILED DIRECT TESTIMONY OF KEVIN C. HIGGINS

[TEST PERIOD]

The UAE Intervention Group hereby submits the Prefiled Direct Testimony of Kevin C. Higgins on test period issues.

DATED this 28th day of January, 2008.

/s/ _____
Gary A. Dodge,
Attorneys for UAE

CERTIFICATE OF SERVICE

I hereby certify that a true and correct copy of the foregoing was served by email this 28th day of January, 2008, to the following

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BEFORE
THE PUBLIC SERVICE COMMISSION OF UTAH

Direct Testimony of Kevin C. Higgins

on behalf of

UAE

Docket No. 07-057-13

[Test Year]

January 28, 2008

1 **DIRECT TESTIMONY OF KEVIN C. HIGGINS**

2 **Introduction**

3 **Q. Please state your name and business address.**

4 A. Kevin C. Higgins, 215 South State Street, Suite 200, Salt Lake City, Utah, 84111.

5 **Q. By whom are you employed and in what capacity?**

6 A. I am a Principal in the firm of Energy Strategies, LLC. Energy Strategies
7 is a private consulting firm specializing in economic and policy analysis
8 applicable to energy production, transportation, and consumption.

9 **Q. On whose behalf are you testifying in this proceeding?**

10 A. My testimony is being sponsored by the Utah Association of Energy Users
11 Intervention Group (UAE).

12 **Q. Please describe your professional experience and qualifications.**

13 A. My academic background is in economics, and I have completed all
14 coursework and field examinations toward a Ph.D. in Economics at the University
15 of Utah. In addition, I have served on the adjunct faculties of both the University
16 of Utah and Westminster College, where I taught undergraduate and graduate
17 courses in economics. I joined Energy Strategies in 1995, where I assist private
18 and public sector clients in the areas of energy-related economic and policy
19 analysis, including evaluation of electric and gas utility rate matters.

20 Prior to joining Energy Strategies, I held policy positions in state and local
21 government. From 1983 to 1990, I was economist, then assistant director, for the
22 Utah Energy Office, where I helped develop and implement state energy policy.
23 From 1991 to 1994, I was chief of staff to the chairman of the Salt Lake County

1 Commission, where I was responsible for development and implementation of a
2 broad spectrum of public policy at the local government level.

3 **Q. Have you previously testified before this Commission?**

4 A. Yes. Since 1984, I have testified at least fifteen times before the Utah
5 Public Service Commission on electricity and natural gas matters.

6 **Q. Have you testified previously before any other state utility regulatory
7 commissions?**

8 A. Yes. I have testified in at least seventy other proceedings on the subjects
9 of utility rates and regulatory policy before state utility regulators in Alaska,
10 Arkansas, Arizona, Colorado, Georgia, Idaho, Illinois, Indiana, Kansas,
11 Kentucky, Michigan, Minnesota, Missouri, Montana, Nevada, New Mexico, New
12 York, Ohio, Oklahoma, Oregon, Pennsylvania, South Carolina, Virginia,
13 Washington, West Virginia, and Wyoming.

14 A more detailed description of my qualifications is contained in
15 Attachment A, attached to my direct testimony.

16

17 **Overview and conclusions**

18 **Q. What is the purpose of your testimony in this proceeding?**

19 A. My testimony addresses the matter of the most appropriate test period to
20 be used in this general rate proceeding.

21 **Q. What are your primary conclusions and recommendations?**

1 A. I conclude that the best test period to be used in this general rate
2 proceeding is Calendar Year 2008, consisting of the period January 1, 2008
3 through December 31, 2008. In my opinion, Calendar Year 2008 best reflects the
4 conditions Questar Gas Company (“QGC”) will encounter during the period the
5 rates will be in effect.

6

7 **Basis for Determining Test Period**

8 **Q. On what basis must test period be determined in Utah?**

9 A. The determination of a public utility’s test period is addressed in Section
10 54-4-4(3) of the Utah Code, which states:

11 (a) If in the commission’s determination of just and reasonable rates the
12 commission uses a test period, the commission shall select a test period
13 that, on the basis of the evidence, the commission finds best reflects the
14 conditions that a public utility will encounter during the period when the
15 rates determined by the commission will be in effect.

16
17 (b) In establishing the test period determined in Subsection (3)(a), the
18 commission may use:

19
20 (i) a future test period that is determined on the basis of projected
21 data not exceeding 20 months from the date that a proposed rate
22 increase or decrease is filed with the commission under Section
23 54-7-12;

24
25 (ii) a test period that is:

26
27 (A) determined on the basis of historic data; and
28 (B) adjusted for known and measurable changes; or

29
30 (iii) a test period that is determined on the basis of a combination
31 of :

32
33 (A) future projections; and
34 (B) historic data.

1
2 (c) If pursuant to this Subsection (3), the commission establishes a test
3 period that is not determined exclusively on the basis of future projections,
4 in determining just and reasonable rates the commission shall consider
5 changes outside the test period that:

6
7 (i) occur during a time period that is close in time to the test
8 period;

9
10 (ii) are known in nature; and

11
12 (iii) are measurable in amount.
13

14 **Q. Did the Legislature adopt intent language associated with this statute?**

15 A. Yes. The Legislature adopted intent language stating:

16 “The intent of the legislature in passing S.B. 61, Public Utility Related
17 Amendments, is to have the Public Service Commission select a test
18 period for setting utility rates based on the best evidence presented to the
19 Public Service Commission without any presumption for or against either
20 a historical or a future test period.”¹
21

22 **Q. Based on your experience in utility regulation, and without attempting to**
23 **render a legal opinion, how do you interpret the plain language of this statute**
24 **taken in combination with the Legislature’s intent language?**

25 A. There are three “generic” test period options available for setting rates in
26 Utah, and the Commission is free to choose the best test period based on the
27 evidence. Significantly, there is no presumption either for or against an historical,
28 a mixed, or a future test period. The particular importance of this latter statement
29 is that an argument structured along the lines that “a future test period must be
30 chosen because the rate effective period is in the future – and, by definition, a

¹ Senate Journal, Tuesday, February 19, 2003, Day 30, page 515, Intent Language to S.B. 61; House Journal, Tuesday, March 4, 2003, Day 44, page 961, Intent Language for S.B. 61.

1 future period best reflects the future” is not sufficient grounds for determining the
2 appropriate test period in Utah.

3 **Q. Please explain.**

4 A. Rate-effective periods are *always* in the future. Therefore, in determining
5 test period, it is not valid to rely on the tautological assertions that “the future best
6 reflects the future,” or “the rate effective period best reflects the rate effective
7 period,” as reliance on such arguments equates to a presumption in favor of a
8 future test period. Such a presumption would be inconsistent with the stated intent
9 of the legislature. Moreover, such an argument attempts to deprive the
10 Commission of the right to exercise its discretion to consider all of the relevant
11 factual and policy issues inherent in a test year determination. The legislature
12 clearly did not intend to deprive the Commission of its obligation and right to
13 consider all relevant factors in selecting a test year.

14 **Q. Has the Commission provided any guidance with respect to determination of**
15 **test period?**

16 A. Yes. In its order approving the test period stipulation in a previous
17 PacifiCorp general rate case, issued October 20, 2004 in Docket No. 04-035-42,
18 the Commission identified various factors that need to be considered in selecting a
19 test period. The factors identified in the Commission’s Order include the general
20 level of inflation; changes in the utility’s investment, revenues or expenses;
21 changes in utility services; availability and accuracy of data to the parties; ability
22 to synchronize the utility’s investment, revenues and expenses; whether the utility

1 is in a cost increasing or cost declining status; incentives to efficient management
2 and operation; and length of time the new rates are expected to be in effect.

3 In that same order, the Commission also discussed some important policy
4 concerns implicated by future test periods. These concerns include diminished
5 economic examination and accountability, replacement of actual results of
6 operations data with difficult-to-analyze projections, ability of parties to
7 effectively analyze the Company's forecasts, dampening of the efficiency
8 incentive of regulatory lag, playing to the Company's strength from control of
9 critical information, and shifting of the risks of the future to ratepayers.

10 **Q. Do you share these concerns expressed by the Commission concerning future**
11 **test periods?**

12 A. Yes, I do. I acknowledge that the Calendar Year 2008 test period I am
13 recommending relies entirely on projections of data, and from that standpoint, is
14 also a future test period. As such, it is subject to the concerns expressed by the
15 Commission. However, I believe that these concerns are sufficiently mitigated by
16 the fact that the Calendar Year 2008 forecasts are relatively close in time, and line
17 up well with the start of the rate-effective period. I believe the concerns
18 expressed by the Commission are more pertinent to a more "aggressive" future
19 test period, such as that advocated in this proceeding by QGC, which extends six
20 months beyond the test period I am recommending.

21

1 **Test Period Proposed by QGC**

2 **Q. What is QGC's proposal for the test period to be used in this proceeding?**

3 A. QGC is proposing to use a test period ending June 2009 to support its rate
4 increase request of \$27 million. The Company's rate increase request was filed on
5 December 19, 2007, and the Company's proposed test period ends some 18½
6 months later. This means that its proposed test period extends nearly to the
7 maximum point in the future allowed by Utah law.

8 **Q. What is the relationship between QGC's proposed test period and the**
9 **Company's historical costs and revenues?**

10 A. As explained in the direct testimony of QGC witness Kelly B.
11 Mendenhall, the Company prepared a base case using historical data for the 12-
12 month period ending June 2007. The Company's base case analysis claims that
13 QGC is experiencing a jurisdictional revenue deficiency of \$2.1 million.²

14 QGC then prepared a forecast of costs and revenues for the subsequent 24-
15 month period ending June 2009. As described in the direct testimony of David M.
16 Curtis, this exercise required the QGC to forecast, among other things, customer
17 growth, usage per customer, general inflation, wage inflation, operating and
18 maintenance expense, labor costs, corporate overheads, and taxes. In addition, the
19 Company projected the cumulative capital expenditures to be added to rate base
20 (net of depreciation and accumulated deferred income taxes), as well as the
21 Company's capital structure and debt costs for the test period.

²Application, p. 4.

1 The Company’s test period analysis claims that QGC is experiencing a
2 Utah revenue deficiency of 27 million.³

3 **Q. Do you agree with QGC’s conclusion that its proposed test period is the most**
4 **appropriate for setting rates in this proceeding?**

5 A. No, I do not. I believe that a projected test period that is closer in time than
6 QGC’s proposed period is a more reasonable choice. For this reason, Calendar
7 Year 2008 is a more appropriate choice, as it will provide a more certain basis for
8 establishing rates that would go into effect in August 2008. Further, under the
9 Company’s proposal, customers in August 2008 would be paying for some capital
10 investments that will not occur for another 10 months – and might not occur as
11 planned. In addition, customers would be paying for projected 2009 inflation
12 before 2009 had even arrived. They would also be paying for expected labor cost
13 increases before the employees received the raises in question. And they would be
14 paying for the cost of equity infusions before the Company’s shareholders
15 provided the requisite additional capital. Such a result is inconsistent with the
16 “used and useful” concept of utility regulation, is unfair to ratepayers, and is not
17 good public policy.

18 **Q. Are the arguments advanced by QGC witness **Barrie L. McKay** against the**
19 **use of a historical test period applicable to your proposal?**

20 A. No. I am not proposing a historical test period – nor am I even proposing a
21 hybrid of historical and projected data. Like QGC, I am proposing a fully

³ QGC Exhibit 6.2, page 1, column G, line 3.

1 projected test period. The fundamental difference between our proposals lies in
2 how far into the future we believe the test period projections should go.

3 **Advantages of a Calendar Year 2008 Test Period**

4 **Q. You state that an advantage of a Calendar Year 2008 test period is that its**
5 **projections are closer in time than QGC's proposal. Why is that an**
6 **advantage?**

7 A. Projections of prices, loads, and costs that are closer in time to the present
8 will generally be more reliable than projections further out. As described above,
9 QGC's forecast of its proposed test period utilizes a 24-month projection beyond
10 its historical base period. In contrast, the Calendar Year 2008 projection would
11 reduce this projection by six months.

12 **Q. Are there other advantages to projections that are closer in time, besides**
13 **reducing forecast error?**

14 A. Yes. Besides forecasting economic variables, future test periods require
15 projections of how rapidly the utility will implement its capital expenditure
16 programs. In reality, these plans may not unfold as projected. I see this as a
17 disadvantage of using an aggressive future test period. In contrast, I believe a test
18 period that employs a more near-term projection of a utility's capital expenditure
19 program – when projects are known with greater specificity – will prove to be
20 more reliable, and thus, more appropriate for ratemaking.

21 **Q. The Commission has indicated that one of the factors for determining test**
22 **period is the ability to synchronize the utility's investment, revenues and**

1 **expenses. Under your proposed test period, would these items be**
2 **synchronized?**

3 A. Yes. I am proposing a fully-projected test period that requires no out-of-
4 period adjustments. As such, investment, revenues and expenses would be fully
5 synchronized.

6 **Q. In light of the fact that QGC has not filed a Calendar Year 2008 test period,**
7 **how can your proposal be implemented?**

8 A. If my proposal is adopted, I recommend that QGC be required to re-
9 present its rate case filing by using a Calendar Year 2008 test period. As the
10 Company has already projected beyond 2008, the information necessary to
11 prepare a Calendar Year 2008 test period is already in QGC's possession.

12 **Q. The Commission has indicated that other factors for determining test period**
13 **include changes in the utility's investment, revenues, expenses or services.**

14 **Does your proposed test period account for such changes?**

15 A. Yes. My proposed test period would account for projected changes
16 through December 31, 2008. This would line up well with the start of the rate-
17 effective period that QGC has requested – August, 2008. My proposal would not
18 account for projected changes that would occur in 2009 and beyond – nor do I
19 believe it should.

20 **Q. The Commission has also indicated that the availability and accuracy of data**
21 **to the parties is a factor in determining test period. Do you wish to comment?**

1 A. Based on the information I have reviewed in preparing this testimony, I
2 believe that QGC has done a reasonable job in making data available to the
3 parties. However, as I indicated earlier, the availability and accuracy of data are
4 necessarily diminished as longer-term forecasts are used.

5 **Q. The Commission has stated that the general level of inflation is a factor in**
6 **determining test period. Do you wish to comment?**

7 A. My interpretation of this statement is that in determining whether to adopt
8 a historical test period, the Commission would consider whether a utility was
9 experiencing significant inflationary pressures that would require appropriate
10 adjustments to compensate for known increases in the price level. In adopting a
11 prospective test period, this concern is addressed by making assumptions about
12 inflation that are incorporated into the utility's forecasted costs.

13 However, I wish to add a caution regarding this practice, particularly as it
14 relates to an aggressive future test period, such as QGC has proposed. As an
15 economist, I have concerns about pricing formulations that reinforce inflation.
16 This can occur when *projections* of inflation are built into formulas that are then
17 used to set administratively-determined prices, such as utility rates. Such pricing
18 mechanisms help to make inflation a self-fulfilling prophesy. As a matter of
19 public policy, this is a concern. It is one thing to adjust for inflation; it is another
20 to help guarantee it. This problem is less pronounced using the Calendar Year
21 2008 test period I have proposed.

1 **Q. The Commission has also stated that it will consider whether the utility is in**
2 **a cost increasing or cost declining status. Please comment on the**
3 **appropriateness of your proposal with regard to this factor.**

4 A. In general, a utility that is facing increasing costs will benefit from – and
5 therefore, prefer – an aggressive future test period. Conversely, a utility facing a
6 declining cost situation will benefit from – and prefer – an historical test period.

7 The “near-term” projected test period I am proposing sits between these
8 two extremes. In my view, it is a reasonable mechanism for addressing both
9 increasing-cost and declining-cost situations.

10 **Q. The Commission has indicated that another factor to be considered is**
11 **incentives to efficient management and operation. Please comment on this.**

12 A. In addressing this point, it is useful to draw a distinction between efficient
13 management and operation *per se*, and achieving *lower rates* through efficient
14 management and operation. They are not necessarily the same thing.

15 Once rates are set, either through a historical test period or a projected test
16 period, a well-run utility will seek to be as efficient as possible, because all cost
17 savings will flow to the bottom line – at least until the next general rate case. In
18 that sense, I view the choice of test period to be relatively neutral with respect to
19 achieving efficient management and operations *per se*.

20 But there can be a marked difference with respect to achieving *lower rates*
21 through efficient management and operation. With a projected test period, a
22 utility might anticipate the cost of a future activity to increase to a given level

1 “x” some 12 to 20 months into the future, and build that higher projected cost
2 into rates. If, during the intervening period, the utility finds a way to perform that
3 activity more efficiently, the cost savings flow to the Company. The incentive to
4 be efficient exists with both a historical and future test period, and in both cases
5 the benefits are not experienced in rates until they are reset pursuant to a
6 subsequent case. However, net efficiency gains captured by shareholders are
7 likely to be larger the further into the future the test period is projected. This is
8 because the level of expenses in rates is generally higher the further into the
9 future the test period extends, as greater inflation would be built into these
10 expenses. Consequently, adopting an efficiency improvement would produce a
11 greater net benefit for shareholders in this situation.

12 **Q. The Commission has also indicated that the length of time the new rates are**
13 **expected to be in effect may be a factor in determining test period. Please**
14 **comment.**

15 A. It is difficult to predict how long new rates may stay in effect. I believe
16 the most reasonable approach is to set rates targeting the time that rates are
17 scheduled to take effect, and then allow actual conditions to determine when the
18 next rate case is necessary. In addition, I might point out that an aggressive future
19 test period might be somewhat less objectionable if it were accompanied by a
20 “stay-out” provision that precludes subsequent rate increases for some period of
21 years.

1 **Q. You mentioned the concept of “used and useful;” what role do you believe**
2 **that concept should play in the test year context?**

3 A. A fundamental principle of utility regulation is that a public utility should
4 be permitted to earn a reasonable return on its investment in facilities after they
5 have become “used and useful” for the utility’s public service within the state.
6 As explained by the Utah Supreme Court in describing some “basic principles” of
7 utility regulation: “It is only to the extent the facilities developed are used and
8 useful to the consumer that they are included in the rate base.” (Committee of
9 Consumer Services v. Public Service Commission, 595 P.2d 871, 874 (Utah
10 1979)). From a policy perspective – without attempting to address legal issues –
11 the concept of pre-paying a return on a utility’s projected investment in future
12 facilities that have not yet been completed – and indeed, might not be completed
13 according to the projected schedule – is fundamentally inconsistent with the “used
14 and useful” concept.

15 **Q. Does the adoption of revenue decoupling in the Conservation Enabling Tariff**
16 **(“CET”) have implications for the choice of test period for QGC?**

17 A. Yes. One of QGC’s chief complaints in recent years has been that
18 declining usage per customer was a major cause of earnings erosion, a situation
19 that was exacerbated if rates were established using historical customer usage
20 levels. The recent adoption of the CET on a pilot basis means that QGC’s
21 distribution non-gas revenues will be adjusted for changes in usage-per-customer
22 on a going-forward basis. Thus, the risk to QGC from relying on historical or

1 near-term projections of usage-per-customer has been removed. This action
2 eliminates any argument that an aggressive future test period is needed to protect
3 QGC from earnings attrition associated with declining usage per customer.
4 Consequently, the adoption of the CET provides additional support for using a
5 test period that is closer in time, as I have recommended.

6 **Q. Please summarize your recommendations to the Commission.**

7 A. The best test period to be used in the general rate proceeding is Calendar
8 Year 2008, consisting of the period January 1, 2008 through December 31, 2008.
9 In my opinion, a Calendar Year 2008 test period best reflects the conditions QGC
10 will encounter during the period the rates will be in effect, and is a superior choice
11 compared to the more aggressive future test period proposed by QGC. A future
12 test period such as Calendar Year 2008 will use forecasts that are nearer in time
13 than those proposed by the Company, and thus will provide a more certain basis
14 for establishing rates that would go into effect in August 2008. Further, under the
15 Company's proposal, customers in August 2008 would be paying for capital
16 investment that had not yet occurred – and might not occur as planned. In
17 addition, customers would be paying for projected 2009 inflation, expected labor
18 cost increases, and the cost of equity infusions before these costs were actually
19 incurred.

20 **Q. Does this conclude your direct testimony?**

21 A. Yes, it does.

KEVIN C. HIGGINS
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Vitae

PROFESSIONAL EXPERIENCE

Principal, Energy Strategies, L.L.C., Salt Lake City, Utah, January 2000 to present. Responsible for energy-related economic and policy analysis, regulatory intervention, and strategic negotiation on behalf of industrial, commercial, and public sector interests. Previously Senior Associate, February 1995 to December 1999.

Adjunct Instructor in Economics, Westminster College, Salt Lake City, Utah, September 1981 to May 1982; September 1987 to May 1995. Taught in the economics and M.B.A. programs. Awarded Adjunct Professor of the Year, Gore School of Business, 1990-91.

Chief of Staff to the Chairman, Salt Lake County Board of Commissioners, Salt Lake City, Utah, January 1991 to January 1995. Senior executive responsibility for all matters of county government, including formulation and execution of public policy, delivery of approximately 140 government services, budget adoption and fiscal management (over \$300 million), strategic planning, coordination with elected officials, and communication with consultants and media.

Assistant Director, Utah Energy Office, Utah Department of Natural Resources, Salt Lake City, Utah, August 1985 to January 1991. Directed the agency's resource development section, which provided energy policy analysis to the Governor, implemented state energy development policy, coordinated state energy data collection and dissemination, and managed energy technology demonstration programs. Position responsibilities included policy formulation and implementation, design and administration of energy technology demonstration programs, strategic management of the agency's interventions before the Utah Public Service Commission, budget preparation, and staff development. Supervised a staff of economists, engineers, and policy analysts, and served as lead economist on selected projects.

Utility Economist, Utah Energy Office, January 1985 to August 1985. Provided policy and economic analysis pertaining to energy conservation and resource development, with an emphasis on utility issues. Testified before the state Public Service Commission as an expert witness in cases related to the above.

Acting Assistant Director, Utah Energy Office, June 1984 to January 1985. Same responsibilities as Assistant Director identified above.

Research Economist, Utah Energy Office, October 1983 to June 1984. Provided economic analysis pertaining to renewable energy resource development and utility issues. Experience includes preparation of testimony, development of strategy, and appearance as an expert witness for the Energy Office before the Utah PSC.

Operations Research Assistant, Corporate Modeling and Operations Research Department, Utah Power and Light Company, Salt Lake City, Utah, May 1983 to September 1983. Primary area of responsibility: designing and conducting energy load forecasts.

Instructor in Economics, University of Utah, Salt Lake City, Utah, January 1982 to April 1983. Taught intermediate microeconomics, principles of macroeconomics, and economics as a social science.

Teacher, Vernon-Verona-Sherrill School District, Verona, New York, September 1976 to June 1978.

EDUCATION

Ph.D. Candidate, Economics, University of Utah (coursework and field exams completed, 1981).

Fields of Specialization: Public Finance, Urban and Regional Economics, Economic Development, International Economics, History of Economic Doctrines.

Bachelor of Science, Education, State University of New York at Plattsburgh, 1976 (cum laude).

Danish International Studies Program, University of Copenhagen, 1975.

SCHOLARSHIPS AND FELLOWSHIPS

University Research Fellow, University of Utah, Salt Lake City, Utah 1982 to 1983.

Research Fellow, Institute of Human Resources Management, University of Utah, 1980 to 1982.

Teaching Fellow, Economics Department, University of Utah, 1978 to 1980.

New York State Regents Scholar, 1972 to 1976.

EXPERT TESTIMONY

In the Matter of the Application of Ohio Edison Company, The Cleveland Electric Illuminating Company and The Toledo Edison Company for Authority to Increase Rates for Distribution Service, Modify Certain Accounting Practices and for Tariff Approvals, Public Utilities Commission of **Ohio**, Case Nos. 07-551-EL-AIR, 07-552-EL-ATA, 07-553-EL-AAM, and 07-554-EL-UNC. Direct testimony submitted January 10, 2008.

“In the Matter of the Application of Rocky Mountain Power for Authority to Increase Its Retail Electric Utility Service Rates in Wyoming, Consisting of a General Rate Increase of Approximately \$36.1 Million per Year, and for Approval of a New Renewable Resource Mechanism and Marginal Cost Pricing Tariff,” **Wyoming** Public Service Commission, Docket No. 20000-277-ER-07. Direct testimony submitted January 7, 2008.

“In the Matter of the Application of Idaho Power Company for Authority to Increase Its Rates and Charges for Electric Service to Electric Customers in the State of Idaho,” **Idaho** Public Utilities Commission, Case No. IPC-E-07-8. Direct testimony submitted December 10, 2007. Cross examined January 23, 2008.

“In The Matter of the Application of Consumers Energy Company for Authority to Increase Its Rates for the Generation and Distribution Of Electricity and Other Relief,” **Michigan** Public Service Commission, Case No. U-15245. Direct testimony submitted November 6, 2007. Rebuttal testimony submitted November 20, 2007.

“In the Matter of Montana-Dakota Utilities Co., Application for Authority to Establish Increased Rates for Electric Service,” **Montana** Public Service Commission, Docket No. D2007.7.79. Direct testimony submitted October 24, 2007.

“In the Matter of the Application of Public Service Company of New Mexico for Revision of its Retail Electric Rates Pursuant to Advice Notice No. 334,” **New Mexico** Public Regulation Commission, Case No. 07-0077-UT. Direct testimony submitted October 22, 2007. Rebuttal testimony submitted November 19, 2007. Cross examined December 12, 2007.

“In The Matter of Georgia Power Company’s 2007 Rate Case,” **Georgia** Public Service Commission, Docket No. 25060-U. Direct testimony submitted October 22, 2007. Cross examined November 7, 2007.

“In the Matter of the Application of Rocky Mountain Power for an Accounting Order to Defer the Costs Related to the MidAmerican Energy Holdings Company Transaction,” **Utah** Public Service Commission, Docket No. 07-035-04; “In the Matter of the Application of Rocky Mountain Power, a Division of PacifiCorp, for a Deferred Accounting Order To Defer the Costs of Loans Made to Grid West, the Regional Transmission Organization,” Docket No. 06-035-163;

“In the Matter of the Application of Rocky Mountain Power for an Accounting Order for Costs related to the Flooding of the Powerdale Hydro Facility,” Docket No. 07-035-14. Direct testimony submitted September 10, 2007. Surrebuttal testimony submitted October 22, 2007. Cross examined October 30, 2007.

“In the Matter of General Adjustment of Electric Rates of East Kentucky Power Cooperative, Inc.,” **Kentucky** Public Service Commission, Case No. 2006-00472. Direct testimony submitted July 5, 2007.

“In the Matter of the Application of Sempra Energy Solutions for a Certificate of Convenience and Necessity for Competitive Retail Electric Service,” **Arizona** Corporation Commission, Docket No. E-03964A-06-0168. Direct testimony submitted July 3, 2007. Rebuttal testimony submitted January 17, 2008.

“Application of Public Service Company of Oklahoma for a Determination that Additional Electric Generating Capacity Will Be Used and Useful,” **Oklahoma** Corporation Commission, Cause No. PUD 200500516; “Application of Public Service Company of Oklahoma for a Determination that Additional Baseload Electric Generating Capacity Will Be Used and Useful,” Cause No. PUD 200600030; “In the Matter of the Application of Oklahoma Gas and Electric Company for an Order Granting Pre-Approval to Construct Red Rock Generating Facility and Authorizing a Recovery Rider,” Cause No. PUD200700012. Responsive testimony submitted May 21, 2007. Cross examined July 26, 2007.

“Application of Nevada Power Company for Authority to Increase Its Annual Revenue Requirement for General Rates Charged to All Classes of Electric Customers and for Relief Properly Related Thereto,” Public Utilities Commission of **Nevada**, Docket No. 06-11022. Direct testimony submitted March 14, 2007 (Phase III – revenue requirements) and March 19, 2007 (Phase IV – rate design). Cross examined April 10, 2007 (Phase III – revenue requirements) and April 16, 2007 (Phase IV – rate design).

“In the Matter of the Application of Entergy Arkansas, Inc. for Approval of Changes in Rates for Retail Electric Service,” **Arkansas** Public Service Commission, Docket No. 06-101-U. Direct testimony submitted February 5, 2007. Surrebuttal testimony submitted March 26, 2007.

“Monongahela Power Company and The Potomac Edison Company, both d/b/a Allegheny Power – Rule 42T Application to Increase Electric Rates and Charges,” Public Service Commission of **West Virginia**, Case No. 06-0960-E-42T; “Monongahela Power Company and The Potomac Edison Company, both d/b/a Allegheny Power – Information Required for Change of Depreciation Rates Pursuant to Rule 20,” Case No. 06-1426-E-D. Direct and rebuttal testimony submitted January 22, 2007.

“In the Matter of the Tariffs of Aquila, Inc., d/b/a Aquila Networks-MPS and Aquila Networks-

L&P Increasing Electric Rates for the Services Provided to Customers in the Aquila Networks-MPS and Aquila Networks-L&P Missouri Service Areas,” **Missouri** Public Service Commission, Case No. ER-2007-0004. Direct testimony submitted January 18, 2007 (revenue requirements) and January 25, 2007 (revenue apportionment). Supplemental direct testimony submitted February 27, 2007.

“In the Matter of the Filing by Tucson Electric Power Company to Amend Decision No. 62103, **Arizona** Corporation Commission, Docket No. E-01933A-05-0650. Direct testimony submitted January 8, 2007. Surrebuttal testimony filed February 8, 2007. Cross examined March 8, 2007.

“In the Matter of Union Electric Company d/b/a AmerenUE for Authority to File Tariffs Increasing Rates for Electric Service Provided to Customers in the Company’s Missouri Service Area,” **Missouri** Public Service Commission, Case No. ER-2007-0002. Direct testimony submitted December 15, 2006 (revenue requirements) and December 29, 2006 (fuel adjustment clause/cost-of-service/rate design). Rebuttal testimony submitted February 5, 2007 (cost-of-service). Surrebuttal testimony submitted February 27, 2007. Cross examined March 21, 2007.

“In the Matter of Application of The Union Light, Heat and Power Company d/b/a Duke Energy Kentucky, Inc. for an Adjustment of Electric Rates,” **Kentucky** Public Service Commission, Case No. 2006-00172. Direct testimony submitted September 13, 2006.

“In the Matter of Appalachian Power Company’s Application for Increase in Electric Rates,” **Virginia** State Corporation Commission, Case No. PUE-2006-00065. Direct testimony submitted September 1, 2006. Cross examined December 7, 2006.

“In the Matter of the Application of Arizona Public Service Company for a Hearing to Determine the Fair Value of the Utility Property for Ratemaking Purposes, to Fix a Just and Reasonable Rate of Return Thereon, To Approve Rate Schedules Designed to Develop Such Return, and to Amend Decision No. 67744, **Arizona** Corporation Commission,” Docket No. E-01345A-05-0816. Direct testimony submitted August 18, 2006 (revenue requirements) and September 1, 2006 (cost-of-service/rate design). Surrebuttal testimony submitted September 27, 2006. Cross examined November 7, 2006.

“Re: The Tariff Sheets Filed by Public Service Company of Colorado with Advice Letter No 1454 – Electric,” **Colorado** Public Utilities Commission, Docket No. 06S-234EG. Answer testimony submitted August 18, 2006.

“Portland General Electric General Rate Case Filing,” Public Utility Commission of **Oregon**, Docket No. UE-180. Direct testimony submitted August 9, 2006. Joint testimony regarding stipulation submitted August 22, 2006.

“2006 Puget Sound Energy General Rate Case,” **Washington** Utilities and Transportation Commission, Docket Nos. UE-060266 and UG-060267. Response testimony submitted July 19, 2006. Joint testimony regarding stipulation submitted August 23, 2006.

“In the Matter of PacifiCorp, dba Pacific Power & Light Company, Request for a General Rate Increase in the Company’s Oregon Annual Revenues,” Public Utility Commission of **Oregon**, Docket No. UE-179. Direct testimony submitted July 12, 2006. Joint testimony regarding stipulation submitted August 21, 2006.

“Petition of Metropolitan Edison Company for Approval of a Rate Transition Plan,” **Pennsylvania** Public Utilities Commission, Docket Nos. P-00062213 and R-00061366; “Petition of Pennsylvania Electric Company for Approval of a Rate Transition Plan,” Docket Nos. P-0062214 and R-00061367; Merger Savings Remand Proceeding, Docket Nos. A-110300F0095 and A-110400F0040. Direct testimony submitted July 10, 2006. Rebuttal testimony submitted August 8, 2006. Surrebuttal testimony submitted August 18, 2006. Cross examined August 30, 2006.

“In the Matter of the Application of PacifiCorp for approval of its Proposed Electric Rate Schedules & Electric Service Regulations,” **Utah** Public Service Commission, Docket No. 06-035-21. Direct testimony submitted June 9, 2006 (Test Period). Surrebuttal testimony submitted July 14, 2006.

“Joint Application of Questar Gas Company, the Division of Public Utilities, and Utah Clean Energy for the Approval of the Conservation Enabling Tariff Adjustment Option and Accounting Orders,” **Utah** Public Service Commission, Docket No. 05-057-T01. Direct testimony submitted May 15, 2006. Rebuttal testimony submitted August 8, 2007. Cross examined September 19, 2007.

“Central Illinois Light Company d/b/a AmerenCILCO, Central Illinois Power Company d/b/a AmerenCIPS, Illinois Power Company d/b/a AmerenIP, Proposed General Increase in Rates for Delivery Service (Tariffs Filed December 27, 2005),” **Illinois** Commerce Commission, Docket Nos. 06-0070, 06-0071, 06-0072. Direct testimony submitted March 26, 2006. Rebuttal testimony submitted June 27, 2006.

“In the Matter of Appalachian Power Company and Wheeling Power Company, both dba American Electric Power,” Public Service Commission of **West Virginia**, Case No. 05-1278-E-PC-PW-42T. Direct and rebuttal testimony submitted March 8, 2006.

“In the Matter of Northern States Power Company d/b/a Xcel Energy for Authority to Increase Rates for Electric Service in Minnesota,” **Minnesota** Public Utilities Commission, Docket No. G-002/GR-05-1428. Direct testimony submitted March 2, 2006. Rebuttal testimony submitted March 30, 2006. Cross examined April 25, 2006.

“In the Matter of the Application of Arizona Public Service Company for an Emergency Interim Rate Increase and for an Interim Amendment to Decision No. 67744,” **Arizona** Corporation Commission, Docket No. E-01345A-06-0009. Direct testimony submitted February 28, 2006. Cross examined March 23, 2006.

“In the Matter of the Applications of Westar Energy, Inc. and Kansas Gas and Electric Company for Approval to Make Certain Changes in Their Charges for Electric Service,” State Corporation Commission of **Kansas**, Case No. 05-WSEE-981-RTS. Direct testimony submitted September 9, 2005. Cross examined October 28, 2005.

“In the Matter of the Application of Columbus Southern Power Company and Ohio Power Company for Authority to Recover Costs Associated with the Construction and Ultimate Operation of an Integrated Combined Cycle Electric Generating Facility,” Public Utilities Commission of **Ohio**,” Case No. 05-376-EL-UNC. Direct testimony submitted July 15, 2005. Cross examined August 12, 2005.

“In the Matter of the Filing of General Rate Case Information by Tucson Electric Power Company Pursuant to Decision No. 62103,” **Arizona** Corporation Commission, Docket No. E-01933A-04-0408. Direct testimony submitted June 24, 2005.

“In the Matter of Application of The Detroit Edison Company to Unbundle and Realign Its Rate Schedules for Jurisdictional Retail Sales of Electricity,” **Michigan** Public Service Commission, Case No. U-14399. Direct testimony submitted June 9, 2005. Rebuttal testimony submitted July 1, 2005.

“In the Matter of the Application of Consumers Energy Company for Authority to Increase Its Rates for the Generation and Distribution of Electricity and Other Relief,” **Michigan** Public Service Commission, Case No. U-14347. Direct testimony submitted June 3, 2005. Rebuttal testimony submitted June 17, 2005.

“In the Matter of Pacific Power & Light, Request for a General Rate Increase in the Company’s Oregon Annual Revenues,” Public Utility Commission of **Oregon**, Docket No. UE 170. Direct testimony submitted May 9, 2005. Surrebuttal testimony submitted June 27, 2005. Joint testimony regarding partial stipulations submitted June 2005, July 2005, and August 2005.

“In the Matter of the Application of Trico Electric Cooperative, Inc. for a Rate Increase,” **Arizona** Corporation Commission, Docket No. E-01461A-04-0607. Direct testimony submitted April 13, 2005. Surrebuttal testimony submitted May 16, 2005. Cross examined May 26, 2005.

“In the Matter of the Application of PacifiCorp for Approval of its Proposed Electric Service Schedules and Electric Service Regulations,” **Utah** Public Service Commission, Docket No. 04-035-42. Direct testimony submitted January 7, 2005.

“In the Matter of the Application by Golden Valley Electric Association, Inc., for Authority to Implement Simplified Rate Filing Procedures and Adjust Rates,” Regulatory Commission of **Alaska**, Docket No. U-4-33. Direct testimony submitted November 5, 2004. Cross examined February 8, 2005.

“Advice Letter No. 1411 - Public Service Company of Colorado Electric Phase II General Rate Case,” **Colorado** Public Utilities Commission, Docket No. 04S-164E. Direct testimony submitted October 12, 2004. Cross-answer testimony submitted December 13, 2004. Testimony withdrawn January 18, 2005, following Applicant’s withdrawal of testimony pertaining to TOU rates.

“In the Matter of Georgia Power Company’s 2004 Rate Case,” **Georgia** Public Service Commission, Docket No. 18300-U. Direct testimony submitted October 8, 2004. Cross examined October 27, 2004.

“2004 Puget Sound Energy General Rate Case,” **Washington** Utilities and Transportation Commission, Docket Nos. UE-040641 and UG-040640. Response testimony submitted September 23, 2004. Cross-answer testimony submitted November 3, 2004. Joint testimony regarding stipulation submitted December 6, 2004.

“In the Matter of the Application of PacifiCorp for an Investigation of Interjurisdictional Issues,” **Utah** Public Service Commission, Docket No. 02-035-04. Direct testimony submitted July 15, 2004. Cross examined July 19, 2004.

“In the Matter of an Adjustment of the Gas and Electric Rates, Terms and Conditions of Kentucky Utilities Company,” **Kentucky** Public Service Commission, Case No. 2003-00434. Direct testimony submitted March 23, 2004. Testimony withdrawn pursuant to stipulation entered May 2004.

“In the Matter of an Adjustment of the Gas and Electric Rates, Terms and Conditions of Louisville Gas and Electric Company,” **Kentucky** Public Service Commission, Case No. 2003-00433. Direct testimony submitted March 23, 2004. Testimony withdrawn pursuant to stipulation entered May 2004.

“In the Matter of the Application of Idaho Power Company for Authority to Increase Its Interim and Base Rates and Charges for Electric Service,” **Idaho** Public Utilities Commission, Case No.

IPC-E-03-13. Direct testimony submitted February 20, 2004. Rebuttal testimony submitted March 19, 2004. Cross examined April 1, 2004.

“In the Matter of the Applications of the Ohio Edison Company, the Cleveland Electric Illuminating Company and the Toledo Edison Company for Authority to Continue and Modify Certain Regulatory Accounting Practices and Procedures, for Tariff Approvals and to Establish Rates and Other Charges, Including Regulatory Transition Charges Following the Market Development Period,” Public Utilities Commission of **Ohio**, Case No. 03-2144-EL-ATA. Direct testimony submitted February 6, 2004. Cross examined February 18, 2004.

“In the Matter of the Application of Arizona Public Service Company for a Hearing to Determine the Fair Value of the Utility Property of the Company for Ratemaking Purposes, To Fix a Just and Reasonable Rate of Return Thereon, To Approve Rate Schedules Designed to Develop Such Return, and For Approval of Purchased Power Contract,” **Arizona** Corporation Commission, Docket No. E-01345A-03-0437. Direct testimony submitted February 3, 2004. Rebuttal testimony submitted March 30, 2004. Direct testimony regarding stipulation submitted September 27, 2004. Responsive / Clarifying testimony regarding stipulation submitted October 25, 2004. Cross examined November 8-10, 2004 and November 29-December 3, 2004.

“In the Matter of Application of the Detroit Edison Company to Increase Rates, Amend Its Rate Schedules Governing the Distribution and Supply of Electric Energy, etc.,” **Michigan** Public Service Commission, Case No. U-13808. Direct testimony submitted December 12, 2003 (interim request) and March 5, 2004 (general rate case).

“In the Matter of PacifiCorp’s Filing of Revised Tariff Schedules,” Public Utility Commission of **Oregon**, Docket No. UE-147. Joint testimony regarding stipulation submitted August 21, 2003.

“Petition of PSI Energy, Inc. for Authority to Increase Its Rates and Charges for Electric Service, etc.,” **Indiana** Utility Regulatory Commission, Cause No. 42359. Direct testimony submitted August 19, 2003. Cross examined November 5, 2003.

“In the Matter of the Application of Consumers Energy Company for a Financing Order Approving the Securitization of Certain of its Qualified Cost,” **Michigan** Public Service Commission, Case No. U-13715. Direct testimony submitted April 8, 2003. Cross examined April 23, 2003.

“In the Matter of the Application of Arizona Public Service Company for Approval of Adjustment Mechanisms,” **Arizona** Corporation Commission, Docket No. E-01345A-02-0403. Direct testimony submitted February 13, 2003. Surrebuttal testimony submitted March 20, 2003. Cross examined April 8, 2003.

“Re: The Investigation and Suspension of Tariff Sheets Filed by Public Service Company of Colorado, Advice Letter No. 1373 – Electric, Advice Letter No. 593 – Gas, Advice Letter No. 80 – Steam,” **Colorado** Public Utilities Commission, Docket No. 02S-315 EG. Direct testimony submitted November 22, 2002. Cross-answer testimony submitted January 24, 2003.

“In the Matter of the Application of The Detroit Edison Company to Implement the Commission’s Stranded Cost Recovery Procedure and for Approval of Net Stranded Cost Recovery Charges,” **Michigan** Public Service Commission, Case No. U-13350. Direct testimony submitted November 12, 2002.

“Application of South Carolina Electric & Gas Company: Adjustments in the Company’s Electric Rate Schedules and Tariffs,” Public Service Commission of **South Carolina**, Docket No. 2002-223-E. Direct testimony submitted November 8, 2002. Surrebuttal testimony submitted November 18, 2002. Cross examined November 21, 2002.

“In the Matter of the Application of Questar Gas Company for a General Increase in Rates and Charges,” **Utah** Public Service Commission, Docket No. 02-057-02. Direct testimony submitted August 30, 2002. Rebuttal testimony submitted October 4, 2002.

“The Kroger Co. v. Dynegy Power Marketing, Inc.,” **Federal Energy Regulatory Commission**, EL02-119-000. Confidential affidavit filed August 13, 2002.

“In the matter of the application of Consumers Energy Company for determination of net stranded costs and for approval of net stranded cost recovery charges,” **Michigan** Public Service Commission, Case No. U-13380. Direct testimony submitted August 9, 2002. Rebuttal testimony submitted August 30, 2002. Cross examined September 10, 2002.

“In the Matter of the Application of Public Service Company of Colorado for an Order to Revise Its Incentive Cost Adjustment,” **Colorado** Public Utilities Commission, Docket 02A-158E. Direct testimony submitted April 18, 2002.

“In the Matter of the Generic Proceedings Concerning Electric Restructuring Issues,” **Arizona** Corporation Commission, Docket No. E-00000A-02-0051, “In the Matter of Arizona Public Service Company’s Request for Variance of Certain Requirements of A.A.C. R14-2-1606,” Docket No. E-01345A-01-0822, “In the Matter of the Generic Proceeding Concerning the Arizona Independent Scheduling Administrator,” Docket No. E-00000A-01-0630, “In the Matter of Tucson Electric Power Company’s Application for a Variance of Certain Electric Competition Rules Compliance Dates,” Docket No. E-01933A-02-0069, “In the Matter of the Application of Tucson Electric Power Company for Approval of its Stranded Cost Recovery,” Docket No. E-01933A-98-0471. Direct testimony submitted March 29, 2002 (APS variance request); May 29, 2002 (APS Track A proceeding/market power issues); and July 28, 2003 (Arizona ISA). Rebuttal

testimony submitted August 29, 2003 (Arizona ISA). Cross examined June 21, 2002 (APS Track A proceeding/market power issues) and September 12, 2003 (Arizona ISA).

“In the Matter of Savannah Electric & Power Company’s 2001 Rate Case,” **Georgia** Public Service Commission, Docket No. 14618-U. Direct testimony submitted March 15, 2002. Cross examined March 28, 2002.

“Nevada Power Company’s 2001 Deferred Energy Case,” Public Utilities Commission of **Nevada**, PUCN 01-11029. Direct testimony submitted February 7, 2002. Cross examined February 21, 2002.

“2001 Puget Sound Energy Interim Rate Case,” **Washington** Utilities and Transportation Commission, Docket Nos. UE-011570 and UE-011571. Direct testimony submitted January 30, 2002. Cross examined February 20, 2002.

“In the Matter of Georgia Power Company’s 2001 Rate Case,” **Georgia** Public Service Commission, Docket No. 14000-U. Direct testimony submitted October 12, 2001. Cross examined October 24, 2001.

“In the Matter of the Application of PacifiCorp for Approval of Its Proposed Electric Rate Schedules and Electric Service Regulations,” **Utah** Public Service Commission, Docket No. 01-35-01. Direct testimony submitted June 15, 2001. Rebuttal testimony submitted August 31, 2001.

“In the Matter of Portland General Electric Company’s Proposal to Restructure and Reprice Its Services in Accordance with the Provisions of SB 1149,” Public Utility Commission of **Oregon**, Docket No. UE-115. Direct testimony submitted February 20, 2001. Rebuttal testimony submitted May 4, 2001. Joint testimony regarding stipulation submitted July 27, 2001.

“In the Matter of the Application of APS Energy Services, Inc. for Declaratory Order or Waiver of the Electric Competition Rules,” **Arizona** Corporation Commission, Docket No.E-01933A-00-0486. Direct testimony submitted July 24, 2000.

“In the Matter of the Application of Questar Gas Company for an Increase in Rates and Charges,” **Utah** Public Service Commission, Docket No. 99-057-20. Direct testimony submitted April 19, 2000. Rebuttal testimony submitted May 24, 2000. Surrebuttal testimony submitted May 31, 2000. Cross examined June 6 & 8, 2000.

“In the Matter of the Application of Columbus Southern Power Company for Approval of Electric Transition Plan and Application for Receipt of Transition Revenues,” Public Utility Commission of **Ohio**, Case No. 99-1729-EL-ETP; “In the Matter of the Application of Ohio Power Company for Approval of Electric Transition Plan and Application for Receipt of

Transition Revenues,” Public Utility Commission of **Ohio**, Case No. 99-1730-EL-ETP. Direct testimony prepared, but not submitted pursuant to settlement agreement effected May 2, 2000.

“In the Matter of the Application of FirstEnergy Corp. on Behalf of Ohio Edison Company, The Cleveland Electric Illuminating Company, and the Toledo Edison Company for Approval of Their Transition Plans and for Authorization to Collect Transition Revenues,” Public Utility Commission of **Ohio**, Case No. 99-1212-EL-ETP. Direct testimony prepared, but not submitted pursuant to settlement agreement effected April 11, 2000.

“2000 Pricing Process,” **Salt River Project** Board of Directors, oral comments provided March 6, 2000 and April 10, 2000.

“Tucson Electric Power Company vs. Cyprus Sierrita Corporation,” **Arizona** Corporation Commission, Docket No. E-000001-99-0243. Direct testimony submitted October 25, 1999. Cross examined November 4, 1999.

“Application of Hildale City and Intermountain Municipal Gas Association for an Order Granting Access for Transportation of Interstate Natural Gas over the Pipelines of Questar Gas Company for Hildale, Utah,” **Utah** Public Service Commission, Docket No. 98-057-01. Rebuttal testimony submitted August 30, 1999.

“In the Matter of the Application by Arizona Electric Power Cooperative, Inc. for Approval of Its Filing as to Regulatory Assets and Transition Revenues,” **Arizona** Corporation Commission, Docket No. E-01773A-98-0470. Direct testimony submitted July 30, 1999. Cross examined February 28, 2000.

“In the Matter of the Application of Tucson Electric Power Company for Approval of its Plan for Stranded Cost Recovery,” **Arizona** Corporation Commission, Docket No. E-01933A-98-0471; “In the Matter of the Filing of Tucson Electric Power Company of Unbundled Tariffs Pursuant to A.A.C. R14-2-1601 et seq.,” Docket No. E-01933A-97-0772; “In the Matter of the Competition in the Provision of Electric Service Throughout the State of Arizona,” Docket No. RE-00000C-94-0165. Direct testimony submitted June 30, 1999. Rebuttal testimony submitted August 6, 1999. Cross examined August 11-13, 1999.

“In the Matter of the Application of Arizona Public Service Company for Approval of its Plan for Stranded Cost Recovery,” **Arizona** Corporation Commission, Docket No. E-01345A-98-0473; “In the Matter of the Filing of Arizona Public Service Company of Unbundled Tariffs Pursuant to A.A.C. R14-2-1601 et seq.,” Docket No. E-01345A-97-0773; “In the Matter of the Competition in the Provision of Electric Service Throughout the State of Arizona,” Docket No. RE-00000C-94-0165. Direct testimony submitted June 4, 1999. Rebuttal testimony submitted July 12, 1999. Cross examined July 14, 1999.

“In the Matter of the Application of Tucson Electric Power Company for Approval of its Plan for Stranded Cost Recovery,” **Arizona** Corporation Commission, Docket No. E-01933A-98-0471; “In the Matter of the Filing of Tucson Electric Power Company of Unbundled Tariffs Pursuant to A.A.C. R14-2-1601 et seq.,” Docket No. E-01933A-97-0772; “In the Matter of the Application of Arizona Public Service Company for Approval of its Plan for Stranded Cost Recovery,” Docket No. E-01345A-98-0473; “In the Matter of the Filing of Arizona Public Service Company of Unbundled Tariffs Pursuant to A.A.C. R14-2-1601 et seq.,” Docket No. E-01345A-97-0773; “In the Matter of the Competition in the Provision of Electric Service Throughout the State of Arizona,” Docket No. RE-00000C-94-0165. Direct testimony submitted November 30, 1998.

“Hearings on Pricing,” **Salt River Project** Board of Directors, written and oral comments provided November 9, 1998.

“Hearings on Customer Choice,” **Salt River Project** Board of Directors, written and oral comments provided June 22, 1998; June 29, 1998; July 9, 1998; August 7, 1998; and August 14, 1998.

“In the Matter of the Competition in the Provision of Electric Service Throughout the State of Arizona,” **Arizona** Corporation Commission, Docket No. U-0000-94-165. Direct and rebuttal testimony filed January 21, 1998. Second rebuttal testimony filed February 4, 1998. Cross examined February 25, 1998.

“In the Matter of Consolidated Edison Company of New York, Inc.’s Plans for (1) Electric Rate/Restructuring Pursuant to Opinion No. 96-12; and (2) the Formation of a Holding Company Pursuant to PSL, Sections 70, 108, and 110, and Certain Related Transactions,” **New York** Public Service Commission, Case 96-E-0897. Direct testimony filed April 9, 1997. Cross examined May 5, 1997.

“In the Matter of the Petition of Sunnyside Cogeneration Associates for Enforcement of Contract Provisions,” **Utah** Public Service Commission, Docket No. 96-2018-01. Direct testimony submitted July 8, 1996.

“In the Matter of the Application of PacifiCorp, dba Pacific Power & Light Company, for Approval of Revised Tariff Schedules and an Alternative Form of Regulation Plan,” **Wyoming** Public Service Commission, Docket No. 2000-ER-95-99. Direct testimony submitted April 8, 1996.

“In the Matter of the Application of Mountain Fuel Supply Company for an Increase in Rates and Charges,” **Utah** Public Service Commission, Case No. 95-057-02. Direct testimony submitted June 19, 1995. Rebuttal testimony submitted July 25, 1995. Surrebuttal testimony submitted August 7, 1995.

“In the Matter of the Investigation of the Reasonableness of the Rates and Tariffs of Mountain Fuel Supply Company,” **Utah** Public Service Commission, Case No. 89-057-15. Direct testimony submitted July 1990. Surrebuttal testimony submitted August 1990.

“In the Matter of the Review of the Rates of Utah Power and Light Company pursuant to The Order in Case No. 87-035-27,” **Utah** Public Service Commission, Case No. 89-035-10. Rebuttal testimony submitted November 15, 1989. Cross examined December 1, 1989 (rate schedule changes for state facilities).

“In the Matter of the Application of Utah Power & Light Company and PC/UP&L Merging Corp. (to be renamed PacifiCorp) for an Order Authorizing the Merger of Utah Power & Light Company and PacifiCorp into PC/UP&L Merging Corp. and Authorizing the Issuance of Securities, Adoption of Tariffs, and Transfer of Certificates of Public Convenience and Necessity and Authorities in Connection Therewith,” **Utah** Public Service Commission, Case No. 87-035-27; Direct testimony submitted April 11, 1988. Cross examined May 12, 1988 (economic impact of UP&L merger with PacifiCorp).

“In the Matter of the Application of Mountain Fuel Supply Company for Approval of Interruptible Industrial Transportation Rates,” **Utah** Public Service Commission, Case No. 86-057-07. Direct testimony submitted January 15, 1988. Cross examined March 30, 1988.

“In the Matter of the Application of Utah Power and Light Company for an Order Approving a Power Purchase Agreement,” **Utah** Public Service Commission, Case No. 87-035-18. Oral testimony delivered July 8, 1987.

“Cogeneration: Small Power Production,” **Federal Energy Regulatory Commission**, Docket No. RM87-12-000. Statement on behalf of State of Utah delivered March 27, 1987, in San Francisco.

“In the Matter of the Investigation of Rates for Backup, Maintenance, Supplementary, and Standby Power for Utah Power and Light Company,” **Utah** Public Service Commission, Case No. 86-035-13. Direct testimony submitted January 5, 1987. Case settled by stipulation approved August 1987.

“In the Matter of the Application of Sunnyside Cogeneration Associates for Approval of the Cogeneration Power Purchase Agreement,” **Utah** Public Service Commission, Case No. 86-2018-01. Rebuttal testimony submitted July 16, 1986. Cross examined July 17, 1986.

“In the Matter of the Investigation of Demand-Side Alternatives to Capacity Expansion for Electric Utilities,” **Utah** Public Service Commission, Case No. 84-999-20. Direct testimony submitted June 17, 1985. Rebuttal testimony submitted July 29, 1985. Cross examined August 19, 1985.

“In the Matter of the Implementation of Rules Governing Cogeneration and Small Power Production in Utah,” **Utah** Public Service Commission, Case No. 80-999-06, pp. 1293-1318. Direct testimony submitted January 13, 1984 (avoided costs), May 9, 1986 (security for leveled contracts) and November 17, 1986 (avoided costs). Cross-examined February 29, 1984 (avoided costs), April 11, 1985 (standard form contracts), May 22-23, 1986 (security for leveled contracts) and December 16-17, 1986 (avoided costs).

OTHER RELATED ACTIVITY

Participant, Oregon Direct Access Task Force (UM 1081), May 2003 to November 2003.

Participant, Michigan Stranded Cost Collaborative, March 2003 to March 2004.

Member, Arizona Electric Competition Advisory Group, December 2002 to present.

Board of Directors, ex-officio, Desert STAR RTO, September 1999 to February 2002.

Member, Advisory Committee, Desert STAR RTO, September 1999 to February 2002. Acting Chairman, October 2000 to February 2002.

Board of Directors, Arizona Independent Scheduling Administrator Association, October 1998 to present.

Acting Chairman, Operating Committee, Arizona Independent Scheduling Administrator Association, October 1998 to June 1999.

Member, Desert Star ISO Investigation Working Groups: Operations, Pricing, and Governance, April 1997 to December 1999. Legal & Negotiating Committee, April 1999 to December 1999.

Participant, Independent System Operator and Spot Market Working Group, Arizona Corporation Commission, April 1997 to September 1997.

Participant, Unbundled Services and Standard Offer Working Group, Arizona Corporation Commission, April 1997 to October 1997.

Participant, Customer Selection Working Group, Arizona Corporation Commission, March 1997 to September 1997.

Member, Stranded Cost Working Group, Arizona Corporation Commission, March 1997 to September 1997.

Member, Electric System Reliability & Safety Working Group, Arizona Corporation Commission, November 1996 to September 1998.

Chairman, Salt Palace Renovation and Expansion Committee, Salt Lake County/State of Utah/Salt Lake City, multi-government entity responsible for implementation of planning, design, finance, and construction of an \$85 million renovation of the Salt Palace Convention Center, Salt Lake City, Utah, May 1991 to December 1994.

State of Utah Representative, Committee on Regional Electric Power Cooperation, a joint effort of the Western Interstate Energy Board and the Western Conference of Public Service Commissioners, January 1987 to December 1990.

Member, Utah Governor's Economic Coordinating Committee, January 1987 to December 1990.

Chairman, Standard Contract Task Force, established by Utah Public Service Commission to address contractual problems relating to qualifying facility sales under PURPA, March 1986 to December 1990.

Chairman, Load Management and Energy Conservation Task Force, Utah Public Service Commission, August 1985 to December 1990.

Alternate Delegate for Utah, Western Interstate Energy Board, Denver, Colorado, August 1985 to December 1990.

Articles Editor, Economic Forum, September 1980 to August 1981.