

BOEHM, KURTZ & LOWRY

ATTORNEYS AT LAW
36 EAST SEVENTH STREET
SUITE 1510
CINCINNATI, OHIO 45202
TELEPHONE (513) 421-2255
TELECOPIER (513) 421-2764

RECEIVED

2007 DEC 11 AM 10:38

IDAHO PUBLIC
UTILITIES COMMISSION

VIA OVERNIGHT MAIL

December 7, 2007

Jean D. Jewell, Secretary
Idaho Public Utilities Commission
472 West Washington Street
Boise, Idaho 83720

In re: Case No. IPC-E-07-8

Dear Ms. Jewell:

Enclosed please find nine the original and (8) copies of the DIRECT TESTIMONY OF KEVIN C. HIGGINS FILED ON BEHALF OF THE KROGER CO. dba FRED MEYER AND SMITH'S FOOD AND DRUG to be filed in the above referenced matter. I also attach an electronic version.

Copies have been served on all parties on the attached certificate of service. Please place this document of file.

Respectfully yours,



Michael L. Kurtz, Esq.

Kurt J. Boehm, Esq.

BOEHM, KURTZ & LOWRY

MLKkew
Encl.

CERTIFICATE OF SERVICE

RECEIVED

2007 DEC 11 AM 10:08

I hereby certify that true copy of the foregoing was served by electronic mail, unless otherwise noted, this 7th day of December, 2007 to the following:

IDAHO PUBLIC UTILITIES COMMISSION

Barton L. Kline
Lisa D. Nordstrom
Idaho Power Company
1221 W. Idaho St. (83702)
PO Box 70
Boise, ID 83707-0070
Email: bkline@idahopower.com
Nordstrom@idahopower.com

Eric L. Olsen
Racine, Olson, Nye, Budge
& Bailey, Chartered
201 E. Center
PO Box 1391
Pocatello, ID 83204-1391
Email: elo@racinelaw.net

John R. Gale
Vice President, Regulatory Affairs
Idaho Power Company
1221 W. Idaho St. (83702)
PO Box 70
Boise, ID 83707-0070
Email: rgale@idahopower.com

Anthony Yankel
29814 Lake Road
Bay Village, OH 44140
Email: tonv@vankel.net

Weldon Stutzman
Donovan Walker
Deputy Attorney Generals
Idaho Public Utilities Commission
472 W. Washington (83702)
PO Box 83720
Boise, ID 83720-0074
Email: weldon.stutzman@puc.idaho.gov
donovan.walker@puc.idaho.gov

Conley E. Ward
Michael C. Creamer
Givens Pursley LLP
601 W. Bannock Street
PO Box 2720
Boise, ID 83701-2720
Email: cew@givenspurslev.com

Peter J. Richardson, Esq.
Richardson & O'Leary
515 N. 27th Street
PO Box 7218
Boise, ID 83702
Email: peter@richardsonandoleary.com

Dennis E. Peseau, Ph.D.
Utility Resources, Inc.
1500 Liberty Street, Suite 250
Salem, OR 97302
Email: dpeseau@excite.com

Don Reading
Ben Johnson Associates
6070 Hill Road
Boise, ID 83703
Email: dreading@mindspring.com

Lot H. Cooke
Acting Assistant General Counsel
United States Department of Energy
1000 Independence Ave., SW Washington,
DC 20585 Telephone: 202-586-4219
Email: lot.cooke@hq.doe.gov

Dale Swan
Exeter Associates, Inc.
5565 Sterrett Place
Suite 310
Columbia, MD 21044
Email: dswan@exeterassociates.com

Electronic Copies Only:

Dennis Goins

Email: dgoinspmg@cox.net

Arthur Perry Bruder

Email: arthur.bruder@hq.doe.gov

A handwritten signature in black ink that reads "Michael L. Kurtz". The signature is written in a cursive style with a horizontal line underneath the name.

Michael L. Kurtz, Esq.

Kurt J. Boehm, Esq.

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29

RECEIVED

2007 DEC 11 AM 10:38

IDAHO PUBLIC
UTILITIES COMMISSION

**BEFORE THE
IDAHO PUBLIC UTILITIES COMMISSION**

IN THE MATTER OF THE)
APPLICATION OF IDAHO POWER)
COMPANY FOR AUTHORITY TO)
INCREASE ITS RATES AND CHARGES) Case No. IPC-E-07-8
FOR ELECTRIC SERVICE TO)
ELECTRIC CUSTOMERS IN THE)
STATE OF IDAHO)

DIRECT TESTIMONY OF KEVIN C. HIGGINS

On Behalf of The Kroger Co.,

Doing Business as Fred Meyer and Smith's Food and Drug

December 10, 2007

1 where I assist private and public sector clients in the areas of energy-related
2 economic and policy analysis, including evaluation of electric and gas utility rate
3 matters.

4 Prior to joining Energy Strategies, I held policy positions in state and local
5 government. From 1983 to 1990, I was economist, then assistant director, for the
6 Utah Energy Office, where I helped develop and implement state energy policy.
7 From 1991 to 1994, I was chief of staff to the chairman of the Salt Lake County
8 Commission, where I was responsible for development and implementation of a
9 broad spectrum of public policy at the local government level.

10 **Q. Have you ever testified before this Commission?**

11 A. Yes. I testified in Idaho Power's 2003 general rate case, Case No. IPC-E-
12 03-13.

13 **Q. Have you testified before utility regulatory commissions in other states?**

14 A. Yes. I have testified in over eighty proceedings on the subjects of utility
15 rates and regulatory policy before state utility regulators in Alaska, Arkansas,
16 Arizona, Colorado, Georgia, Illinois, Indiana, Kansas, Kentucky, Michigan,
17 Missouri, Minnesota, Montana, Nevada, New Mexico, New York, Ohio,
18 Oklahoma, Oregon, Pennsylvania, South Carolina, Utah, Washington, Virginia,
19 West Virginia, and Wyoming.

20 A more detailed description of my qualifications is contained in
21 Attachment A, attached to this testimony.

1 **Overview and conclusions**

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

3 A. My testimony addresses the rate design for Idaho Power's Schedule 9,
4 Large General Service. As part of this testimony, I offer rate design
5 recommendations to the Commission in support of a just and reasonable outcome
6 in this proceeding.

7 **Q. What conclusions have you reached in your analysis of Idaho Power's rate
8 design for Schedule 9?**

9 A. I recommend that Schedule 9 customers taking service at either primary or
10 transmission voltage be allowed to migrate to Schedule 19 in order to have the
11 opportunity to take service under time-of-use ("TOU") rates,¹ an opportunity that
12 is not otherwise available to Schedule 9 customers either under the current or
13 proposed tariff. Unlike secondary voltage customers, Schedule 9-P and 9-T
14 customers already have the metering in place to facilitate TOU pricing;
15 consequently, my proposal focuses on making TOU rates available to primary and
16 transmission voltage customers.

17 Addressing this issue now is timely. The question of extending TOU rates
18 to Schedule 9 customers was raised in the 2003 general rate proceeding, and the
19 matter was deferred to a later date. In Order No. 29505, issued May 25, 2004, the
20 Commission concluded its discussion of extending TOU rates to Schedule 9
21 customers by stating:

¹ Alternatively, the energy rates for Schedule 9 customers taking service either at primary or transmission service could be set equal to the Schedule 19 energy rate for the corresponding voltage, an option that I discuss later in my testimony.

1 ...we anticipate that after the Company has gained experience with its
2 Schedule 19 rates, it will turn its attention to designing and proposing a
3 TOU rate structure for Rate 9.²
4

5 The current proceeding is the second general rate filing made by Idaho
6 Power since the issuance of Order 29505, and the Company has yet to put forward
7 any proposals to design or propose TOU rates for Schedule 9 customers. In light
8 of the absence of action by the Company on this issue, my rate migration proposal
9 provides the most reasonable means to extend the availability of TOU rates to
10 Schedule 9 customers at this time.

11 A migration of Schedule 9-P and 9-T customers to Schedule 19 is greatly
12 facilitated by the fact that the service charges, basic charges, and non-summer
13 demand charges for Schedules 9 and 19 are identical. The summer demand
14 charges are also identical, except that the Schedule 19 summer demand charge is
15 divided into an on-peak and a non-peak component (the sum of which is equal to
16 the Schedule 9 summer demand charge). These circumstances provide for a
17 smooth transition from Schedule 9 to Schedule 19 both for customers and Idaho
18 Power if Schedule 9 customers are permitted to migrate as I propose. Further,
19 Idaho Power's cost-of-service study demonstrates that the unit cost of energy for
20 serving Schedule 9-P and Schedule 19-P is virtually identical. Thus, the proposal I
21 am making has a sound basis with respect to cost of service.

² Idaho Public Utilities Commission, Case No. IPC-E-03-12, Order No. 29595, pp. 59-60.

1 **Background**

2 **Q. Your proposal addresses Schedule 9. Please describe the type of service that**
3 **is available under this rate schedule.**

4 A. Schedule 9, Large General Service, is generally available to customers
5 with monthly energy usage in excess of 2,000 kilowatt-hours and billing demands
6 less than 1,000 kilowatts. The rate schedule contains pricing provisions for
7 service taken at secondary voltage (9-S), primary voltage (9-P), and transmission
8 voltage (9-T).

9 In the Idaho Power tariff, Schedule 9 is situated between Schedules 7 and
10 19. Non-residential customers with energy usage less than 2,000 kilowatt-hours
11 per month are generally served under Schedule 7, Small General Service, whereas
12 customers with billing demands of 1,000 kilowatts or more generally take service
13 under Schedule 19, Large Power Service.

14 **Q. How are Schedule 9 rates structured?**

15 A. All of the Schedule 9 rate components are differentiated by voltage
16 (secondary, primary, and transmission). These rate components are comprised of:
17 (1) a service charge, which is a monthly customer charge; (2) a basic charge
18 which is billed on a demand basis; (3) a seasonally-differentiated demand charge;
19 and (4) an energy charge that also is seasonally-differentiated.³ In addition,
20 Schedule 9 customers pay the Company's Power Cost Adjustment as computed in
21 Schedule 55. The power Cost Adjustment is not differentiated by voltage.

22 **Q. How does the design of Schedule 9 compare with that of Schedule 19?**

³ For secondary voltage customers, the energy charge has a two-block structure (which has no bearing on my proposal).

1 A. With the exception of the energy charge, the two rate schedules are nearly
2 identical. Schedules 9 and 19 have the same service charges, basic charges, and
3 non-summer demand charges. The summer demand charges are also identical,
4 except that the Schedule 19 summer demand charge is divided into an on-peak
5 and a non-peak component (the sum of which is equal to the Schedule 9 summer
6 demand charge).⁴

7 The big difference between the two rate schedules occurs in the design of
8 the energy charge. The Schedule 9 energy charge has no TOU price
9 differentiation. It is a flat energy charge that does not vary with the hour of the
10 day in which energy is consumed. In contrast, the Schedule 19 energy charge is
11 differentiated into three time periods in the summer (on-peak, mid-peak, and off-
12 peak) and two time periods in the non-summer (mid-peak and off-peak).

13 **Q. Are the design similarities between Schedules 9 and 19 in current rates
14 proposed to continue under Idaho Power's proposed rates?**

15 A. Yes, although the demand charges for secondary voltage are no longer
16 identical under the proposed rates.

17 **Q. What action was taken with respect to TOU rates in Idaho Power's 2003
18 general rate case, IPC-E-03-13?**

19 A. As part of its general rate case filing in 2003, Idaho Power proposed the
20 adoption of mandatory TOU rates mandatory for Schedule 19. The Company
21 argued that such rates would send improved price signals to customers. This
22 recommendation was approved by the Commission in Order No. 29505.

⁴ The Schedule 9 demand charge does not apply to the first 20 kW of billing demand, as these demand-related revenues being recovered in the first energy block.

1 In that proceeding, I supported the Company's TOU proposal for Schedule
2 19. In addition, I recommended adoption of a voluntary TOU option for Schedule
3 9 that would offer energy prices that were differentiated by the same time periods
4 proposed for Schedule 19. Idaho Power opposed my recommendation, arguing
5 that TOU rates for Schedule 19 should first be implemented and evaluated prior to
6 offering TOU rates to Schedule 9 customers.

7 In Order No. 29505, the Commission stated it was persuaded by the
8 Company's rebuttal arguments to my proposal and therefore did not require TOU
9 rates for Schedule 9 customers.⁵ However, as I noted above, the Commission
10 went on to state it anticipated that after Idaho Power gained experience with the
11 Schedule 19 TOU rates, "the Company will turn its attention to designing and
12 proposing a TOU rate structure for Rate 9."⁶

13 **Q. In the 2003 general rate case, did Idaho Power offer any guidance to the**
14 **Commission if the Commission were to decide to extend TOU rates to**
15 **Schedule 9 customers at that time?**

16 **A.** Yes. Although Idaho Power opposed my recommendation to extend TOU
17 rate to Schedule 9 customers, the Company did go on to recommend that, if the
18 Commission were to adopt TOU rates for Schedule 9 customers in that
19 proceeding, the application be limited to primary and transmission service
20 customers. The reason offered by the Company for this limitation was that these
21 customers had the metering in place to facilitate TOU pricing.⁷

⁵ Idaho Public Utilities Commission, Case No. IPC-E-03-12, Order No. 29595, pp. 59-60.

⁶ Idaho Public Utilities Commission, Case No. IPC-E-03-12, Order No. 29595, pp. 59-60.

⁷ Case No. IPC-E-03-12, Rebuttal testimony of Maggie Brilz, p. 20, line 13 – p. 21, line 1.

1 **Q. Have you taken this information into account in your recommendation in**
2 **this proceeding?**

3 A. Yes. As I indicated previously, my proposal to allow Rate 9 customers to
4 migrate to Schedule 19 is limited to primary and transmission service customers,
5 consistent with Idaho Power's recommendation in the 2003 general rate case.

6
7 **Benefits of TOU pricing**

8 **Q. What are the benefits of TOU pricing?**

9 A. Energy costs vary across the hours of the day, with the most expensive
10 hours typically occurring from the late morning to early evening. Designing the
11 energy price to end-use customers to reflect these variations in energy costs sends
12 the proper signal to customers regarding the relative cost to operate the system
13 during the peak, mid-peak, and off-peak hours. Customers would then use this
14 pricing information to alter their discretionary patterns of usage, increasing
15 efficiency and lowering the overall cost of energy to the system.

16 **Q. Are there other reasons besides economic efficiency to make TOU rates**
17 **available to Schedule 9-P and 9-T customers?**

18 A. Yes. In addition to providing these customers with an incentive to better
19 respond to price signals, TOU rates will ensure that these customers pay rates that
20 are more closely aligned with the costs they cause. Basic fairness dictates that
21 customers whose patterns of energy consumption are less expensive to serve
22 because of their load pattern should see that lower cost reflected in their bills.

1 The current failure to offer TOU rates to Schedule 9 customers deprives
2 these customers of the opportunity to reduce their power costs by responding to
3 improved price signals. At the same time, it deprives the system of the benefit of a
4 more efficient load pattern that would result from improving the price-responsive
5 behavior of these customers.

6 **Q. Does the Energy Policy Act of 2005 require utilities to expand the availability**
7 **of TOU rates?**

8 A. Yes. Section 1252 of the Act contains a passage that states as follows:

9 Not later than 18 months after the date of the enactment of this paragraph,
10 each electric utility shall offer each of its customer classes, and provide
11 individual customers upon customer request, a time-based rate schedule
12 under which the rate charged by the electric utility varies during different
13 time periods and reflects the variance, if any, in the utility's costs of
14 generating and purchasing electricity at the wholesale level. The time-
15 based rate schedule shall enable the electric consumer to manage energy
16 use and cost through advanced metering and communications technology.⁸

17 Adoption of my recommendation would further this objective in Idaho.
18

19 **Q. Are time-of-use rates widely available for customers of comparable size to**
20 **Schedule 9 in other western states?**

21 A. Yes. Time-of-use rates are widely available throughout the West for
22 customers of comparable size to Schedule 9. Table KCH-1 below is a list of other
23 western utilities that offer time-of-use rates to customers with billing demands of
24 1,000 kW or less, comparable to Schedule 9.

⁸ Energy Policy Act of 2005, Sec. 1252. I note that this section also requires state regulatory authorities to conduct an investigation and issue a decision as to whether it is appropriate to implement these and other standards in the Act.

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38

**Table KCH-1
Western Utilities with Time-of-Use Rates for Commercial Customers with
Billing Demands of 1,000 kW or less**

State	Utility	Type
Arizona	Arizona Public Service	Optional
Arizona	Salt River Project	Optional
Arizona	Tucson Electric Power	Optional
California	LADWP	Optional <500 kW
California	LADWP	Mandatory >500 kW
California	LADWP	Pilot Real Time >500
California	Pacific Power	Mandatory >500 kW
California	PG&E	Optional <500 kW
California	PG&E	Mandatory >500 kW
California	SDG&E	Mandatory
California	So. Cal. Edison	Mandatory
California	SMUD	Mandatory
Colorado	Public Service Colorado	Optional >300 kW
Idaho	Rocky Mountain Power	Optional
Montana	Montana Dakota Utilities	Optional
Nevada	Nevada Power	Optional <300kW
Nevada	Nevada Power	Mandatory >300kW
Nevada	Sierra Pacific Power	Mandatory >500 kW
New Mexico	PNM	Mandatory >500 kW
Oregon	Portland General Electric	Optional
Utah	Rocky Mountain Power	Optional

Proposal for extending TOU rates to Schedule 9-P and 9-T customers

**Q. Please describe your proposal for extending TOU rates to customers on
Schedule 9-P and 9-T.**

1 A. My proposal is very straightforward. I am recommending that Schedule 9
2 customers who are taking service at either primary or transmission voltage be
3 allowed to migrate to Schedule 19 in order to have the opportunity to take service
4 under time-of-use ("TOU") rates, an opportunity that is not otherwise available to
5 these customers either under the current or proposed tariff. Unlike secondary
6 voltage customers, Schedule 9-P and 9-T customers already have the metering in
7 place to facilitate TOU pricing; consequently, my proposal focuses on making
8 TOU rates available to these two groups of customers.

9 **Q. Should this migration be voluntary or mandatory?**

10 A. I believe it would be desirable to permit this migration to occur on as
11 broad a basis as possible, yet there are several variations on eligibility that are
12 within the range of reasonableness. These reasonable alternatives include: (1)
13 mandatory migration to Schedule 19 for all Schedule 9-P and 9-T customers; (2)
14 voluntary migration for any Schedule 9-P and 9-T customers; (3) mandatory
15 migration for all 9-P and 9-T customers with multiple accounts having an
16 aggregate load of 1,000 kilowatts or greater; or (4) voluntary migration for any 9-
17 P and 9-T customer with multiple accounts having an aggregate load of 1,000
18 kilowatts or greater. I will discuss each of these options in turn.

19 **Q. Please proceed. What are the advantages of a mandatory migration to**
20 **Schedule 19 for all Schedule 9-P and 9-T customers?**

21 A. Mandatory migration has the advantage of providing the widest possible
22 exposure to TOU rates for these customers. For this reason, I consider this option

1 to be the most attractive of the four I identified. I note that the establishment of
2 TOU rates for Schedule 19 was also implemented on a mandatory basis.

3 **Q. What are the advantages of permitting a voluntary migration from Schedules**
4 **9-P and 9-T to Schedule 19?**

5 A. I recognize that some customers may not wish to migrate to Schedule 19.
6 If that is the case, and if concerns over mandatory migration create an impediment
7 to extension of TOU rates to Schedule 9-P and 9-T customers, then I recommend
8 that voluntary migration be offered as a second-best solution. A voluntary
9 migration would at least provide a TOU option to Schedule 9-P and 9-T
10 customers, a vast improvement over the current situation. I caution, though, that if
11 a voluntary program is adopted, it is essential that the TOU rate design provide an
12 opportunity for participating customers to reduce their power bills. My proposal
13 will accomplish this. Alternative TOU rate designs may not. A voluntary program
14 that does not provide participants the opportunity to reduce their bills will be an
15 empty exercise with no participating customers.

16 **Q. Why do you propose the option of linking migration to customers having**
17 **multiple accounts with an aggregate load of 1,000 kilowatts or greater?**

18 A. Schedule 19 is generally available to customers with demands of 1,000
19 kilowatts or greater. In the event the Commission is reluctant to extend Schedule
20 19 pricing to the smaller Schedule 9-P and 9-T customers, then I suggest that
21 Schedule 9-P and 9-T customers with multiple accounts be allowed to aggregate
22 their loads to 1,000 kilowatts or greater in order to qualify for the Schedule 19
23 rate. In suggesting this option, I am not proposing that there be any change in the

1 monthly service charge (or other applicable charges) for each individual account –
2 I am merely proposing that aggregation can be a viable mechanism for qualifying
3 for Schedule 19. Under this option, each customer account would still be billed
4 individually for service.

5 **Q. You have structured your proposal in terms of allowing Schedule 9-P and 9-**
6 **T customers to migrate to Schedule 19. Can your proposal also be**
7 **implemented through simply changing the energy rates for Schedules 9-P**
8 **and 9-T?**

9 A. Yes. Under my proposal, the TOU rates for Schedule 9-P and 9-T
10 customers would be identical to the Schedule 19 rates of corresponding voltage.
11 Hence, my proposal could also be implemented by modifying Schedules 9-P and
12 9-T to offer (or mandate) TOU rates that are identical to those of Schedule 19.
13 The choice of whether to accomplish this objective through rate schedule
14 migration or simply by changing the rates in Schedules 9-T and 9-P is a matter of
15 administrative preference.

16
17 **Cost-of-Service Basis for TOU Proposal**

18 **Q. Is your proposal reasonable on a cost-of-service basis?**

19 A. Yes. Idaho Power's cost-of-service study demonstrates that there is no
20 material difference in the unit energy costs to serve Schedules 9-P and 19-P. This
21 is shown in Idaho Power Exhibit No. 54, pp. 4-5, lines 300 and 480, the results of
22 which are summarized in Table KCH-2, below. The same Company analysis also
23 shows that as the unit demand costs for serving Schedule 9-P are generally lower

1 than that of 19-P, even though both rate schedules have the same demand charges.
 2 (See columns G, H and L in the cited exhibit.) Thus, from a cost-of-service
 3 perspective, the case for allowing Schedule 9-P customers to utilize the same
 4 TOU energy rates as Schedule 19-P is compelling.

5
 6 **Table KCH-2**
 7 **Comparison of Unit Cost of Service for Schedule 9-P and 19-P⁹**

8	9	Schedule 9-P	Schedule 19-P
10	<u>Rate Component</u>	<u>(Unit cost)</u>	<u>(Unit cost)</u>
11	Summer energy (\$/kWh)	\$.030203	\$.030130
12	Non-summer energy (\$/kWh)	\$.024822	\$.024830
13			
14	Summer demand (\$/kW)	\$3.62567	\$3.98177
15	Non-summer demand (\$/kW)	\$2.87796	\$3.20943
16	Basic (\$/kW)	\$0.99970	\$0.99515
17			
18	Service (\$/customer/month)	\$540.33	\$580.36
19			
20			
21			
22			

23 **Revenue implications**

24 **Q. Are there revenue implications for allowing Schedule 9 customers to migrate**
 25 **to Schedule 19?**

26 A. As the service charges, basic charges, and demand charges are either
 27 identical or nearly identical for Schedule 9 and Schedule 19 for primary and
 28 transmission service, there should be no revenue implications from my migration
 29 proposal with respect to these billing components. With respect to the energy
 30 portion of the rate, the revenue implications appear to be unknown at this time,
 31 based on data responses to Kroger from Idaho Power. However, as this is a

⁹ Source: Idaho Power Exhibit No. 54, pp. 4-5, lines 300 and 480.

1 general rate case, any revenue implications can be addressed within the
2 framework of this proceeding. For example, if as a result of this proceeding, the
3 revenue requirement for Schedule 9 is reduced from the level proposed by Idaho
4 Power's, a portion of the reduction could be earmarked for recovery of revenue
5 erosion associated with the establishment of TOU rates. Alternatively, if a
6 voluntary TOU program is adopted, recovery of revenue erosion could be
7 allocated to the rates of Schedule 9 non-TOU-participants, as this subset of
8 customers would generally have a higher cost of service than those who would
9 benefit from participation.

10

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

12 **A. Yes, it does.**

KEVIN C. HIGGINS
Principal, Energy Strategies, L.L.C.
215 South State St., Suite 200, Salt Lake City, UT 84111

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 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.

“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.

“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 levelized 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 levelized 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.