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April 13, 2009

Via Electronic and US Mail

Public Utility Commission
Attn: Filing Center
550 Capitol St. NE #215
P.O. Box 2148
Salem OR 97308-2148

Re: Investigation into determination of resource sufficiency
Docket No. UM 1396

Dear Filing Center:

Enclosed please find an original and five (5) copies of the Direct Testimony on behalf of the Industrial Customers of Northwest Utilities in the above-referenced docket.

Thank you for your assistance.

Sincerely yours,

/s/ Brendan E. Levenick
Brendan E. Levenick

Enclosures
cc: Service List

CERTIFICATE OF SERVICE

I HEREBY CERTIFY that I have this day served the foregoing Direct Testimony of the Industrial Customers of Northwest Utilities upon the parties on the service list, shown below, by causing the same to be sent by electronic mail to all parties, as well as, deposited in the U.S. Mail, postage-prepaid, to parties which have not waived paper service.

Dated at Portland, Oregon, this 13th day of April, 2009.

/s/ Brendan E. Levenick
Brendan E. Levenick

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BEFORE THE PUBLIC UTILITY COMMISSION

OF OREGON

UM 1396

In the Matter of	)
	)
The Public Utility Commission of Oregon	)
Investigation into the Determination of	)
Resource Sufficiency	)
	)

DIRECT TESTIMONY OF

RANDALL J. FALKENBERG

ON BEHALF OF

THE INDUSTRIAL CUSTOMERS OF NORTHWEST UTILITIES

April 13, 2009

Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

A. Randall J. Falkenberg, PMB 362, 8351 Roswell Road, Atlanta, Georgia 30350.

Q. PLEASE STATE YOUR OCCUPATION, EMPLOYMENT, AND ON WHOSE BEHALF YOU ARE TESTIFYING.

A. I am a utility regulatory consultant and President of RFI Consulting, Inc. ("RFI"). I am appearing on behalf of the Industrial Customers of Northwest Utilities ("ICNU").

Q. WHAT CONSULTING SERVICES ARE PROVIDED BY RFI?

A. RFI provides consulting services related to electric utility system planning, energy cost recovery issues, revenue requirements, cost of service, and rate design.

Q. PLEASE SUMMARIZE YOUR QUALIFICATIONS AND APPEARANCES.

A. My qualifications and appearances are provided in Exhibit ICNU/101. I have participated in and filed testimony in numerous cases involving PacifiCorp and Portland General Electric ("PGE") net power cost issues over the past ten years.

Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?

A. This docket was opened as a result of the Commission's determination to address the issue of resource sufficiency in the calculation of avoided costs raised by ICNU in UM 1129. <u>Re Staff's Investigation Relating to Electric Utility Purchases from QFs</u>, Oregon Public Utility Commission Docket No. UM 1129, Order 06-538 at 5, 54 (Sept. 20, 2006).

The Parties to this docket held discussions to address the establishment of an issues list. This testimony will address issues contained on the final issues list approved by the Administrative Law Judge ("ALJ") in this proceeding.

Q. HOW SHOULD RESOURCE SUFFICIENCY/DEFICIENCY PERIODS BE DEFINED?

A. The definition of the resource sufficiency/deficiency period should parallel that used by the utility for resource acquisition purposes. If a utility is acquiring new resources on an on-going basis, it should be considered, a-priori, resource deficient. Since both PGE and PacifiCorp have been acquiring new resources continuously for most of the past decade and have plans to continue to acquire new resources, both should be considered resource deficient.

In this regard, it is quite fair to say the current system is “broken.” Both companies have been adding substantial amounts of capacity in recent years, and continue to do so, all while they are in an assumed resource “sufficient” position. This is largely due to inclusion of energy in the methodology to calculate a utility’s resource position, a problem that will be addressed later in this testimony.

In the abstract, resource sufficiency/deficiency should be defined based on meeting the annual peak demand of the utility. While it may be argued that a surplus or deficit is not necessarily measured by a single hour, in reality, failure to meet the annual peak implies a high likelihood of failure to meet demand hundreds of hours during the year.

To provide a cushion over the peak demand, a reserve margin, as established in the Integrated Resource Plan (“IRP”) process should be recognized in the sufficiency/deficiency calculation. For example, if a utility has a peak demand of 10,000 Megawatts (“MW”) and a reserve requirement of 12%, it would require 11,200 MW of capacity. If it has less than that amount of capacity in any particular year, it would be resource deficient. If it has more than that amount of capacity, it would be resource sufficient.

Q. IF A RESOURCE SUFFICIENCY PERIOD IS ESTABLISHED, HOW OFTEN AND FOR WHAT PURPOSE SHOULD IT BE REVISITED?

A. The determination should be revisited periodically (every two years) or at any time a "major event" occurs.

Q. PLEASE EXPLAIN HOW PACIFICORP AND PGE CALCULATE CAPACITY DURING RESOURCE SUFFICIENCY AND DEFICIENCY PERIODS?

A. In UM 1129, PacifiCorp and PGE used a methodology to determine whether they were resource sufficient or deficient based on a comparison of annual peak demands to available resources, and a similar comparison of forecasted energy requirements to the potential generation available from those resources. In UM 1129, both PGE and PacifiCorp were forecast to be capacity deficient on the basis of peak demands, but sufficient (at least for some period of time) based on energy, or average demand. As a result, in both cases, these companies were viewed as capacity sufficient for a number of years, even though neither Company had enough capacity to meet peak demands. This occurred because of consideration of average demand, or energy in the resource sufficiency determination.

Q. WHAT IS THE JUSTIFICATION FOR CONSIDERATION OF ENERGY IN THE SUFFICIENCY/DEFICIENCY ANALYSIS?

A. It is due to a misunderstanding of the reasons why utilities add capacity resources, and the role energy plays in that decision process. In UM 1129, Staff witness Maury Galbraith testified: "Since a natural gas-fired CCCT is considered to be a base load resource, it is appropriate to determine the resource sufficiency period on both an annual energy and capacity basis. In other words, a utility is unlikely to acquire a base load resource unless it forecasts a significant annual energy and capacity deficit." Re Staff's Investigation Relating to Electric Utility Purchases from QFs, Docket No. UM 1129, Staff/1200, Galbraith/4 (Rebuttal Testimony). Staff provided no evidence in support of this assumption. This unproven and highly questionable assumption makes it very unlikely that a QF will be paid full avoided cost for a new combined cycle plant, even if a utility has a lack of capacity to meet its peak demands.

Q. HOW DOES THIS ASSUMPTION COMPARE TO ACTUAL PRACTICE?

A. PacifiCorp and PGE both acquired substantial capacity and energy resources during the first years of their claimed resource "sufficiency." PacifiCorp acquired the 520 MW Chehalis gas plant in 2008. Chehalis was quite obviously not a known addition in UM 1129. PGE completed the 406 MW Port Westward combined cycle plant as well. According to Staff witness Maury Galbraith, Port Westward was not a "known and measurable" capacity addition in UM 1129. Id. at 13.[1/]

Further, despite an assumed energy surplus, PacifiCorp and PGE also acquired or built numerous wind facilities from 2006 to 2008, and they plan to complete additional wind facilities in 2009. Many of the PacifiCorp resources were not committed to by the Company until 2007, long after the resource sufficiency determination was made in UM 1129. Wind resources provide limited capacity value, and serve mainly to provide for energy. This demonstrates that

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[1/] Mr. Galbraith continued to question the rationale for inclusion of Port Westward even though he recognized it was under construction, thus "more 'known and measurable' than other generic planned resources." Re Staff's Investigation Relating to Electric Utility Purchases from QFs, Docket No. UM 1129, Staff/1700, Galbraith/6 (Surrebuttal Testimony).

PacifiCorp's and PGE's methodologies, and in particular the assumed need for an energy deficiency before new base load or energy resources are built, failed to accurately predict whether the utilities will be resource sufficient, or acquire new resources. It also shows that the designation of being resource sufficient, based on the avoided cost methodology, has little or nothing to do with the utilities' actual resource acquisition decisions.

Q. DO THE UTILITIES' AVOIDED COST METHODOLOGIES ACCURATELY FORECAST THEIR RESOURCE POSITION?

A. No. As noted above, PacifiCorp and PGE have acquired hundreds of MWs of new baseload capacity and wind resources in recent years and continue to do so, all during a period they claimed to be resource sufficient. All of this new capacity has been in excess of 50 MWs, except for a few wind projects which were separated into two projects to avoid competitive bidding thresholds.

Q. WHAT ARE THE IMPLICATIONS OF RESOURCE DEFICIENCY OR SUFFICIENCY FOR AVOIDED COSTS PURPOSES?

A. During a deficiency period, utilities typically pay higher avoided costs than during sufficiency periods. In the deficiency periods, utilities have normally been required to pay the "all-in cost" of the avoided unit, rather than short term avoided cost.

The sufficiency/deficiency period also has significant impacts upon cogeneration QFs that are over 10 MWs. QFs over 10 MWs do not automatically receive the utility's filed avoided costs, but must negotiate with the utility to determine the correct avoided cost. During the resource sufficiency period, the filed avoided costs are based on a market price estimate, while during the deficiency period the filed avoided costs are based on the utility's proxy resource, currently a gas plant.

To further the goal of fair negotiated contracts, the Commission has adopted guidelines for large QF contracts. Re Staff's Investigation Relating to Electric Utility Purchases from QFs, Docket No. UM 1129, Order No. 07-360 (Aug. 20, 2007). Many of these guidelines assume that the negotiations compare the QF cogeneration facility to the utility's proxy resource. Id. Appendix A, Guidelines 9, 10, 13, 14. In addition, it easier for the large cogeneration QF to compare its plant and understand the utility's proposed adjustments to its filed avoided costs when the comparison is with the deficiency resource (the proxy plant) instead of the sufficiency resource (market price estimate).

Q. WHAT IS THE IMPACT OF USING THE CURRENT DEFINITION OF RESOURCE SUFFICIENCY/DEFICIENCY?

A. The current definition allows a utility to acquire resources and continually extend the period of resource sufficiency. For PGE and PacifiCorp, this is exactly what has happened in practice. This definition is inconsistent with Public Utility Regulatory Policies Act ("PURPA"), because: 1) the price paid to QFs does not reflect the actual cost the utility would avoid; and 2) QF development is discouraged when avoided cost prices reflect only short term market prices.

Q. HOW DO YOU PROPOSE TO DETERMINE SUFFICIENCY OR DEFICIENCY?

A. ICNU proposes that a three tier approach be used for resource deficiency/sufficiency instead of only a sufficiency period and a deficiency period. These three different periods would include when a utility is: 1) peak demand and reserve sufficient; 2) peak demand sufficient, but reserve deficient; and 3) peak demand deficient.

For utilities that are sufficient (based on the annual peak demand plus reserves) avoided costs should be based on the market value of energy from the utilities' forward price curve as determined by their power cost models. Thus, the avoided cost could be determined simply by running the power cost models using a reasonable decrement.

For times when the utilities have sufficient resources to meet the peak demand, but not reserves, the avoided cost determination should be based on the value of firm standard product purchases or new peaking plants if they are included in the resource mix.

If a utility is unable to meet its peak demand (ignoring reserves), then avoided costs should based on the "all-in cost" of a new combined cycle plant.

Based on present circumstances, PGE and PacifiCorp appear to be in the third category, and should base payments on the all in cost of the avoided unit, new combined cycle capacity.[2/] Based on utility past practice, it is reasonable for the Commission to assume as a "default position" that the utilities are unable to meet their peak demand, i.e., the rebuttable presumption in all avoided cost determinations.

Q. PLEASE EXPLAIN HOW THIS COMPARES TO CURRENT PRACTICE.

A. This is a three tiered approach as compared to the current two tier methodology. At present, if a utility is sufficient, then it pays QFs the market value of wholesale

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2/ This comment does not account for the most recent changes to the utilities' loads and resources due to the current global economic crisis.

firm purchases. This is intended to insure that QFs receive the market value of capacity. However, if the utility has no need for capacity to either meet peak demands or supply reserves, then the additional energy provided by a QF does little but avoid balancing purchases. Consequently, in such situations, customers should not compensate QFs for the value of standard product purchases (which are not avoided by the QF). This is really a new protection built in for customers. However, it is absolutely essential that this three tiered approach be applied without consideration of whether the utility is energy sufficient or deficient. It would be quite unfair to QFs to deny some form of capacity payment just because a capacity deficient utility has a projected energy sufficiency.

Q. WHAT LOADS SHOULD BE USED IN THE DETERMINATION OF SUFFICIENCY OR DEFICIENCY?

A. There should be no major distinction between the resource acquisition practices of utilities for the RFP and IRP process, self build options and for payments to QFs. All should use the most recent, base line forecasts. To the extent that IRPs aren't updated on an annual basis, the preference should be for more recent forecasts. The load used, as discussed above, should be the peak demand forecasts.

Q. SHOULD THERE BE A DIFFERENCE IN METHODOLOGIES FOR AN IRP AND SUFFICIENCY/DEFICIENCY DETERMINATIONS?

A. No. Again, there should be no major distinction between the resource acquisition practices of utilities for the RFP and IRP process, or self build options and for payments to QFs. Inevitably, a "separate but equal" paradigm is not equal, and in recent years utilities have continued to acquire new baseload and peaking resources while claiming that they were capacity sufficient for QF purposes. This is likely little more than a manifestation of the problem of utilities traditional hostility toward non-company owned generation, and favoring the self build option over purchased power. This utility behavior should be discouraged, rather than encouraged, by the OPUC. QFs should not have payments based on different assumptions or methodologies than the utility uses for its IRP, or resource acquisition process. Utilities that are chronically short on capacity and are actively acquiring new capacity should not be considered to be capacity sufficient.

Q. EXPLAIN FURTHER WHY ENERGY SHOULD NOT BE CONSIDERED IN THE RESOURCE DEFICIENCY DETERMINATION.

A. Energy deficiencies are virtually meaningless in the resource acquisition process. By simply increasing the use of older inefficient gas peaking plants, utilities could cure an energy deficiency; however, that would not mean a utility was capacity sufficient. Indeed, such a utility could fail to meet peak loads for hundreds of hours per year, but remain sufficient, if energy is considered. This is because the utility may have more than enough energy during off-peak hours. Indeed, PacifiCorp believes (through its modeling of market caps in its GRID model) that it has a fixed limit on the amount of energy it can sell in off-peak periods, thus causing "backdowns" of coal-fired resources at times in the GRID model. This is particularly true now as large quantities of capacity poor, but energy rich wind resources are being added. As a result, consideration of off-peak energy is meaningless for determination of whether new capacity is required on the system. If energy is considered, a utility could fail to meet load hundreds of hours per year yet be considered capacity sufficient because it has wind turbines producing low value energy in the middle of the night. It would not be impossible for a utility to experience brownouts or blackouts hundreds of hours per year, but to have surplus energy off peak from wind turbines.

Q. HOW SHOULD RESOURCE ENERGY AND CAPABILITY BE DETERMINED, PARTICULARLY AS REGARDS QFs?

A. As noted above, energy is not a reasonable basis for determination of sufficiency. Inclusion of speculative QFs in the forecast can become a "self defeating" process. If for example, a utility forecasts substantial amounts of QF capacity, this would postpone the deficiency date. This in turn would serve to reduce the avoided cost payments, resulting in a dearth of new QF capacity. By including QF capacity in the forecast, it may insure no new QFs are built. This approach is a self fulfilling prophecy under which no QFs will be built because it is assumed that numerous QFs will be built and that none are needed.

Of course, it could be argued that the same problem operates in reverse, i.e., that assuming no new QF capacity will result in high payments, and a surplus of new QF capacity. The solution to this problem is to simply include new QFs under contract, but exclude any others from the sufficiency determination. Then, if it is determined that for example, there is a need for 500 MWs to achieve sufficiency, the first 500 MWs of new QF capacity would be eligible for payments based on deficiency prices.

Q. WHAT RESOURCES SHOULD BE INCLUDED IN THE SUFFICIENCY DETERMINATION?

A. The process should exactly mirror the capacity acquisition assumptions used for the resource acquisition process. This would include any capacity under construction that is "past the point of no return", capacity under contract, and existing resources. Resources not under construction or under contract are too speculative to include in the determination. Hypothetical “front office transactions” should likewise be eliminated because they should not be preferred over QFs.

Q. DOES THIS CONCLUDE YOUR TESTIMONY?

A. Yes.

QUALIFICATIONS OF RANDALL J. FALKENBERG, PRESIDENT

EDUCATIONAL BACKGROUND

I received my Bachelor of Science degree with Honors in Physics and a minor in mathematics from Indiana University. I received a Master of Science degree in Physics from the University of Minnesota. My thesis research was in nuclear theory. At Minnesota I also did graduate work in engineering economics and econometrics. I have completed advanced study in power system reliability analysis.

PROFESSIONAL EXPERIENCE

After graduating from the University of Minnesota in 1977, I was employed by Minnesota Power as a Rate Engineer. I designed and coordinated the Company's first load research program. I also performed load studies used in cost-of-service studies and assisted in rate design activities.

In 1978, I accepted the position of Research Analyst in the Marketing and Rates department of Puget Sound Power and Light Company. In that position, I prepared the two-year sales and revenue forecasts used in the Company's budgeting activities and developed methods to perform both near- and long-term load forecasting studies.

In 1979, I accepted the position of Consultant in the Utility Rate Department of Ebasco Service Inc. In 1980, I was promoted to Senior Consultant in the Energy Management Services Department. At Ebasco I performed and assisted in numerous studies in the areas of cost of service, load research, and utility planning. In particular, I was involved in studies concerning analysis of excess capacity, evaluation of the planning activities of a major utility on behalf of its public service commission, development of a methodology for computing avoided costs and cogeneration rates, long-term electricity price forecasts, and cost allocation studies.

At Ebasco, I specialized in the development of computer models used to simulate utility production costs, system reliability, and load patterns. I was the principal author of production costing software used by eighteen utility clients and public service commissions for evaluation of marginal costs, avoided costs and production costing analysis. I assisted over a dozen utilities in the performance of marginal and avoided cost studies related to the PURPA of 1978. In this capacity, I worked with utility planners and rate specialists in quantifying the rate and cost impact of generation expansion alternatives. This activity included estimating carrying costs, O&M expenses, and capital cost estimates for future generation.

In 1982 I accepted the position of Senior Consultant with Energy Management Associates, Inc. and was promoted to Lead Consultant in June 1983. At EMA I trained and consulted with planners and financial analysts at several utilities in applications of the PROMOD and PROSCREEN planning models. I assisted planners in applications of these models to the preparation of studies evaluating the revenue requirements and financial impact of generation expansion alternatives, alternate load growth patterns and alternate regulatory treatments of new baseload generation. I also assisted in EMA's educational seminars where utility personnel were trained in aspects of production cost modeling and other modern techniques of generation planning.

I became a Principal in Kennedy and Associates in 1984. Since then I have performed numerous economic studies and analyses of the expansion plans of several utilities. I have testified on several occasions regarding plant cancellation, power system reliability, phase-in of new generating plants, and the proper rate treatment of new generating capacity. In addition, I have been involved in many projects over the past several years concerning the modeling of market prices in various regional power markets.

In January 2000, I founded RFI Consulting, Inc. whose practice is comparable to that of my former firm, J. Kennedy and Associates, Inc.

The testimony that I present is based on widely accepted industry standard techniques and methodologies, and unless otherwise noted relies upon information obtained in discovery or other publicly available information sources of the type frequently cited and relied upon by electric utility industry experts. All of the analyses that I perform are consistent with my education, training and experience in the utility industry. Should the source of any information presented in my testimony be unclear to the reader, it will be provided it upon request by calling me at 770-379-0505.

PAPERS AND PRESENTATIONS

Mid-America Regulatory Commissioners Conference - June 1984: "Nuclear Plant Rate Shock - Is Phase-In the Answer"

Electric Consumers Resource Council - Annual Seminar, September 1986: "Rate Shock, Excess Capacity and Phase-in"

The Metallurgical Society - Annual Convention, February 1987: "The Impact of Electric Pricing Trends on the Aluminum Industry"

Public Utilities Fortnightly - "Future Electricity Supply Adequacy: The Sky Is Not Falling" What Others Think, January 5, 1989 Issue

Public Utilities Fortnightly - "PoolCo and Market Dominance", December 1995 Issue

Expert Testimony Appearances
of
Randall J. Falkenberg

APPEARANCES

3/84	8924	KY	Airco Carbide	Louisville Gas & Electric	CWIP in rate base.
5/84	830470-EI	FL	Florida Industrial Power Users Group	Fla. Power Corp.	Phase-in of coal unit, fuel savings basis, cost allocation.
10/84	89-07-R	CT	Connecticut Ind. Energy Consumers	Connecticut Light & Power	Excess capacity.
11/84	R-842651	PA	Lehigh Valley Power Committee	Pennsylvania Power & Light Co.	Phase-in of nuclear unit.
2/85	I-840381	PA	Phila. Area Ind. Energy Users' Group	Philadelphia Electric Co.	Economics of cancellation of nuclear generating units.
3/85	Case No. 9243	KY	Kentucky Industrial Utility Consumers	Louisville Gas & Electric Co.	Economics of cancelling fossil generating units.
3/85	R-842632	PA	West Penn Power Industrial Intervenors	West Penn Power Co.	Economics of pumped storage generating units, optimal res. margin, excess capacity.
3/85	3498-U	GA	Georgia Public Service Commission Staff	Georgia Power Co.	Nuclear unit cancellation, load and energy forecasting, generation economics.
5/85	84-768-E-42T	WV	West Virginia Multiple Intervenors	Monongahela Power Co.	Economics - pumped storage generating units, reserve margin, excess capacity.
7/85	E-7, SUB 391	NC	Carolina Industrial Group for Fair Utility Rates	Duke Power Co.	Nuclear economics, fuel cost projections.
7/85	9299	KY	Kentucky Industrial Utility Consumers	Union Light, Heat & Power Co.	Interruptible rate design.
8/85	84-249-U	AR	Arkansas Electric Energy Consumers	Arkansas Power & Light Co.	Prudence review.
1/86	85-09-12	CT	Connecticut Ind. Energy Consumers	Connecticut Light & Power Co.	Excess capacity, financial impact of phase-in nuclear plant.
1/86	R-850152	PA	Philadelphia Area Industrial Energy Users' Group	Philadelphia Electric Co.	Phase-in and economics of nuclear plant.
2/86	R-850220	PA	West Penn Power Industrial Intervenors	West Penn Power	Optimal reserve margins, prudence, off-system sales guarantee plan.
5/86	86-081-E-GI	WV	West Virginia Energy Users' Group	Monongahela Power Co.	Generation planning study , economics prudence of a pumped storage hydroelectric unit.
5/86	3554-U	GA	Attorney General & Georgia Public Service Commission Staff	Georgia Power Co.	Cancellation of nuclear plant.
9/86	29327/28	NY	Occidental Chemical Corp.	Niagara Mohawk Power Co.	Avoided cost, production cost models.
9/86	E7-Sub 408	NC	NC Industrial Energy Committee	Duke Power Co.	Incentive fuel adjustment clause.

Expert Testimony Appearances
of
Randall J. Falkenberg

Date	Case	Jurisdict.	Party	Utility	Subject
12/86	9437/ 613	KY	Attorney General of Kentucky	Big Rivers Elect. Corp.	Power system reliability analysis, rate treatment of excess capacity.
5/87	86-524-E-SC	WV	West Virginia Energy Users' Group	Monongahela Power	Economics and rate treatment of Bath County pumped storage County Pumped Storage Plant.
6/87	U-17282	LA	Louisiana Public Service Commission Staff	Gulf States Utilities	Prudence of River Bend Nuclear Plant.
6/87	PUC-87-013-RD E002/E-015 -PA-86-722	MN	Eveleth Mines & USX Corp.	Minnesota Power/ Northern States	Sale of generating unit and reliability Power requirements.
7/87	Docket 9885	KY	Attorney General of Kentucky	Big Rivers Elec. Corp.	Financial workout plan for Big Rivers.
8/87	3673-U	GA	Georgia Public Service Commission Staff	Georgia Power Co.	Nuclear plant prudence audit, Vogtle buyback expenses.
10/87	R-850220	PA	WPP Industrial Intervenors	West Penn Power	Need for power and economics, County Pumped Storage Plant
10/87	870220-EI	FL	Occidental Chemical	Fla. Power Corp.	Cost allocation methods and interruptible rate design.
10/87	870220-EI	FL	Occidental Chemical	Fla. Power Corp.	Nuclear plant performance.
1/88	Case No. 9934	KY	Kentucky Industrial Utility Consumers	Louisville Gas & Electric Co.	Review of the current status of Trimble County Unit 1.
3/88	870189-EI	FL	Occidental Chemical Corp.	Fla. Power Corp.	Methodology for evaluating interruptible load.
5/88	Case No. 10217	KY	National Southwire Aluminum Co., ALCAN Alum Co.	Big Rivers Elec. Corp.	Debt restructuring agreement.
7/88	Case No. 325224	LA Div. I 19th Judicial District	Louisiana Public Service Commission Staff	Gulf States Utilities	Prudence of River Bend Nuclear Plant.
10/88	3780-U	GA	Georgia Public Service Commission Staff	Atlanta Gas Light Co.	Weather normalization gas sales and revenues.
10/88	3799-U	GA	Georgia Public Service Commission Staff	United Cities Gas Co.	Weather normalization of gas sales and revenues.
12/88	88-171-EL-AIR 88-170-EL-AIR	OH OH	Ohio Industrial Energy Consumers	Toledo Edison Co., Cleveland Electric Illuminating Co.	Power system reliability reserve margin.
1/89	I-880052	PA	Philadelphia Area Industrial Energy Users' Group	Philadelphia Electric Co.	Nuclear plant outage, replacement fuel cost recovery.

Expert Testimony Appearances
of
Randall J. Falkenberg

Date	Case	Jurisdict.	Party	Utility	Subject
2/89	10300	KY	Green River Steel K	Kentucky Util.	Contract termination clause and interruptible rates.
3/89	P-870216 283/284/286	PA	Armco Advanced Materials Corp., Allegheny Ludlum Corp.	West Penn Power	Reserve margin, avoided costs.
5/89	3741-U	GA	Georgia Public Service Commission Staff	Georgia Power Co.	Prudence of fuel procurement.
8/89	3840-U	GA	Georgia Public Service Commission Staff	Georgia Power Co.	Need and economics coal & nuclear capacity, power system planning.
10/89	2087	NM	Attorney General of New Mexico	Public Service Co. of New Mexico	Power system planning, economic and reliability analysis, nuclear planning, prudence.
10/89	89-128-U	AR	Arkansas Electric Energy Consumers	Arkansas Power Light Co.	Economic impact of asset transfer and stipulation and settlement agreement.
11/89	R-891364	PA	Philadelphia Area Industrial Energy Users' Group	Philadelphia Electric Co.	Sale/leaseback nuclear plant, excess capacity, phase-in delay imprudence.
1/90	U-17282	LA	Louisiana Public Service Commission Staff	Gulf States Utilities	Sale/leaseback nuclear power plant.
4/90	89-1001-EL-AIR	OH	Industrial Energy Consumers	Ohio Edison Co.	Power supply reliability, excess capacity adjustment.
4/90	N/A	N.O.	New Orleans Business Counsel	New Orleans Public Service Co.	Municipalization of investor-owned utility, generation planning & reliability
7/90	3723-U	GA	Georgia Public Service Commission Staff	Atlanta Gas Light Co.	Weather normalization adjustment rider.
9/90	8278	MD	Maryland Industrial Group	Baltimore Gas & Electric Co.	Revenue requirements gas & electric, CWIP in rate base.
9/90	90-158	KY	Kentucky Industrial Utility Consumers	Louisville Gas & Electric Co.	Power system planning study.
12/90	U-9346	MI	Association of Businesses Advocating Tariff Equity (ABATE)	Consumers Power	DSM Policy Issues.
5/91	3979-U	GA	Georgia Public Service Commission Staff	Georgia Power Co.	DSM, load forecasting and IRP.
7/91	9945	TX	Office of Public Utility Counsel	El Paso Electric Co.	Power system planning, quantification of damages of imprudence, environmental cost of electricity
8/91	4007-U	GA	Georgia Public Service Commission Staff	Georgia Power Co.	Integrated resource planning, regulatory risk assessment.
11/91	10200	TX	Office of Public	Texas-New Mexico Utility Counsel	Imprudence disallowance. Power Co.

Expert Testimony Appearances
of
Randall J. Falkenberg

Date	Case	Jurisdict.	Party	Utility	Subject
12/91	U-17282	LA	Louisiana Public Service Commission Staff	Gulf States Utilities	Year-end sales and customer adjustment, jurisdictional allocation.
1/92	89-783-E-C	WVA	West Virginia Energy Users Group	Monongahela Power Co.	Avoided cost, reserve margin, power plant economics.
3/92	91-370	KY	Newport Steel Co.	Union Light, Heat & Power Co.	Interruptible rates, design, cost allocation.
5/92	91890	FL	Occidental Chemical Corp.	Fla. Power Corp.	Incentive regulation, jurisdictional separation, interruptible rate design.
6/92	4131-U	GA	Georgia Textile Manufacturers Assn.	Georgia Power Co.	Integrated resource planning, DSM.
9/92	920324	FL	Florida Industrial Power Users Group	Tampa Electric Co.	Cost allocation, interruptible rates decoupling and DSM.
10/92	4132-U	GA	Georgia Textile Manufacturers Assn.	Georgia Power Co.	Residential conservation program certification.
10/92	11000	TX	Office of Public Utility Counsel	Houston Lighting and Power Co.	Certification of utility cogeneration project.
11/92	U-19904	LA	Louisiana Public Service Commission Staff	Entergy/Gulf States Utilities (Direct)	Production cost savings from merger.
11/92	8469	MD	Westvaco Corp.	Potomac Edison Co.	Cost allocation, revenue distribution.
11/92	920606	FL	Florida Industrial Power Users Group	Statewide Rulemaking	Decoupling, demand-side management, conservation, Performance incentives.
12/92	R-009 22378	PA	Armco Advanced Materials	West Penn Power	Energy allocation of production costs.
1/93	8179	MD	Eastalco Aluminum/ Westvaco Corp.	Potomac Edison Co.	Economics of QF vs. combined cycle power plant.
2/93	92-E-0814 88-E-081	NY	Occidental Chemical Corp.	Niagara Mohawk Power Corp.	Special rates, wheeling.
3/93	U-19904	LA	Louisiana Public Service Commission Staff	Entergy/Gulf States Utilities (Surrebuttal)	Production cost savings from merger.
4/93	EC92 21000 ER92-806-000	FERC	Louisiana Public Service Commission Staff	Gulf States Utilities/Entergy	GSU Merger prodcution cost savings
6/93	930055-EU	FL	Florida Industrial Power Users' Group	Statewide Rulemaking	Stockholder incentives for off-system sales.
9/93	92-490, 92-490A, 90-360-C	KY	Kentucky Industrial Utility Customers & Attorney General	Big Rivers Elec. Corp.	Prudence of fuel procurement decisions.
9/93	4152-U	GA	Georgia Textile Manufacturers Assn.	Georgia Power Co.	Cost allocation of pollution control equipment.
4/94	E-015/	MN	Large Power	Minn. Power Co.	Analysis of revenue req.

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	GR-94-001		Intervenors		and cost allocation issues.
4/94	93-465	KY	Kentucky Industrial Utility Customers	Kentucky Utilities	Review and critique proposed environmental surcharge.
4/94	4895-U	GA	Georgia Textile Manufacturers Assn.	Georgia Power Co	Purchased power agreement and fuel adjustment clause.
4/94	E-015/ GR-94-001	MN	Large Power Intervenors	Minnesota Power Light Co.	Rev. requirements, incentive compensation.
7/94	94-0035-E-42T	WV	West Virginia Energy Users' Group	Monongahela Power Co.	Revenue annualization, ROE performance bonus, and cost allocation.
8/94	8652	MD	Westvaco Corp.	Potomac Edison Co.	Revenue requirements, ROE performance bonus, and revenue distribution.
1/95	94-332	KY	Kentucky Industrial Utility Customers	Louisville Gas & Electric Company	Environmental surcharge.
1/95	94-996-EL-AIR	OH	Industrial Energy Users of Ohio	Ohio Power Company	Cost-of-service, rate design, demand allocation of power
3/95	E999-CI	MN	Large Power Intervenor	Minnesota Public Utilities Comm.	Environmental Costs Of electricity
4/95	95-060	KY	Kentucky Industrial Utility Customers	Kentucky Utilities Company	Six month review of CAAA surcharge.
11/95	I-940032	PA	The Industrial Energy Consumers of Pennsylvania	Statewide - all utilities	Direct Access vs. Poolco, market power.
11/95	95-455	KY	Kentucky Industrial	Kentucky Utilities	Clean Air Act Surcharge,
12/95	95-455	KY	Kentucky Industrial Utility Customers	Louisville Gas & Electric Company	Clean Air Act Compliance Surcharge.
6/96	960409-EI	FL	Florida Industrial Power Users Group	Tampa Electric Co.	Polk County Power Plant Rate Treatment Issues.
3/97	R-973877	PA	PAIEUG.	PECO Energy	Stranded Costs & Market Prices.
3/97	970096-EQ	FL	FIPUG	Fla. Power Corp.	Buyout of QF Contract
6/97	R-973593	PA	PAIEUG	PECO Energy	Market Prices, Stranded Cost
7/97	R-973594	PA	PPLICA	PP&L	Market Prices, Stranded Cost
8/97	96-360-U	AR	AEEC	Entergy Ark. Inc.	Market Prices and Stranded Costs, Cost Allocation, Rate Design
10/97	6739-U	GA	GPSC Staff	Georgia Power	Planning Prudence of Pumped Storage Power Plant
10/97	R-974008 R-974009	PA	MIEUG PICA	Metropolitan Ed. PENELEC	Market Prices, Stranded Costs
11/97	R-973981	PA	WPII	West Penn Power	Market Prices, Stranded Costs
11/97	R-974104	PA	DII	Duquesne Light Co.	Market Prices, Stranded

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Date	Case	Jurisdict.	Party	Utility	Subject
					Costs
2/98	APSC 97451 97452 97454	AR	AEEC	Generic Docket	Regulated vs. Market Rates, Rate Unbundling, Timetable for Competition
7/98	APSC 87-166	AR	AEEC	Entergy Ark. Inc.	Nuclear decommissioning cost estimates & rate treatment.
9/98	97-035-01	UT	DPS and CCS	PacifiCorp	Net Power Cost Stipulation, Production Cost Model Audit
12/98	19270	TX	OPC	HL&P	Reliability, Load Forecasting
4/99	19512	TX	OPC	SPS	Fuel Reconciliation
4/99	99-02-05	CT	CIEC	CL&P	Stranded Costs, Market Prices
4/99	99-03-04	CT	CIEC	UI	Stranded Costs, Market Prices
6/99	20290	TX	OPC	CP&L	Fuel Reconciliation
7/99	99-03-36	CT	CIEC	CL&P	Interim Nuclear Recovery
7/99	98-0453	WV	WVEUG	AEP & APS	Stranded Costs, Market Prices
12/99	21111	TX	OPC	EGSI	Fuel Reconciliation
2/00	99-035-01	UT	CCS	PacifiCorp	Net Power Costs, Production Cost Modeling Issues
5/00	99-1658	OH	AK Steel	CG&E	Stranded Costs, Market Prices
6/00	UE-111	OR	ICNU	PacifiCorp	Net Power Costs, Production Cost Modeling Issues
9/00	22355	TX	OPC	Reliant Energy	Stranded cost
10/00	22350	TX	OPC	TXU Electric	Stranded cost
10/00	99-263-U	AR	Tyson Foods	SW Elec. Coop	Cost of Service
12/00	99-250-U	AR	Tyson Foods	Ozarks Elec. Coop	Cost of Service
01/01	00-099-U	AR	Tyson Foods	SWEPCO	Rate Unbundling
02/01	99-255-U	AR	Tyson Foods	Ark. Valley Coop	Rate Unbundling
03/01	UE-116	OR	ICNU	PacifiCorp	Net Power Costs
6/01	01-035-01	UT	DPS and CCS	PacifiCorp	Net Power Costs
7/01	A.01-03-026	CA	Roseburg FP	PacifiCorp	Net Power Costs
7/01	23550	TX	OPC	EGSI	Fuel Reconciliation
7/01	23950	TX	OPC	Reliant Energy	Price to beat fuel factor
8/01	24195	TX	OPC	CP&L	Price to beat fuel factor
8/01	24335	TX	OPC	WTU	Price to beat fuel factor
9/01	24449	TX	OPC	SWEPCO	Price to beat fuel factor
10/01	20000-EP 01-167	WY	WIEC	PacifiCorp	Power Cost Adjustment Excess Power Costs
2/02	UM-995	OR	ICNU	PacifiCorp	Cost of Hydro Deficit

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Date	Case	Jurisdict.	Party	Utility	Subject
2/02	00-01-37	UT	CCS	PacifiCorp	Certification of Peaking Plant
4/02	00-035-23	UT	CCS	PacifiCorp	Cost of Plant Outage, Excess Power Cost Stipulation.
4/02	01-084/296	AR	AEEC	Entergy Arkansas	Recovery of Ice Storm Costs
5/02	25802	TX	OPC	TXU Energy	Escalation of Fuel Factor
5/02	25840	TX	OPC	Reliant Energy	Escalation of Fuel Factor
5/02	25873	TX	OPC	Mutual Energy CPL	Escalation of Fuel Factor
5/02	25874	TX	OPC	Mutual Energy WTU	Escalation of Fuel Factor
5/02	25885	TX	OPC	First Choice	Escalation of Fuel Factor
7/02	UE-139	OR	ICNU	Portland General	Power Cost Modeling
8/02	UE-137	OP	ICNU	Portland General	Power Cost Adjustment Clause
10/02	RPU-02-03	IA	Maytag, et al	Interstate P&L	Hourly Cost of Service Model
11/02	20000-Er 02-184	WY	WIEC	PacifiCorp	Net Power Costs, Deferred Excess Power Cost
12/02	26933	TX	OPC	Reliant Energy	Escalation of Fuel Factor
12/02	26195	TX	OPC	Centerpoint Energy	Fuel Reconciliation
1/03	27167	TX	OPC	First Choice	Escalation of Fuel Factor
1/03	UE-134	OR	ICNU	PacifiCorp	West Valley CT Lease payment
1/03	27167	TX	OPC	First Choice	Escalation of Fuel Factor
1/03	26186	TX	OPC	SPS	Fuel Reconciliation
2/03	UE-02417	WA	ICNU	PacifiCorp	Rate Plan Stipulation, Deferred Power Costs
2/03	27320	TX	OPC	Reliant Energy	Escalation of Fuel Factor
2/03	27281	TX	OPC	TXU Energy	Escalation of Fuel Factor
2/03	27376	TX	OPC	CPL Retail Energy	Escalation of Fuel Factor
2/03	27377	TX	OPC	WTU Retail Energy	Escalation of Fuel Factor
3/03	27390	TX	OPC	First Choice	Escalation of Fuel Factor
4/03	27511	TX	OPC	First Choice	Escalation of Fuel Factor
4/03	27035	TX	OPC	AEP Texas Central	Fuel Reconciliation
05/03	03-028-U	AR	AEEC	Entergy Ark., Inc.	Power Sales Transaction
7/03	UE-149	OR	ICNU	Portland General	Power Cost Modeling
8/03	28191	TX	OPC	TXU Energy	Escalation of Fuel Factor
11/03	20000-ER -03-198	WY	WIEC	PacifiCorp	Net Power Costs
2/04	03-035-29	UT	CCS	PacifiCorp	Certification of CCCT Power Plant, RFP and Bid Evaluation
6/04	29526	TX	OPC	Centerpoint	Stranded cost true-up.

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Date	Case	Jurisdict.	Party	Utility	Subject
6/04	UE-161	OR	ICNU	Portland General	Power Cost Modeling
7/04	UM-1050	OR	ICNU	PacifiCorp	Jurisdictional Allocation
10/04	15392-U 15392-U	GA	Calpine	Georgia Power/ SEPCO	Fair Market Value of Combined Cycle Power Plant
12/04	04-035-42	UT	CCS		PacifiCorp Net power costs
02/05	UE-165	OP	ICNU	Portland General	Hydro Adjustment Clause
05/05	UE-170	OR	ICNU	PacifiCorp	Power Cost Modeling
7/05	UE-172	OR	ICNU	Portland General	Power Cost Modeling
08/05	UE-173	OR	ICNU	PacifiCorp	Power Cost Adjustment
8/05	UE-050482	WA	ICNU	Avista	Power Cost modeling, Energy Recovery Mechanism
8/05	31056	TX	OPC	AEP Texas Central	Stranded cost true-up.
11/05	UE-05684	WA	ICNU	PacifiCorp	Power Cost modeling, Jurisdictional Allocation, PCA
2/06	05-116-U	AR	AEEC	Entergy Arkansas	Fuel Cost Recovery
4/06	UE-060181	WA	ICNU	Avista	Energy Cost Recovery Mechanism
5/06	22403-U	GA	GPSC Staff	Georgia Power	Fuel Cost Recovery Audit
6/06	UM 1234	OR	ICNU	Portland General	Deferral of outage costs
6/06	UE 179	OR	ICNU	PacifiCorp	Power Costs, PCAM
7/06	UE 180	OR	ICNU	Portland General	Power Cost Modeling, PCAM
12/06	32766	TX	OPC	SPS	Fuel Reconciliation
1/07	23540-U	GA	GPSC Staff	Georgia Power	Fuel Cost Recovery Audit
2/07	06-101-U	AR	AEEC	Entergy Arkansas	Cost Allocation and Recovery
2/07	UE-061546	WA	ICNU/Public Counsel	PacifiCorp	Power Cost Modeling, Jurisdictional Allocation, PCA
2/07	32710	TX	OPC	EGSI	Fuel Reconciliation
6/07	UE 188	OR	ICNU	Portland General	Wind Generator Rate Surcharge
6/07	UE 191	OR	ICNU	PacifiCorp	Power Cost Modeling
6/07	UE 192	OR	ICNU	Portland General	Power Cost Modeling
9/07	UM 1330	OR	ICNU	PGE, PacifiCorp	Renewable Resource Tariff
10/07	06-152-U	AR	AEEC	EAI	CA Rider, Plant Acquisition
10/07	07-129-U	AR	AEEC	EAI	Annual Earnings Review Tariff
10/07	06-152-U	AR	AEEC	EAI	Purchase of combined cycle power plant.
04/08	26794	GA	GPSC Staff	Georgia Power	Fuel Cost Recovery Case