COMMONWEALTH OF KENTUCKY BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

The Electronic Application of Duke Energy Kentucky,) Inc., for: 1) An Adjustment of the Electric Rates; 2)) Approval of an Environmental Compliance Plan and) Surcharge Mechanism; 3) Approval of New Tariffs; 4)) Approval of Accounting Practices to Establish Regulatory) Assets and Liabilities; and 5) All Other Required) Approvals and Relief.

Case No. 2017-00321

RESPONSES OF THE KROGER CO. TO DUKE ENERGY KENTUCKY, INC.'S FIRST SET OF INTERROGATORIES AND REQUESTS FOR PRODUCTION OF DOCUMENTS

1. Other than Mr. Bieber, please identify any persons, including experts whom Kroger has consulted, retained, or consulted with regard to evaluating the Company's Application in this proceeding.

<u>ANSWER:</u> Kevin Higgins, who is director of the regulatory practice area at Energy Strategies, where Mr. Bieber is employed.

2. For each person identified in (prior) response to Interrogatory No. 1 above, please state (1) the subject matter of the discussions/consultations/evaluations; (2) the written opinions of such persons regarding the Company's Application; (3) the facts to which each person relied upon; and (4) a summary of the person's qualifications to render such discussions/consultations/evaluations.

<u>ANSWER:</u> Mr. Bieber and Mr. Higgins discussed Kentucky Power's Application generally. Mr. Higgins' CV as of December 31, 2017 is attached.

3. For each person identified in response to Interrogatory No. 1 above, please identify all proceedings in all jurisdictions in which the witness/persons has offered evidence, including but not limited to, pre-filed testimony, sworn statements, and live testimony. For each response, please provide the following:

- (a) the jurisdiction in which the testimony or statement was pre-filed, offered, given, or admitted into the record;
- (b) the administrative agency and/or court in which the testimony or statement was pre-filed, offered, admitted, or given;
- (c) the date(s) the testimony or statement was pre-filed, offered, admitted, or given;
- (d) the identifying number for the case or proceeding in which the testimony or statement was pre-filed, offered, admitted, or given; and
- (e) whether the person was cross-examined.

ANSWER: A list of proceedings in which Mr. Higgins' has submitted testimony is attached.

4. Identify and provide all documents or other evidence that Kroger may seek to introduce as exhibits or for purposes of witness examination in the above-captioned matter.

ANSWER: Kroger has not yet identified its cross-examination exhibits for this proceeding.

5. Please identify all proceedings in all jurisdictions in the last three years in which Mr. Bieber has offered evidence, including but not limited to, pre-filed testimony, sworn statements, and live testimony and analysis. For each response, please provide the following:

- (a) the jurisdiction in which the testimony, statement or analysis was pre-filed, offered, given, or admitted into the record;
- (b) the administrative agency and/or court in which the testimony, statement or analysis was pre-filed, offered, admitted, or given;
- (c) the date(s) the testimony, statement or analysis was pre-filed, offered, admitted, or given;
- (d) the identifying number for the case or proceeding in which the testimony, statement or analysis was pre-filed, offered, admitted, or given;
- (e) whether the witness was cross-examined;
- (f) the custodian of the transcripts and pre-filed testimony, statements or analysis for each proceeding; and
- (g) copies of all such testimony, statements or analysis.

ANSWER: Mr. Bieber's CV as of December 31, 2017 is attached. Mr. Bieber has not been crossexamined on his testimony.

Mr. Bieber does not maintain records concerning the identity of the custodian of transcripts and pre-filed testimony, statements or analysis for each proceeding. Copies of testimony filed in state commission proceedings can generally be found on the websites maintained by those commissions.

6. Please provide copies of any and all documents, analysis, summaries, white papers, work papers, spreadsheets (electronic versions with cells intact), including drafts thereof, as well as any underlying supporting materials created by Mr. Bieber as part of his evaluation of the Company's Application or used in the creation of Mr. Bieber's testimony.

ANSWER: Mr. Bieber's workpapers are attached.

- JDB FIT Rev WP revisions to the Company's cost of service workpaper to account for the impacts from the change in the Federal Income Tax (FIT) rate from 35% to 21%.
- JDB Rev Alloc WP adjustments to the Company's revenue allocation based on the reduction in cost of service as a result of the change in the FIT.

7. Please provide copies of any and all documents not created by Mr. Bieber, including but not limited to, analysis, summaries, cases, reports, evaluations, *etc.*, that Mr. Bieber relied upon, referred to, or used in the development of his testimony.

ANSWER: Mr. Bieber relied upon the Company's filing and his own work papers in this case.

8. Please provide any and all studies, analysis, and presentations that Mr. Bieber has created or publicly made within the last three years that involve utility regulation, rate-making, cost of service, use of riders, taxes, or the recently passed Jobs and Tax Act that is discussed in Mr. Bieber's testimony.

ANSWER: See response to 5.

9. Please confirm that Mr. Bieber is not a Certified Public Accountant.

ANSWER: Mr. Bieber is not a Certified Public Accountant.

10. Referring to Mr. Bieber's testimony on Pages 3 - 9 that the Company's revenue requirement should be adjusted due to the "Tax Reform Act," does Mr. Bieber agree that all provisions of the Tax Reform Act impacting the company's test year revenue requirement should be factored into the Company's revenue requirement in this case?

(a) To the extent Mr. Bieber does not agree that all impacts of the Tax Reform Act that impact the Company's test year revenue requirement should be factored into the Company's revenue requirement, please list and explain which provisions of the Tax Reform should be ignored or disallowed by the Commission?

<u>ANSWER:</u> Yes. Mr. Bieber agrees that all provisions of the Tax Reform Act impacting the company's test year revenue requirement should be factored into the Company's revenue requirement in this case.

(a) N/A

11. Please confirm that with respect to his recommendation on Page 3 that the Company prepare an amortization schedule to address the excessive accumulated deferred income tax (ADIT) balance, Mr. Bieber is not recommending a particular amortization period in this case.

<u>ANSWER:</u> See response to 12. Mr. Bieber is not recommending a particular amortization period.

12. Referring to Mr. Bieber's testimony on Page 6 recommending that excess ADITs be returned to customers "as quickly as possible," does Mr. Bieber agree that under the Tax Reform Act, any such amortization of the excessive ADIT balance must be done by using the Average Rate Assumption Method based upon the vintage account data of the utility.

- (a) If Mr. Bieber disagrees, what is his understanding of the amortization required under the Tax Reform Act?
- (b) Has Mr. Bieber performed any calculations regarding the amount of the excess ADITs of Duke Energy Kentucky that must be amortized?
 - i. If the answer is in the affirmative, provide all such calculations in electronic format with cells intact, including supporting work papers and information relied upon to perform such calculations.
- (c) Has Mr. Bieber performed any calculations regarding the amortization period of the excess ADITs?

i. If the response is in the affirmative, provide all such calculations in electronic format with cells intact, including supporting work papers and information relied upon to perform such calculations.

<u>ANSWER:</u> As stated on page 6 of Mr. Bieber's Direct Testimony, Mr. Bieber recommends that the excess ADIT be returned to customers as quickly as possible, *consistent with the requirements of the Tax Reform Act*. In other words, the Company should not delay return of the excess ADIT, nor should it be returned on a schedule that would cause a normalization or other violation. However, as stated in response to 11, Mr. Bieber is not recommending a particular amortization period, nor, does he take a position regarding the Average Rate Assumption Method.

(a) See response to 12 above. Mr. Bieber does not take a specific position regarding the Average Rate Assumption Method

(b) No

(i) N/A

(c) No

(i) N/A

13. Please provide all calculations and analysis performed, including work papers, in electronic format with formulas intact that support Mr. Bieber's position that the reduction in the corporate tax rate under the Tax Reform Act results in \$10.6 million reduction in the company's cost of service.

ANSWER: See response to 6.

14. Provide all summaries, analysis, of the Tax Reform Act performed or relied upon by Mr. Bieber in formulating his opinions and recommendations in this case.

<u>ANSWER:</u> Mr. Bieber's recommendations in this case are based upon Public Law no. 115-97, an Act to provide for reconciliation pursuant to titles II and V of the concurrent resolution on the budget for fiscal year 2018, commonly known as the Tax Cuts and Jobs Act.

15. Are there other aspects of the Tax Act that could have an impact on Duke Energy Kentucky's rates?

<u>ANSWER:</u> As described in Mr. Bieber's testimony, in addition to the reduction to the federal income tax rate, and the excess accumulated deferred income tax, changes to bonus tax depreciation rules could have an impact on DEK's rates.

Mr. Bieber acknowledges that there may be other aspects of the Tax Reform Act that could affect DEK's rates. Additionally, Mr. Bieber is aware of the provision that repeals the Domestic Production Activities Deduction which also could have a potential impact to DEK's rates. As described in 10, Mr. Bieber agrees that all provisions of the Tax Reform Act impacting the company's test year revenue requirement should be factored into the Company's revenue requirement in this case. However, Mr. Bieber does not take a position regarding the specific impacts of those provisions.

16. What other aspects of the Tax Act did the witness review and take into account in preparing and submitting his testimony?

ANSWER: See response to 15.

17. What aspects of the Tax Reform Act did Mr. Bieber reject as inapplicable to formulating his opinions and preparing and submitting his testimony?

ANSWER: See response to 15.

18. Regarding Mr. Bieber's proposal that 50 percent of the corporate tax rate revenue requirement reduction should be used to offset interclass subsidies, does Mr. Bieber agree that the Kentucky Public Service Commission has authority to allow the allocations of such impacts to be used to offset other rate increases to customers and customer classes?

(a) If the answer is in the affirmative, please provide any and all cases, opinions, or commission orders that Mr. Bieber relies upon in reaching such conclusion.

<u>ANSWER:</u> The proper recognition of the reduction in the corporate income tax rate will impact the revenue requirement in this proceeding. Implementing this reduction will require that it be allocated among the customer classes. Mr. Bieber agrees that the Commission has authority to address revenue requirement, revenue allocation and rate design when setting new rates in a rate case, including whether to allocate any revenue requirement reduction associated with the reduction in corporate tax rate revenue in a manner that reduces interclass subsidies.

(a) It is Mr. Bieber's understanding that that the Commission always has authority to address revenue requirement, rate allocation and rate design when setting new rates in a rate case.

19. Refer to Mr. Bieber's statement on Page 12, regarding single issue rate making, is it Mr. Bieber's position that the Commission does not have regulatory authority to consider single issue ratemaking?

- (a) If the answer is in the affirmative, please provide any and all statutes, case law, Kentucky Public Service Commission decisions, or staff opinions, relied upon by Mr. Bieber to support such a conclusion.
 N/A.
- (b) If the answer is in the negative, does Mr. Bieber believe that the Commission should not engage in single issue rate making as a general policy?

<u>ANSWER:</u> Mr. Bieber does not take the position that the Commission does not have regulatory authority to consider single issue ratemaking. As stated in Mr. Bieber's testimony on page 13, single issue ratemaking, absent a compelling public interest, is generally not sound regulatory policy.

(a) N/A

(b) See response to 19 above.

20. Referring to Mr. Bieber's testimony on Page 13 where he provides "generally accepted criteria that can be used to determine the appropriateness of cost and rider mechanisms", provide any and all case law, orders, or commission opinions that support Mr. Bieber's position.

ANSWER: Mr. Bieber offers the following to support his position.

Indiana Utility Regulatory Commission 2014 Annual Report, pp. 39:

https://www.in.gov/iurc/files/Indiana_Utility_Regulatory_Commission_2014_Annual_Report_FIN AL(3).pdf

"An expense tracker allows retail rates to be adjusted outside the context of a base rate case to reflect changes in operating expenses. These adjustments do not include the recovery of any financing cost, but merely allow the utility to recover what it has spent on a dollar-for-dollar basis. The pass-through of unpredictable revenues and expenses to ratepayers reduces volatility in the utility's earnings which serves to strengthen the utility's credit rating. *Recovery of expenses* that are characterized as largely outside the utility's control, volatile in nature, and materially significant is the intended goal of such trackers." (emphasis added).

MOPSC Report and Order, Case No. ER-2007-0002, May 22, 2007

https://www.efis.psc.mo.gov/mpsc/commoncomponents/view_itemno_details.asp?caseno=ER-2007-0002&attach_id=2007027214

In the Commission's findings of fact, it describes the following criteria put forth by State Witness Michael L. Brosch to consider in the evaluation of the need for AmerenUE's request for a fuel adjustment clause tracker (pages 20-21).

- Substantial enough to have a material impact upon revenue requirements and the financial performance of the business between rate cases;
- beyond the control of management, where utility management has little influence over experienced revenue or cost levels; and
- volatile in amount, causing significant swings in income and cash flows if not tracked.

According to the Commission, "(t)he criteria proposed by Brosch appear to be well accepted in the regulatory community," and "(t)he Commission will apply those criteria in its evaluation of AmerenUE's request for a fuel adjustment clause." (page 21).

Public Service Commission of Utah (PSCU) Corrected Report and Order in PSCU Docket No. 09-035-15, March 3, 2011.

https://pscdocs.utah.gov/electric/09docs/0903515/71339%200903515cRO.pdf

PacifiCorp (d/b/a/ Rocky Mountain Power) justified the need for its proposed Energy Cost Adjustment Mechanism (ECAM) based on its assertion that "its net power costs are large, volatile and largely outside the Company's control and therefore meet the necessary criteria for an ECAM." (page 15). The PSCU recognized that "the increasing magnitude of the difference between system forecast and actual net power cost and the underlying variability of these costs raise a concern regarding the Company's financial health and fair rates to customers going forward which we now have an opportunity to address." (page 66). This PSCU order approved an ECAM pilot program for four years that included a 70/30 sharing of the costs of the program between ratepayers and shareholders respectively. PacifiCorp's sharing mechanism in Utah was later changed to assign 100% of the ECAM costs to customers.

21. Is Mr. Bieber aware of any other situations where the Kentucky Public Service Commission has approved rider mechanisms that do not meet those three conditions?

(a) If the response is in the affirmative, please provide such case citations or Commission orders.

ANSWER: No.

(a) N/A

22. Referring to Page 14 of his testimony, is Mr. Bieber opposed to the Company implementing the targeted underground program itself?

<u>ANSWER:</u> Mr. Bieber does not take a position on whether the targeted underground program is reasonable. His testimony only addresses the appropriateness of recovering its costs through a rider mechanism.

23. Assuming Mr. Bieber is not testifying against the targeted underground program itself, is it Mr. Bieber's position that because Duke Energy Kentucky did not include its targeted underground program in its base rate case test year, that it should not implement the program?

<u>ANSWER:</u> Mr. Bieber does not take a position on whether the targeted underground program should be implemented.

24. If the Company adjusted its test year revenue requirement to include the estimated costs of the targeted underground program, would this alleviate Mr. Bieber's concern?

<u>ANSWER:</u> If the Company adjusted its test year revenue requirement to include the estimated costs of the targeted underground program and withdrew its DCI rider proposal it would alleviate Mr. Bieber's concerns regarding a DCI rider. The costs themselves would still have to be found to be prudent.

Respectfully submitted,

Kurt J. Boehm, Esq. BOEHM, KURTZ & LOWRY 36 E. Seventh Street, Suite 1510 Cincinnati, Ohio 45202 Ph: (513) 421-2255, Fax: (513) 421-2765 E-Mail: kboehm@BKLlawfirm.com

COUNSEL FOR THE KROGER CO.

Dated: January 31, 2018

WORKPAPERS

KyPSC Case No. 2017-00321 STAFF-DR-01-029 Attachment Page 1 of 2

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KyPSC Case No. 2017-00321 STAFF-DR-01-029 Attachment Page 2 of 2

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Work Paper Fl

DUKE ENERGY KENTUCKY, INC.

R-16(7)(v) onsible: cowski Proposed Increase Less (Subsidy) Excess (L)

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Rate Class

(H) - (G)

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N COC.CI-	47.707% 0.513%	921,143 28,877 50,440,943 34 650 414	•• •• •• ••	297,515 147 4,537,319 3,937,329	69 69 69 69	- (2,767) (914,547) -	••••••	(26,091) (429) (690,278) (472,498) (17.082)		51.89% 11.64% 13.38% 14.35%	-134.65% 20.78% 4.30% -2.29%
12 2000	-6.328% 47.707% 0.513%	552,661 921,143 28,877 50,440,943 24,650,414	••••••••	(37,336) 297,515 147 4,537,319 3,937,329	69 69 69 69 69	(77,847) - (2,767) (914,547) -	••••••	(7,002) (26,091) (429) (429) (690,278) (472,498) (17,082)	••••••	8.05% 51.89% 11.64% 13.38% 14.35%	28.47% -134.65% 20.78% 4.30% -2.29%
-5.491%	8.121% -6.328% 47.707% 0.513%	97,273,311 552,661 921,143 28,877 50,440,943		7,305,857 (37,336) 297,515 4,537,319 3,937,329	•• •• •• •• ••	(4.143,473) (77,847) - (2,767) (914,547)	••••••••	(1,508,241) (7,002) (26,091) (429) (690,278) (472,498) (17,082)		14.40% 8.05% 51.89% 11.64% 13.38% 14.35%	9.94% 28.47% -134.65% 20.78% 4.30% -2.29%

KEVIN C. HIGGINS CURRICULUM VITA

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

Vitae

PROFESSIONAL EXPERIENCE

<u>Principal</u>, 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 <u>Senior</u> <u>Associate</u>, 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.

<u>Chief of Staff to the Chairman</u>, 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.

<u>Assistant Director</u>, 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.

<u>Utility Economist</u>, 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.

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

Page 2 of 40

<u>Research Economist</u>, 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.

<u>Operations Research Assistant</u>, 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.

<u>Instructor in Economics</u>, 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 Public Service Company of Colorado for Approval of a Number of Strategic Issues Relating to Its Electric and Gas Demand Side Management Plan," **Colorado** Public Utilities Commission, Proceeding No. 17A-0462EG. Answer testimony submitted December 5, 2017.

"In the Matter of the Application of Rocky Mountain Power for Certificates of Public Convenience and Necessity and Nontraditional Ratemaking for Wind and Transmission Facilities," **Wyoming** Public Service Commission, Docket No. 20000-520-EA-17. Direct testimony submitted November 20, 2017.

"In the Matter of Advice Letter No. 742 Filed by Black Hills/Colorado Electric Utility LP to Update Base Rates as Required by Commission Decision No. C16-1140 to Become Effective August 11, 2017," **Colorado** Public Utilities Commission, Proceeding No. 17AL-0477E. Answer testimony submitted October 23, 2017. Cross answer testimony submitted November 15, 2017. Cross examined November 29, 2017.

"In the Matter of the Voluntary Request of Rocky Mountain Power for Approval of Resource Decision to Repower Wind Facilities," **Wyoming** Public Service Commission, Docket No. 20000-519-EA-17. Confidential direct testimony submitted October 20, 2017.

"Electronic Application of Kentucky Power Company for (1) A General Adjustment of Its Rates For Electric Service; (2) An Order Approving Its 2017 Environmental Compliance Plan; (3) An Order Approving Its Tariffs and Riders; (4) An Order Approving Accounting Practices to Establish Regulatory Assets and Liabilities; and (5) An Order Granting All Other Required Approvals and Relief," **Kentucky** Public Service Commission, Case No. 2016-00179. Direct testimony submitted October 2, 2017. Settlement testimony submitted December 4, 2017. Cross examined December 7, 2017.

"In the Matter of the Voluntary Request of Rocky Mountain Power for Approval of Resource Decision to Repower Wind Facilities," **Utah** Public Service Commission, Docket No. 17-035-39. Direct testimony submitted September 20, 2017. Rebuttal testimony submitted October 19, 2017.

"In the matter of the Application of DTE Electric Company for authority to increase its rates, amend its rate schedules and rules governing the distribution and supply of electric energy, and for miscellaneous accounting authority," **Michigan** Public Service Commission, Case No. U-18255. Direct testimony submitted August 29, 2017. Confidential rebuttal testimony submitted September 22, 2017. Surrebuttal testimony submitted November 16, 2017.

"In the Matter of the Application of the Ohio Development Services Agency for an Order Approving

Page 4 of 40

Adjustments to the Universal Service Fund Riders of Jurisdictional Ohio Electric Distribution Utilities," Public Utilities Commission of **Ohio**, Case No. 17-1377-EL-USF. Direct testimony submitted July 24, 2017. Reply testimony submitted August 11, 2017. Cross examined August 18, 2017.

"2016 Puget Sound Energy General Rate Case," **Washington** Utilities and Transportation Commission, Docket Nos. UE-170033 and UG-170034. Response testimony submitted June 30, 2017. Cross-Answering testimony submitted August 9, 2017.

"Application of El Paso Electric Company to Change Rates," Public Utility Commission of **Texas**, Docket No. 44941. Direct testimony submitted June 23, 2017. Cross rebuttal testimony submitted July 21, 2017.

"In the Matter of PacifiCorp, dba Pacific Power 2018 Transition Adjustment Mechanism," **Oregon** Public Utility Commission, Docket No. UE-323. Opening testimony submitted June 9, 2017. Confidential rebuttal testimony submitted August 2, 2017.

"In the Matter of Public Utilities Commission of Oregon Investigation to Examine PacifiCorp's Non-Standard Avoided Cost Pricing," **Oregon** Public Utility Commission, Docket No. UM-1802. Reply testimony submitted May 5, 2017. Response testimony submitted August 14, 2017.

"In the Matter of the Application of Ohio Power Company for Authority to Establish a Standard Service Offer Pursuant to R.C. 4928.143, in the Form of an Electric Security Plan; In the Matter of the Application of Ohio Power Company for Approval of Certain Accounting Authority," Public Utilities Commission of **Ohio**, Case Nos. 16-1852-EL-SSO and 16-1853-EL-AAM. Direct testimony submitted May 2, 2017.

"Puget Sound Energy Retail Wheeling," **Washington** Utilities and Transportation Commission, Docket No. UE-161123. Settlement testimony submitted April 11, 2017.

"In the Matter of the Application of Rocky Mountain Power to Adjust Rates for Electric Service Schedule 92, Bonus Tax Depreciation," **Wyoming** Public Service Commission, Docket No. 20000-506-EA-16. Direct testimony submitted March 27, 2017. Cross examined May 31, 2017.

"In the Matter of the Application of Powder River Energy Corporation, Sundance, Wyoming, to Revise Its Rules and Regulations Pertaining to Deposits", **Wyoming** Public Service Commission, Docket No. 10014-175-CT-16. Direct testimony submitted February 23, 2017. Cross examined May 18, 2017.

"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," **Arizona** Corporation Commission, Docket No. E-01345A-16-0036. Confidential direct testimony submitted December 21, 2016 (revenue requirements). Direct testimony submitted February 3, 2017. Settlement testimony submitted April 3, 2017.

"In the Matter of the Application of Rocky Mountain Power for Approval to Adjust the Category 2 And 3 Demand-Side Management Surcharge Rates in Electric Service Schedule 191, Customer Efficiency Service Charge," **Wyoming** Public Service Commission, Docket No. 20000-502-EA-16. Direct testimony submitted January 17, 2017. Direct examination by Commission on March 9, 2017.

In the Matter of the Application of The Dayton Power and Light Company to Establish a Standard Service Offer in the Form of an Electric Security Plan; In the Matter of the Application of The Dayton Power and Light Company for Approval of Revised Tariffs; In the Matter of the Application of The Dayton Power and Light Company for Approval of Certain Accounting Authority Pursuant to Ohio Rev. Code §4905.13," Case Nos. 16-0395-EL-SSO, 16-0396-EL-ATA, and 16-0397-EL-AAM, Public Utilities Commission of **Ohio**. Confidential direct testimony submitted November 21, 2016 (errata filed December 12, 2016). Confidential Supplemental testimony filed March 8, 2017.

"In The Matter of the Application of Powder River Energy Corporation, Sundance, Wyoming, for Authority to Increase Its Cost of Power Adjustment by \$18,393,590 per Annum to Reflect a Change in Average Wholesale Power Costs," **Wyoming** Public Service Commission, Docket No. 10014-172-CP-16. Confidential direct testimony submitted November 17, 2016. Cross examined February 1, 2017.

"Application of Columbia Gas of Kentucky, Inc. for an Adjustment of Rates," **Kentucky** Public Service Commission, Case No. 2016-00162. Direct testimony submitted September 2, 2016.

"In the Matter of PacifiCorp, dba Pacific Power 2017 Transition Adjustment Mechanism," **Oregon** Public Utility Commission, Docket No. UE-307. Opening testimony submitted July 8, 2016. Rebuttal testimony submitted August 12, 2016.

"In the Matter of Advice Letter No. 1712-Electric Filed by Public Service Company of Colorado PUC No. 7-Electric Tariff with Colorado PUC No. 8-Electric Tariff (Phase II Rate Case)," **Colorado** Public Utilities Commission, Proceeding No. 16-AL-0048E. Direct testimony submitted June 6, 2016. Settlement testimony submitted September 2, 2016.

"In the Matter of the Application of Powder River Energy Corporation for Authority to Implement a General Rate Increase of \$11,506,749 per Annum and Revise Tariffs," **Wyoming** Public Service Commission, Docket No. 10014-168-CR-16. Confidential direct testimony submitted June 3, 2016. Cross answer testimony submitted July 8, 2016. Cross examined September 1, 2017. "In the Matter of the Application of Tucson Electric Power Company for the Establishment of Just and Reasonable Rates and Charges Designed to Realize a Reasonable Rate of Return on the Fair Value of the Properties of Tucson Electric Power Company Devoted to its Operations Throughout the State of Arizona, and for Related Approvals," **Arizona** Corporation Commission, Docket No. E-01933A-15-0322. Confidential direct testimony submitted June 3, 2016 (revenue requirements) and June 24, 2016 (cost of service). Surrebuttal testimony submitted August 25, 2016. Phase II surrebuttal testimony submitted September 27, 2017. Cross examined September 14, 2017 and October 26, 2017 (Phase II).

"Appalachian Power Company and Wheeling Power Company, Public Utilities. Petition to Initiate the Annual Review and to Update the ENEC Rates Currently in Effect," **West Virginia** Public Service Commission, Case No. 16-0239-E-P. Direct testimony submitted May 16, 2016. Direct examination by Commission on June 2, 2016.

"In the Matter of PacifiCorp, dba Pacific Power, Petition Inter-Jurisdictional Allocation Protocol," **Oregon** Public Utility Commission, Docket No. UM 1050. Direct testimony submitted April 1, 2016.

"In the Matter of the Application of UNS Electric INC. for the Establishment of Just and Reasonable Rates and Charges Designed to Realize a Reasonable Rate of Return on the Fair Value of the Properties of UNS Electric, INC. Devoted to Its Operations Throughout the State of Arizona and for Related Approvals," **Arizona** Corporation Commission, Docket No. E-04204A-15-0142. Direct Testimony submitted December 9, 2015. Surrebuttal testimony submitted February 23, 2016. Cross examined March 9, 2016.

"Verified Petition of Duke Energy Indiana, INC. for; (1) Approval of Petitioner's 7-Year Plan for Eligible Transmission, Distribution and Storage System Improvements, Pursuant to Indiana code § 8-1-39-10; (2) Approval of Transmission and Distribution Infrastructure Improvement Cost Rate Adjustment and Deferrals, Pursuant to Indiana code §8-1-39-9; (3) Approval of Certain Regulatory Assets; (4) Approval of Voluntary Dynamic Pricing Riders; (5) Approval of a New Depreciation Rate for Advanced Meters," **Indiana** Utility Regulatory Commission. Cause No. 44720. Direct testimony submitted February 18, 2016. Errata testimony submitted February 19, 2016. Settlement testimony submitted March 17, 2016.

"In the Matter of the Application of Rocky Mountain Power for Modification of Contract Term of PURPA Power Purchase Agreements with Qualifying Facilities," **Wyoming** Public Service Commission, Docket No. 20000-481-EA-15. Direct testimony submitted January 4, 2016. Confidential cross answer testimony submitted January 29, 2016. Cross examined March 30, 2016. Page 7 of 40 "Application of El Paso Electric Company to Change Rates," Public Utility Commission of **Texas**, Docket No. 44941. Direct testimony submitted December 11, 2015. Cross rebuttal testimony submitted January 15, 2016.

"In the Matter of the Application of Montana-Dakota Utilities CO., a Division of MDU Resources Group, Inc., for Authority to Establish Increased Rates for Electric Service," **Montana** Public Service Commission, Docket No. D2015.6.51. Direct testimony submitted November 20, 2015. Cross intervenor and response testimony submitted January 14, 2016. Direct examination by Commission on February 10, 2016.

"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. 15-015-U. Direct Testimony Submitted September 29, 2015. Surrebuttal testimony submitted November 24, 2015.

"In the Matter of the Application of Rocky Mountain Power for Modification of Contract Term of PURPA Power Purchase Agreements with Qualifying Facilities," **Utah** Public Service Commission, Docket No. 15-035-53. Direct testimony submitted September 16, 2015. Surrebuttal testimony submitted October 28, 2015. Cross examined November 12, 2015.

"In the Matter of the Application Seeking Approval of Ohio Power Company's Proposal to Enter into an Affiliate Power Purchase Agreement Rider"; "In the Matter of the Application of Ohio Power Company for Approval of Certain Accounting Authority," Public Utilities Commission of **Ohio**, Docket Nos. 14-1693-EL-RDR and 14-1694-EL-AAM. Direct testimony submitted September 11, 2015. Cross examined October 20, 2015.

"In the Matter of the Application of Rocky Mountain Power for Authority of a General Rate Increase in its Retail Electric Rate Increase Utility Service Rates in Wyoming of \$32.4 Million per Year or 4.5 Percent," **Wyoming** Public Service Commission, Docket No. 20000-469-ER-15. Confidential direct testimony submitted July 28, 2015. Confidential cross-answer testimony submitted September 16, 2015. Cross examined November 3, 2015.

"In the Matter of the Joint Application of Westar Energy, INC. and Kansas Gas and Electric Company for Approval to Make Certain Changes in their Charges for Electric Service," Kansas State Corporation Commission. Docket No. 15-WSEE-115-RTS. Direct testimony submitted July 9, 2015. Errata Testimony submitted August 17, 2015.

"In the Matter of PacifiCorp, dba Pacific Power 2016 Transition Adjustment Mechanism," **Oregon** Public Utility Commission, Docket No. UE-296. Opening testimony submitted June 29, 2015. Reply testimony submitted June 29, 2015.

Page 8 of 40

"In the Matter of Public Utility Commission of Oregon Investigation into Qualifying Facility Contracting and Pricing," **Oregon** Public Utility Commission. Docket No. UM 1610. Opening testimony submitted May 22, 2015. Reply testimony submitted August 7, 2015.

"In the Matter of the Application of Questar Gas Company to Make Tariff Modifications to Charge Transportation Customers for Supplier Non-Gas Services," **Utah** Public Service Commission, Docket No. 14-057-31. Direct testimony submitted May 5, 2015. Rebuttal testimony submitted July 31, 2015. Surrebuttal testimony submitted August 14, 2015. Cross examined August 26, 2015.

"In the Matter of the Voluntary Request of Rocky Mountain Power for Approval of Resource Decision and Request for Accounting Order," **Utah** Public Service Commission, Docket No. 14-035-147. Direct testimony submitted March 17, 2015.

"In the Matter of the Application of Rocky Mountain Power for Approval of the Transaction for Closure of Deer Creek Mine and a Deferred Accounting Order," **Wyoming** Public Service Commission. Docket No. 20000-464-EA-14. Direct testimony submitted March 11, 2015. Stipulation direct testimony submitted April 27, 2015. Oral examination by Commission on May 5, 2015.

"In the Matter of the Application of Ohio Edison Company, The Cleveland Electric Illuminating Company for Authority to Provide for a Standard Service Offer Pursuant to R.C. 4928.143 in the Form of an Electric Security Plan," Public Utilities Commission of **Ohio**, Case No. 14-1297-EL-SSO. Direct testimony submitted December 22, 2014. Supplemental testimony submitted February 5, 2015.

"Verified Petition of Duke Energy Indiana, Inc. for Approval of Petitioner's 7-Year Plan for Eligible Transmission, Distribution and Storage System Improvements, Pursuant to Ind. Code 8-1-39-10 and Approval of a Transmission and Distribution Infrastructure Improvement Cost Rate Adjustment and Deferrals, Pursuant to Ind. Code 8-1-39-9, and Approval of Certain Regulatory Assets," **Indiana** Utility Regulatory Commission, Cause No.44526. Direct testimony submitted November 14, 2014.

"In the Matter of Advice Letter No. 1672 – Electric: Of Public Service Company of Colorado to Revise the General Rate Schedule Adjustment (GRSA) Rider Applicable to All Electric Base Rate Schedules and Revise the Transmission Cost Adjustment (TCA) to Remove Costs That Have Been Shifted to Base Rates to Become Effective July 18, 2014"; "In the Matter of the Application of Public Service Company of Colorado for Approval of Its Arapahoe Decommissioning and Dismantling Plan," **Colorado** Public Utilities Commission, Proceeding Nos. 14AL-0660E and 14A-0680E. Answer testimony submitted November 7, 2014.

"In the Matter of the Petition of Puget Sound Energy to Update Methodologies Used to Allocate

Electric Cost of Service and for Electric Rate Design Purposes," **Washington** Utilities and Transportation Commission, Docket No. UE-141368. Joint testimony in support of settlement stipulation submitted November 4, 2014.

"In the Matter of the Application of Duke Energy Ohio for Authority to Establish a Standard Service Offer Pursuant to Section 4928.143, Revised Code, in the Form of an Electric Security Plan, Accounting Modifications and Tariffs for Generation Service"; "In the Matter of the Application of Duke Energy Ohio for Authority to Amend Its Certified Supplier Tariff, P.U.C.O. No. 20," Public Utilities Commission of **Ohio**, Case Nos. 14-841-EL-SSO and 14-842-EL-ATA. Direct testimony submitted September 26, 2014. Deposed October 3, 2014. Cross examined October 28, 2014.

"Application of Nevada Power Company d/b/a NV Energy for Authority to Increase Its Annual Revenue Requirement for General Rates Charged to All Classes of Electric Customers and for Relief Properly Related Thereto"; "Petition of Sierra Pacific Power Company d/b/a NV Energy for Cost Recovery for the Advanced Service Delivery Project and Nevada Dynamic Pricing Trial Pursuant to the Order Issued in Docket Nos. 13-06002, 13-06003, and 13-06004," Public Utilities Commission of **Nevada**, Docket Nos. 14-05004 and 14-05005. Direct testimony submitted September 10, 2014. Cross examined September 24, 2014.

"In the Matter of Rocky Mountain Power's Proposed Revisions to Electric Service Schedule 32, Service from Renewable Energy Facilities," **Utah** Public Service Commission, Docket No. 14-035-T02. Direct testimony submitted September 9, 2014. Surrebuttal testimony submitted December 2, 2014. Cross examined December 9, 2014.

"Application of Appalachian Power Company for a 2014 Biennial Review of the Rates, Terms and Conditions for the Provision of Generation, Distribution and Transmission Services Pursuant to §56-585.1 A of the Code of Virginia," **Virginia** Corporation Commission, Case No. PUE-2014-00026. Direct testimony submitted August 6, 2014.

"In the Matter of the Application of Rocky Mountain Power for Authority to Increase Its Retail Electric Utility Service Rates in Wyoming Approximately \$36.1 Million per Year or 5.3 Percent," **Wyoming** Public Service Commission, Docket No. 20000-446-ER-14. Direct testimony submitted July 25, 2014. Surrebuttal testimony submitted September 19, 2014. Cross examined October 21, 2014.

"In the Matter of Portland General Electric Company Request for a General Rate Revision," **Oregon** Public Utilities Commission, Docket No. UE-283. Reply testimony submitted June 11, 2014. Joint testimony in support of partial stipulations submitted July 17, 2014 and September 2, 2014.

"In the Matter of the Application of Ohio Power Company for Authority to Establish a Standard

Page 10 of 40

Service Offer Pursuant to §4928.143, Revised Code, in the Form of an Electric Security Plan; "In the Matter of the Application of Ohio Power Company for Approval of Certain Accounting Authority," Public Utilities Commission of **Ohio**, Case Nos. 13-2385-EL-SSO and 13-2386-EL-AAM. Direct testimony submitted May 6, 2014. Cross examined June 12, 2014.

"In the Matter of the Application of Rocky Mountain Power for Authority to Increase Its Retail Electric Utility Service Rates in Utah and for Approval of Its Proposed Electric Service Schedules and Electric Service Regulations," **Utah** Public Service Commission, Docket No. 13-035-184. Direct testimony submitted May 1, 2014.

"Verified Petitions of Southern Indiana Gas and Electric Company D/B/A Vectren Energy Delivery Of Indiana, Inc., and Indiana Gas Company, Inc. D/B/A Vectren Energy Delivery of Indiana, Inc. for: (1) Approval of and a Certificate of Public Convenience and Necessity for Federally Mandated Natural Gas Transmission and Distribution Projects, and the Costs Thereof, Related to Compliance with Various Federally Mandated Requirements Relating to Natural Gas Pipeline Safety and Integrity; (2) Approval of Certain Transmission, Distribution and Storage System Projects, and the Costs Thereof, Undertaken for Purposes of Safety, Reliability, System Modernization, or Economic Development; (3) Approval of a 7-Year Plan for Transmission, Distribution and Storage System Improvements Pursuant To Ind. Code Ch. 8-1-39 (and for Federally Mandated Projects, in the Event and to the Extent the Commission Concludes that Such Projects Do Not Meet the Requirements of Ind. Code Ch. 8-1-8.4, Including a Process for Annual Updates to the Plan; (4) Approval of a Rate Adjustment Mechanism and Related Authority to Utilize Accounting Deferrals, Pursuant to Ind. Code Chapters 8-1-8.4 and 8-1-39, for the Timely Recovery and Deferral of Costs Related to Such Federally Mandated and Transmission, Distribution and Storage Projects (Including Financing Costs Incurred During Construction); (5) Approval of Other Related Ratemaking Relief and Tariff Proposals Consistent with Ind. Code Ch. 8-1-8.4 and 8-1-39; (6) If Necessary, Granting of Confidential Treatment For Certain Confidential and Proprietary Information That May Be Submitted in this Cause; and (7) Approval of Other Relief as May Be Appropriate," Indiana Utility Regulatory Commission, Cause Nos. 44429 and 44430. Cross-answering testimony submitted April 11, 2014.

"In the Matter of the Application of Rocky Mountain Power for Authority to Amend Schedule 38, Avoided Cost Purchases from Non-Standard Qualifying Facilities," **Wyoming** Public Service Commission, Docket No. 20000-435-EA-13. Direct testimony submitted February 28, 2014. Direct examination by Commission on April 22, 2014.

"In the Matter of the Application of Republic Steel for Approval of a Reasonable Arrangement for Republic Steel's Lorain Ohio Facility," Public Utilities Commission of **Ohio**, Case No. 13-1913-EL-AEC. Direct testimony submitted February 6, 2014. Direct examination by Commission on February 13, 2014.

Page 11 of 40

"Questar Gas Company, a Utah corporation, and Wexpro Company, a Utah corporation, Plaintiffs, v. QEP Field Services Company, a Utah corporation, Defendant; QEP Field Services Company, a Utah corporation, Counterclaimant, v. Questar Gas Company, a Utah corporation, Counterclaim Defendant," Third District Court in and for Salt Lake County, State of **Utah**, Civil Case No. 120902969. Expert report submitted February 6, 2014. Deposed on April 10, 2014. Affidavit submitted May 30, 2014.

"In the Matter of the Application of the Dayton Power and Light Company for Authority to Recover Certain Storm-Related Service Restoration Costs; In the Matter of the Application of the Dayton Power and Light Company for Approval of Certain Accounting Authority," Public Utilities Commission of **Ohio**, Case Nos. 12-3062-EL-RDR and 12-3266-EL-AAM. Direct testimony submitted January 31, 2014. Deposed on March 7, 2014.

"In the Matter of the Application of Powder River Energy Corporation Sundance, Wyoming, for Authority to Adjust Rates and Implement New Tariffs Effective March 10, 2014," **Wyoming** Public Service Commission, Docket No. 10014-145-CR-13. Direct testimony submitted January 22, 2014. Cross answer testimony submitted February 11, 2014. Cross examined March 11-12, 2014.

"Application of Entergy Texas, Inc. for Authority to Change Rates and Reconcile Fuel Costs," Public Utility Commission of **Texas**," Docket No. 41791. Direct testimony submitted January 10, 2014. Cross rebuttal testimony submitted January 31, 2014.

"In the Matter of the Application of Questar Gas Company to Increase Distribution Rates and Charges and Make Tariff Modifications," **Utah** Public Service Commission, Docket No. 13-057-05. Direct testimony submitted October 30, 2013.

"In the Matter of Georgia Power Company's 2013 Rate Case," **Georgia** Public Service Commission, Docket No. 36989. Direct testimony submitted October 18, 2013. Cross examined November 6, 2013.

"In the Matter of the Application of Public Service Company of Colorado for a Number of Strategic Issues Relating to Its Demand Side Management Plan," **Colorado** Public Utilities Commission, Docket No. 13A-0686EG. Answer testimony submitted October 16, 2013. Cross Answer testimony submitted December 20, 2013. Surrebuttal testimony submitted January 21, 2014. Response to Surrebuttal testimony submitted February 21, 2014. Oral examination conducted by Commission on April 24, 2014.

"In the Matter of Rocky Mountain Power's Application for an Order Authorizing a Change in Depreciation Rates Applicable to Electric Property," **Wyoming** Public Service Commission, Docket No. 20000-427-EA-13. Direct testimony in support of Stipulation submitted September 19, 2013. Oral examination conducted by Commission on October 10, 2013.

Page 12 of 40

"In the Matter of PacifiCorp, dba Pacific Power Transition Adjustment, Five-Year Cost of Service Opt-Out," **Oregon** Public Utilities Commission, Docket No. UE-267. Reply testimony submitted September 13, 2013. Joint testimony in support of partial stipulation submitted February 19, 2014.

"In the Matter of the Application of Rocky Mountain Power to Increase the Deferred EBA Rate through the Energy Balancing Account Mechanism," **Utah** Public Service Commission, Docket No. 13-035-32. Direct testimony submitted August 20, 2013.

"La Plata Electric Association, Inc., Empire Electric Association, Inc., and White River Electric Association, Inc., Complainants v. Tri-State Generation and Transmission Association, Inc., Respondent," **Colorado** Public Utilities Commission, Docket No. 13F-0145E. Rebuttal testimony submitted July 19, 2013 and October 2, 2014. Direct testimony submitted July 15, 2014. Cross examined July 31, 2013. Deposed August 8, 2014.

"Application to Increase Rates by \$6.0 Million to Recover Deferred Net Power Costs Pursuant to Tariff Schedule 95 Energy Cost Adjustment Mechanism and To Increase Rates by \$15.4 Million Pursuant to Tariff Schedule 93, REC and SO2 Revenue Adjustment Mechanism," **Wyoming** Public Service Commission," Docket No. 20000-432-EA-13. Direct testimony submitted July 10, 2013. Oral examination by Commission on September 16, 2013.

"In the Matter of the Commission's Investigation into the Possible Approval of a Self-Direct Demand Side Management Program for Certain Large Customers," **Indiana** Utility Regulatory Commission, Cause No. 44310. Direct testimony submitted June 27, 2013. Responsive testimony submitted August 15, 2013.

"In the Matter of Application of Duke Energy Carolinas, LLC for Adjustment of Rates and Charges Applicable to Electric Service in North Carolina," **North Carolina** Utilities Commission, Docket No. E-7, Sub 1026. Direct testimony submitted June 17, 2013. Supplemental direct testimony submitted June 21, 2013.

"In the Matter of Portland General Electric Company Request for a General Rate Revision," **Oregon** Public Utilities Commission, Docket No. UE-262. Reply testimony submitted June 14, 2013.

"In the Matter of PacifiCorp, dba Pacific Power 2014 Transition Adjustment Mechanism," **Oregon** Public Utilities Commission, Docket No. UE-264. Reply testimony submitted June 4, 2013.

"Puget Sound Energy Expedited Rate Filing and Decoupling Proposal," **Washington** Utilities and Transportation Commission, Docket Nos. UE-130137, UG-130138, UE-121697, and UG-

121705. Response testimony submitted April 26, 2013. Oral examination by Commission on May 16, 2013. Joint testimony in Support of Joint Response submitted November 1, 2013.

"In the Matter of the Application of Duke Energy Ohio, Inc. for the Establishment of a Charge Pursuant to Revised Code Section 4909.18; In the Matter of the Application of Duke Energy Ohio, Inc. for Approval to Change Accounting Methods; In the Matter of the Application of Duke Energy Ohio, Inc., for the Approval of a Tariff for New Service," Public Utilities Commission of **Ohio**, Case Nos.12-2400-EL-UNC, 12-2401-EL-AAM, and 12-2402-EL-ATA. Direct testimony submitted March 26, 2013. Cross examined April 25, 2013.

"In the Matter of the Application of the Dayton Power and Light Company for Approval of Its Market Rate Offer; In the Matter of the Application of the Dayton Power and Light Company for Approval of Revised Tariffs; In the Matter of the Application of the Dayton Power and Light Company for Approval of Certain Accounting Authority; In the Matter of the Application of the Dayton Power and Light Company for the Waiver of Certain Commission Rules; In the Matter of the Application of the Dayton Power and Light Company for the Waiver of Certain Commission Rules; In the Matter of the Application of the Dayton Power and Light Company to Establish Tariff Riders," Public Utilities Commission of **Ohio**," Case Nos. 12-426-EL-SSO, 12-427-EL-ATA, 12-428-EL-AAM, 12-429-EL-WVR, and 12-672-EL-RDR. Direct testimony submitted March 1, 2013. Deposed March 8, 2013. Cross examined March 26, 2013.

"Application of Progress Energy Carolinas, Inc. for Adjustment of Rates and Charges Applicable to Electric Service in North Carolina," **North Carolina** Utilities Commission, Docket No. E-2, Sub 1023. Direct testimony submitted February 18, 2013. Cross examined March 20, 2013.

"Deseret Generation & Transmission Co-operative vs. PacifiCorp," United States District Court, District of Utah, Central Division, Case No. 2:10-cv-159. Expert Report submitted January 28, 2013. Deposed August 30, 2013.

"In the Matter of the Application of Tucson Electric Power Company for the Establishment of Just and Reasonable Rates and Charges Designed to Realize a Reasonable Rate of Return on the Fair Value of Its Operations Throughout the State of Arizona," **Arizona** Corporation Commission, Docket No. E-01933A-12-0291. Direct testimony submitted December 21, 2012 (revenue requirements), January 11, 2013 (rate design and cost of service), and February 15, 2013 (settlement agreement). Cross examined March 7, 2013.

"In the Matter of Application of Kentucky Utilities Company for an Adjustment of Its Electric Rates," **Kentucky** Public Service Commission, Case No. 2012-00221. Direct testimony submitted October 3, 2012.

"In the Matter of Application of Louisville Gas & Electric Company for an Adjustment of Its Electric Rates, **Kentucky** Public Service Commission, Case No. 2012-00221. Direct testimony submitted October 3, 2012.

"In the Matter of PacifiCorp's Filing of Revised Tariff Schedules for Electric Service in Oregon," **Oregon** Public Utilities Commission, Docket No. UE-246. Rebuttal testimony submitted August 13, 2012.

"In the Matter of the Application of Tucson Electric Power Company for Approval of Its 2011-2012 Energy Efficiency Implementation Plan," **Arizona** Corporation Commission, Docket No. E-01933A-11-0055. Direct testimony submitted June 15, 2012. Rebuttal testimony submitted July 6, 2012. Cross examined July 11, 2012.

"In the Matter of PacifiCorp, dba Pacific Power 2013 Transition Adjustment Mechanism," **Oregon** Public Utilities Commission, Docket No. UE-245. Reply testimony submitted June 6, 2012.

"In the Matter of the Application of Rocky Mountain Power for Authority to Increase its Retail Electric Utility Service Rates in Utah and for Approval of its Proposed Electric Service Schedules and Electric Service Regulations," **Utah** Public Service Commission, Docket No. 11-035-200. Direct testimony submitted June 4, 2012.

"In the In the Matter of the Application of Columbus Southern Power Company and Ohio Power Company for Authority to Establish a Standard Service Offer Pursuant to §4928.143, Ohio Rev. Code, in the Form of an Electric Security Plan; In the Matter of the Application of Columbus Southern Power Company and Ohio Power Company for Approval of Certain Accounting Authority," Public Utilities Commission of **Ohio**, Case Nos. 11-346-EL-SSO and 11-348-EL-SSO. Direct testimony submitted May 4, 2012. Cross examined May 25, 2012.

"In the Matter of the Application of Rocky Mountain Power for Approval of a General Rate Increase in Its Retail Electric Utility Service Rates in Wyoming of \$62.8 Million Per Year or an Average Overall Increase of 10.4 Percent," **Wyoming** Public Service Commission, Docket No. 20000-405-ER-11. Direct testimony submitted April 30, 2012. Settlement testimony submitted June 22, 2012. Cross examined July 16, 2012.

"Application of Entergy Texas, Inc. for Authority to Change Rates and Reconcile Fuel Costs," Public Utility Commission of **Texas**," Docket No. 39896. Direct testimony submitted March 27, 2012. Cross rebuttal testimony submitted April 13, 2012.

"In the Matter of Advice Letter No. 1597 – Electric Filed by Public Service Company of Colorado to Revise Its Colorado PUC No. 7 – Electric Tariff to Implement a General Rate Schedule Adjustment and Other Changes Effective December 23, 2011," **Colorado** Public Utilities Commission, Docket No. 11AL-947E. Answer testimony submitted March 2, 2012. Supplemental testimony submitted April 18, 2012.

"In the Matter of the Rocky Mountain Power Proposed Schedule 94, Energy Balancing Account (EBA) Pilot Program Tariff," **Utah** Public Service Commission, Docket No. 11-035-T10. Direct testimony submitted February 23, 2012. Rebuttal testimony submitted March 15, 2012. Supplemental rebuttal testimony submitted March 16, 2012. Cross examined April 24, 2012.

"Investigation into the Changes Proposed for the 3 and 5 Year Cost Of Service Opt-Out Program for Large Nonresidential Customers," **Oregon** Public Utilities Commission, Docket No. UE-236. Joint testimony in support of Stipulation submitted January 11, 2012.

"In the Matter of the Joint Application of Westar Energy, Inc. and Kansas Gas and Electric Company for Approval to Make Certain Changes in Their Charges for Electric Service," **Kansas** Corporation Commission," Docket No. 12-WSEE-112-RTS. Direct testimony submitted January 5, 2012. Cross-Answering testimony submitted January 17, 2012.

"In the Matter of the Petition of Public Service Company of Colorado Pursuant to C.R.S. § 40-6-111(1)(d) for Interim Rate Relief Effective on or before January 21, 2012," **Colorado** Public Utilities Commission, Docket No. 11M-951E. Affidavit submitted December 23, 2011.

"2011 Puget Sound Energy General Rate Case," **Washington** Utilities and Transportation Commission, Docket No. UG-101644. Response testimony submitted December 3, 2011. Cross Answer testimony submitted January 17, 2012. Joint testimony in support of electric rate design stipulation filed January 13, 2012. Joint testimony in support of gas rate design stipulation filed January 17, 2012. Oral testimony in support of stipulations presented February 14, 2012.

"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," **Arizona** Corporation Commission, Docket No. E-01345A-11-0224. Direct testimony submitted November 18, 2011 (revenue requirement), December 2, 2011 (cost of service), January 18, 2012 (settlement agreement), and June 19, 2014 (Four Corners adjustment mechanism). Responsive testimony submitted January 25, 2012 (settlement agreement). Cross examined February 1, 2012.

"In the Matter of the Application of Duke Energy Carolinas, LLC for Adjustment of Rates and Charges Applicable to Electric Service in North Carolina," **North Carolina** Utilities Commission, Docket No. E-7, Sub 989. Direct testimony submitted October 31, 2011.

"Application of Nevada Power Company d/b/a NV Energy, for Authority to Increase Its Annual Revenue Requirement for General Rates Charged to All Classes of Customers, Begin to Recover the Costs of Constructing Harry Allen Combined Cycle, Goodsprings and Other Generating, Transmission and Distribution Plant Additions, and to Reflect Changes in Cost of Service and for

Page 16 of 40

Relief Properly Thereto; Application of Nevada Power Company d/b/a/ NV Energy for Approval of New and Revised Depreciation Rates for Its Electrical Operations; Application of Sierra Pacific Power Company d/b/a/ NV Energy for a Determination of the Reasonableness of the Ely Energy Center Project Development Costs and for Authority to Reclassify Those Costs from a Deferred Debit to a Regulatory Asset with an Appropriate Carrying Charge," Public Utilities Commission of **Nevada**, Docket Nos. 11-06006, 11-06007, and 11-06008. Direct testimony submitted October 12, 2011. Cross examined November 2, 2011.

"In the Matter of the Application of Idaho Power Company for Authority to Increase Its Rates and Charges for Electric Service in Idaho," **Idaho** Public Utilities Commission, Case No. IPC-E-11-08. Direct testimony submitted October 7, 2011. Rebuttal testimony submitted November 16, 2011. Cross examined December 5, 2011.

"In the Matter of the Application of Public Service Company of Colorado for an Order Approving Regulatory Treatment of Margins Earned from Certain Renewable Energy Credit and Energy Transactions and Petition for Declaratory Order Clarifying the Meaning of the Phrase) "Transactions Executed" as that Phrase Is Used in the Settlement Agreement Approved in Docket No. 09A-602E," **Colorado** Public Utilities Commission, Docket No. 11A-510E. Answer testimony submitted September 19, 2011. Cross examined October 20, 2011.

"In the Matter of the Application of Columbus Southern Power Company and Ohio Power Company for Authority to Establish a Standard Service Offer Pursuant to §4928.143, Ohio Rev. Code, in the Form of an Electric Security Plan," Public Utilities Commission of **Ohio**," Case Nos. 11-346-EL-SSO and Case No. 11-348-EL-SSO. "In the Matter of the Application of Columbus Southern Power Company and Ohio Power Company for Approval of Certain Accounting Authority," Case Nos. 11-349-EL-AAM and 11-350-EL-AAM. Direct testimony submitted July 25, 2011. Direct testimony in support of Stipulation submitted October 28, 2011.

"In the Matter of the Application of Appalachian Power Company for an Adjustment of Electric Base Rates," **Virginia** Corporation Commission, Case No. PUE-2011-00037. Direct testimony submitted July 20, 2011.

"Ameren Illinois Company d/b/a Ameren Illinois, Proposed General Increase in Electric Delivery Service Rates; Ameren Illinois Company d/b/a Ameren Illinois, Proposed General Increase in Natural Gas Rates," **Illinois** Commerce Commission, Docket Nos. 11-0279 and 11-0282. Direct testimony submitted June 29, 2011. Rebuttal testimony submitted August 23, 2011.

"In the Matter of PacifiCorp, dba Pacific Power 2012 Transition Adjustment Mechanism," Public Utility Commission of **Oregon**, Docket No. UE-227. Reply testimony submitted June 24, 2011. Rebuttal testimony submitted August 16, 2011.

Page 17 of 40

"In the Matter of the Application of Rocky Mountain Power to Implement a Permanent Avoided Cost Methodology for Customers That Do Not Qualify for Tariff Schedule 37 – Avoided Cost Purchases from Qualifying Facilities," **Wyoming** Public Service Commission, Docket No. 20000-388-EA-11. Direct testimony submitted May 26, 2011. Cross examined August 2, 2011.

"In the Matter of the Application of Public Service Company of New Mexico for Revision of Its Retail Electric Rates Pursuant to Advice Notice Nos. 397 and 32 (Former TNMP Services), Public Service Company of New Mexico, Applicant," **New Mexico** Public Regulation Commission, Case No. 10-00086-UT. Direct testimony in Opposition to Stipulation submitted April 14, 2011. Cross examined May 12, 2011.

"In the Matter of the Application of Rocky Mountain Power for Authority to Increase Its Retail Electric Utility Service Rates in Wyoming Approximately \$97.9 Million Per Year or 17.3 Percent," **Wyoming** Public Service Commission, Docket No. 20000-384-ER-10. Direct testimony submitted April 11, 2011. Cross answer testimony submitted May 6, 2011. Stipulation testimony submitted June 9, 2011. Cross examined June 20, 2011.

"In the Matter of the Application of Rocky Mountain Power for Approval of an Adjustment to the Demand-Side Management Program and Suspend Schedule 191 Rate Surcharges," **Wyoming** Public Service Commission, Docket No. 20000-383-ER-10. Direct testimony submitted March 30, 2011. Cross examined May 11, 2011.

"In the Matter of the Application of Rocky Mountain Power for Authority to Increase its Retail Electric Utility Service Rates in Utah and for Approval of its Proposed Electric Service Schedules and Electric Service Regulations," **Utah** Public Service Commission, Docket No. 10-035-124. Direct testimony submitted March 9, 2011 (test period); May 26, 2011 (revenue requirement); and June 2, 2011 (cost of service). Rebuttal testimony submitted March 17, 2011 (test period) and June 30, 2011 (revenue requirement). Surrebuttal testimony submitted July 19, 2011 (revenue requirement). Cross examined March 24, 2011 (test period); August 3, 2011 (revenue requirement stipulation); and August 8, 2011 (cost of service stipulation).

"Application of Nevada Power Company d/b/a NV Energy to Establish Interim Base Energy Efficiency Program Rates and Base Energy Efficiency Implementation Rates Pursuant To NRS 704.785 and the Order Issued in Docket No. 09-07016; Application of Sierra Pacific Power Company d/b/a NV Energy to Establish Interim Base Energy Efficiency Program Rates and Base Energy Efficiency Implementation Rates Pursuant to NRS704.785 and the Order Issued in Docket No. 09-07016," Public Utilities Commission of **Nevada**, Docket Nos. 10-10024 and 10-10025. Direct testimony submitted March 8, 2011. Cross examined March 29, 2011.

"2010 Puget Sound Energy Tariff Filing," **Washington** Utilities and Transportation Commission, Docket No. UG-101644. Joint testimony in support of stipulation filed February 11, 2011. Oral testimony in support of stipulation presented March 1, 2011. "Petition of Duke Energy Indiana, Inc. for Approval to Offer Additional Energy Efficiency Programs; For Approval of Program Cost Recovery, Lost Revenues and Incentives Pursuant to 170 IAC 4-8-5, 170 IAC 4-8-6, and 170 IAC 4-8-7; Authority to Defer Costs Pending Approval and for Authority to Implement Annual Tracking Mechanism," **Indiana** Utility Regulatory Commission, Cause No. 43955. Direct testimony submitted February 9, 2011.

"In the Matter of the Application of Duke Energy Ohio for Approval of a Market Rate Offer to Conduct a Competitive Bidding Process for Standard Service Offer Electric Generation Supply, Accounting Modifications, and Tariffs for Generation Service," Public Utilities Commission of **Ohio**, Case No. 10-2586-EL-SSO. Direct testimony submitted December 21, 2010. Deposed December 22, 2010. Cross examined January 18, 2011.

"In the Matter of the Application of Public Service Company of Colorado for Approval of a Number of Strategic Issues Relating To Its DSM Plan, Including Long-Term Electric Energy Savings Goals and Incentives," **Colorado** Public Utilities Commission, Docket No. 10A-554EG. Answer testimony submitted December 17, 2010. Cross answer testimony submitted February 4, 2011. Cross examined March 2, 2011.

"In the Matter of Appalachian Power Company and Wheeling Power Company," Public Service Commission of **West Virginia**, Case No. 10-0699-E-42T. Direct testimony submitted November 10, 2010. Rebuttal testimony submitted November 23, 2010.

"In the Matter of the Application of Rocky Mountain Power for Alternative Cost Recovery for Major Plant Additions of the Populus to Ben Lomond Transmission Line and Dunlap I Wind Project," **Utah** Public Service Commission, Docket No. 10-035-89. Confidential direct testimony submitted October 26, 2010. Oral testimony in support of stipulation presented December 6, 2010.

"In the Matter of Georgia Power Company's 2010 Rate Case," **Georgia** Public Service Commission, Docket No. 31958. Direct testimony submitted October 22, 2010. Cross examined November 8, 2010.

"In the Matter of the Application of Rocky Mountain Power for Authority to Implement an Energy Cost Adjustment Mechanism," **Wyoming** Public Service Commission, Docket No. 20000-368-EA-10. Direct testimony submitted September 10, 2010. Cross examined November 9, 2010.

"Application of Entergy Texas, Inc. for Authority to Change Rates and Reconcile Fuel Costs," Public Utility Commission of **Texas**, Docket No. 37744. Direct testimony submitted June 9, 2010.

Page 19 of 40 "Portland General Electric General Rate Case Filing," Public Utility Commission of **Oregon**, Docket No. UE-215. Opening testimony submitted June 4, 2010. Joint testimony in support of stipulation submitted August 2, 2010.

"In the Matter of the Application of Duke Energy Ohio, Inc. to Establish and Adjust the Initial Level of its Distribution Reliability Rider," Public Utilities Commission of **Ohio**, Case No. 09-1946-EL-RDR. Direct testimony submitted May 18, 2010.

"In the Matter of PacifiCorp, dba Pacific Power, 2011 Transition Adjustment Mechanism," Public Utility Commission of **Oregon**, Docket No. UE-216. Reply testimony submitted May 12, 2010. Joint testimony in support of stipulation submitted July 26, 2010.

"In the Matter of the Application of Rocky Mountain Power for Alternative Cost Recovery for Major Plant Additions of the Ben Lomond to Terminal Transmission Line and the Dave Johnston Generation Unit 3 Emissions Control Measure," **Utah** Public Service Commission, Docket No. 10-035-13. Direct testimony submitted April 26, 2010.

"In the Matter of a Notice of Inquiry into Energy Efficiency," **Arkansas** Public Service Commission, Docket No. 10-010-U. Direct testimony submitted March 23, 2010. Cross examined October 18, 2010.

"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. 09-084-U. Direct testimony submitted February 26, 2010.

"In the Matter of the Application of Rocky Mountain Power for Approval of a General Rate Increase of Approximately \$70.9 Million per Year or 13.7 Percent," **Wyoming** Public Service Commission, Docket No. 20000-352-ER-09. Direct testimony submitted February 16, 2010. Cross answer testimony submitted March 15, 2010. Direct settlement testimony submitted March 31, 2010. Cross examined April 23, 2010.

"Amended Petition of Puget Sound Energy, Inc., for an Order Authorizing the Use of the Proceeds from the Sale of Renewable Energy Credits and Carbon Financial Instruments," **Washington** Utilities and Transportation Commission, Docket No. UE-070725. Response testimony submitted January 28, 2010.

"Application of Appalachian Power Company for a 2009 Statutory Review of Rates Pursuant to § 56.585.1 A of the Code of Virginia," **Virginia** Corporation Commission, Case No. PUE-2009-00030. Direct testimony submitted December 28, 2009. Additional direct testimony submitted March 8, 2010. Cross examined April 1, 2010.

Page 20 of 40

"In the Matter of the Application of Ohio Edison Company, The Cleveland Electric Illuminating Company and The Toledo Edison Company for Approval of a Market Rate Offer to Conduct a Competitive Bidding Process for Standard Service Offer Electric Generation Supply, Accounting Modifications with Reconciliation Mechanism and Tariffs for Generation Service," Public Utilities Commission of **Ohio**, Case No. 09-906-EL-SSO. Direct testimony submitted December 4, 2009. Deposed December 10, 2009.

"2009 Puget Sound Energy General Rate Case," **Washington** Utilities and Transportation Commission, Docket Nos. UE-090704 and UG-090705. Response testimony submitted November 17, 2009. Joint testimony in support of stipulation submitted January 8, 2010.

"In the Matter of the Application of Rocky Mountain Power for Approval of Its Proposed Energy Cost Adjustment Mechanism," **Utah** Public Service Commission, Docket No. 09-035-15. Direct Phase I testimony submitted November 16, 2009. Direct Phase II testimony submitted August 4, 2010. Rebuttal Phase II testimony submitted September 15, 2010. Surrebuttal Phase I testimony submitted January 5, 2010. Surrebuttal Phase II testimony submitted October 13, 2010. Cross examined January 12, 2010 (Phase I) and November 2, 2010 (Phase II). Rebuttal testimony regarding Final EBA Report submitted November 16, 2016. Surrebuttal testimony regarding Final EBA Report submitted December 15, 2016. Cross examined January 17, 2017.

"In the Matter of the Application of Rocky Mountain Power for Authority to Increase its Retail Electric Utility Service Rates in Utah and for Approval of Its Proposed Electric Service Schedules and Electric Service Regulations," **Utah** Public Service Commission, Docket No. 09-035-23. Direct testimony submitted October 8, 2009. Rebuttal testimony submitted November 12, 2009. Surrebuttal testimony submitted November 30, 2009. Cross examined December 15-16, 2009.

"Re: The Tariff Sheets Filed by Public Service Company of Colorado with Advice Letter No. 1535 – Electric," **Colorado** Public Utilities Commission, Docket No. 09AL-299E. Answer testimony submitted October 2, 2009. Surrebuttal testimony submitted December 18, 2009.

"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," **Kansas** Corporation Commission, Docket No. 09-WSEE-925-RTS. Direct testimony submitted September 30, 2009. Cross answer testimony submitted October 16, 2009.

"Central Illinois Light Company d/b/a AmerenCILCO Proposed General Increase in Electric Delivery Service Rates; Central Illinois Public Service Company d/b/a AmerenCIPS Proposed General Increase in Electric Delivery Service Rates; Illinois Power Company d/b/a/ AmerenIP Proposed General Increase in Electric Delivery Service Rates; Central Illinois Light Company d/b/a AmerenCILCO Proposed General Increase in Gas Delivery Service Rates; Central Illinois Public Service Company d/b/a AmerenCILCO Proposed General Increase in Gas Delivery Service Rates; Central Illinois Public Service Company d/b/a AmerenCIPS Proposed General Increase in Gas Delivery Service Rates; Central Illinois Public Service Company d/b/a AmerenCIPS Proposed General Increase in Gas Delivery Service Rates; Central Illinois Public Service Company d/b/a AmerenCIPS Proposed General Increase in Gas Delivery Service Rates; Central Illinois Public Service Company d/b/a AmerenCIPS Proposed General Increase in Gas Delivery Service Rates; Central Illinois Public Service Company d/b/a AmerenCIPS Proposed General Increase in Gas Delivery Service Rates; Central Illinois Public Service Company d/b/a AmerenCIPS Proposed General Increase in Gas Delivery Service Service Service Service Company d/b/a AmerenCIPS Proposed General Increase in Gas Delivery Service Servi

Rates; Illinois Power Company d/b/a/ AmerenIP Proposed General Increase in Gas Delivery Service Rates," **Illinois** Commerce Commission, Docket Nos. 09-0306, 09-0307, 09-0308, 09-0309, 09-0310, and 09-0311. Direct testimony submitted September 28, 2009. Rebuttal testimony submitted November 20, 2009.

Page 21 of 40

"In the Matter of the Complaint of Nucor Steel-Indiana, a Division of Nucor Corporation against Duke Energy Indiana, Inc. for Determination of Reasonable and Just Charges and Conditions for Electric Service and Request for Expedited Adjudication," **Indiana** Utility Regulatory Commission, Cause No. 43754. Direct testimony submitted September18, 2009. Rebuttal testimony submitted December 3, 2009. Testimony withdrawn pursuant to settlement agreement.

"In the Matter of PacifiCorp's Filing of Revised Tariff Schedules for Electric Service in Oregon," Public Utility Commission of **Oregon**, Docket No. UE-210. Reply testimony submitted July 24, 2009. Joint testimony in support of stipulation submitted September 25, 2009.

"In The Matter of the Application of Rocky Mountain Power to Establish an Avoided Cost Methodology for Customers That Do Not Qualify for Tariff Schedule 37 – Avoided Cost Purchases from Qualifying Facilities," **Wyoming** Public Service Commission, Docket No. 20000-342-EA-09. Direct testimony submitted July 21, 2009. Cross examined September 1, 2009.

"In the Matter of PacifiCorp, dba Pacific Power, 2010 Transition Adjustment Mechanism," Public Utility Commission of **Oregon**, Docket No. UE-207. Reply testimony submitted July 14, 2009. Joint testimony in support of stipulation submitted September 25, 2009.

"In The Matter of the Application of The Detroit Edison Company for Authority to Increase Its Rates, Amend Its Rate Schedules and Rules Governing the Distribution and Supply of Electric Energy," **Michigan** Public Service Commission, Case No. U-15768. Direct testimony submitted July 9, 2009. Rebuttal testimony submitted July 30, 2009.

"In the Matter of the Investigation of Westar Energy, Inc., and Kansas Gas and Electric Company to Consider the Issue of Rate Consolidation and Resulting Rate Design," Kansas Corporation Commission," Docket No. 09-WSEE-641-GIE. Direct testimony submitted June 26, 2009. Cross examined August 17, 2009.

"Illinois Commerce Commission on Its Own Motion vs Commonwealth Edison Company, Investigation of Rate Design Pursuant to Section 9-250 of the Public Utilities Act," **Illinois** Commerce Commission, Docket No. 08-0532. Direct testimony submitted May 22, 2009.

"In the Matter of the Application of Duke Energy Kentucky, Inc. for Approval of Energy Efficiency Plan, Including an Energy Efficiency Rider and Portfolio of Energy Efficiency

Programs," **Kentucky** Public Service Commission, Case No. 2008-00495. Direct testimony submitted May 11, 2009.

"In the Matter of the Application by Nevada Power Company d/b/a NV Energy, filed Pursuant to NRS§704.110(3) and NRS §704.110(4) for Authority to Increase Its Annual Revenue Requirement for General Rates Charged to All Classes of Customers, Begin to Recover the Costs of Acquiring the Bighorn Power Plant, Constructing the Clark Peakers, Environmental Retrofits and Other Generating, Transmission and Distribution Plant Additions, to Reflect Changes in Cost of Service and for Relief Properly Related Thereto, Public Utilities Commission of **Nevada**, Docket No. 08-12002. Direct testimony submitted April 14, 2009 (revenue requirement) and April 21, 2009 (cost of service/rate design). Cross examined May 6, 2009.

"Verified Petition of Duke Energy Indiana, Inc. Requesting the Indiana Utility Regulatory Commission to Approve an Alternative Regulatory Plan Pursuant to the Ind. Code 8-1-2.5, *Et Seq.*, for the Implementation of an Electric Distribution System "SmartGrid" and Advanced Metering Infrastructure, Distribution Automation Investments, and a Distribution Renewable Generation Demonstration Project and Associated Accounting and Rate Recovery Mechanisms, Including a Ratemaking Proposal to Update Distribution Rates Annually and a "Lost Revenue" Recovery Mechanism, in Accordance with Ind. Code 8-1-2-42(a) and 8-1-2.5-1 *Et Seq.* and Preliminary Approval of the Estimated Costs and Scheduled Deployment of the Company's SmartGrid Initiative," **Indiana** Utility Regulatory Commission, Cause No. 43501. Direct testimony submitted February 27, 2009.

"In The Matter of the Application of Duke Energy Ohio for an Increase in Electric Distribution Rates," Public Utilities Commission of **Ohio**, Case No. 08-709-EL-AIR; "In the Matter of the Application of Duke Energy Ohio for Tariff Approval," Case No. 08-710-EL-ATA; "In the Matter of the Application of Duke Energy Ohio for Approval to Change Accounting Methods," Case No. 08-711-EL-AAM. Direct testimony submitted February 26, 2009.

"In The Matter of the Amended Application of Rocky Mountain Power for Approval of a General Rate Increase of Approximately \$28.8 Million per Year (6.1 Percent Overall Average Increase)", **Wyoming** Public Service Commission, Docket No. 20000-333-ER-08. Direct testimony submitted January 30, 2009. Summary of cross answer testimony submitted February 27, 2009. Settlement testimony submitted March 13, 2009. Cross examined March 24, 2009.

"In the Matter of the Application of Dayton Power and Light Company for Approval of Its Electric Security Plan," Public Utilities Commission of **Ohio**, Case No. 08-1094-EL-SSO; "In the Matter of the Application of Dayton Power and Light Company for Approval of Revised Tariffs, Case No. 08-1095-EL-ATA; "In the Matter of the Application of Dayton Power and Light Company for Approval of Certain Accounting Authority Pursuant to Ohio Rev. Code §4905.13," Case No. 08-1096-EL-AAM; In the Matter of the Application of Dayton Power and Light Company for Approval of Its Amended Corporate Separation Plan, Case No. 08-1097-EL-

Page 23 of 40

UNC. Direct testimony submitted January 26, 2009. Deposed February 6, 2009. Testimony withdrawn pursuant to stipulation filed February 24, 2009.

"Application of Oncor Electric Delivery Company LLC for Authority to Change Rates," Public Utility Commission of **Texas**, SOAH Docket No. 473-08-3681, PUC Docket No. 35717. Direct testimony submitted November 26, 2008. Cross examined February 3, 2009.

"In the Matter of the Application of Columbus Southern Power Company for Approval of Its Electric Security Plan; An Amendment to Its Corporate Separation Plan; and the Sale of Certain Generating Assets", Public Utilities Commission of **Ohio**, Case No. 08-917-EL-SSO; "In the Matter of the Application of Ohio Power Company for Approval of Its Electric Security Plan; and an Amendment to Its Corporate Separation Plan," Case No. 08-918-EL-SSO. Direct testimony submitted October 31, 2008. Cross examined November 25, 2008.

"Application of Louisville Gas and Electric Company for an Adjustment of Its Electric and Gas Base Rates," **Kentucky** Public Service Commission, Case No. 2008-00252. Direct testimony submitted October 28, 2008.

"Application of Kentucky Utilities Company for an Adjustment of Base Rates," Kentucky Public Service Commission, Case No. 2008-00251. Direct testimony submitted October 28, 2008.

"In the Matter of the Application of Idaho Power Company for Authority to Increase its Rates and Charges for Electric Service," **Idaho** Public Utilities Commission, Case No. IPC-E-08-10. Direct testimony submitted October 24, 2008. Rebuttal testimony submitted December 3, 2008. Cross examined December 19, 2008.

"In the Matter of the Application of Rocky Mountain Power for Authority to Increase its Retail Electric Utility Service Rates in Utah and for Approval of its Proposed Electric Service Schedules and Electric Service Regulations," **Utah** Public Service Commission, Docket No. 08-035-38. Direct testimony submitted October 7, 2008 (test period) and February 12, 2009 (revenue requirement). Cross examined October 28, 2008 (test period).

"In the Matter of the Application of Ohio Edison Company, The Cleveland Electric Illuminating Company and The Toledo Edison Company for Authority to Establish a Standard Service Offer Pursuant to R.C. § 4928.143 in the Form of an Electric Security Plan," Public Utility Commission of **Ohio**, Case No. 08-935-EL-SSO. Direct testimony submitted September 29, 2008. Deposed October 13, 2008. Cross examined October 21, 2008.

"In the Matter of the Application 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**, Docket No. 08-WSEE-1041-RTS. Direct testimony submitted September 29, 2008. Cross Answer testimony submitted October 8, 2008. "In the Matter of Appalachian Power Company's Application for Increase in Electric Rates," **Virginia** State Corporation Commission, Case No. PUE-2008-00046. Direct testimony submitted September 26, 2008.

"In the Matter of the Application of Ohio Edison Company, The Cleveland Electric Illuminating Company and The Toledo Edison Company for Approval of a Market Rate Offer to Conduct a Competitive Bidding Process for Standard Service Offer Electric Generation Supply, Accounting Modifications with Reconciliation Mechanism and Tariffs for Generation Service," Public Utility Commission of **Ohio**, Case No. 08-936-EL-SSO. Direct testimony submitted September 9, 2008. Deposed September 16, 2008.

"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," **Arizona** Corporation Commission, Docket No. E-01345A-08-0172. Direct testimony submitted August 29, 2008 (interim rates), December 19, 2008 (revenue requirement), January 9, 2009 (cost of service, rate design), and July 1, 2009 (settlement agreement). Reply testimony submitted August 6, 2009 (settlement agreement). Cross examined September 16, 2008 (interim rates) and August 20, 2009 (settlement agreement).

"Verified Joint Petition of Duke Energy Indiana, Inc., Indianapolis Power & Light Company, Northern Indiana Public Service Company and Vectren Energy Delivery of Indiana, Inc. for Approval, if and to the Extent Required, of Certain Changes in Operations That Are Likely To Result from the Midwest Independent System Operator, Inc.'s Implementation of Revisions to Its Open Access Transmission and Energy Markets Tariff to Establish a Co-Optimized, Competitive Market for Energy and Ancillary Services Market; and for Timely Recovery of Costs Associated with Joint Petitioners' Participation in Such Ancillary Services Market," **Indiana** Utility Regulatory Commission, Cause No. 43426. Confidential direct testimony submitted August 6, 2008. Confidential direct testimony in opposition to Settlement Agreement submitted November 12, 2008.

"In The Matter of the Application of The Detroit Edison Company for Authority to Increase Its Rates, Amend Its Rate Schedules and Rules Governing the Distribution and Supply of Electric Energy, and for Miscellaneous Accounting Authority," **Michigan** Public Service Commission, Case No. U-15244. Direct testimony submitted July 15, 2008. Rebuttal testimony submitted August 8, 2008.

"Portland General Electric General Rate Case Filing," Public Utility Commission of **Oregon**, Docket No. UE-197. Direct testimony submitted July 9, 2008. Surrebuttal testimony submitted September 15, 2008.

Page 25 of 40

"In the Matter of PacifiCorp, dba Pacific Power, 2009 Transition Adjustment Mechanism, Schedule 200, Cost-Based Supply Service," Public Utility Commission of **Oregon**, Docket No. UE-199. Reply testimony submitted June 23, 2008. Joint testimony in support of stipulation submitted September 4, 2008.

"2008 Puget Sound Energy General Rate Case," **Washington** Utilities and Transportation Commission, Docket Nos. UE-072300 and UG-072301. Response testimony submitted May 30, 2008. Cross-Answer testimony submitted July 3, 2008. Joint testimony in support of partial stipulations submitted July 3, 2008 (gas rate spread/rate design), August 12, 2008 (electric rate spread/rate design), and August 28, 2008 (revenue requirements). Cross examined September 3, 2008.

"Verified Petition of Duke Energy Indiana, Inc. Requesting the Indiana Utility Regulatory Commission to Approve an Alternative Regulatory Plan Pursuant to the Ind. Code 8-1-2.5, Et Seq., for the Offering of Energy Efficiency Conservation, Demand Response, and Demand-Side Management Programs and Associated Rate Treatment Including Incentives Pursuant to a Revised Standard Contract Rider No. 66 in Accordance with Ind. Code 8-1-2.5-1 Et Seq. and 8-1-2-42(a); Authority to Defer Program Costs Associated with Its Energy Efficiency Portfolio of Programs; Authority to Implement New and Enhanced Energy Efficiency Programs in Its Energy Efficiency Portfolio of Programs; and Approval of a Modification of the Fuel Adjustment Clause Earnings and Expense Tests," **Indiana** Utility Regulatory Commission, Cause No. 43374. Confidential direct testimony submitted May 21, 2008 and October 27, 2008. Testimony withdrawn pursuant to stipulation, but re-submitted June 1, 2010. Confidential supplemental direct testimony submitted June 10, 2010. Application withdrawn by Duke Energy Indiana, June 2010.

"Cinergy Corp., Duke Energy Ohio, Inc., Cinergy Power Investments, Inc., Generating Facilities LLCs," **Federal Energy Regulatory Commission**, Docket No. EC-08-78-000. Affidavit filed May 14, 2008.

"Application of Entergy Gulf States, Inc. for Authority to Change Rates and to Reconcile Fuel Costs, Public Utility Commission of **Texas**, Docket No. 34800 [SOAH Docket No. 473-08-0334]. Direct testimony submitted April 11, 2008. Testimony withdrawn pursuant to stipulation.

"Central Illinois Light Company d/b/a AmerenCILCO Proposed General Increase in Electric Delivery Service Rates, Central Illinois Public Service Company d/b/a AmerenCIPS Proposed General Increase in Electric Delivery Service Rates, Illinois Power Company d/b/a/ AmerenIP Proposed General Increase in Electric Delivery Service Rates, Central Illinois Light Company d/b/a AmerenCILCO, Proposed General Increase in Gas Delivery Service Rates, Central Illinois Public Service Company d/b/a AmerenCIPS Proposed General Increase in Gas Delivery Service Rates, Illinois Public Service Company d/b/a/ AmerenCIPS Proposed General Increase in Gas Delivery Service Rates, Illinois Power Company d/b/a/ AmerenIP Proposed General Increase in Gas Delivery Service Rates, Illinois Company d/b/a/ AmerenIP Proposed General Increase in Gas Delivery Service Rates, Illinois Commerce Commission, Docket Nos. 07-0585, 07-0586, 07-0587, 07-

0588, 07-0589, 07-0590. Direct testimony submitted March 14, 2008. Rebuttal testimony submitted April 8, 2008.

"In the Matter of the Application of Public Service Company of Colorado for Authority to Implement an Enhanced Demand Side Management Cost Adjustment Mechanism to Include Current Recovery and Incentives," **Colorado** Public Utilities Commission, Docket No. 07A-420E. Answer testimony submitted March 10, 2008. Cross examined April 25, 2008.

"An Investigation of the Energy and Regulatory Issues in Section 50 of Kentucky's 2007 Energy Act," **Kentucky** Public Service Commission, Administrative Case No. 2007-00477. Direct testimony submitted February 29, 2008. Supplemental direct testimony submitted April 1, 2008. Cross examined April 30, 2008.

"In the Matter of the Application of Tucson Electric Power Company for the Establishment of Just and Reasonable Rates and Charges Designed to Realize a Reasonable Rate of Return on the Fair Value of Its Operations throughout the State of Arizona," **Arizona** Corporation Commission, Docket No. E-01933A-07-0402. Direct testimony submitted February 29, 2008 (revenue requirement), March 14, 2008 (rate design), and June 12, 2008 (settlement agreement). Cross examined July 14, 2008.

"Commonwealth Edison Company Proposed General Increase in Electric Rates," **Illinois** Commerce Commission, Docket No. 07-0566. Direct testimony submitted February 11, 2008. Rebuttal testimony submitted April 8, 2008.

"In the Matter of the Application of Questar Gas Company to File a General Rate Case," Utah Public Service Commission, Docket No. 07-057-13. Direct testimony submitted January 28, 2008 (test period), March 31, 2008 (rate of return), April 21, 2008 (revenue requirement), and August 18, 2008 (cost of service, rate spread, rate design). Rebuttal testimony submitted September 22, 2008 (cost of service, rate spread, rate design). Surrebuttal testimony submitted May 12, 2008 (rate of return) and October 7, 2008 (cost of service, rate spread, rate design). Cross examined February 8, 2008 (test period), May 21, 2008 (rate of return), and October 15, 2008 (cost of service, rate spread, rate design).

"In the Matter of the Application of Rocky Mountain Power for Authority to Increase its Retail Electric Utility Service Rates in Utah and for Approval of its Proposed Electric Service Schedules and Electric Service Regulations, Consisting of a General Rate Increase of Approximately \$161.2 Million Per Year, and for Approval of a New Large Load Surcharge," **Utah** Public Service Commission, Docket No. 07-035-93. Direct testimony submitted January 25, 2008 (test period), April 7, 2008 (revenue requirement), and July 21, 2008 (cost of service, rate design). Rebuttal testimony submitted September 3, 2008 (cost of service, rate design). Surrebuttal testimony submitted May 23, 2008 (revenue requirement) and September 24, 2008 (cost of service, rate design). Cross examined February 7, 2008 (test period). "In the Matter of the Application of Ohio Edison Company, The Cleveland Electric Illuminating Company and The Toledo Edison Company for Authority to Increase Rates for Distribution Service, Modify Certain Accounting Practices and for Tariff Approvals," Public Utilities Commission of **Ohio**, Case Nos. 07-551-EL-AIR, 07-552-EL-ATA, 07-553-EL-AAM, and 07-554-EL-UNC. Direct testimony submitted January 10, 2008.

"In the Matter of the Application of Rocky Mountain Power for Authority to Increase Its Retail Electric Utility Service Rates in Wyoming, Consisting of a General Rate Increase of Approximately \$36.1 Million per Year, and for Approval of a New Renewable Resource Mechanism and Marginal Cost Pricing Tariff," **Wyoming** Public Service Commission, Docket No. 20000-277-ER-07. Direct testimony submitted January 7, 2008. Cross examined March 6, 2008.

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

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

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

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

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

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

Page 28 of 40

"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 6, 2007. Supplemental direct testimony submitted March 18, 2008.

"In the Matter of the Application of Sempra Energy Solutions for a Certificate of Convenience and Necessity for Competitive Retail Electric Service," **Arizona** Corporation Commission, Docket No. E-03964A-06-0168. Direct testimony submitted July 3, 2007. Rebuttal testimony submitted January 17, 2008 and February 7, 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 NetworksMPS 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-ofservice). 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 Public Service 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.

Page 32 of 40

"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).

Page 35 of 40

"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.

Page 36 of 40

"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; "In the Matter of the Application of Rocky Mountain Power for an Order Approving an Amendment to Its Power Purchase Agreement with Sunnyside Cogeneration Associates," Docket Nos. 05-035-46, and 07-035-99. Direct testimony submitted July 8, 1996. Oral testimony provided March 18, 2008.

"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. 20000-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).

RECENT PUBLICATIONS

Kevin C. Higgins and Caitlin Collins, "Utility Transmission Infrastructure," Chapter 5 in *Coastal Wind: Energy for North Carolina's Future*. University of North Carolina, Chapel Hill: 2009.

Kevin C. Higgins, Neal Townsend, and Susannah Vale, "Utility-Related Statutory and Regulatory Barriers," Chapter 6 in *Coastal Wind: Energy for North Carolina's Future*. University of North Carolina, Chapel Hill: 2009.

OTHER RELATED ACTIVITY

Participant, Wyoming Load Growth Collaborative, March 2008 to January 2009.

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 December 2005.

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.

Page 40 of 40

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.

JUSTIN BIEBER CURRICULUM VITA

1

Justin Bieber Senior Consultant, Energy Strategies, L.L.C. 215 South State Street, Suite 200, Salt Lake City, Utah 84111

Resume

Professional Experience:

Senior Consultant, Energy Strategies, LLC (2017 – Present).

Manager, Transmission Project Development, Pacific Gas & Electric Co. (2015-2016).

Principal, ISO Relations and FERC Policy, Pacific Gas & Electric Co. (2014-2015)

Supervisor, Electric Generator Interconnections, Pacific Gas & Electric Co. (2012-2014).

Project Manager/Engineer, Nehemiah Construction, Inc. (2006-2010).

Education:

University of Southern California, Marshall School of Business, Master of Business Administration, 2012.

Duke University, Pratt School of Engineering, Bachelor of Science in Mechanical Engineering, 2006.

Professional License:

Registered Professional Civil Engineer in the state of California.

Justin Bieber Senior Consultant, Energy Strategies, L.L.C. 215 South State Street, Suite 200, Salt Lake City, Utah 84111

Regulatory Testimony:

State of Indiana

Cause #	Title
44967	Petition of Indiana Michigan power company, an Indiana corporation, for authority to increase its rates and charges for electric utility service. Direct Testimony, November 7, 2017 Cross-Answer Testimony, December 6, 2017
State of Kentucky	
Case #	Title
2017-00321	Application of Duke Energy Kentucky, Inc. for an adjustment to electric rates. Direct Testimony, December 29, 2017
State of North Carolina	
Docket #	Title
E-2, Sub 1142	Application of Duke Energy Progress for adjustment of rates and charges applicable to Electric Service in North Carolina. Direct Testimony, September 22, 2017