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BEFORE THE

PUBLIC UTILITIES COMMISSION OF OHIO

In the Matter of the Application of Duke )  
Energy Ohio for Approval of a Market ) Case No. 10-2586-EL-SSO  
Rate Offer to Conduct a Competitive )  
Bidding Process for Standard Service )  
Offer Electric Generation Supply, )  
Accounting Modifications, and Tariffs )  
for Generation Service )

DIRECT TESTIMONY OF KEVIN C. HIGGINS

On Behalf of The Kroger Co.

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

2

3    **Introduction**

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

5    A.           Kevin C. Higgins, 215 South State Street, Suite 200, Salt Lake City, Utah,  
6               84111.

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

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

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

12   A.           My testimony is being sponsored by The Kroger Co. ("Kroger"). Kroger  
13              is one of the largest grocers in the United States. Kroger has over 65 facilities  
14              served by Duke Energy Ohio ("Duke") that collectively consume over 255  
15              million kWh per year. Kroger takes most of its service under the DS, DP, and TS  
16              rate schedules.

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

18   A.           My academic background is in economics, and I have completed all  
19              coursework and field examinations toward a Ph.D. in Economics at the University  
20              of Utah. In addition, I have served on the adjunct faculties of both the University  
21              of Utah and Westminster College, where I taught undergraduate and graduate  
22              courses in economics from 1981 to 1995. I joined Energy Strategies in 1995,  
23              where I assist private and public sector clients in the areas of energy-related

1 economic and policy analysis, including evaluation of electric and gas utility rate  
2 matters.

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

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

10 A. Yes, on several occasions. Earlier this year, I filed testimony in Duke's  
11 storm damage cost recovery proceeding, Case No. 09-1946-EL-RDR. In 2009, I  
12 testified in FirstEnergy's Market Rate Offer proceeding, Case No. 09-906-EL-  
13 SSO, and in Duke's distribution rate case, Case No. 08-709-EL-AIR, et al.

14 In 2008, I testified in AEP's Electric Security Plan ("ESP") proceeding,  
15 Case No. 08-917-EL-SSO, et al; FirstEnergy's Market Rate Offer proceeding,  
16 Case No. 08-936-EL-SSO; FirstEnergy's ESP proceeding, Case No. 08-935-EL-  
17 SSO; and the FirstEnergy distribution rate case proceeding, Case No. 07-551-EL-  
18 AIR, et al.

19 In 2005, I testified in the AEP IGCC cost recovery proceeding, Case No.  
20 05-376-EL-UNC, and in 2004, I testified in the FirstEnergy Rate Stabilization  
21 Plan proceeding, Case No. 03-2144-EL-ATA.

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

1     A.             Yes. I have testified in approximately 130 proceedings on the subjects of  
2             utility rates and regulatory policy before state utility regulators in Alaska,  
3             Arizona, Arkansas, Colorado, Georgia, Idaho, Illinois, Indiana, Kansas,  
4             Kentucky, Michigan, Minnesota, Missouri, Montana, Nevada, New Mexico, New  
5             York, Oklahoma, Oregon, Pennsylvania, South Carolina, Texas, Utah, Virginia,  
6             Washington, West Virginia, and Wyoming.

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

9

10    **Overview and Conclusions**

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

12    A.             My testimony addresses two major aspects of Duke's application for a  
13             Market Rate Offer ("MRO"): the statutory price blending period and MRO rate  
14             design. Absence of comment on my part regarding a particular issue does not  
15             signify support (or opposition) toward the Company's filing with respect to the  
16             non-discussed issue.

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

18    A.             Duke is proposing that the MRO price blending period last only two years,  
19             instead of five to ten years as indicated in the statute. In my opinion, this proposal  
20             is not compatible with a policy of gradual and orderly transformation to market  
21             pricing for standard service offer ("SSO") generation service, and should be  
22             rejected. Moreover, Duke does not appear to have presented an MRO Application  
23             that complies with the express requirements of ORC 4928.142(D) regarding the

1 price blending proportions and time period for blending. Consequently, I  
2 recommend that Duke's MRO Application be rejected as deficient.

3 Duke's rate design proposal for the bid price component of the MRO for  
4 demand-billed customers is unreasonable and should be modified by the  
5 Commission. Currently, a significant portion of Duke's ESP generation rate is  
6 comprised of demand charges for those rate schedules that are billed on a demand  
7 basis. In contrast, the bid price component of the proposed MRO is priced solely  
8 on a kilowatt-hour basis. If approved, Duke's proposal will radically transform  
9 the Company's rate design, causing a substantial impact on customer rates within  
10 each demand-billed rate schedule: higher-load-factor customers within each  
11 demand-billed rate schedule will see their rates negatively impacted, whereas  
12 lower-load-factor customers will receive a windfall benefit.

13 The SSO supply obtained from the proposed auction will include a  
14 capacity obligation, the costs of which Duke proposes to allocate to its rate classes  
15 separately from energy costs. I have no objection to this. However, rather than  
16 pricing the capacity component as a demand charge for demand-billed customers,  
17 Duke proposes to convert these capacity costs into energy charges. In my  
18 opinion, this is improper rate design. Capacity-related costs should be recovered  
19 from demand-billed rate schedules through demand charges; otherwise, undue  
20 cost-shifting within the rate schedule is induced.

21 I recommend that the Commission modify Duke's proposed rate design  
22 for the bid price component of SSO generation rates in one of two ways. Under  
23 the first option, after capacity-related costs are allocated to each rate class, the

1 Commission should require that these costs be recovered from demand-billed rate  
2 schedules as demand charges rather than converted into energy charges.

3 In the alternative, I recommend that the Commission require Duke to file a  
4 rate design rider for each demand-billed rate schedule that would be applied to the  
5 bid price component of the SSO generation charge. The rider would consist of a  
6 demand charge that reflects the demand charges currently in Duke's ESP  
7 generation rates accompanied by a per-kWh energy credit, designed such that the  
8 sum of the demand charges and energy credits for each applicable rate schedule is  
9 revenue neutral for that rate schedule. This rider would not transfer revenues  
10 between Duke and its customers, but would ensure revenue recovery among  
11 customers in a manner that is aligned with the demand charges in Duke's current  
12 generation rates, minimizing rate impacts from adoption of an MRO due solely to  
13 Duke's proposed change in design.

14  
15 **The Blended Price Period**

16 **Q. Please explain the concept of a "blended price" as it pertains to an MRO.**

17 A. ORC 4928.142 provides for special pricing requirements for an electric  
18 distribution utility, such as Duke, that is seeking its first MRO, and which, as of  
19 July 31, 2008, directly owned operating electric generating facilities that were  
20 used and useful in Ohio. Specifically, the MRO application for such a utility must  
21 provide that a portion of the utility's SSO load will be competitively bid for the  
22 first five years of the MRO, such that ten percent of the SSO load is competitively  
23 bid in year one, and not more than twenty percent of SSO load is competitively

1 bid in year two, thirty per cent in year three, forty per cent in year four, and fifty  
2 per cent in year five. Consistent with these percentages, the Commission is  
3 charged with determining the actual percentages for years one through five.

4 The resulting SSO price for retail electric generation service is required to  
5 be a proportionate blend of the bid price and the generation service price for the  
6 remaining SSO load; this latter price is supposed to equal the electric distribution  
7 utility's most recent SSO price, adjusted upward or downward by the Commission  
8 to reflect the prudently-incurred costs of fuel, purchased power, supply and  
9 demand resource portfolio compliance (e.g., renewable energy resource and  
10 energy efficiency requirements), and compliance with environmental laws and  
11 regulations. I will further refer to the time for which blended prices apply as the  
12 blending period.

13 **Q. What is Duke proposing with respect to the duration of the blending period?**

14 A. Duke is proposing that the blending period last only two years. Under  
15 Duke's proposal, the bid price would constitute 10 percent of the blended price in  
16 the first year of the MRO<sup>1</sup> and 20 percent in the second year. However, starting  
17 in the third year, Duke is proposing that the bid price comprise 100 percent of the  
18 SSO generation service price.<sup>2</sup> In parallel with this proposal, Duke (electric  
19 distribution utility) is also proposing to transfer its generation assets to an affiliate  
20 effective no later than the end of the blending period, as described in the direct  
21 testimony of Duke witness Charles Whitlock.

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<sup>1</sup> For the purposes of this filing, Duke requests that the "first year" actually be equal to 17 months.

<sup>2</sup> See the direct testimony of William Don Wathen, Jr., p. 10, line 7 through page 11, line 2.

1   **Q.     How does Duke justify its proposed shortening of the blending period, in**  
2   **light of the specific requirements of ORC 4928.142?**

3   A.           ORC 4928.142 appears to grant some limited discretion to the  
4   Commission with respect to the blending proportions and permits the Commission  
5   to extend the duration of the blending period from five years to up to ten years  
6   under a limited set of articulated circumstances. Duke is interpreting the  
7   discretion granted to the Commission as allowing for a shortening of the blending  
8   period as well.

9               The Commission's discretion in setting the blending proportions is  
10   addressed in two divisions of ORC 4928.142. After enumerating the blending  
11   percentages, ORC 4928.142(D) states that:

12              Consistent with those percentages, the commission shall determine the actual  
13   percentages for each year of years one through five.  
14

15              ORC 4928.142(E) then goes on to provide that:

16              Beginning in the second year of a blended price under division (D) of this section  
17   and notwithstanding any other requirement of this section, the commission may  
18   alter prospectively the proportions specified in that division to mitigate any effect  
19   of an abrupt or significant change in the electric distribution utility's standard  
20   service offer price that would otherwise result in general or with respect to any  
21   rate group or rate schedule but for such alteration.  
22

23              In justifying its proposal to shorten the blending period, Duke cites to the limited  
24   discretion provided in Division (E), above.<sup>3</sup>

25   **Q.     What is your assessment of Duke's proposal to shorten the blending period?**

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<sup>3</sup> Duke Application at 10-11.



1     A.           The five to ten year blending period described in the statute suggests an  
2     underlying public policy of gradual transformation to market pricing for SSO  
3     generation service when an MRO is adopted for affected utilities. I believe that  
4     Duke's proposal to shorten the blending period to two years is inconsistent with  
5     that policy objective. As a result, the goal of a conservative migration to full  
6     MRO pricing inherent in a five to ten year blending period would be undermined.

7           Moreover, Duke's reliance on Division (E) of ORC 4928.142 to make its  
8     case for shortening the blending period runs counter to the underlying  
9     mathematical logic in the first sentence of this division. Mathematically, if the  
10    proportions specified in Division (D) are altered to mitigate any effect of an  
11    abrupt or significant change in Duke's SSO price, the alteration can only logically  
12    occur in one direction: downward. This is because Division (D) specifies the  
13    proportions of the bid price in the blended price; the remaining portion of the  
14    blended price is essentially the status quo price. If abrupt or significant changes  
15    to the overall SSO price were expected to occur, it would have to be through the  
16    new bid price component, not the status quo component. Thus, mitigation of  
17    price changes by altering the proportion of the blended price could only occur  
18    mathematically by reducing the bid price component, not by increasing it (let  
19    alone to 100 percent) as Duke is proposing.

20           In any event, the discretion afforded the Commission in Division (E)  
21    specifies that it can be exercised "beginning in the second year" of the blending  
22    period. Given the schedule inherent in Duke's MRO Application, the beginning  
23    of the second year of the blending period would not occur until sometime in 2013.

1 Duke fails to explain how a provision that does not appear to confer specific  
2 discretion to the Commission to act until 2013 can be exercised today. Duke also  
3 fails to explain why Division (D), which describes the proportions that must  
4 appear in the Company's MRO Application, can simply be ignored.

5 It is also apparent in Duke's filing that the Company is applying an  
6 idiosyncratic grammatical interpretation to the first sentence of Division (D),  
7 which reads:

8 The first application filed under this section by an electric distribution utility that,  
9 as of July 31, 2008, directly owns, in whole or in part, operating electric  
10 generating facilities that had been used and useful in this state shall require that a  
11 portion of that utility's standard service offer load for the first five years of the  
12 market rate offer be competitively bid under division (A) of this section as  
13 follows: ten per cent of the load in year one, not more than twenty per cent in year  
14 two, thirty per cent in year three, forty per cent in year four, and fifty per cent in  
15 year five. [Emphasis added.]  
16

17 According to Duke's apparent interpretation of this sentence, the phrase "not  
18 more than" only modifies "20 percent," and not the 30 percent, 40 percent, and 50  
19 percent that follow.<sup>4</sup> In general English usage, one would typically continue to  
20 apply the effect of this phrase to the items that follow; however, as I am not an  
21 attorney, I will not attempt to opine on the technical legal meaning of this phrase.

22 I note, however, that the very next sentence of this division states:

23 *Consistent with those percentages*, the commission shall determine the actual  
24 percentages for each year of years one through five. [Emphasis added]  
25

26 Logically, for the Commission to determine *actual* percentages that are *consistent*  
27 with the enumerated percentages, some *range* of percentages would be implicit in

1 the enumerated percentages. Yet, according to Duke's interpretation of Division  
2 (D), a range of percentages is indicated only for the second year of the MRO. The  
3 logical extension of Duke's interpretation of the first sentence of Division (D) is  
4 that the second sentence of Division (D) is relevant only to the second year, and  
5 not to the third, fourth, or fifth. This seems a stretch.

6 On the other hand, if Division (D) is interpreted as requiring that the  
7 proportionate weight given to the bid price for years three, four, and five of the  
8 MRO can be no more than 30 percent, 40, percent, and 50 percent, respectively,  
9 then this discretion would seem to allow the Commission to adjust the bid price  
10 proportion in an amount up to the enumerated percentages, but not beyond. This  
11 interpretation would appear to rule out assigning a weight of 100 percent in years  
12 three, four, and five as Duke is proposing.

13 The upshot is that Duke does not appear to have presented an MRO  
14 Application that complies with the requirements of ORC 4928.142(D). Just as  
15 importantly, Duke's proposal is not compatible with a policy of gradual  
16 transformation to market pricing for SSO generation service. Therefore, I  
17 recommend that Duke's MRO Application be rejected as deficient.

18 **Q. Have you considered Duke's contention that in the third year of the MRO**  
19 **the projected market price will be approximately equal to its status quo**  
20 **price?**

21 **A.** Yes, I have. This is not a good reason to jettison all but two years of the  
22 prescribed five to ten year blended price period even if it were permissible under

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<sup>4</sup> This interpretation is evident in the table on page 9 of Mr. Wathen's direct testimony, in which the bid price proportion for the second year is shown as not more than 20 percent (i.e.,  $\leq 20\%$ ), whereas for years

1 the language of the statute. Let us first bear in mind that the 2014 market price  
2 discussed by Duke is a forecasted price. Experience tells us that forecasted energy  
3 prices are often wrong. Secondly, even if Duke's status quo price "converges"  
4 with the market price some time in 2014, such convergence may only be  
5 temporary. In establishing blending proportions, the Commission should be  
6 concerned with the price implications for the entire blending period identified by  
7 the legislature, not just the circumstances that may obtain in 2014. Thirdly, even  
8 if a price convergence occurs and is sustained for an extended period, customers  
9 would not be harmed by blending two similar prices for several years.  
10 Consequently, the Commission should err on the side of caution and the orderly  
11 transition to market rates and not decide at the outset of the MRO to end the  
12 blending period after only two years.

13 **Q. Are there other factors that should be taken into account in the**  
14 **Commission's determination of the blending proportions and blending**  
15 **period?**

16 A. Yes. If an MRO is put in place, SSO rates will be increasingly determined  
17 by market forces. In such a scenario, it is particularly important for customers to  
18 be able to access a robust competitive market themselves; to that end, the  
19 blending period is important to ensure that such a robust market materializes.

20 **Q. But isn't it the case that many customers in the Duke service territory are**  
21 **already purchasing power from Competitive Retail Electric Service**  
22 **("CRES") suppliers?**

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three, four, and five it is shown as equal to 30 percent, 40, percent, and 50 percent, respectively.

1 A. Yes. Energy prices declined during the world recession and have  
2 remained relatively soft, helping to make market purchases attractive. According  
3 to Duke Energy's Third Quarter Earnings Review and Business Update,<sup>5</sup> as of  
4 September 30, 2010, approximately 64 percent of Duke's ESP load had switched  
5 to a CRES supplier. However, 60 percent of the switched customer load has been  
6 acquired by a single supplier, Duke's affiliate company, Duke Energy Retail Sales  
7 ("DERS"). It remains to be seen how diverse the CRES supply will ultimately  
8 become over time and how it will fare after economic recovery has been  
9 sustained. Allowing the full blending period to occur will allow the Commission  
10 to monitor this retail market development.

11

12 **MRO Rate Design Issues**

13 **Q. In general, what type of rate design issues can arise when an MRO is**  
14 **adopted?**

15 A. When an electric distribution utility transitions from ESP rates to MRO  
16 rates, the new bid price component of rates must be incorporated into the SSO  
17 price; the incorporation of this new price component can have implications for  
18 rate design, both during the blending period and at its conclusion.

19 **Q. Do you have any concerns with the MRO rate design being proposed by**  
20 **Duke?**

21 A. Yes. Currently, a significant portion of Duke's ESP generation rate is  
22 comprised of demand charges for those rate schedules that are billed on a demand  
23 basis. This is an appropriate design for ensuring a proper alignment between

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<sup>5</sup> Issued October 28, 2010.

1 capacity-related costs and charges. Appropriately, Duke is proposing to retain  
2 this design in the ESP component of its blended price.

3 However, the bid price component of the proposed MRO is priced solely  
4 on a kilowatt-hour basis. As Duke witness Jeffrey R. Bailey states, "As the  
5 auction prices become a greater and greater portion of [commercial and industrial]  
6 rates, the rate structures will become radically transformed where the recovery of  
7 fixed-related charges will transition from demand charges to energy charges."<sup>6</sup>

8 This radical transformation will be accompanied by a material impact on  
9 customer rates within each demand-billed rate schedule: higher-load-factor  
10 customers within each demand-billed rate schedule will see their rates negatively  
11 impacted, whereas lower-load-factor customers will receive a windfall benefit.

12 **Q. Have you examined the rate impact on customers attributable to the**  
13 **proposed design change?**

14 A. Yes. I have used the formulas in Duke's rate impact model provided in its  
15 workpapers to examine the rate impacts from the proposed rate design change.  
16 These impacts are summarized in Table KCH-1, below.

17  

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<sup>6</sup> Direct testimony of Jeffrey R. Bailey, p. 8, lines 5-8.

**Table KCH-1**

**Revenue Neutral Rate Impacts from Duke MRO Rate Design in Year 3**

Load Factor	Rate Schedule		
	DS <sup>1</sup>	DP <sup>2</sup>	TS <sup>3</sup>
30%	-7.62%	-16.54%	-25.16%
50%	1.76%	-7.79%	-12.43%
70%	11.30%	0.78%	-2.68%
80%	15.18%	4.20%	1.14%
90%	18.61%	7.20%	4.44%

<sup>1</sup> Bill impact based on 100 kW demand, <sup>2</sup> Bill impact based on 500 kW demand, <sup>3</sup> Bill impact based on 10,000 kW demand

Data Sources: (1) Rate Conversion Workpaper of Jeffrey R. Bailey, (2) Attachment JRB-3, Page 3 of 3

Table KCH-1 shows that on a revenue-neutral basis (i.e., apart from any change in the overall cost of generation service) by the third year of the proposed MRO, the rate design change would increase overall rates for a DS customer with an 80 percent load factor by 15.2 percent, while reducing rates by 7.6 percent for a 30 percent load factor customer. I note that these rate impacts are calculated for total SSO rates – the rate impact for the generation component is considerably larger.

This type of rate impact would occur for other demand-billed rate schedules as well. For example, by the third year of the proposed MRO, an 80 percent load factor customer on the DP rate schedule would see its generation rates deteriorate by approximately 21 percent relative to a 30 percent load factor customer.<sup>7</sup> Similarly, a 90 percent load factor customer on the TS rate schedule would see its generation rates deteriorate by approximately 17 percent relative to a 50 percent load factor customer.

<sup>7</sup> 4.20% - (-16.54%).

1   **Q.     Do you believe this type of rate impact is reasonable?**

2   A.           No. These potential rate impacts are largely the result of Duke's rate  
3           design choice to eliminate retail demand charges for the bid price component of  
4           the SSO. This aspect of the Company's rate design proposal is unwarranted and  
5           unreasonable. The SSO supply that is procured through the auction process will  
6           include a capacity component, along with energy and other components. As  
7           described by Duke witness James S. Northrup:

8           The objective of the [competitive bidding process] is to secure suppliers to  
9           provide the most cost-effective, full requirements standard service offer (SSO)  
10          supply for Duke Energy Ohio's customers as the Company transitions from the  
11          current ESP to the proposed MRO. Full requirements SSO supply will include  
12          energy, capacity, transmission, ancillaries and resource adequacy services  
13          consistent with all reserve margin requirements.<sup>8</sup>  
14

15               According to Attachment F of Duke's filing, during a defined transitional  
16          period, each SSO supplier must satisfy its capacity obligations through the  
17          purchase of capacity from Duke at the PJM Final Zonal Capacity Price. This  
18          capacity product is denominated in dollars per MW; i.e., it is priced as a demand  
19          charge. Then, following the termination of the transition period, each SSO  
20          supplier must satisfy its capacity obligations through PJM vehicles, including  
21          participation in auctions conducted by PJM. Again, the capacity product that SSO  
22          suppliers must acquire in fulfillment of their obligations to Duke will be priced as  
23          a demand charge.

24               However, the bids that SSO suppliers will submit to Duke, which include  
25          this capacity component as well as other non-energy components, will be priced  
26          solely on an energy basis per the requirements of the auction that Duke is



1 proposing. Then, when the cost of this product is converted into a retail rate and  
2 recovered from retail customers on a 100-percent-energy basis, it has the effect of  
3 radically disrupting the current rate design, as noted by Mr. Bailey, leading to  
4 major cost shifts among customers within demand-billed customer classes.

5 **Q. If the auction price paid by Duke for SSO generation will be an energy**  
6 **charge, why do you believe it is not reasonable to recover the 100 percent of**  
7 **the costs of the bid price auction from demand-billed customers on an energy**  
8 **basis?**

9 A. The auction price paid by Duke for SSO generation will be an energy  
10 charge because that is a requirement of the auction design being selected by Duke.  
11 Suppliers bidding into the auction for a slice-of-system sale will nonetheless be  
12 required to procure sufficient capacity to meet the terms of the slice-of-system  
13 supply responsibility. The cost of this capacity will simply be embedded into the  
14 energy price bid. The upshot is that the cost responsibility for recovering the  
15 capacity component will be redistributed among customers within each demand-  
16 billed class if Duke's proposed rate design goes forward, resulting in significant  
17 rate impacts separate and apart from any overall impact on SSO generation rates  
18 that may occur from migrating to market pricing for the SSO price.

19 **Q. Does Duke intend to identify the capacity component of the SSO bid price?**

20 A. Yes. As discussed by Mr. Bailey, the capacity component will be  
21 separated for the purpose of allocating capacity-related costs to customer classes.<sup>9</sup>  
22 However, rather than pricing the capacity component as a demand charge for

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<sup>8</sup> Direct testimony of James S. Northrup. P. 3, lines 8-13.

<sup>9</sup> Direct testimony of Jeffrey R. Bailey, p. 4, lines 8-13.

1 demand-billed customers, Duke proposes to convert these capacity costs into  
2 energy charges. In my opinion, this is improper rate design. Capacity-related  
3 costs should be recovered from demand-billed rate schedules through demand  
4 charges; otherwise, undue cost-shifting within the rate schedule is induced. It is  
5 particularly egregious for Duke to convert capacity charges into energy charges in  
6 light of the fact that the Company's current rate design and billing system is  
7 geared toward recovering demand-related costs through demand charges.

8 **Q. Do you have a recommended rate design solution to this problem?**

9 A. Yes. After capacity-related costs are allocated to each rate class, these  
10 costs should not be converted into energy charges, but should be recovered as  
11 demand charges. I recommend that the Commission require this modification to  
12 Duke's proposed rate design.

13 **Q. Is there an alternative approach that could also solve this problem?**

14 A. Yes. In the alternative, the Commission can require Duke to file a rate  
15 design rider for each demand-billed rate schedule that would be applied to the bid  
16 price component of the SSO generation charge. The rider would consist of a  
17 demand charge that reflects the demand charges currently in Duke's ESP  
18 generation rates accompanied by a per-kWh energy credit designed such that the  
19 sum of the demand charges and energy credits for each applicable rate schedule is  
20 revenue neutral for that rate schedule. Thus, the rider would not cause revenues  
21 to be transferred between Duke and its customers, but would ensure revenue  
22 recovery among customers in a manner that is aligned with the demand charges in

1 Duke's current generation rates, minimizing rate impacts from adoption of an  
2 MRO due solely to Duke's proposed change in design.

3 **Q. Why should SSO rate design impacts be mitigated, given that shopping is an**  
4 **option for customers?**

5 A. Although shopping is an option for customers, the SSO rate is still  
6 important; in fact, it is not unusual for shopping transactions to be tied to the SSO  
7 rate. Thus, rate impacts from changes in SSO rate design are likely to impact  
8 customers whether they shop or not. Moreover, since the SSO bid price contains  
9 an explicit requirement for the SSO supplier to procure capacity, inclusion of a  
10 demand-based pricing in the bid price component charged to retail customers is  
11 simply a matter of proper alignment of SSO generation charges with SSO  
12 generation costs.

13 **Q. Is there precedent in Ohio for the type of rider you are recommending?**

14 A. Yes, a similar rider was implemented for FirstEnergy's Rate GT when  
15 FirstEnergy's ESP was approved by the Commission in 2009 in Case No. 08-935-  
16 EL-SSO, et al.

17 **Q. Should such a rider be bypassable?**

18 A. As I noted above, this proposed rider is not intended to transfer revenues  
19 between Duke and its customers, but to mitigate SSO rate impacts. In my  
20 opinion, it is preferable for such a rider to apply only to customers taking SSO  
21 generation service from Duke; therefore, it is preferable for such a rider to be  
22 bypassable. However, it can also be structured as a non-bypassable rider.

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

1 A. Yes, it does.

## CERTIFICATE OF SERVICE

It is hereby certified that a true copy of the foregoing *Direct Testimony of Kevin C. Higgins on Behalf of The Kroger Co.* was served upon the following persons listed below by electronic mail, this 21<sup>st</sup> day of December, 2010.

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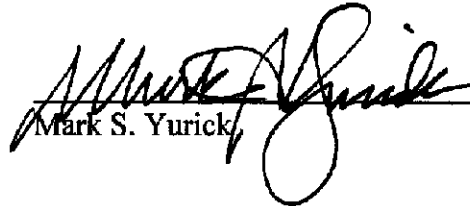
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**Vitae**

**PROFESSIONAL EXPERIENCE**

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

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

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

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

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

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



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

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

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

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

## **EDUCATION**

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

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

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

Danish International Studies Program, University of Copenhagen, 1975.

## **SCHOLARSHIPS AND FELLOWSHIPS**

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

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

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

New York State Regents Scholar, 1972 to 1976.

## **EXPERT TESTIMONY**

“In the Matter of the Application of 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.

“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.

“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.

"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).

“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 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** 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.

“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 September 18, 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-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. Confidential supplemental direct testimony submitted June 10, 2010. Application withdrawn by Duke Energy Indiana, June 2010.

“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.

“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 8-1-2.5-1Et 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. Direct testimony submitted May 21, 2008 and October 27, 2008. Testimony withdrawn pursuant to stipulation, but re-submitted June 1, 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 Power 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; "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 Semptra 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 Networks-MPS and Aquila Networks-L&P Missouri Service Areas,” **Missouri** Public Service Commission, Case No. ER-2007-0004. Direct testimony submitted January 18, 2007 (revenue requirements) and January 25, 2007 (revenue apportionment). Supplemental direct testimony submitted February 27, 2007.

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

“In the Matter of Union Electric Company d/b/a AmerenUE for Authority to File Tariffs Increasing Rates for Electric Service Provided to Customers in the Company’s Missouri Service Area,” **Missouri** Public Service Commission, Case No. ER-2007-0002. Direct testimony submitted December 15, 2006 (revenue requirements) and December 29, 2006 (fuel adjustment

clause/cost-of-service/rate design). Rebuttal testimony submitted February 5, 2007 (cost-of-service). Surrebuttal testimony submitted February 27, 2007. Cross examined March 21, 2007.

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

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

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

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

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

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

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

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

2006.

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

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

"Central Illinois Light Company d/b/a AmerenCILCO, Central Illinois 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.

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

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

"Advice Letter No. 1411 - Public Service Company of Colorado Electric Phase II General Rate Case," **Colorado** Public Utilities Commission, Docket No. 04S-164E. Direct testimony submitted October 12, 2004. Cross-answer testimony submitted December 13, 2004. Testimony

withdrawn January 18, 2005, following Applicant's withdrawal of testimony pertaining to TOU rates.

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

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

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

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

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

"In the Matter of the Application of Idaho Power Company for Authority to Increase Its Interim and Base Rates and Charges for Electric Service," **Idaho** Public Utilities Commission, Case No. IPC-E-03-13. Direct testimony submitted February 20, 2004. Rebuttal testimony submitted March 19, 2004. Cross examined April 1, 2004.

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

"In the Matter of the Application of Arizona Public Service Company for a Hearing to Determine the Fair Value of the Utility Property of the Company for Ratemaking Purposes, To Fix a Just and Reasonable Rate of Return Thereon, To Approve Rate Schedules Designed to Develop Such Return, and For Approval of Purchased Power Contract," **Arizona** Corporation Commission,



Docket No. E-01345A-03-0437. Direct testimony submitted February 3, 2004. Rebuttal testimony submitted March 30, 2004. Direct testimony regarding stipulation submitted September 27, 2004. Responsive / Clarifying testimony regarding stipulation submitted October 25, 2004. Cross examined November 8-10, 2004 and November 29-December 3, 2004.

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

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

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

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

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

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

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

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

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

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

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

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

"In the Matter of the Generic Proceedings Concerning Electric Restructuring Issues," **Arizona** Corporation Commission, Docket No. E-00000A-02-0051, "In the Matter of Arizona Public Service Company's Request for Variance of Certain Requirements of A.A.C. R14-2-1606," Docket No. E-01345A-01-0822, "In the Matter of the Generic Proceeding Concerning the Arizona Independent Scheduling Administrator," Docket No. E-00000A-01-0630, "In the Matter of Tucson Electric Power Company's Application for a Variance of Certain Electric Competition Rules Compliance Dates," Docket No. E-01933A-02-0069, "In the Matter of the Application of Tucson Electric Power Company for Approval of its Stranded Cost Recovery," Docket No. E-01933A-98-0471. Direct testimony submitted March 29, 2002 (APS variance request); May 29, 2002 (APS Track A proceeding/market power issues); and July 28, 2003 (Arizona ISA). Rebuttal testimony submitted August 29, 2003 (Arizona ISA). Cross examined June 21, 2002 (APS Track A proceeding/market power issues) and September 12, 2003 (Arizona ISA).

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

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

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

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

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

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

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

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

"In the Matter of the Application of Columbus Southern Power Company for Approval of Electric Transition Plan and Application for Receipt of Transition Revenues," Public Utility Commission of **Ohio**, Case No. 99-1729-EL-ETP; "In the Matter of the Application of Ohio Power Company for Approval of Electric Transition Plan and Application for Receipt of Transition Revenues," Public Utility Commission of **Ohio**, Case No. 99-1730-EL-ETP. Direct testimony prepared, but not submitted pursuant to settlement agreement effected May 2, 2000.

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

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

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

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

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

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

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

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

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

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

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

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

"In the Matter of the Petition of Sunnyside Cogeneration Associates for Enforcement of Contract Provisions," **Utah** Public Service Commission, Docket No. 96-2018-01; "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).

## **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 present.

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

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

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

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

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

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

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

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

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

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

Chairman, Salt Palace Renovation and Expansion Committee, Salt Lake County/State of Utah/Salt Lake City, multi-government entity responsible for implementation of planning,

design, finance, and construction of an \$85 million renovation of the Salt Palace Convention Center, Salt Lake City, Utah, May 1991 to December 1994.

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

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

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

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

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

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