

BOEHM, KURTZ & LOWRY

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

Via E-file

October 18, 2016

Public Utilities Commission of Ohio
PUCO Docketing
180 E. Broad Street, 10th Floor
Columbus, Ohio 43215

**In re: Case No. 10-2929-EL-UNC
Case No. 11-346-EL-SSO
Case No. 11-348-EL-SSO
Case No. 11-349-EL-AAM
Case No. 11-350-EL-AAM
Case No. 14-1186-EL-RDR**

Dear Sir/Madam:

Please find attached the DIRECT TESTIMONY AND EXHIBITS OF LANE KOLLEN on behalf of the OHIO ENERGY GROUP and the OFFICE OF THE OHIO CONSUMERS' COUNSEL for filing in the above-referenced matters.

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

Respectfully yours,



Michael L. Kurtz, Esq.

Kurt J. Boehm, Esq.

Jody Kyler Cohn, Esq.

BOEHM, KURTZ & LOWRY



Maureen R. Willis, Esq.

William J. Michael, Esq.

OFFICE OF THE OHIO CONSUMERS' COUNSEL

MLKkew

Encl.

Cc: Certificate of Service

**BEFORE THE
PUBLIC UTILITIES COMMISSION OF OHIO**

| | | |
|---|---|--------------------------------|
| In the Matter of the Commission |) | |
| Review of Capacity Charges of Ohio |) | Case No. 10-2929-EL-UNC |
| Power Company and Columbus |) | |
| Southern Power Company |) | |

| | | |
|--|---|-------------------------------|
| In the Matter of the Application of |) | |
| Columbus Southern Power Company |) | |
| and Ohio Power Company for |) | Case No. 11-346-EL-SSO |
| Authority to Establish a Standard |) | Case No. 11-348-EL-SSO |
| Service Offer Pursuant to Section |) | |
| 4928.143, Revised Code, in the Form |) | |
| of an Electric Security Plan |) | |

| | | |
|--|---|-------------------------------|
| In the Matter of the Application of |) | |
| Columbus Southern Power Company |) | Case No. 11-349-EL-AAM |
| and Ohio Power Company for |) | Case No. 11-350-EL-AAM |
| Approval of Certain Accounting |) | |
| Authority |) | |

| | | |
|--|---|--------------------------------|
| In the Matter of the Application of |) | |
| Ohio Power Company to Adopt a |) | Case No. 14-1186-EL-RDR |
| Final Implementation Plan for the |) | |
| Retail Stability Rider |) | |

DIRECT TESTIMONY

AND EXHIBITS

OF

LANE KOLLEN

**ON BEHALF OF
THE OHIO ENERGY GROUP AND
THE OFFICE OF THE OHIO CONSUMERS' COUNSEL**

**J. KENNEDY AND ASSOCIATES, INC.
ROSWELL, GEORGIA**

October 18, 2016

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In the Matter of the Commission)
Review of Capacity Charges of Ohio) **Case No. 10-2929-EL-UNC**
Power Company and Columbus)
Southern Power Company)

**In the Matter of the Application of)
Columbus Southern Power Company) Case No. 11-349-EL-AAM
and Ohio Power Company for) Case No. 11-350-EL-AAM
Approval of Certain Accounting)
Authority)**

DIRECT TESTIMONY OF LANE KOLLEN

1

2

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

5 **A.** My name is Lane Kollen. My business address is J. Kennedy and Associates, Inc.
6 ("Kennedy and Associates"), 570 Colonial Park Drive, Suite 305, Roswell,
7 Georgia 30075.

1 **Q. Please state your occupation and employer.**

2 A. I am a utility rate and planning consultant holding the position of Vice President
3 and Principal with the firm of Kennedy and Associates.

4
5 **Q. Please describe your education and professional experience.**

6 A. I earned a Bachelor of Business Administration in Accounting degree and a
7 Master of Business Administration degree from the University of Toledo. I also
8 earned a Master of Arts degree from Luther Rice University. I am a Certified
9 Public Accountant, with an Ohio practice license, a Certified Management
10 Accountant, and a Chartered Global Management Accountant. In addition, I am a
11 member of several professional organizations.

12 I have been an active participant in the utility industry for more than thirty
13 years, as a consultant in the industry since 1983 and as an employee of The
14 Toledo Edison Company from 1976 to 1983. I have testified as an expert witness
15 on planning, ratemaking, accounting, finance, and tax issues in proceedings
16 before regulatory commissions and courts at the federal and state levels on more
17 than two hundred occasions, including several proceedings involving Ohio Power
18 Company ("AEP Ohio" or the "Company") before the Public Utilities
19 Commission of Ohio ("Commission").¹

¹ My qualifications and regulatory appearances are further detailed in my Exhibit____(LK-1).

1 **Q. On whose behalf are you testifying?**

2 A. I am testifying on behalf of The Ohio Energy Group (“OEG”), a group of large
3 industrial customers served by AEP Ohio, and the Office of the Ohio Consumers’
4 Counsel (“OCC”). The members of OEG who take service from the Company
5 are: AK Steel Corporation, Alcoa Inc., Amsted Rail Company, Inc., Ford Motor
6 Company, GE Aviation, Linde, Inc., Grief, Inc., POET Biorefining, Praxair Inc.,
7 TimkenSteel Corporation and Worthington Industries.

8 **B. Purpose of Testimony**

9
10 **Q. What is the purpose of your testimony?**

11 A. The purpose of my testimony is to address the Ohio Supreme Court’s (“Court”)
12 remand orders and to respond to the Company’s testimony and proposals
13 addressing the remand directives.² More specifically, I respond to the Court’s
14 directive to “substantively address” the inputs used to calculate the energy credit
15 in the calculation of the \$188.88/MW-day capacity cost in Case No. 10-2929-EL-
16 UNC (“Capacity Charge Case”). I also address the Company’s proposal to
17 change the methodology for: 1) projecting market revenues from a fundamentals
18 forecast to the use of financial futures; and 2) for projecting fuel and production
19 costs from a fundamental analysis to the use of 2011 average fuel costs. Such
20 changes would increase the capacity cost from \$188.88/MW-day to \$288.83/MW-

² 2016-Ohio-1607 and 2016-Ohio-1608.

1 day and retroactively increase the Retail Stability Rider (“RSR”) deferral balance
2 by \$468.891 million, plus another \$26.317 million in carrying charges.

3 In addition, I respond to the Court’s directive to quantify the reduction in
4 RSR deferrals, including the related carrying costs, that are due to customers as
5 the result of the Court’s determination that the additional RSR revenues
6 authorized in Case No. Case No. 11-346-EL-SSO (“ESP II Case”) were unlawful.

7 Further, I address the termination of the RSR and the refunds that are
8 required based on the Court’s decisions.

9 Finally, I respond to the Court’s remand directing the Commission to
10 explain its decision to impose a 12.0% earnings threshold for the annual
11 significantly excessive earnings test (“SEET”) set forth in R.C. 4928.143(F).

12 **C. Summary of Relevant Cases and Ohio Supreme Court Remand Directives**

13
14 **Q. Please describe the cases that are relevant to the determination of the**
15 **capacity cost calculation and the RSR deferrals and revenues.**

16 A. There are two cases that are relevant to these issues. The first is the Capacity
17 Charge Case and the second is the ESP II Case. In the Capacity Charge Case, the
18 Commission adopted a cost-based State Compensation Mechanism (“SCM”) and
19 set a capacity cost of \$188.88/MW-day. The Commission calculated the
20 \$188.88/MW-day using actual historical fixed costs offset by an energy credit
21 based on projected market revenues net of projected variable generating expenses.
22 The Commission authorized the Company to defer the difference between its

1 actual capacity cost of \$188.88/MW-day and the capacity price set by PJM's
2 Reliability Pricing Model ("RPM"), the amount it was authorized to collect from
3 CRES providers. In the ESP II Case, the Commission authorized the Company to
4 collect additional RSR revenues (referred to by the Court as "non-deferral RSR
5 revenues") and authorized the Company to begin recovering a portion of the
6 capacity charge deferrals during the ESP II term.

7 In the Capacity Charge Case and on appeal to the Court, AEP Ohio
8 disagreed with certain input assumptions that were used by the PUCO Staff – and
9 effectively adopted by the Commission - to calculate the projected market
10 revenues and projected variable generating expenses used to develop the energy
11 credit. On appeal, the Court did not rule on the validity of the Company's
12 arguments regarding the specific input assumptions. Rather, it remanded the case,
13 directing the Commission to substantively address the Company's arguments.
14 The relevant portions are as follows.

15 {¶ 55} We find that the commission erred in two respects. First, the
16 commission's order contains no record citations relevant to the pertinent
17 issue, despite a claim that it reviewed all of the testimony. The
18 commission did cite evidence on rehearing, but only for the purpose of
19 showing that the staff's witnesses "sufficiently described [EVA's]
20 methodology," and not for the purpose of directly addressing or refuting
21 AEP's challenges to the inputs. Id. at 35.

22
23 {¶ 56} Second, the commission's analysis completely misses the mark.
24 The dispute here is not one involving competing methodologies, as the
25 commission found. Rather, the dispute is over how the staff and EVA
26 applied their preferred methodology to calculate the energy credit. And
27 because AEP's objection here was to the inputs and not the choice of
28 methodologies, the commission's reference to the fact that "Staff argues
29 the Company's energy credit is far too low," Capacity Order at 36, is not
30 helpful. While the staff did indeed argue against AEP's proposed energy
31 credit, AEP was not asking the commission to pick its preferred energy

1 credit over the staff's in the context of this argument. Rather, AEP was
2 challenging the accuracy of the staff's calculation of the energy credit by
3 arguing that it was overstated as a result of faulty inputs. Even the
4 commission, arguing in defense of the order, seems to concede that the
5 order falls short, when it uses 11 pages of its third merit brief to
6 "individually address each of [AEP's] claims."
7

8 {¶ 57} In sum, the commission's error is clear and prejudicial (if the
9 energy credit is overstated, it results in an understated capacity charge).
10 Accordingly, we reverse this part of the order and direct the commission
11 on remand to substantively address AEP's input arguments.

12 In the appeal of ESP II, the Court found that the additional "non-deferral
13 RSR revenues" were unlawful "transition revenues." The Court directed the
14 Commission to quantify the non-deferral RSR revenues and then to reduce the
15 RSR deferral balance by that unlawful amount as follows.

16 {¶ 40} Because AEP is entitled to recover only its actual capacity costs,
17 we order the commission to adjust the balance of its deferred capacity
18 costs to eliminate the overcompensation of capacity revenue recovered
19 through the nondeferral part of the RSR during the ESP. However,
20 because of the method employed by the commission to calculate the RSR,
21 we are unable to determine exactly how much of the revenue recovered
22 through the nondeferral part of the RSR is allocable to CRES capacity
23 revenues. We therefore remand this matter to the commission to
24 determine that amount and offset the balance of deferred capacity costs by
25 the amount determined.
26

27 In the appeal of ESP II, the Court also found that the Commission failed to
28 explain its decision to impose a SEET threshold of 12.0% and that it did not
29 respond to the Company's claims that this threshold of 12.0% departed from the
30 statutory process for determining the SEET threshold.

1 **D. Summary of Testimony**

2

3 **Q. Please summarize your testimony.**

4 A. I recommend that the Commission reject the Company's proposal to retroactively
5 increase the State Compensation Mechanism.

6 I recommend that the Commission substantively address the inputs to the
7 energy credit as directed in the remand, and affirm the inputs based on the record
8 and other data publicly available at the time the Commission made its decision.

9 I recommend that the Commission reject the Company's attempt to
10 expand the scope of the remand by changing: 1) the methodology for the
11 projected market prices by using forward prices in lieu of the fundamentals
12 approach adopted by the Commission; and 2) the methodology for projecting fuel
13 and production costs from a fundamental analysis to the use of 2011 average
14 production costs.

15 I recommend that the Commission find that \$351.638 million is the
16 required reduction in the RSR deferrals consisting of the reduction for unlawful
17 rates of \$326.940 million and the related carrying charges of \$24.698 million.

18 I recommend that the Commission direct the Company to immediately
19 terminate the RSR charges and refund all excessive collections since the first
20 billing cycle in June 2016 plus carrying costs through the date of final refund and
21 true-up. The RSR deferrals were fully recovered by the end of last year or in
22 January of this year, assuming that there is no retroactive increase in the State

1 Compensation Mechanism. The corrected RSR deferrals are \$105.424 million as
2 of May 31, 2015.

3 Finally, I recommend that the Commission explain and affirm the concept
4 of a SEET threshold in response to the Court's remand. If the Commission adopts
5 the Company's proposal in this remand proceeding to increase the capacity cost
6 and increase the RSR, it will result in after-tax returns on equity of 15.41% in
7 2014 and 12.22% in 2015.

8
9 **II. THE COMMISSION SHOULD REJECT THE COMPANY'S**
10 **PROPOSAL TO RETROACTIVELY INCREASE THE STATE**
11 **COMPENSATION MECHANISM**

12 **A. The Company's Proposal Constitutes Impermissible Retroactive Ratemaking**

13
14 **Q. Does the Company's proposal to increase the State Compensation**
15 **Mechanism constitute impermissible retroactive ratemaking?**

16 **A.** Yes. Regardless of the merits of the inputs, the Company's proposal to increase
17 the capacity cost for a prior period constitutes impermissible retroactive
18 ratemaking. In my experience, both state and federal ratemaking is prospective
19 and the lawful rate can only be changed prospectively. The SCM is authorized
20 under federal law and was approved under state law. The RSR was approved
21 under state law. The lawful capacity rate in effect from August 2012 through
22 May 2015 was \$188.88/MW-day and cannot now be changed for that prior

1 period. Nowhere in its Order did the Court authorize the Commission to
2 retroactively change the SCM.

3
4 **Q. Has the prohibition against retroactive ratemaking recently been applied in**
5 **favor of the Company?**

6 A. Yes. Because of the prohibition against retroactive ratemaking, AEP Ohio's
7 customers have repeatedly been forced to absorb substantial costs that were later
8 found to be unlawful by the Court. The prohibition against retroactive ratemaking
9 precluded a refund of \$63 million to customers stemming from AEP Ohio's first
10 ESP case.³ And the prohibition against retroactive ratemaking foreclosed
11 customers from receiving a refund of \$368 million in unsubstantiated provider-of-
12 last-resort charges collected by the Company.⁴ In my opinion, the law should be
13 applied consistently. Because the prohibition against retroactive ratemaking has
14 been used to deny customers refunds of \$63 million and \$368 million, that same
15 doctrine should be applied to deny the utility a retroactive rate increase of
16 \$468.891 million (plus \$26.317 million in interest).

³ In re: Application of Columbus S. Power Co., 128 Ohio St. 3d 512 (2011).

⁴ In re: Application of Columbus S. Power Co., 138 Ohio St. 3d 448 (2014).

1 **B. The Company's Proposal Extends Well Beyond The Court's Remand**
2 **Directive To Substantively Address the Inputs to the Energy Credit**

3
4 **Q. Did the remand vacate or direct the Commission to recalculate the capacity**
5 **cost or change the methodology used for the projected market prices,**
6 **revenues, or generating expenses?**

7 A. No. The remand only directed the Commission to substantively address the
8 Company's arguments regarding the inputs into the calculation of the energy
9 credit portion of the SCM. The remand did not direct the Commission to change
10 any of the inputs, change any methodology, recalculate the capacity cost, or
11 retroactively change the rate or the RSR deferrals.

12
13 **Q. If the Commission goes beyond the scope of the Court's remand and**
14 **recalculates the capacity cost, is there any requirement that it be**
15 **retroactively adopted as the capacity *rate* in lieu of the \$188.88/MW-day *rate***
16 **that was in effect from August 2012 through May 2015?**

17 A. No. The Commission should view the \$188.88/MW-day as the only lawful
18 capacity charge in the prior period, not the starting point for proposed increases.

1 **C. The Company’s Proposed Change in Methodology for: 1) Projecting Market**
2 **Revenues From A Fundamentals Forecast To The Use Of Financial Futures;**
3 **and 2) For Projecting Fuel And Production Costs From A Fundamental**
4 **Analysis To The Use Of 2011 Average Production Costs, Goes Beyond the**
5 **Scope of the Court’s Remand Directive.**

6
7 **Q. Did the Commission adopt the Staff’s methodology for projecting the market**
8 **revenues used in the energy credit?**

9 A. Yes. The Commission found the Company and Staff “offered two quite different
10 approaches in their attempt to forecast market prices for energy” and stated the
11 following.

12 Upon review of all of the testimony, the Commission finds that it is clear
13 that the dispute between AEP-Ohio and Staff amounts to a fundamental
14 difference in methodology in everything from the calculation of gross
15 energy margins to accounting for operation of the pool agreement. AEP-
16 Ohio claims that Staffs inputs to the AURORAxmp model result in an
17 overstated energy credit, while Staff argues that the Company's energy
18 credit is far too low. Essentially, AEP-Ohio and Staff have simply offered
19 two quite different approaches in their attempt to forecast market prices
20 for energy. The Commission concludes that AEP-Ohio has not shown that
21 the process used by Staff was erroneous or unreasonable. We further find
22 that the approach put forth by EVA is a proper means of determining the
23 energy credit and produces an energy credit that will ensure that AEP-
24 Ohio does not over recover its capacity costs.⁵
25

26 **Q. Did the Court remand for reconsideration the methodology used by the Staff**
27 **and adopted by the Commission?**

28 A. No. The Court clearly limited the remand directive to substantively address the
29 inputs, stating that the Company agreed that the methodology was not at issue.
30

⁵ *Id.*, 36.

1 **Q. What were the most important differences between the Staff’s methodology**
2 **versus the Company’s methodology for projecting market prices and**
3 **production costs?**

4 **A.** There were two important differences. First, EVA developed its fuel costs and
5 production costs results based on fundamental analyses. EVA developed its
6 production cost results using the AURORAxmp simulation methodology. In
7 contrast, the Company’s relied on 2011 average fuel production costs (in
8 \$/MWH) for its coal units and failed to re-dispatch the units based on its
9 alternative assumptions. For coal units that operated, it derived the operating cost
10 of the units by simply multiplying the same generation results that EVA produced
11 by its 2011 average fuel production costs. In other words, over the entire 2012 to
12 2015 period, the Company used historical data without relying on changes in fuel
13 costs that would be expected to occur over the projected period or changes in the
14 dispatch of the units and the market prices that would be expected to occur.

15 Second, unlike the Staff, which developed market prices using the
16 AURORAxmp dynamic simulation, the Company used a static projection of
17 forward market prices. The Company’s use of financial futures to project market
18 prices is much different than EVA’s use of a fundamentals analysis.

19 The Company seeks to change the methodology for projecting market
20 prices and the methodology for projecting fuel and production costs. The
21 Company’s proposed changes in methodology would create a complete mismatch
22 between the inputs and assumptions for market revenues and the energy costs
23 ostensibly incurred to supply energy to generate those market revenues.

1 This fundamental re-litigation of the State Compensation Mechanism is
2 not what the Court ordered.

3
4 **Q. Please describe the Staff’s methodology to project the market revenues used**
5 **in the energy credit.**

6 A. The Staff retained Energy Ventures Analysis, Inc. (“EVA”) to assist in the
7 projection of market revenues and the variable production costs (“energy costs”)
8 of AEP’s generating units. Mr. Ryan T. Harter, an energy analyst with EVA,
9 provided Direct Testimony in the Capacity Charge case. He described EVA’s use
10 of AURORAxmp, a model used to simulate the entire Eastern Interconnect, to
11 forecast market prices using a fundamental analysis approach. AURORAxmp is
12 widely used throughout the utility industry. In addition, Ms. Emily Medine
13 provided Direct Testimony regarding the inputs and results of AURORAxmp and
14 the projected market revenues and energy costs developed using that
15 methodology.

16 Mr. Harter testified that AURORAxmp “simulates a power market by
17 sorting all available generation assets by marginal cost and dispatching the most
18 economic assets until the zonal load is met.” He explained that to “feed this
19 model, EVA maintains a proprietary set of high granularity forecasts for its
20 FUELCAST clients. FUELCAST includes delivered fuel prices by generating

1 unit, a complete regulatory outlook, a specialized load forecast, and several other
2 key market insights.”⁶
3

4 **Q. Do you agree with the Commission that the Staff’s modeling approach was a**
5 **reasonable methodology to quantify the energy credit?**

6 A. Yes. The Staff’s modeling dynamically simulated the hourly operation of all of
7 the loads and resources in PJM to derive the projected market prices used in the
8 energy credit determination. AURORAxmp and other hourly models are industry
9 standard tools that simulate the operation of the PJM and other markets as well as
10 the operation and economic dispatch of generating units as load varies over the
11 course of the day and over the week. Operating constraints are typically
12 incorporated, including must run requirements, start-up costs, operating reserves,
13 ramp rates, etc. A simulation tool such as AURORAxmp is dynamic in that it
14 allows resources throughout the entire PJM System to satisfy load requirements
15 economically subject to transmission constraints. A transmission constrained
16 economic dispatch means that if a cheaper resource exists on the eastern side of
17 the system, for example, and no operating or transmission constraints exist
18 between this resource and load on the western side of the system, then the eastern
19 resource would dispatch incrementally before resources on the western side of the
20 system.
21

⁶ Harter Direct Testimony at 6-7.

1 **Q. Please describe the Company’s methodology to project the market revenues**
2 **used in the energy credit.**

3 A. The Company opposed any energy credit in the calculation of the capacity cost.
4 Nevertheless, if the Commission did apply an energy credit, then the Company
5 argued that the Commission should ignore Staff’s dynamic fundamental modeling
6 methodology and instead rely on the Company’s static approach using forward
7 prices.

8
9 **Q. In what way was the Company’s modeling approach static?**

10 A. The Company developed a different set of market price, fuel, and heat rate inputs
11 and assumptions, yet it performed no dispatch, hourly or otherwise, to determine
12 the incremental operation of its generating units. It failed to consider all real-
13 world factors that affect unit dispatch on a dynamic and comprehensive basis,
14 such as market clearing prices, other variable costs, or the incremental costs of
15 other units. Instead of a dynamic dispatch, the Company performed a single test
16 that led to AEP’s coal units either operating exactly as Staff’s AURORAxmp
17 model determined or being turned off completely.

18
19 **Q. Does such a static approach result in realistic results?**

20 A. No. It is unrealistic to assume that the Company’s proposed changes in market
21 prices, fuel costs, and heat rates would not result in changes in dispatch and
22 generation compared to the changes that would have occurred if these changes in
23 input had been reflected in a dynamic simulation. In fact, this static approach

1 resulted in unusual results, including the shutdown of some units over the entirety
2 of the study period from June 2012 to May 2015, which makes little sense.

3
4 **Q. Why was the Commission's reliance on EVA's projected fuel costs**
5 **reasonable?**

6 A. EVA based its fuel cost assumptions on a fundamental analysis using projected
7 data drawn from its FUELCAST and COALCAST services. Ms. Medine
8 explained during the hearing on May 9, 2012 that FUELCAST is a multi-client
9 subscriber service that has been in existence for about 20 years, and provides
10 information to clients concerning electricity, coal, natural gas, oil, and emissions.
11 She also explained that COALCAST is a subscriber service provided to EVA's
12 coal clients.⁷ It appears from a review of the EVA website that it has actually
13 been publishing coal forecasts for as long as 30 years.⁸ Furthermore, EVA
14 explains that a key attribute of both its COALCAST and FUELCAST Reports is
15 "that it represents an integrated review of the fossil fuels and the competition
16 among them in the energy markets."⁹ It seems reasonable that when the
17 Commission issued its decision in this case in July 2012 that it considered EVA to
18 be well respected in the industry, determined that the EVA fundamental fuel
19 forecasts were reasonable for use in the AURORAxmp simulation to develop the
20 energy credit, and that it was critical to match projected market prices with

⁷ See May 9, 2012 Hearing Transcript Volume X at 2156.

⁸ FUELCAST: <http://evainc.com/publications/fuelcast/>;

COALCAST: <http://evainc.com/publications/coal-reports/coalcast/>

⁹ *Id.*

1 projected fuel costs, both developed using fundamental analyses and forecast for
2 the same time period that the SCM would be in effect.

3
4 **Q. Mr. Allen criticizes EVA's coal cost forecast as too low, most notably for the**
5 **Gavin units. Is there other evidence that the Staff's coal cost forecasts were**
6 **reasonable?**

7 A. Yes, besides the fact that the Company did not calculate the energy credit based
8 on a fundamentals forecast while EVA did, a review of historical data prior to
9 2012 confirms that the fundamentals forecast was reasonable. A review of the
10 Gavin fuel costs over the ten year period prior to the start of the ESP II term
11 indicates that the Gavin fuel costs averaged \$14.60/MWH,¹⁰ which is within the
12 fundamentals forecast (\$13/MWH to \$15/MWH) that EVA used for Gavin.¹¹
13 Although I do not suggest that the Commission should have relied on this historic
14 data to develop the energy credit in lieu of the EVA fundamentals forecast, the
15 historic fuel costs provide additional evidence that the EVA forecast was
16 reasonable.

¹⁰ I have attached ten years of historical Gavin fuel costs obtained from SNL Energy Service pursuant to an OEG subscription as my Exhibit___(LK-2). SNL Energy compiles this data from public filings, including FERC Form 1s. I averaged the amounts reported on the line "Fuel (\$/MWH)" under the Reported Plant Performance Costs heading for the 10-year period between 2002 and 2011.

¹¹ William Allen Rebuttal Testimony, May 11, 2012, Case No. 10-2929-EL-UNC *et al* at 5, line 1.

1 **Q.** In his October 4, 2016 Direct Testimony, Mr. Allen concluded that on the
2 basis of actual fuel costs results, *which were not available when the*
3 *Commission made its decision to rely on the EVA approach*, his 2011 historical
4 fuel costs “were a more appropriate input to use in the analysis of an energy
5 credit than Ms. Medine’s fuel costs.”¹² Do you agree with Mr. Allen?

6 **A.** No. Such an after the fact comparison is improper and irrelevant because it relies
7 on hindsight using information that was not available to the Commission when it
8 developed the energy credit using projected market prices, projected fuel costs,
9 and projected heat rates.

10 It is unlikely that any forecast will be 100% accurate when compared to
11 actual results. However, forecasts must be used when projections are required
12 and actual results are not available. The fact that Staff’s coal forecast did not
13 match Mr. Allen’s 2011 actual data does not mean that the forecast was not
14 reasonable at the time and that the Commission should alter its earlier decision
15 and now accept the Company’s forecast. If the Commission were to do that, then
16 it would be setting a bad precedent and inviting endless litigation. Indeed, any
17 decision made on the basis of a forecast would likely be appealed once actual data
18 becomes available because of the inherent inaccuracy of forecasts.

19
20 **Q.** Has the Commission previously found projections of market prices using a
21 fundamental analysis to be reasonable?

¹² William Allen Direct Testimony, October 4, 2016, Case No. 10-2929-EL-UNC *et al* at 15, line 4.

1 A. Yes. In Case Nos. 14-1693-EL-RDR and 14-1694-EL-AAM, the Commission
2 adopted the Company's projections of market prices developed using fundamental
3 analysis and rejected alternative projections presented by other parties that relied
4 on forwards prices in order to quantify the projected benefits of the Company's
5 proposed purchased power agreement ("PPA") Rider. The Commission favorably
6 cited the Company's arguments in support of the use of fundamental analysis and
7 the rejection of forwards prices in its Order as follows.

8
9 AEP Ohio also points out that the use of forwards prices by OCC and
10 other intervenors to project the PPA rider's impact is flawed in a number
11 of ways. In particular, AEP Ohio argues that forwards prices are not a
12 forecast of future spot market prices and do not have any connection to
13 what future spot market prices might actually be; the market for electric
14 energy forwards is illiquid, except in the short term, and, therefore, cannot
15 provide a sound basis for a long-term forecast; forwards prices do not
16 account for long-term factors such as the impact of the CPP on energy
17 prices in the future; and forwards prices are not available for the latter part
18 of the PPA term. In response to criticism that AEP Ohio used outdated
19 data for its own PPA rider projections, the Company emphasizes that,
20 contrary to certain parties' claims, the 2015 fundamentals forecast was not
21 finalized, released, and available for use when the amended application
22 was filed and that it was, therefore, reasonable for the Company to
23 proceed with the amended application based on the 2013 fundamentals
24 forecast, which Company witness Bletzacker testified is within a band of
25 credibility. Further, AEP Ohio asserts that the load projections used in the
26 2013 fundamentals forecast are reliable and properly account for factors
27 like the CPP and energy efficiency measures, contrary to arguments raised
28 by certain intervenors. (Co. Reply Br. at 65-72.)¹³
29

¹³ Opinion and Order in Case Nos. 14-1693-EL-RDR and 14-1694-EL-AAM, at 55.

1 In its decision to approve the PPA rider, the Commission provided a
2 detailed explanation for its decision to use the Company's fundamental analysis
3 and reject the forwards prices approach proposed by other parties as follows.

4 The Commission finds, however, that OCC's PPA rider projection is
5 fundamentally flawed for a number of reasons. OCC witness Wilson's
6 projection, which is derived from AEP Ohio's five percent lower load
7 case, uses Company witness Pearce's analysis in terms of the expected
8 costs of the PPA units, but incorporates forwards electric energy prices in
9 place of the Company's hourly energy prices, thus modifying the projected
10 revenues. Mr. Wilson's criticism of Dr. Pearce's analysis, therefore, is
11 essentially based on his belief that forwards contracts are a preferable
12 means of estimating future energy prices. Forwards prices, however, are
13 not a forecast of future spot market prices and they should not be relied
14 upon as a basis for long-term forecasts of energy prices. Further, unlike
15 AEP Ohio's fundamentals forecast, the futures prices used by Mr. Wilson
16 do not account for factors such as the impact of future carbon emission
17 regulations, which is another reason that they are not an accurate predictor
18 of future energy prices. Finally, there is a lack of futures market liquidity,
19 other than in the immediate near term, as the record clearly reflects. Over
20 the roughly eight-year term of the PPA, there are simply too few forwards
21 contracts that can be used to form a reliable projection of the PPA rider's
22 impact. As AEP Ohio emphasizes, Mr. Wilson appears to acknowledge
23 this fact. For months beyond October 2020, for which there were no AEP-
24 Dayton Hub Day Ahead forwards prices, Mr. Wilson used the monthly
25 forwards prices for the period of November 2019 through October 2020 as
26 proxies for the period of November 2020 through December 2024. We do
27 not find it reasonable to rely on an analysis that merely recycles the
28 monthly futures prices for November 2019 through October 2020 across
29 the final four years, approximately, of the PPA.

30 ***

31 Accordingly, based upon the evidence in the record, the Commission finds
32 that AEP Ohio's PPA rider analysis is reliable and should be used to
33 determine an estimate of the rider's net impact. In particular, we find that
34 AEP Ohio's weather normalized case, which was used by the signatory
35 parties as the basis for recommending the PPA rider's annualized initial \$4
36 million credit for 2016, is a reasonable and conservative projection. We,
37 therefore, conclude that the PPA rider is reasonably estimated to provide a
38 net credit of \$37 million over the current ESP term, or \$214 million over

1 the PPA rider term, for AEP Ohio's ratepayers (Co. Ex. 52 at Ex. WAA-
2 2).¹⁴

3
4 **Q. Did the Commission also adopt the fundamental analysis developed by**
5 **FirstEnergy in support of its proposed Economic Stability Program (“ESP”)**
6 **rider?**

7 A. Yes. In Case No. 14-1297, the Commission adopted FirstEnergy’s fundamental
8 analysis for the purpose of quantifying the projected benefits to customers from
9 the ESP. In its Order, the Commission described the Company’s projection of
10 market prices using fundamental analysis and why it adopted the Company’s
11 projections and quantifications as follows:

12 The Companies then compared these confirmed costs with the projected
13 revenues based on the energy, capacity, and carbon price forecasts of
14 FirstEnergy witness Rose. (Co. Ex. 33 at 4-5; Tr. Vol. XIII at 2761-68,
15 2787-89, 2885-89.) FirstEnergy contends that the forecasts and cost data
16 were reasonable to rely upon, and the amount by which projected market
17 prices consistently exceeded projected variable costs enabled the EDU
18 Team to independently corroborate the revenue projections FES provided
19 to the Companies (Tr. Vol. XIII at 2773- 2774).¹⁵

20 ***

21 FirstEnergy argues that its forecasts remain reliable, despite short-term
22 changes in the energy and capacity markets.¹⁶

23 ***

24 FirstEnergy argues that market fundamentals also demonstrate the
25 reliability of FirstEnergy witness Rose's projections, noting that the
26 modeling utilized by FirstEnergy witness Rose also evaluated key supply
27 and demand parameters, including the decrease in recent drilling activities
28 for natural gas (Co. Ex. 151 at 31-42). As such, FirstEnergy alleges the

¹⁴ *Id.*, 79-80.

¹⁵ Opinion and Order in Case No. 14-1297-EL-SSO, at 49-50.

¹⁶ *Id.*, 50.

1 intervenors were very short-sighted in their contention.¹⁷

2 ***

3 In fact, FirstEnergy alleges that the intervenors' various arguments
4 regarding the analyses utilized by FirstEnergy witnesses Rose and
5 Lisowski only demonstrates their lack of understanding of the
6 methodology and industry practices used in such analyses.¹⁸

7 ***

8 We note at the outset that projections and forecasts are predictions. They
9 are predictions of future conditions and are based upon what is happening
10 now and multiple additional assumptions. Considering the nature of the
11 proposed Rider RRS as a potential hedge or insurance on electricity rates,
12 in making its determination the Commission must choose from the most
13 reliable of these projections and forecasts to make a determination of
14 whether the Stipulations, as a package, benefit ratepayers.¹⁹

15 ***

16 In fact, the EIA uses ICF public projections of energy prices, as well as
17 projections by other notable firms such as Energy Ventures Analysis
18 benchmarks for comparisons of EIA projections (Co. Ex. 60 at CP-6
19 through 7, Table CP4, CP-9 through 10, Table CP-5).²⁰

20 ***

21 Despite the various criticisms of the projections prepared by FirstEnergy
22 witness Rose and the modeling prepared by FirstEnergy witness Lisowski,
23 we are not persuaded by arguments against giving weight to the
24 projections and models. Although we are mindful of the fact that
25 FirstEnergy has the burden of proof in this proceeding, no other party has
26 presented a full projection of energy prices and the net revenues under
27 Rider RRS. Even OCC witness Wilson derives much of his projection
28 from the numbers prepared by Mr. Rose and Mr. Lisowski. Further, Mr.
29 Rose observes that one of the EIA cases used by Mr. Wilson, the
30 Reference case, projects natural gas prices which are comparable to, but
31 slightly lower than, the natural gas prices projected by Mr. Rose (Co. Ex.
32 151 at 41-42).²¹

33 ***

34 Accordingly, based upon the evidence in the record, the Commission finds
35 that this projection by FirstEnergy witness Rose (Rose projection) is
36

¹⁷ *Id.*

¹⁸ *Id.*, 51.

¹⁹ *Id.*, 80.

²⁰ *Id.*

²¹ *Id.*, 81.

1 reliable, and we will include the Rose projection in our determination of
2 an estimate of the net revenues under Rider RRS.²²
3

4 **Q. Why are the Commission's Orders in these other Company and FirstEnergy**
5 **proceedings relevant in this proceeding?**

6 A. They are relevant because the Commission strongly endorsed the projections of
7 market prices based on the fundamental analyses prepared by the Company and
8 FirstEnergy, finding the fundamental analyses superior to forward prices. In this
9 case, the Company asserts that forward prices are superior to fundamental
10 analysis, an obvious contradiction to its position in the PPA rider proceedings and
11 an obvious contradiction to the Commission's prior Orders on this very issue.

12 **D. The Record Supports the Inputs Relied on by the Commission**

13
14 **Q. Have you identified record evidence that was available to the Commission in**
15 **support of the contested issues that it can cite in response to the remand?**

16 A. Yes. In addition to the record evidence cited by Mr. Allen in his Direct
17 Testimony in this remand proceeding and the prefiled testimony of the Staff
18 witnesses, I reviewed the transcripts of the live testimony of Ms. Medine during
19 cross-examination by the Company in the Capacity Charge Case. I have
20 identified excerpts from this live testimony that provide record evidence that
21 substantiates the PUCO's findings. The evidence supports Staff's selection of

²² *Id.*, 81-82.

1 various inputs and assumptions used in the AURORAxmp simulation of market
2 prices and fuel costs, including heat rates, fuel costs, dispatch, and the calculation
3 of off-system sales margins from shopping and non-shopping customers.²³
4

5 **Q. In the Capacity Charge Case, Ms. Medine testified at hearing regarding the**
6 **reasonableness of EVA's inputs used in AURORAxmp to calculate the**
7 **energy costs used in the energy credit, including fuel costs, heat rates, and**
8 **allocation of off-system sales. Have you identified the portions of the**
9 **transcript that respond to AEP's complaints regarding market prices and**
10 **fuel costs?**

11 A. Yes. In response to questions regarding calibration and benchmarking, Ms.
12 Medine testified that AURORAxmp incorporated data used for other studies and
13 was refined and run many times prior to running it for the purpose of projecting
14 market prices and revenues and energy costs, including fuel costs, in this case.
15 Ms. Medine testified that the model was maintained in a "hot," or continuously
16 ready state, with the latest inputs and assumptions so as not to bias any particular
17 study through selective changes in the data.²⁴

18 Ms. Medine testified that the market prices resulting from the fundamental
19 analysis were compared to other projections of market prices and that the
20 AURORAxmp simulation produced a "justifiable LMP." Ms. Medine explained

²³ I have replicated these excerpts and attached them as my Exhibit____(LK-3).

²⁴ See May 9, 2012 Hearing Transcript Volume X at 2163-2164.

1 in detail why the AURORAxmp fundamental analysis produced a better
2 projection of market prices than forward prices.²⁵

3 Ms. Medine agreed that the inputs and assumptions affect market prices,
4 energy costs, and margins. She testified that “you can change some factors that
5 would make the number higher, some factors that would make the number lower.
6 That was what came out of the model realm with the set of assumptions that were
7 in there.”²⁶

8 Ms. Medine repeatedly maintained that the heat rates used in
9 AURORAxmp were appropriate, as demonstrated in the following exchange with
10 the Company’s counsel.

11 A. . . . I basically said that what's presented here are the average annual
12 heat rates. And again, there's some discretion of how they're
13 calculated. The point on a dispatch is when you operate your plant,
14 what is your heat rate? And we don't have segment data that
15 specifically deals with that question. And so what we're saying is since
16 the purpose of the model is the dispatch, that's where it's critical to get
17 that proper number.

18 Q. I agree it's critical, but the ones you're using are optimal heat rates that
19 are simply not experienced in the real world, are they?

20 A. Again, as I said, I think that that's not the case. I think that when the
21 plants are operating full out, the heat rates are closest to the optimal
22 numbers. And remember, most of the generation from AEP Ohio is
23 coming from the large coal plants with high capacity factors.²⁷

24 ***

²⁵ *Id.*, 2165.

²⁶ *Id.*, 2170.

²⁷ *Id.*, 2240-2242.

1 Q. Okay, well, do you agree that a relatively small heat rate difference
2 can make a significant difference in the actual cost of the unit and
3 margins experience?

4 A. No.

5 Q. Why not?

6 A. Remember, everything is calculated using these heat rates. So the
7 MLR is calculated -- excuse me, the ML -- I get confused, LMP is
8 calculated using these heat rates so those numbers flow through the
9 entire model. So if you have a higher heat rate, you're going to have
10 higher costs and higher LMP. So if you were to change that, it doesn't
11 get just changed in isolation.

12 Q. Right. But if using inaccurate heat rate, it produces inaccurate results
13 of all those things, doesn't it?

14 A. Well, again, we don't think so. One thing we think the accuracy is
15 enhanced in terms of the dispatch. Secondly, as I was saying, that
16 number flows through the entire calculations. So if I were to just
17 change AEP's to average historical, or even worse, historical, whatever
18 number you would want, it would change -- it wouldn't be accurate
19 because the other systems aren't done in the same manner. So you
20 need to be consistent if you're going to calculate an LMP for the area.
21 So I hear what you're saying, I do think there's some --potentially some
22 issues, but I'm saying it's not the magnitude you're suggesting because
23 those heat rates flow through the entire calculation.²⁸

24 Finally, Ms. Medine addressed the Company's complaints regarding the
25 fuel cost at the Gavin, Kammer, and Conesville 4 plants in the following
26 exchange at hearing in the Capacity Charge Case.

27 Q. Yeah. Now, I want to -- I'll take a risk here, I'm going to ask you an
28 open-ended question. The Gavin unit shows the actual cost average of
29 \$20.34 and then your projection uses \$13.14. Big difference.

30
31 A. Right.

32
33 Q. Big unit runs a lot, right?

²⁸ *Id.*, 2243

1 A. (Witness nods head.)
2

3 Q. Can you explain that?
4

5 A. Sure. I can't explain everything because I don't know everything that
6 was part of this, but a large part of the differences are due to some
7 nonrecurring event and this is where I need to be a little careful since
8 they're not all public. But with my -- I can cite the redacted version but
9 basically there were additional payments made to a supplier in 2009
10 that some of which carried over to 2010 that were a one-time event.
11 But they were very significant. And beginning in 2010 there was a
12 very significant undershipment of coal which also would be a material
13 change in the fuel costs and those were -- I believe some of those
14 events carried over into 2011. But clearly at Kammer, as you may
15 remember, in second half of 2007/the first half of 2008, coal prices
16 tripled and some purchases were made for periods of one, two, three
17 years, at the very high prices that are now expired subsequent to this
18 period. So that's one of the reasons why the anomalous prices at
19 Gavin, Kammer. At Conesville 4 -- where to start. At Conesville 4
20 there's an -- I'm trying to be careful so if I stray, let me know. There's
21 some costs related to the preparation which was idled in January of
22 2012 that would have significantly affected the fuel costs at Conesville
23 certainly in 2011 and possibly back to 2010. In addition in 2010 there
24 was issues related to --
25

26 Q. I only asked you about Gavin. So I appreciate especially since you're --
27 as I understand your answer, all the information you gave was
28 confidential you obtained during the audit you're using that here to
29 explain your testimony?
30

31 A. No. So on the Conesville obviously public information --
32

33 Q. I just asked you about Gavin.
34

35 A. On Gavin I believe that the discussion is not redacted in the audit
36 report. What's redacted is the name of the supplier and the amount of
37 the payment.
38

39 Q. And you already gave your answer for Gavin.
40

41 A. Right.
42

43 Q. So is it your testimony then that you believe if those events were
44 normalized, you believe the \$13 rate for Gavin fuel cost is accurate
45 historically and going forward?

1 A. Well, it's certainly aggressive. So the -- but I think the presumption
2 was a softening coal market with a very attractive supply situation.²⁹
3

4 **Q. Mr. Allen cites forward prices that existed on April 12, 2012 for deliveries in**
5 **June through December 2012 and on the December 31 just prior to the**
6 **calendar years for deliveries in January 2013 through May 2015 as evidence**
7 **that the results of the AURORAxmp simulation fundamental analysis were**
8 **too low. Please respond.**

9 A. First and most importantly, after the fact comparisons of this nature, i.e.,
10 “Monday morning quarterbacking,” are irrelevant and should be ignored. None
11 of these forward prices were available at the time of the Commission’s decision,
12 except for the April 12, 2012 forward prices. This is another example of the
13 Company attempting to use hindsight in trying to convince the Commission to
14 abandon the methodology it adopted in 2012 prior to when the energy credit went
15 into effect. At the time, the Commission was required to use its judgment in the
16 selection of the methodology and the forecast results that it relied on in the
17 Capacity Charge Case. Now the Company wants the Commission to forget about
18 that and it change its prior decision based on results that were not known at the
19 time the decision had to be made. This would be inappropriate and inconsistent
20 with the Court’s remand.

21 Second, this is nothing more than an attempt by the Company to validate a
22 change in methodology to use forward prices, despite the fact that the

²⁹ *Id.*, 2287

1 Commission rejected that methodology and specifically adopted Staff's
2 fundamental analysis methodology in the Capacity Charge Case.

3 Third, forward prices reflect projected market prices on a single date.
4 These forward prices change from day to day and intraday. As I previously noted,
5 this is a fact used by the Company and FirstEnergy to argue against the use of
6 forward prices and cited by the Commission in support of its decision to use
7 fundamental analyses in other proceedings.

8 Fourth, the Commission already determined in the Company's PPA Rider
9 proceeding and the FirstEnergy ESP proceeding that the fundamental analysis
10 methodology is superior to the forward prices methodology. And it was a
11 position strongly advocated by the Company in its PPA Rider proceeding.

12
13 **Q. Mr. Allen argues that the fuel costs for certain coal-fired generating units**
14 **were too low, and gas-fired units were too high. If that is correct, then what**
15 **effect might changes to those forecasts have had on market prices and**
16 **revenues that would have been developed using the AURORAxmp**
17 **simulation fundamental analysis methodology?**

18 **A.** It is pure speculation as to what the results would have been had the Company
19 performed a revised AURORAxmp simulation back in 2012 based on its
20 preferred inputs and methodologies. It is even greater speculation as to whether
21 the Commission would have changed the energy costs and/or market revenues
22 given that the inputs, assumptions, and methodologies that it relied on were

1 internally consistent and its determination that Staff's results were more
2 reasonable than the Company's.

3 **E. The Record Demonstrates that the Commission Was Balanced in Its**
4 **Approach and Adopted Numerous Inputs and Assumptions that Increased**
5 **the Capacity Cost**

6
7 **Q. Is there additional evidence that the \$188.88/MW-day was reasonable?**

8 A. Yes. The Commission made numerous decisions to increase the capacity cost
9 from the Staff recommendation that counterbalance the Company's claims the
10 Commission adopted other inputs and assumptions that unduly reduced the
11 capacity cost through increases in the energy credit. First, the Commission
12 increased the capacity cost from the Staff recommendation to include
13 \$20.11/MW-day in "energy" costs that it determined had not been elsewhere
14 included in the calculation of the energy credit, i.e., the energy credit was
15 effectively overstated by \$20.11/MW-day, all else equal.³⁰

16 Second, the Commission, in its discretion, specifically modified the Staff's
17 proposed capacity cost to substantially increase the return on equity to 11.15%
18 compared to the Staff recommendation to use a 10.0% return on equity and the
19 related income taxes for Columbus and Southern Power Company and a 10.3%
20 return on equity and the related income taxes for Ohio Power Company. This
21 increase added another \$10.09/MW-day to the capacity cost compared to the

³⁰ Order and Opinion in Capacity Charge Case at 27.

1 Staff's proposed capacity cost.³¹ The Commission did so despite its
2 determination in the ESP II Case that a return on equity of 7.0% was within the
3 zone of reasonableness.³² If the Commission had used a 7.0% return on equity,
4 then the \$188.88/MW-day would have been \$147.01/MW-day, a reduction of
5 \$41.87/MW-day, and nearly identical to the \$145.79 that OEG recommended.

6 Third, the Commission assumed that the AEP Interconnection Agreement
7 would not be terminated on December 31, 2013 in the calculation of the off-
8 system sales margins, even though all parties to the Agreement already had
9 provided notice of termination to each other and AEP already had filed the
10 termination notice with the Federal Energy Regulatory Commission ("FERC").
11 This assumption increased the capacity cost by \$4.10/MW-day by reducing the
12 energy credit in 2014 and 2015.³³

13
14 **Q. Why is that important?**

15 A. It demonstrates that the Commission carefully considered all AEP claims and
16 addressed them either directly or indirectly in the calculation of the capacity cost
17 and its determination that the \$188.88/MW-day was reasonable "after review of
18 all of the testimony."

19 It also demonstrates that the Commission's calculation of the capacity cost
20 was balanced. While the Commission adopted inputs and assumptions that

³¹ *Id.*, 32.

³² *Id.*, 26.

³³ The calculation of this amount is shown on my Exhibit____(LK-4).

1 increased the energy credit compared to the Company's preferred inputs,
2 assumptions, and methodologies, it found the result was reasonable when it
3 balanced these against other inputs, assumptions, and methodologies that either
4 increased the fixed cost component or reduced the energy credit directly. If the
5 Commission is inclined to revise any inputs and revise the capacity cost, then it
6 should compare the effects of these revisions to the concessions it granted on
7 other inputs and determine if the concessions equal or outweigh the revisions on
8 balance in the determination of whether the resulting capacity cost is reasonable.
9

10 **III. RSR DEFERRALS SHOULD BE REDUCED BY \$351.638 MILLION**
11 **FOR THE UNLAWFUL COLLECTION OF "NON-DEFERRAL" RSR**
12 **REVENUES**
13

14 **Q. Please describe the Company's quantification of the RSR deferrals based on**
15 **its proposed increase in the capacity cost.**

16 A. Mr. Allen quantified the RSR deferrals, including carrying charges, at \$600.632
17 million as of May 31, 2015.³⁴ This quantification assumes that the Commission
18 goes beyond the Court's remand and unlawfully and retroactively increases the
19 capacity cost to \$288.83/MW-day and allows the Company to defer the increase
20 over the \$188.88/MW-day cost authorized through May 31, 2015. The Company

³⁴ Exhibit WAA-REM4 attached to William Allen's Direct Testimony in this remand proceeding.

1 continues to collect approximately \$15 million to \$16 million monthly in RSR
2 charges.

3
4 **Q. How did the Company quantify the carrying charges on the RSR deferrals?**

5 A. The Company quantified the carrying charges on the “net” RSR deferrals
6 resulting from the increase due to its proposed capacity cost of \$288.83/MW-day
7 and the reduction in the “non-deferral” portion of the RSR revenues.³⁵

8
9 **Q. Did the Company separately quantify the reduction in the carrying charges
10 related to the “non-deferral portion” of the RSR revenues in response to the
11 Court’s remand?**

12 A. No. Although the Company separately quantified the reduction in the “non-
13 deferral” portion of RSR revenues, it did not separately quantify the related
14 carrying charges.

15
16 **Q. Have you separately quantified the reduction in the carrying charges related
17 to the “non-deferral portion” of the RSR revenues?**

18 A. Yes. I disaggregated the carrying charges into those related to the “non-deferral
19 portion of the RSR revenues and the carrying charges related to the capacity cost.

³⁵ The proposed carrying charges are shown monthly and in total on Exhibit WAA-REM4. In addition, the Company provided the calculation of the carrying charges shown on Mr. Allen’s exhibit in an Excel workpaper entitled “Capacity Deferral and Carrying Costs.”

1 The carrying charge on the “non-deferral portion” of the RSR revenues is \$24.698
2 million.

3 The carrying charge on the proposed capacity cost of \$288.83/MW-day is
4 \$76.048 million. This is an increase of \$26.317 million compared to the \$49.731
5 million in carrying charges based on a capacity cost of \$188.88/MW-day. The
6 final carrying charge on the capacity cost will depend on the Commission’s
7 determination on the inputs and calculation of the capacity cost and energy credit
8 in this proceeding.

9
10 **Q. What is the total reduction in the RSR deferrals due to the Court’s decision**
11 **on the “non-deferral portion” of the RSR revenues in response to the Court’s**
12 **remand directing the Commission to quantify this amount?**

13 **A.** The total reduction in the RSR deferrals is \$351.638 million as of May 31, 2015,
14 comprised of \$326.940 million in unlawful revenues plus \$24.698 million in
15 related carrying charges. Mr. Allen and I are in agreement on this quantification.

16
17 **IV. THE RSR COLLECTIONS SINCE THE FIRST BILLING CYCLE IN**
18 **JUNE 2016 SHOULD BE REFUNDED TO CUSTOMERS ALONG**
19 **WITH CARRYING CHARGES.**

20 **A. RSR Deferrals Were Fully Collected By Late Last Year or January 2016**

21
22 **Q. In contrast to the Company’s proposal to collect from customers deferrals of**
23 **\$600.632 million at May 31, 2015, how much should customers’ rates be**

1 **reduced if the Commission (correctly) rejects the Company's unlawful**
2 **proposal to retroactively increase the capacity cost and RSR deferrals?**

3 A. The RSR deferrals would be \$105.424 million at May 31, 2015 if the Commission
4 rejects the Company's proposal. Using Mr. Allen's Exhibit WAA-REM4 as a
5 template, the incurred capacity costs at \$188.88/MW-day would be \$886.084
6 million instead of the \$1,354.975 million shown on that exhibit, a reduction of
7 \$468.891 million. The CRES capacity payments, deferral portion of RSR
8 revenues, and non-deferral portion of RSR revenues will not change. The
9 carrying charges would be \$25.033 million instead of the \$51.350 million shown
10 on that exhibit, a reduction of \$26.317 million.³⁶

11 B. **The Company Will Receive A Windfall of \$70 Million Or More Even If The**
12 **Commission Does Not Retroactively Increase The State Compensation**
13 **Mechanism**

14
15 Q. **If the Commission rejects the Company's proposal to retroactively increase**
16 **the capacity cost and RSR deferrals, does that mean the Company has**
17 **already collected more than the entirety of the RSR deferrals?**

18 A. Yes. The Company collects approximately \$15 million in RSR revenues per
19 month. That means the Company collected the entirety of the RSR deferrals plus
20 additional carrying charges either late last year or in January this year. I estimate

³⁶ I calculated the carrying charges as the net of the \$49.731 million in carrying charges related to the RSR deferrals due to the \$188.88/MW-day capacity cost less \$24.698 million due to the reduction from the "non-deferral portion" of the RSR revenues.

1 that the Company will have collected approximately \$70 million more than the
2 correct balance of RSR deferrals at May 31, 2015 by the refund effective date of
3 June 1, 2016 in this remand proceeding.

4
5 **Q. What is your recommendation?**

6 A. I recommend that the Commission direct the Company to immediately terminate
7 the RSR charges and refund the excessive collections plus carrying charges on un-
8 refunded amounts from the first billing cycle in June 2016 through the date of the
9 final refund and true-up. The Company has been collecting the RSR subject to
10 refund since the first billing cycle in June 2016 pursuant to the Commission's
11 Entry in this remand proceeding dated May 18, 2016.

12
13 **V. A SEET THRESHOLD IS A REASONABLE AND NECESSARY**
14 **COMPONENT OF THE ESP II AND DOES NOT VIOLATE THE**
15 **STATUTORY FRAMEWORK**

16 A. **A SEET Threshold Is An Important Component of The ESP II And Is**
17 **Necessary to Achieve Multiple Policy Objectives**

18
19 **Q. The Court directed the Commission to explain why it imposed a SEET**
20 **threshold. Please explain why a threshold is reasonable.**

21 A. The SEET threshold is an important component of the ESP II, a comprehensive
22 rate plan that was designed to achieve multiple policy objectives, including the
23 development of a competitive market and establishment of just and reasonable

1 rates. The Commission cited these statutory policy objectives in its Order as
2 follows.

3 Chapter 4928 of the Revised Code provides an integrated system of
4 regulation in which specific provisions were designed to advance state
5 policies of ensuring access to adequate, reliable, and reasonably priced
6 electric service in the context of significant economic and environmental
7 challenges. In reviewing AEP-Ohio's application, the Commission is
8 cognizant of the challenges facing Ohioans and the electric industry and
9 will be guided by the policies of the state as established by the General
10 Assembly in Section 4928.02, Revised Code, amended by Senate Bill 221
11 (SB 221).

12
13 Section 4928.02, Revised Code, states that it is the policy of the state,
14 *inter alia*, to:

15
16 (1) Ensure the availability to consumers of adequate, reliable, safe,
17 efficient, nondiscriminatory, and reasonably priced retail electric service.

18
19 (2) Ensure the availability of unbundled and comparable retail electric
20 service.

21
22 (3) Ensure diversity of electric supplies and suppliers.

23
24 (4) Encourage innovation and market access for cost-effective supply-
25 and demand-side retail electric service including, but not limited to,
26 demand-side management (DSM), time-differentiated pricing, and
27 implementation of advanced metering infrastructure (AMI).

28
29 (5) Encourage cost-effective and efficient access to information
30 regarding the operation of the transmission and distribution systems in
31 order to promote both effective customer choice and the development of
32 performance standards and targets for service quality.

33
34 (6) Ensure effective retail competition by avoiding anticompetitive
35 subsidies.

36
37 (7) Ensure retail consumers protection against unreasonable sales
38 practices, market deficiencies, and market power.

39
40 (8) Provide a means of giving incentives to technologies that can adapt
41 to potential environmental mandates.

42
43 (9) Encourage implementation of distributed generation across

1 customer classes by reviewing and updating rules governing issues such as
2 interconnection standby charges, and net metering.

3
4 (10) Protect at-risk populations including, but not limited to, when
5 considering the implementation of any new advanced energy or renewable
6 energy resource.
7

8 To achieve these policy objectives, the ESP II included revisions to the
9 SCM, including a change from RPM to the cost-based capacity charge,
10 establishment of competitive energy and capacity auctions for non-shopping
11 customers, a freeze in base generation rates, modification and adoption of various
12 riders, including the establishment of the Generation Resource Rider and the
13 RSR, collection of additional “non-deferral” RSR revenues, and establishment of
14 a SEET threshold during the ESP II term. The Commission’s decisions involved
15 balancing the multitude of ESP II components to achieve these objectives. For
16 example, the Commission stated the following:

17 While we understand that the nonbypassable components of the RSR will
18 result in additional costs to customers, we believe any costs associated
19 with the RSR are mitigated by the effect of stabilizing non-fuel generation
20 rates, as well as the guarantee that, in less than three years, AEP-Ohio will
21 establish its pricing based on energy and capacity auctions, which this
22 Commission again maintains is extremely beneficial by providing
23 customers with an opportunity to pay less for retail electric service than
24 they may be paying today.³⁷
25

26 In addition, the Commission sought to balance the Company’s financial
27 needs with the effects on customer rates, stating:

28 We believe this balance is in the best interests of both customers and AEP-
29 Ohio. For customers, this keeps the RSR costs stable at \$3.50/MWh and

³⁷ ESP II Order at 31-32.

1 \$4/MWh, and with \$1.00 of the RSR being devoted towards paying back
2 AEP-Ohio's deferrals, customers will avoid paying high deferral charges
3 for years into the future. In addition, our modifications to the RSR will
4 provide customers with a stable rate that will not change during the term
5 of the ESP due to the elimination of the decoupling components of the
6 RSR. Further, as result of the Capacity Case, customers may be able to
7 lower their bill impacts by taking advantage of CRES provider offers
8 allowing customers to realize savings that may not have otherwise
9 occurred without the development of a competitive retail market. In
10 addition, this mechanism is mutually beneficial for AEP-Ohio because the
11 RSR will ensure AEP-Ohio has sufficient funds to maintain its operations
12 efficiently and revise its corporate structure, as opposed to a deferral only
13 mechanism.³⁸
14

15 The Commission further explained that the SEET was necessary to
16 achieve a balance between the Company's financial needs and the effects on
17 customer rates, stating:

18 In addition, in light of the fact that the Commission has established a
19 revenue target to be reached through the RSR in this proceeding, the
20 Commission finds that it is also appropriate to establish a significantly
21 excessive earnings test (SEET) threshold to ensure that the Company does
22 not reap disproportionate benefits from the ESP. The evidence in the
23 record demonstrates that a 12 percent ROE would be at the high end of a
24 reasonable range for return on equity (OEG Ex. 101 at 4-6; Kroger 101 at
25 10; Ormet Ex. 107 at 8-30; Wal-Mart Ex. 101 at 8-9, FES Ex. 102 at 79-
26 80), and even AEP-Ohio witness Allen agreed that a ROE of 10.5 percent
27 is appropriate. Accordingly, for purposes of this ESP, the Commission
28 will establish a SEET threshold for AEP-Ohio of 12 percent.³⁹
29

³⁸ *Id.*, 37.

³⁹ *Id.*

1 **B. The Commission Can Achieve These Policy Objectives By Using The Safe**
2 **Harbor Returns Or A 12.0% Return In The Pending SEET Proceedings**

3
4 **Q. Does the statutory scheme for the SEET specify the methodology that the**
5 **Commission must apply to determine the return threshold?**

6 A. No. The statutory scheme provides a framework for application of the SEET, but
7 does not specify the methodology to determine the SEET threshold. Within the
8 statutory scheme, the Commission has discretion over the methodology to
9 determine the SEET threshold in any SEET proceeding.

10
11 **Q. Instead of affirming a specific 12.0% SEET threshold in this remand**
12 **proceeding, could the Commission achieve its stated objectives by relying on**
13 **the calculations for the threshold in the annual SEET review proceedings?**

14 A. Yes. The Commission could achieve its stated objective “to ensure that the
15 Company does not reap disproportionate benefits from the ESP” by relying on the
16 calculations for the SEET threshold in the pending 2014 and 2015 annual review
17 proceedings.

18 In each SEET proceeding, the Company calculated a return based on
19 comparable earnings and the “safe harbor” return, equal to the return based on
20 comparable earnings plus 2.0%.

1 In the 2014 proceeding, the Company calculated a return based on
2 comparable earnings of 10.05%,⁴⁰ resulting in a safe harbor return of 12.05%. In
3 the 2015 proceeding, the Company calculated a return based on comparable
4 earnings of 9.74%,⁴¹ resulting in a safe harbor return of 11.74%.

5
6 **Q. What is your recommendation, on behalf of OEG, in the pending SEET**
7 **proceedings?**

8 A. In the pending 2014 and 2015 SEET proceedings, I recommend the use of the safe
9 harbor returns of 12.05% in 2014 and 11.74% in 2015 for this purpose.⁴² The
10 OCC recommends 12.0% for this purpose.⁴³

11
12 **Q. If the Commission goes beyond the scope of the Court's remand and**
13 **unlawfully adopts the Company's proposal to retroactively increase the**
14 **capacity cost and the RSR deferrals, what will be the effect on the earned**
15 **returns for SEET purposes in 2014 and 2015?**

16 A. The Company's earned returns for SEET purposes will be 15.41% in 2014 and
17 12.22% in 2015, according to the record in the pending SEET proceedings.⁴⁴ On
18 the other hand, the Company's earned returns for SEET purposes will be 10.10%

⁴⁰ William Allen Direct Testimony in Case No. 15-1022-EL-UNC at 5-6.

⁴¹ William Allen Direct Testimony in Case No. 16-1105-EL-UNC at 5.

⁴² Lane Kollen Direct Testimony in Case Nos. 15-1022-EL-UNC and 16-1105-EL-UNC at 11.

⁴³ Daniel Duann Direct Testimony in Case Nos. 15-1022-EL-UNC and 16-1105-EL-UNC at 4.

⁴⁴ Kollen Supplemental Direct Testimony in Case Nos. 15-1022-EL-UNC and 16-1105-EL-UNC at 4.

1 in 2014 and 12.04% in 2015 if the Commission does not adopt the Company's
2 proposal to retroactively increase the capacity cost and the RSR deferrals.⁴⁵
3

4 **Q. Does this complete your testimony?**

5 **A. Yes.**

⁴⁵ *Id.*

**BEFORE THE
PUBLIC UTILITIES COMMISSION OF OHIO**

**In the Matter of the Commission
Review of Capacity Charges of Ohio
Power Company and Columbus
Southern Power Company**

)
) **Case No. 10-2929-EL-UNC**
)
)

**In the Matter of the Application of
Columbus Southern Power Company
and Ohio Power Company for
Authority to Establish a Standard
Service Offer Pursuant to Section
4928.143, Revised Code, in the Form
of an Electric Security Plan**

)
) **Case No. 11-346-EL-SSO**
) **Case No. 11-348-EL-SSO**
)
)
)

**In the Matter of the Application of
Columbus Southern Power Company
and Ohio Power Company for
Approval of Certain Accounting
Authority**

)
) **Case No. 11-349-EL-AAM**
) **Case No. 11-350-EL-AAM**
)
)

**In the Matter of the Application of
Ohio Power Company to Adopt a
Final Implementation Plan for the
Retail Stability Rider**

)
) **Case No. 14-1186-EL-RDR**
)
)

| |
|---|
| <p style="text-align: center;">EXHIBITS</p> <p style="text-align: center;">OF</p> <p style="text-align: center;">LANE KOLLEN</p> |
|---|

**ON BEHALF OF THE
THE OHIO ENERGY GROUP AND
THE OFFICE OF THE OHIO CONSUMERS' COUNSEL**

**J. KENNEDY AND ASSOCIATES, INC.
ROSWELL, GEORGIA**

October 18, 2016

EXHIBIT ____ (LK-1)

RESUME OF LANE KOLLEN, VICE PRESIDENT

EDUCATION

University of Toledo, BBA
Accounting

University of Toledo, MBA

Luther Rice University, MA

PROFESSIONAL CERTIFICATIONS

Certified Public Accountant (CPA)

Certified Management Accountant (CMA)

PROFESSIONAL AFFILIATIONS

American Institute of Certified Public Accountants

Georgia Society of Certified Public Accountants

Institute of Management Accountants

Mr. Kollen has more than thirty years of utility industry experience in the financial, rate, tax, and planning areas. He specializes in revenue requirements analyses, taxes, evaluation of rate and financial impacts of traditional and nontraditional ratemaking, utility mergers/acquisition and diversification. Mr. Kollen has expertise in proprietary and nonproprietary software systems used by utilities for budgeting, rate case support and strategic and financial planning.

RESUME OF LANE KOLLEN, VICE PRESIDENT

EXPERIENCE

1986 to

Present:

J. Kennedy and Associates, Inc.: Vice President and Principal. Responsible for utility stranded cost analysis, revenue requirements analysis, cash flow projections and solvency, financial and cash effects of traditional and nontraditional ratemaking, and research, speaking and writing on the effects of tax law changes. Testimony before Connecticut, Florida, Georgia, Indiana, Louisiana, Kentucky, Maine, Maryland, Minnesota, New York, North Carolina, Ohio, Pennsylvania, Tennessee, Texas, West Virginia and Wisconsin state regulatory commissions and the Federal Energy Regulatory Commission.

1983 to

1986:

Energy Management Associates: Lead Consultant.

Consulting in the areas of strategic and financial planning, traditional and nontraditional ratemaking, rate case support and testimony, diversification and generation expansion planning. Directed consulting and software development projects utilizing PROSCREEN II and ACUMEN proprietary software products. Utilized ACUMEN detailed corporate simulation system, PROSCREEN II strategic planning system and other custom developed software to support utility rate case filings including test year revenue requirements, rate base, operating income and pro-forma adjustments. Also utilized these software products for revenue simulation, budget preparation and cost-of-service analyses.

1976 to

1983:

The Toledo Edison Company: Planning Supervisor.

Responsible for financial planning activities including generation expansion planning, capital and expense budgeting, evaluation of tax law changes, rate case strategy and support and computerized financial modeling using proprietary and nonproprietary software products. Directed the modeling and evaluation of planning alternatives including:

Rate phase-ins.

Construction project cancellations and write-offs.

Construction project delays.

Capacity swaps.

Financing alternatives.

Competitive pricing for off-system sales.

Sale/leasebacks.

RESUME OF LANE KOLLEN, VICE PRESIDENT

CLIENTS SERVED

Industrial Companies and Groups

| | |
|---|--|
| Air Products and Chemicals, Inc. | Lehigh Valley Power Committee |
| Airco Industrial Gases | Maryland Industrial Group |
| Alcan Aluminum | Multiple Intervenors (New York) |
| Armco Advanced Materials Co. | National Southwire |
| Armco Steel | North Carolina Industrial |
| Bethlehem Steel | Energy Consumers |
| CF&I Steel, L.P. | Occidental Chemical Corporation |
| Climax Molybdenum Company | Ohio Energy Group |
| Connecticut Industrial Energy Consumers | Ohio Industrial Energy Consumers |
| ELCON | Ohio Manufacturers Association |
| Enron Gas Pipeline Company | Philadelphia Area Industrial Energy |
| Florida Industrial Power Users Group | Users Group |
| Gallatin Steel | PSI Industrial Group |
| General Electric Company | Smith Cogeneration |
| GPU Industrial Intervenors | Taconite Intervenors (Minnesota) |
| Indiana Industrial Group | West Penn Power Industrial Intervenors |
| Industrial Consumers for | West Virginia Energy Users Group |
| Fair Utility Rates - Indiana | Westvaco Corporation |
| Industrial Energy Consumers - Ohio | |
| Kentucky Industrial Utility Customers, Inc. | |
| Kimberly-Clark Company | |

Regulatory Commissions and Government Agencies

Cities in Texas-New Mexico Power Company's Service Territory
Cities in AEP Texas Central Company's Service Territory
Cities in AEP Texas North Company's Service Territory
Georgia Public Service Commission Staff
Kentucky Attorney General's Office, Division of Consumer Protection
Louisiana Public Service Commission Staff
Maine Office of Public Advocate
New York State Energy Office
Office of Public Utility Counsel (Texas)

RESUME OF LANE KOLLEN, VICE PRESIDENT

Utilities

Allegheny Power System
Atlantic City Electric Company
Carolina Power & Light Company
Cleveland Electric Illuminating Company
Delmarva Power & Light Company
Duquesne Light Company
General Public Utilities
Georgia Power Company
Middle South Services
Nevada Power Company
Niagara Mohawk Power Corporation

Otter Tail Power Company
Pacific Gas & Electric Company
Public Service Electric & Gas
Public Service of Oklahoma
Rochester Gas and Electric
Savannah Electric & Power Company
Seminole Electric Cooperative
Southern California Edison
Talquin Electric Cooperative
Tampa Electric
Texas Utilities
Toledo Edison Company

**Expert Testimony Appearances
of
Lane Kollen
as of September 2016**

| Date | Case | Jurisdic. | Party | Utility | Subject |
|-------|---|-------------------------------------|---|----------------------------------|--|
| 10/86 | U-17282 Interim | LA | Louisiana Public Service Commission Staff | Gulf States Utilities | Cash revenue requirements financial solvency. |
| 11/86 | U-17282 Interim Rebuttal | LA | Louisiana Public Service Commission Staff | Gulf States Utilities | Cash revenue requirements financial solvency. |
| 12/86 | 9613 | KY | Attorney General Div. of Consumer Protection | Big Rivers Electric Corp. | Revenue requirements accounting adjustments financial workout plan. |
| 1/87 | U-17282 Interim | LA 19th Judicial District Ct. | Louisiana Public Service Commission Staff | Gulf States Utilities | Cash revenue requirements, financial solvency. |
| 3/87 | General Order 236 | WV | West Virginia Energy Users' Group | Monongahela Power Co. | Tax Reform Act of 1986. |
| 4/87 | U-17282 Prudence | LA | Louisiana Public Service Commission Staff | Gulf States Utilities | Prudence of River Bend 1, economic analyses, cancellation studies. |
| 4/87 | M-100 Sub 113 | NC | North Carolina Industrial Energy Consumers | Duke Power Co. | Tax Reform Act of 1986. |
| 5/87 | 86-524-E-SC | WV | West Virginia Energy Users' Group | Monongahela Power Co. | Revenue requirements, Tax Reform Act of 1986. |
| 5/87 | U-17282 Case In Chief | LA | Louisiana Public Service Commission Staff | Gulf States Utilities | Revenue requirements, River Bend 1 phase-in plan, financial solvency. |
| 7/87 | U-17282 Case In Chief Surrebuttal | LA | Louisiana Public Service Commission Staff | Gulf States Utilities | Revenue requirements, River Bend 1 phase-in plan, financial solvency. |
| 7/87 | U-17282 Prudence Surrebuttal | LA | Louisiana Public Service Commission Staff | Gulf States Utilities | Prudence of River Bend 1, economic analyses, cancellation studies. |
| 7/87 | 86-524 E-SC Rebuttal | WV | West Virginia Energy Users' Group | Monongahela Power Co. | Revenue requirements, Tax Reform Act of 1986. |
| 8/87 | 9885 | KY | Attorney General Div. of Consumer Protection | Big Rivers Electric Corp. | Financial workout plan. |
| 8/87 | E-015/GR-87-223 | MN | Taconite Intervenor | Minnesota Power & Light Co. | Revenue requirements, O&M expense, Tax Reform Act of 1986. |
| 10/87 | 870220-EI | FL | Occidental Chemical Corp. | Florida Power Corp. | Revenue requirements, O&M expense, Tax Reform Act of 1986. |
| 11/87 | 87-07-01 | CT | Connecticut Industrial Energy Consumers | Connecticut Light & Power Co. | Tax Reform Act of 1986. |
| 1/88 | U-17282 | LA 19th Judicial District Ct. | Louisiana Public Service Commission | Gulf States Utilities | Revenue requirements, River Bend 1 phase-in plan, rate of return. |
| 2/88 | 9934 | KY | Kentucky Industrial Utility Customers | Louisville Gas & Electric Co. | Economics of Trimble County, completion. |
| 2/88 | 10064 | KY | Kentucky Industrial Utility Customers | Louisville Gas & Electric Co. | Revenue requirements, O&M expense, capital structure, excess deferred income taxes. |

**Expert Testimony Appearances
of
Lane Kollen
as of September 2016**

| Date | Case | Jurisdct. | Party | Utility | Subject |
|-------|------------------------|----------------------------------|---|---|---|
| 5/88 | 10217 | KY | Alcan Aluminum National Southwire | Big Rivers Electric Corp. | Financial workout plan. |
| 5/88 | M-87017-1C001 | PA | GPU Industrial Intervenors | Metropolitan Edison Co. | Nonutility generator deferred cost recovery. |
| 5/88 | M-87017-2C005 | PA | GPU Industrial Intervenors | Pennsylvania Electric Co. | Nonutility generator deferred cost recovery. |
| 6/88 | U-17282 | LA 19th Judicial District Ct. | Louisiana Public Service Commission | Gulf States Utilities | Prudence of River Bend 1 economic analyses, cancellation studies, financial modeling. |
| 7/88 | M-87017-1C001 Rebuttal | PA | GPU Industrial Intervenors | Metropolitan Edison Co. | Nonutility generator deferred cost recovery, SFAS No. 92. |
| 7/88 | M-87017-2C005 Rebuttal | PA | GPU Industrial Intervenors | Pennsylvania Electric Co. | Nonutility generator deferred cost recovery, SFAS No. 92. |
| 9/88 | 88-05-25 | CT | Connecticut Industrial Energy Consumers | Connecticut Light & Power Co. | Excess deferred taxes, O&M expenses. |
| 9/88 | 10064 Rehearing | KY | Kentucky Industrial Utility Customers | Louisville Gas & Electric Co. | Premature retirements, interest expense. |
| 10/88 | 88-170-EL-AIR | OH | Ohio Industrial Energy Consumers | Cleveland Electric Illuminating Co. | Revenue requirements, phase-in, excess deferred taxes, O&M expenses, financial considerations, working capital. |
| 10/88 | 88-171-EL-AIR | OH | Ohio Industrial Energy Consumers | Toledo Edison Co. | Revenue requirements, phase-in, excess deferred taxes, O&M expenses, financial considerations, working capital. |
| 10/88 | 8800-355-EI | FL | Florida Industrial Power Users' Group | Florida Power & Light Co. | Tax Reform Act of 1986, tax expenses, O&M expenses, pension expense (SFAS No. 87). |
| 10/88 | 3780-U | GA | Georgia Public Service Commission Staff | Atlanta Gas Light Co. | Pension expense (SFAS No. 87). |
| 11/88 | U-17282 Remand | LA | Louisiana Public Service Commission Staff | Gulf States Utilities | Rate base exclusion plan (SFAS No. 71). |
| 12/88 | U-17970 | LA | Louisiana Public Service Commission Staff | AT&T Communications of South Central States | Pension expense (SFAS No. 87). |
| 12/88 | U-17949 Rebuttal | LA | Louisiana Public Service Commission Staff | South Central Bell | Compensated absences (SFAS No. 43), pension expense (SFAS No. 87), Part 32, income tax normalization. |
| 2/89 | U-17282 Phase II | LA | Louisiana Public Service Commission Staff | Gulf States Utilities | Revenue requirements, phase-in of River Bend 1, recovery of canceled plant. |
| 6/89 | 881602-EU 890326-EU | FL | Talquin Electric Cooperative | Talquin/City of Tallahassee | Economic analyses, incremental cost-of-service, average customer rates. |
| 7/89 | U-17970 | LA | Louisiana Public Service Commission Staff | AT&T Communications of South Central States | Pension expense (SFAS No. 87), compensated absences (SFAS No. 43), Part 32. |
| 8/89 | 8555 | TX | Occidental Chemical Corp. | Houston Lighting & Power Co. | Cancellation cost recovery, tax expense, revenue requirements. |

**Expert Testimony Appearances
of
Lane Kollen
as of September 2016**

| Date | Case | Jurisdct. | Party | Utility | Subject |
|----------------|---|---|---|-------------------------------|--|
| 8/89 | 3840-U | GA | Georgia Public Service Commission Staff | Georgia Power Co. | Promotional practices, advertising, economic development. |
| 9/89 | U-17282 Phase II Detailed | LA | Louisiana Public Service Commission Staff | Gulf States Utilities | Revenue requirements, detailed investigation. |
| 10/89 | 8880 | TX | Enron Gas Pipeline | Texas-New Mexico Power Co. | Deferred accounting treatment, sale/leaseback. |
| 10/89 | 8928 | TX | Enron Gas Pipeline | Texas-New Mexico Power Co. | Revenue requirements, imputed capital structure, cash working capital. |
| 10/89 | R-891364 | PA | Philadelphia Area Industrial Energy Users Group | Philadelphia Electric Co. | Revenue requirements. |
| 11/89 12/89 | R-891364 Surrebuttal (2 Filings) | PA | Philadelphia Area Industrial Energy Users Group | Philadelphia Electric Co. | Revenue requirements, sale/leaseback. |
| 1/90 | U-17282 Phase II Detailed Rebuttal | LA | Louisiana Public Service Commission Staff | Gulf States Utilities | Revenue requirements, detailed investigation. |
| 1/90 | U-17282 Phase III | LA | Louisiana Public Service Commission Staff | Gulf States Utilities | Phase-in of River Bend 1, deregulated asset plan. |
| 3/90 | 890319-EI | FL | Florida Industrial Power Users Group | Florida Power & Light Co. | O&M expenses, Tax Reform Act of 1986. |
| 4/90 | 890319-EI Rebuttal | FL | Florida Industrial Power Users Group | Florida Power & Light Co. | O&M expenses, Tax Reform Act of 1986. |
| 4/90 | U-17282 | LA 19 th Judicial District Ct. | Louisiana Public Service Commission | Gulf States Utilities | Fuel clause, gain on sale of utility assets. |
| 9/90 | 90-158 | KY | Kentucky Industrial Utility Customers | Louisville Gas & Electric Co. | Revenue requirements, post-test year additions, forecasted test year. |
| 12/90 | U-17282 Phase IV | LA | Louisiana Public Service Commission Staff | Gulf States Utilities | Revenue requirements. |
| 3/91 | 29327, et. al. | NY | Multiple Intervenor | Niagara Mohawk Power Corp. | Incentive regulation. |
| 5/91 | 9945 | TX | Office of Public Utility Counsel of Texas | El Paso Electric Co. | Financial modeling, economic analyses, prudence of Palo Verde 3. |
| 9/91 | P-910511 P-910512 | PA | Allegheny Ludlum Corp., Armco Advanced Materials Co., The West Penn Power Industrial Users' Group | West Penn Power Co. | Recovery of CAAA costs, least cost financing. |
| 9/91 | 91-231-E-NC | WV | West Virginia Energy Users Group | Monongahela Power Co. | Recovery of CAAA costs, least cost financing. |
| 11/91 | U-17282 | LA | Louisiana Public Service Commission Staff | Gulf States Utilities | Asset impairment, deregulated asset plan, revenue requirements. |

**Expert Testimony Appearances
of
Lane Kollen
as of September 2016**

| Date | Case | Jurisdic. | Party | Utility | Subject |
|-------|-----------------------|-----------|--|---|--|
| 12/91 | 91-410-EL-AIR | OH | Air Products and Chemicals, Inc., Armco Steel Co., General Electric Co., Industrial Energy Consumers | Cincinnati Gas & Electric Co. | Revenue requirements, phase-in plan. |
| 12/91 | PUC Docket 10200 | TX | Office of Public Utility Counsel of Texas | Texas-New Mexico Power Co. | Financial integrity, strategic planning, declined business affiliations. |
| 5/92 | 910890-EI | FL | Occidental Chemical Corp. | Florida Power Corp. | Revenue requirements, O&M expense, pension expense, OPEB expense, fossil dismantling, nuclear decommissioning. |
| 8/92 | R-00922314 | PA | GPU Industrial Intervenors | Metropolitan Edison Co. | Incentive regulation, performance rewards, purchased power risk, OPEB expense. |
| 9/92 | 92-043 | KY | Kentucky Industrial Utility Consumers | Generic Proceeding | OPEB expense. |
| 9/92 | 920324-EI | FL | Florida Industrial Power Users' Group | Tampa Electric Co. | OPEB expense. |
| 9/92 | 39348 | IN | Indiana Industrial Group | Generic Proceeding | OPEB expense. |
| 9/92 | 910840-PU | FL | Florida Industrial Power Users' Group | Generic Proceeding | OPEB expense. |
| 9/92 | 39314 | IN | Industrial Consumers for Fair Utility Rates | Indiana Michigan Power Co. | OPEB expense. |
| 11/92 | U-19904 | LA | Louisiana Public Service Commission Staff | Gulf States Utilities /Entergy Corp. | Merger. |
| 11/92 | 8649 | MD | Westvaco Corp., Eastalco Aluminum Co. | Potomac Edison Co. | OPEB expense. |
| 11/92 | 92-1715-AU-COI | OH | Ohio Manufacturers Association | Generic Proceeding | OPEB expense. |
| 12/92 | R-00922378 | PA | Armco Advanced Materials Co., The WPP Industrial Intervenors | West Penn Power Co. | Incentive regulation, performance rewards, purchased power risk, OPEB expense. |
| 12/92 | U-19949 | LA | Louisiana Public Service Commission Staff | South Central Bell | Affiliate transactions, cost allocations, merger. |
| 12/92 | R-00922479 | PA | Philadelphia Area Industrial Energy Users' Group | Philadelphia Electric Co. | OPEB expense. |
| 1/93 | 8487 | MD | Maryland Industrial Group | Baltimore Gas & Electric Co., Bethlehem Steel Corp. | OPEB expense, deferred fuel, CWIP in rate base. |
| 1/93 | 39498 | IN | PSI Industrial Group | PSI Energy, Inc. | Refunds due to over-collection of taxes on Marble Hill cancellation. |
| 3/93 | 92-11-11 | CT | Connecticut Industrial Energy Consumers | Connecticut Light & Power Co | OPEB expense. |
| 3/93 | U-19904 (Surrebuttal) | LA | Louisiana Public Service Commission Staff | Gulf States Utilities /Entergy Corp. | Merger. |

**Expert Testimony Appearances
of
Lane Kollen
as of September 2016**

| Date | Case | Jurisdic. | Party | Utility | Subject |
|-------|---|-----------|---|--------------------------------------|--|
| 3/93 | 93-01-EL-EFC | OH | Ohio Industrial Energy Consumers | Ohio Power Co. | Affiliate transactions, fuel. |
| 3/93 | EC92-21000 ER92-806-000 | FERC | Louisiana Public Service Commission Staff | Gulf States Utilities /Entergy Corp. | Merger. |
| 4/93 | 92-1464-EL-AIR | OH | Air Products Armco Steel Industrial Energy Consumers | Cincinnati Gas & Electric Co. | Revenue requirements, phase-in plan. |
| 4/93 | EC92-21000 ER92-806-000 (Rebuttal) | FERC | Louisiana Public Service Commission | Gulf States Utilities /Entergy Corp. | Merger. |
| 9/93 | 93-113 | KY | Kentucky Industrial Utility Customers | Kentucky Utilities | Fuel clause and coal contract refund. |
| 9/93 | 92-490, 92-490A, 90-360-C | KY | Kentucky Industrial Utility Customers and Kentucky Attorney General | Big Rivers Electric Corp. | Disallowances and restitution for excessive fuel costs, illegal and improper payments, recovery of mine closure costs. |
| 10/93 | U-17735 | LA | Louisiana Public Service Commission Staff | Cajun Electric Power Cooperative | Revenue requirements, debt restructuring agreement, River Bend cost recovery. |
| 1/94 | U-20647 | LA | Louisiana Public Service Commission Staff | Gulf States Utilities Co. | Audit and investigation into fuel clause costs. |
| 4/94 | U-20647 (Surrebuttal) | LA | Louisiana Public Service Commission Staff | Gulf States Utilities Co. | Nuclear and fossil unit performance, fuel costs, fuel clause principles and guidelines. |
| 4/94 | U-20647 (Supplemental Surrebuttal) | LA | Louisiana Public Service Commission Staff | Gulf States Utilities Co. | Audit and investigation into fuel clause costs. |
| 5/94 | U-20178 | LA | Louisiana Public Service Commission Staff | Louisiana Power & Light Co. | Planning and quantification issues of least cost integrated resource plan. |
| 9/94 | U-19904 Initial Post-Merger Earnings Review | LA | Louisiana Public Service Commission Staff | Gulf States Utilities Co. | River Bend phase-in plan, deregulated asset plan, capital structure, other revenue requirement issues. |
| 9/94 | U-17735 | LA | Louisiana Public Service Commission Staff | Cajun Electric Power Cooperative | G&T cooperative ratemaking policies, exclusion of River Bend, other revenue requirement issues. |
| 10/94 | 3905-U | GA | Georgia Public Service Commission Staff | Southern Bell Telephone Co. | Incentive rate plan, earnings review. |
| 10/94 | 5258-U | GA | Georgia Public Service Commission Staff | Southern Bell Telephone Co. | Alternative regulation, cost allocation. |
| 11/94 | U-19904 Initial Post-Merger Earnings Review (Surrebuttal) | LA | Louisiana Public Service Commission Staff | Gulf States Utilities Co. | River Bend phase-in plan, deregulated asset plan, capital structure, other revenue requirement issues. |
| 11/94 | U-17735 (Rebuttal) | LA | Louisiana Public Service Commission Staff | Cajun Electric Power Cooperative | G&T cooperative ratemaking policy, exclusion of River Bend, other revenue requirement issues. |
| 4/95 | R-00943271 | PA | PP&L Industrial Customer Alliance | Pennsylvania Power & Light Co. | Revenue requirements. Fossil dismantling, nuclear decommissioning. |

**Expert Testimony Appearances
of
Lane Kollen
as of September 2016**

| Date | Case | Jurisdic. | Party | Utility | Subject |
|---------------|-------------------------------------|-----------|--|--|--|
| 6/95 | 3905-U Rebuttal | GA | Georgia Public Service Commission | Southern Bell Telephone Co. | Incentive regulation, affiliate transactions, revenue requirements, rate refund. |
| 6/95 | U-19904 (Direct) | LA | Louisiana Public Service Commission Staff | Gulf States Utilities Co. | Gas, coal, nuclear fuel costs, contract prudence, base/fuel realignment. |
| 10/95 | 95-02614 | TN | Tennessee Office of the Attorney General Consumer Advocate | BellSouth Telecommunications, Inc. | Affiliate transactions. |
| 10/95 | U-21485 (Direct) | LA | Louisiana Public Service Commission Staff | Gulf States Utilities Co. | Nuclear O&M, River Bend phase-in plan, base/fuel realignment, NOL and AltMin asset deferred taxes, other revenue requirement issues. |
| 11/95 | U-19904 (Surrebuttal) | LA | Louisiana Public Service Commission Staff | Gulf States Utilities Co. Division | Gas, coal, nuclear fuel costs, contract prudence, base/fuel realignment. |
| 11/95 | U-21485 (Supplemental Direct) | LA | Louisiana Public Service Commission Staff | Gulf States Utilities Co. | Nuclear O&M, River Bend phase-in plan, base/fuel realignment, NOL and AltMin asset deferred taxes, other revenue requirement issues. |
| 12/95 | U-21485 (Surrebuttal) | | | | |
| 1/96 | 95-299-EL-AIR 95-300-EL-AIR | OH | Industrial Energy Consumers | The Toledo Edison Co., The Cleveland Electric Illuminating Co. | Competition, asset write-offs and revaluation, O&M expense, other revenue requirement issues. |
| 2/96 | PUC Docket 14965 | TX | Office of Public Utility Counsel | Central Power & Light | Nuclear decommissioning. |
| 5/96 | 95-485-LCS | NM | City of Las Cruces | El Paso Electric Co. | Stranded cost recovery, municipalization. |
| 7/96 | 8725 | MD | The Maryland Industrial Group and Redland Genstar, Inc. | Baltimore Gas & Electric Co., Potomac Electric Power Co., and Constellation Energy Corp. | Merger savings, tracking mechanism, earnings sharing plan, revenue requirement issues. |
| 9/96 11/96 | U-22092 U-22092 (Surrebuttal) | LA | Louisiana Public Service Commission Staff | Entergy Gulf States, Inc. | River Bend phase-in plan, base/fuel realignment, NOL and AltMin asset deferred taxes, other revenue requirement issues, allocation of regulated/nonregulated costs. |
| 10/96 | 96-327 | KY | Kentucky Industrial Utility Customers, Inc. | Big Rivers Electric Corp. | Environmental surcharge recoverable costs. |
| 2/97 | R-00973877 | PA | Philadelphia Area Industrial Energy Users Group | PECO Energy Co. | Stranded cost recovery, regulatory assets and liabilities, intangible transition charge, revenue requirements. |
| 3/97 | 96-489 | KY | Kentucky Industrial Utility Customers, Inc. | Kentucky Power Co. | Environmental surcharge recoverable costs, system agreements, allowance inventory, jurisdictional allocation. |
| 6/97 | TO-97-397 | MO | MCI Telecommunications Corp., Inc., MCImetro Access Transmission Services, Inc. | Southwestern Bell Telephone Co. | Price cap regulation, revenue requirements, rate of return. |

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| 6/97 | R-00973953 | PA | Philadelphia Area Industrial Energy Users Group | PECO Energy Co. | Restructuring, deregulation, stranded costs, regulatory assets, liabilities, nuclear and fossil decommissioning. |
| 7/97 | R-00973954 | PA | PP&L Industrial Customer Alliance | Pennsylvania Power & Light Co. | Restructuring, deregulation, stranded costs, regulatory assets, liabilities, nuclear and fossil decommissioning. |
| 7/97 | U-22092 | LA | Louisiana Public Service Commission Staff | Entergy Gulf States, Inc. | Depreciation rates and methodologies, River Bend phase-in plan. |
| 8/97 | 97-300 | KY | Kentucky Industrial Utility Customers, Inc. | Louisville Gas & Electric Co., Kentucky Utilities Co. | Merger policy, cost savings, surcredit sharing mechanism, revenue requirements, rate of return. |
| 8/97 | R-00973954 (Surrebuttal) | PA | PP&L Industrial Customer Alliance | Pennsylvania Power & Light Co. | Restructuring, deregulation, stranded costs, regulatory assets, liabilities, nuclear and fossil decommissioning. |
| 10/97 | 97-204 | KY | Alcan Aluminum Corp. Southwire Co. | Big Rivers Electric Corp. | Restructuring, revenue requirements, reasonableness. |
| 10/97 | R-974008 | PA | Metropolitan Edison Industrial Users Group | Metropolitan Edison Co. | Restructuring, deregulation, stranded costs, regulatory assets, liabilities, nuclear and fossil decommissioning, revenue requirements. |
| 10/97 | R-974009 | PA | Penelec Industrial Customer Alliance | Pennsylvania Electric Co. | Restructuring, deregulation, stranded costs, regulatory assets, liabilities, nuclear and fossil decommissioning, revenue requirements. |
| 11/97 | 97-204 (Rebuttal) | KY | Alcan Aluminum Corp. Southwire Co. | Big Rivers Electric Corp. | Restructuring, revenue requirements, reasonableness of rates, cost allocation. |
| 11/97 | U-22491 | LA | Louisiana Public Service Commission Staff | Entergy Gulf States, Inc. | Allocation of regulated and nonregulated costs, other revenue requirement issues. |
| 11/97 | R-00973953 (Surrebuttal) | PA | Philadelphia Area Industrial Energy Users Group | PECO Energy Co. | Restructuring, deregulation, stranded costs, regulatory assets, liabilities, nuclear and fossil decommissioning. |
| 11/97 | R-973981 | PA | West Penn Power Industrial Intervenor | West Penn Power Co. | Restructuring, deregulation, stranded costs, regulatory assets, liabilities, fossil decommissioning, revenue requirements, securitization. |
| 11/97 | R-974104 | PA | Duquesne Industrial Intervenor | Duquesne Light Co. | Restructuring, deregulation, stranded costs, regulatory assets, liabilities, nuclear and fossil decommissioning, revenue requirements, securitization. |
| 12/97 | R-973981 (Surrebuttal) | PA | West Penn Power Industrial Intervenor | West Penn Power Co. | Restructuring, deregulation, stranded costs, regulatory assets, liabilities, fossil decommissioning, revenue requirements. |
| 12/97 | R-974104 (Surrebuttal) | PA | Duquesne Industrial Intervenor | Duquesne Light Co. | Restructuring, deregulation, stranded costs, regulatory assets, liabilities, nuclear and fossil decommissioning, revenue requirements, securitization. |
| 1/98 | U-22491 (Surrebuttal) | LA | Louisiana Public Service Commission Staff | Entergy Gulf States, Inc. | Allocation of regulated and nonregulated costs, other revenue requirement issues. |

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| 2/98 | 8774 | MD | Westvaco | Potomac Edison Co. | Merger of Duquesne, AE, customer safeguards, savings sharing. |
| 3/98 | U-22092 (Allocated Stranded Cost Issues) | LA | Louisiana Public Service Commission Staff | Entergy Gulf States, Inc. | Restructuring, stranded costs, regulatory assets, securitization, regulatory mitigation. |
| 3/98 | 8390-U | GA | Georgia Natural Gas Group, Georgia Textile Manufacturers Assoc. | Atlanta Gas Light Co. | Restructuring, unbundling, stranded costs, incentive regulation, revenue requirements. |
| 3/98 | U-22092 (Allocated Stranded Cost Issues) (Surrebuttal) | LA | Louisiana Public Service Commission Staff | Entergy Gulf States, Inc. | Restructuring, stranded costs, regulatory assets, securitization, regulatory mitigation. |
| 3/98 | U-22491 (Supplemental Surrebuttal) | LA | Louisiana Public Service Commission Staff | Entergy Gulf States, Inc. | Allocation of regulated and nonregulated costs, other revenue requirement issues. |
| 10/98 | 97-596 | ME | Maine Office of the Public Advocate | Bangor Hydro- Electric Co. | Restructuring, unbundling, stranded costs, T&D revenue requirements. |
| 10/98 | 9355-U | GA | Georgia Public Service Commission Adversary Staff | Georgia Power Co. | Affiliate transactions. |
| 10/98 | U-17735 | LA | Louisiana Public Service Commission Staff | Cajun Electric Power Cooperative | G&T cooperative ratemaking policy, other revenue requirement issues. |
| 11/98 | U-23327 | LA | Louisiana Public Service Commission Staff | SWEPCO, CSW and AEP | Merger policy, savings sharing mechanism, affiliate transaction conditions. |
| 12/98 | U-23358 (Direct) | LA | Louisiana Public Service Commission Staff | Entergy Gulf States, Inc. | Allocation of regulated and nonregulated costs, tax issues, and other revenue requirement issues. |
| 12/98 | 98-577 | ME | Maine Office of Public Advocate | Maine Public Service Co. | Restructuring, unbundling, stranded cost, T&D revenue requirements. |
| 1/99 | 98-10-07 | CT | Connecticut Industrial Energy Consumers | United Illuminating Co. | Stranded costs, investment tax credits, accumulated deferred income taxes, excess deferred income taxes. |
| 3/99 | U-23358 (Surrebuttal) | LA | Louisiana Public Service Commission Staff | Entergy Gulf States, Inc. | Allocation of regulated and nonregulated costs, tax issues, and other revenue requirement issues. |
| 3/99 | 98-474 | KY | Kentucky Industrial Utility Customers, Inc. | Louisville Gas and Electric Co. | Revenue requirements, alternative forms of regulation. |
| 3/99 | 98-426 | KY | Kentucky Industrial Utility Customers, Inc. | Kentucky Utilities Co. | Revenue requirements, alternative forms of regulation. |
| 3/99 | 99-082 | KY | Kentucky Industrial Utility Customers, Inc. | Louisville Gas and Electric Co. | Revenue requirements. |
| 3/99 | 99-083 | KY | Kentucky Industrial Utility Customers, Inc. | Kentucky Utilities Co. | Revenue requirements. |

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| 4/99 | U-23358 (Supplemental Surrebuttal) | LA | Louisiana Public Service Commission Staff | Entergy Gulf States, Inc. | Allocation of regulated and nonregulated costs, tax issues, and other revenue requirement issues. |
| 4/99 | 99-03-04 | CT | Connecticut Industrial Energy Consumers | United Illuminating Co. | Regulatory assets and liabilities, stranded costs, recovery mechanisms. |
| 4/99 | 99-02-05 | Ct | Connecticut Industrial Utility Customers | Connecticut Light and Power Co. | Regulatory assets and liabilities, stranded costs, recovery mechanisms. |
| 5/99 | 98-426 99-082 (Additional Direct) | KY | Kentucky Industrial Utility Customers, Inc. | Louisville Gas and Electric Co. | Revenue requirements. |
| 5/99 | 98-474 99-083 (Additional Direct) | KY | Kentucky Industrial Utility Customers, Inc. | Kentucky Utilities Co. | Revenue requirements. |
| 5/99 | 98-426 98-474 (Response to Amended Applications) | KY | Kentucky Industrial Utility Customers, Inc. | Louisville Gas and Electric Co., Kentucky Utilities Co. | Alternative regulation. |
| 6/99 | 97-596 | ME | Maine Office of Public Advocate | Bangor Hydro- Electric Co. | Request for accounting order regarding electric industry restructuring costs. |
| 6/99 | U-23358 | LA | Louisiana Public Service Commission Staff | Entergy Gulf States, Inc. | Affiliate transactions, cost allocations. |
| 7/99 | 99-03-35 | CT | Connecticut Industrial Energy Consumers | United Illuminating Co. | Stranded costs, regulatory assets, tax effects of asset divestiture. |
| 7/99 | U-23327 | LA | Louisiana Public Service Commission Staff | Southwestern Electric Power Co., Central and South West Corp, American Electric Power Co. | Merger Settlement and Stipulation. |
| 7/99 | 97-596 Surrebuttal | ME | Maine Office of Public Advocate | Bangor Hydro- Electric Co. | Restructuring, unbundling, stranded cost, T&D revenue requirements. |
| 7/99 | 98-0452-E-GI | WV | West Virginia Energy Users Group | Monongahela Power, Potomac Edison, Appalachian Power, Wheeling Power | Regulatory assets and liabilities. |
| 8/99 | 98-577 Surrebuttal | ME | Maine Office of Public Advocate | Maine Public Service Co. | Restructuring, unbundling, stranded costs, T&D revenue requirements. |
| 8/99 | 98-426 99-082 Rebuttal | KY | Kentucky Industrial Utility Customers, Inc. | Louisville Gas and Electric Co. | Revenue requirements. |
| 8/99 | 98-474 98-083 Rebuttal | KY | Kentucky Industrial Utility Customers, Inc. | Kentucky Utilities Co. | Revenue requirements. |

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| 8/99 | 98-0452-E-GI Rebuttal | WV | West Virginia Energy Users Group | Monongahela Power, Potomac Edison, Appalachian Power, Wheeling Power | Regulatory assets and liabilities. |
| 10/99 | U-24182 Direct | LA | Louisiana Public Service Commission Staff | Entergy Gulf States, Inc. | Allocation of regulated and nonregulated costs, affiliate transactions, tax issues, and other revenue requirement issues. |
| 11/99 | PUC Docket 21527 | TX | The Dallas-Fort Worth Hospital Council and Coalition of Independent Colleges and Universities | TXU Electric | Restructuring, stranded costs, taxes, securitization. |
| 11/99 | U-23358 Surrebuttal Affiliate Transactions Review | LA | Louisiana Public Service Commission Staff | Entergy Gulf States, Inc. | Service company affiliate transaction costs. |
| 01/00 | U-24182 Surrebuttal | LA | Louisiana Public Service Commission Staff | Entergy Gulf States, Inc. | Allocation of regulated and nonregulated costs, affiliate transactions, tax issues, and other revenue requirement issues. |
| 04/00 | 99-1212-EL-ETP 99-1213-EL-ATA 99-1214-EL-AAM | OH | Greater Cleveland Growth Association | First Energy (Cleveland Electric Illuminating, Toledo Edison) | Historical review, stranded costs, regulatory assets, liabilities. |
| 05/00 | 2000-107 | KY | Kentucky Industrial Utility Customers, Inc. | Kentucky Power Co. | ECR surcharge roll-in to base rates. |
| 05/00 | U-24182 Supplemental Direct | LA | Louisiana Public Service Commission Staff | Entergy Gulf States, Inc. | Affiliate expense proforma adjustments. |
| 05/00 | A-110550F0147 | PA | Philadelphia Area Industrial Energy Users Group | PECO Energy | Merger between PECO and Unicom. |
| 05/00 | 99-1658-EL-ETP | OH | AK Steel Corp. | Cincinnati Gas & Electric Co. | Regulatory transition costs, including regulatory assets and liabilities, SFAS 109, ADIT, EDIT, ITC. |
| 07/00 | PUC Docket 22344 | TX | The Dallas-Fort Worth Hospital Council and The Coalition of Independent Colleges and Universities | Statewide Generic Proceeding | Escalation of O&M expenses for unbundled T&D revenue requirements in projected test year. |
| 07/00 | U-21453 | LA | Louisiana Public Service Commission | SWEPCO | Stranded costs, regulatory assets and liabilities. |
| 08/00 | U-24064 | LA | Louisiana Public Service Commission Staff | CLECO | Affiliate transaction pricing ratemaking principles, subsidization of nonregulated affiliates, ratemaking adjustments. |
| 10/00 | SOAH Docket 473-00-1015 PUC Docket 22350 | TX | The Dallas-Fort Worth Hospital Council and The Coalition of Independent Colleges and Universities | TXU Electric Co. | Restructuring, T&D revenue requirements, mitigation, regulatory assets and liabilities. |

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| 10/00 | R-00974104 Affidavit | PA | Duquesne Industrial Intervenors | Duquesne Light Co. | Final accounting for stranded costs, including treatment of auction proceeds, taxes, capital costs, switchback costs, and excess pension funding. |
| 11/00 | P-00001837 R-00974008 P-00001838 R-00974009 | PA | Metropolitan Edison Industrial Users Group Penelec Industrial Customer Alliance | Metropolitan Edison Co., Pennsylvania Electric Co. | Final accounting for stranded costs, including treatment of auction proceeds, taxes, regulatory assets and liabilities, transaction costs. |
| 12/00 | U-21453, U-20925, U-22092 (Subdocket C) Surrebuttal | LA | Louisiana Public Service Commission Staff | SWEPCO | Stranded costs, regulatory assets. |
| 01/01 | U-24993 Direct | LA | Louisiana Public Service Commission Staff | Entergy Gulf States, Inc. | Allocation of regulated and nonregulated costs, tax issues, and other revenue requirement issues. |
| 01/01 | U-21453, U-20925, U-22092 (Subdocket B) Surrebuttal | LA | Louisiana Public Service Commission Staff | Entergy Gulf States, Inc. | Industry restructuring, business separation plan, organization structure, hold harmless conditions, financing. |
| 01/01 | Case No. 2000-386 | KY | Kentucky Industrial Utility Customers, Inc. | Louisville Gas & Electric Co. | Recovery of environmental costs, surcharge mechanism. |
| 01/01 | Case No. 2000-439 | KY | Kentucky Industrial Utility Customers, Inc. | Kentucky Utilities Co. | Recovery of environmental costs, surcharge mechanism. |
| 02/01 | A-110300F0095 A-110400F0040 | PA | Met-Ed Industrial Users Group, Penelec Industrial Customer Alliance | GPU, Inc. FirstEnergy Corp. | Merger, savings, reliability. |
| 03/01 | P-00001860 P-00001861 | PA | Met-Ed Industrial Users Group, Penelec Industrial Customer Alliance | Metropolitan Edison Co., Pennsylvania Electric Co. | Recovery of costs due to provider of last resort obligation. |
| 04/01 | U-21453, U-20925, U-22092 (Subdocket B) Settlement Term Sheet | LA | Louisiana Public Service Commission Staff | Entergy Gulf States, Inc. | Business separation plan: settlement agreement on overall plan structure. |
| 04/01 | U-21453, U-20925, U-22092 (Subdocket B) Contested Issues | LA | Louisiana Public Service Commission Staff | Entergy Gulf States, Inc. | Business separation plan: agreements, hold harmless conditions, separations methodology. |
| 05/01 | U-21453, U-20925, U-22092 (Subdocket B) Contested Issues Transmission and Distribution Rebuttal | LA | Louisiana Public Service Commission Staff | Entergy Gulf States, Inc. | Business separation plan: agreements, hold harmless conditions, separations methodology. |

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| 07/01 | U-21453, U-20925, U-22092 (Subdocket B) Transmission and Distribution Term Sheet | LA | Louisiana Public Service Commission Staff | Entergy Gulf States, Inc. | Business separation plan: settlement agreement on T&D issues, agreements necessary to implement T&D separations, hold harmless conditions, separations methodology. |
| 10/01 | 14000-U | GA | Georgia Public Service Commission Adversary Staff | Georgia Power Company | Revenue requirements, Rate Plan, fuel clause recovery. |
| 11/01 | 14311-U Direct Panel with Bolin Killings | GA | Georgia Public Service Commission Adversary Staff | Atlanta Gas Light Co | Revenue requirements, revenue forecast, O&M expense, depreciation, plant additions, cash working capital. |
| 11/01 | U-25687 Direct | LA | Louisiana Public Service Commission Staff | Entergy Gulf States, Inc. | Revenue requirements, capital structure, allocation of regulated and nonregulated costs, River Bend uprate. |
| 02/02 | PUC Docket 25230 | TX | The Dallas-Fort Worth Hospital Council and the Coalition of Independent Colleges and Universities | TXU Electric | Stipulation. Regulatory assets, securitization financing. |
| 02/02 | U-25687 Surrebuttal | LA | Louisiana Public Service Commission Staff | Entergy Gulf States, Inc. | Revenue requirements, corporate franchise tax, conversion to LLC, River Bend uprate. |
| 03/02 | 14311-U Rebuttal Panel with Bolin Killings | GA | Georgia Public Service Commission Adversary Staff | Atlanta Gas Light Co. | Revenue requirements, earnings sharing plan, service quality standards. |
| 03/02 | 14311-U Rebuttal Panel with Michelle L. Thebert | GA | Georgia Public Service Commission Adversary Staff | Atlanta Gas Light Co. | Revenue requirements, revenue forecast, O&M expense, depreciation, plant additions, cash working capital. |
| 03/02 | 001148-EI | FL | South Florida Hospital and Healthcare Assoc. | Florida Power & Light Co. | Revenue requirements. Nuclear life extension, storm damage accruals and reserve, capital structure, O&M expense. |
| 04/02 | U-25687 (Suppl. Surrebuttal) | LA | Louisiana Public Service Commission | Entergy Gulf States, Inc. | Revenue requirements, corporate franchise tax, conversion to LLC, River Bend uprate. |
| 04/02 | U-21453, U-20925 U-22092 (Subdocket C) | LA | Louisiana Public Service Commission | SWEPCO | Business separation plan, T&D Term Sheet, separations methodologies, hold harmless conditions. |
| 08/02 | EL01-88-000 | FERC | Louisiana Public Service Commission | Entergy Services, Inc. and the Entergy Operating Companies | System Agreement, production cost equalization, tariffs. |
| 08/02 | U-25888 | LA | Louisiana Public Service Commission Staff | Entergy Gulf States, Inc. and Entergy Louisiana, Inc. | System Agreement, production cost disparities, prudence. |
| 09/02 | 2002-00224 2002-00225 | KY | Kentucky Industrial Utilities Customers, Inc. | Kentucky Utilities Co., Louisville Gas & Electric Co. | Line losses and fuel clause recovery associated with off-system sales. |

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| 11/02 | 2002-00146 2002-00147 | KY | Kentucky Industrial Utilities Customers, Inc. | Kentucky Utilities Co., Louisville Gas & Electric Co. | Environmental compliance costs and surcharge recovery. |
| 01/03 | 2002-00169 | KY | Kentucky Industrial Utilities Customers, Inc. | Kentucky Power Co. | Environmental compliance costs and surcharge recovery. |
| 04/03 | 2002-00429 2002-00430 | KY | Kentucky Industrial Utilities Customers, Inc. | Kentucky Utilities Co., Louisville Gas & Electric Co. | Extension of merger surcredit, flaws in Companies' studies. |
| 04/03 | U-26527 | LA | Louisiana Public Service Commission Staff | Entergy Gulf States, Inc. | Revenue requirements, corporate franchise tax, conversion to LLC, capital structure, post-test year adjustments. |
| 06/03 | EL01-88-000 Rebuttal | FERC | Louisiana Public Service Commission | Entergy Services, Inc. and the Entergy Operating Companies | System Agreement, production cost equalization, tariffs. |
| 06/03 | 2003-00068 | KY | Kentucky Industrial Utility Customers | Kentucky Utilities Co. | Environmental cost recovery, correction of base rate error. |
| 11/03 | ER03-753-000 | FERC | Louisiana Public Service Commission | Entergy Services, Inc. and the Entergy Operating Companies | Unit power purchases and sale cost-based tariff pursuant to System Agreement. |
| 11/03 | ER03-583-000, ER03-583-001, ER03-583-002 ER03-681-000, ER03-681-001 ER03-682-000, ER03-682-001, ER03-682-002 ER03-744-000, ER03-744-001 (Consolidated) | FERC | Louisiana Public Service Commission | Entergy Services, Inc., the Entergy Operating Companies, EWO Marketing, L.P, and Entergy Power, Inc. | Unit power purchases and sale agreements, contractual provisions, projected costs, levelized rates, and formula rates. |
| 12/03 | U-26527 Surrebuttal | LA | Louisiana Public Service Commission Staff | Entergy Gulf States, Inc. | Revenue requirements, corporate franchise tax, conversion to LLC, capital structure, post-test year adjustments. |
| 12/03 | 2003-0334 2003-0335 | KY | Kentucky Industrial Utility Customers, Inc. | Kentucky Utilities Co., Louisville Gas & Electric Co. | Earnings Sharing Mechanism. |
| 12/03 | U-27136 | LA | Louisiana Public Service Commission Staff | Entergy Louisiana, Inc. | Purchased power contracts between affiliates, terms and conditions. |
| 03/04 | U-26527 Supplemental Surrebuttal | LA | Louisiana Public Service Commission Staff | Entergy Gulf States, Inc. | Revenue requirements, corporate franchise tax, conversion to LLC, capital structure, post-test year adjustments. |
| 03/04 | 2003-00433 | KY | Kentucky Industrial Utility Customers, Inc. | Louisville Gas & Electric Co. | Revenue requirements, depreciation rates, O&M expense, deferrals and amortization, earnings sharing mechanism, merger surcredit, VDT surcredit. |

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| 03/04 | 2003-00434 | KY | Kentucky Industrial Utility Customers, Inc. | Kentucky Utilities Co. | Revenue requirements, depreciation rates, O&M expense, deferrals and amortization, earnings sharing mechanism, merger surcredit, VDT surcredit. |
| 03/04 | SOAH Docket 473-04-2459 PUC Docket 29206 | TX | Cities Served by Texas-New Mexico Power Co. | Texas-New Mexico Power Co. | Stranded costs true-up, including valuation issues, ITC, ADIT, excess earnings. |
| 05/04 | 04-169-EL-UNC | OH | Ohio Energy Group, Inc. | Columbus Southern Power Co. & Ohio Power Co. | Rate stabilization plan, deferrals, T&D rate increases, earnings. |
| 06/04 | SOAH Docket 473-04-4555 PUC Docket 29526 | TX | Houston Council for Health and Education | CenterPoint Energy Houston Electric | Stranded costs true-up, including valuation issues, ITC, EDIT, excess mitigation credits, capacity auction true-up revenues, interest. |
| 08/04 | SOAH Docket 473-04-4555 PUC Docket 29526 (Suppl Direct) | TX | Houston Council for Health and Education | CenterPoint Energy Houston Electric | Interest on stranded cost pursuant to Texas Supreme Court remand. |
| 09/04 | U-23327 Subdocket B | LA | Louisiana Public Service Commission Staff | SWEPCO | Fuel and purchased power expenses recoverable through fuel adjustment clause, trading activities, compliance with terms of various LPSC Orders. |
| 10/04 | U-23327 Subdocket A | LA | Louisiana Public Service Commission Staff | SWEPCO | Revenue requirements. |
| 12/04 | Case Nos. 2004-00321, 2004-00372 | KY | Gallatin Steel Co. | East Kentucky Power Cooperative, Inc., Big Sandy Recc, et al. | Environmental cost recovery, qualified costs, TIER requirements, cost allocation. |
| 01/05 | 30485 | TX | Houston Council for Health and Education | CenterPoint Energy Houston Electric, LLC | Stranded cost true-up including regulatory Central Co. assets and liabilities, ITC, EDIT, capacity auction, proceeds, excess mitigation credits, retrospective and prospective ADIT. |
| 02/05 | 18638-U | GA | Georgia Public Service Commission Adversary Staff | Atlanta Gas Light Co. | Revenue requirements. |
| 02/05 | 18638-U Panel with Tony Wackerly | GA | Georgia Public Service Commission Adversary Staff | Atlanta Gas Light Co. | Comprehensive rate plan, pipeline replacement program surcharge, performance based rate plan. |
| 02/05 | 18638-U Panel with Michelle Thebert | GA | Georgia Public Service Commission Adversary Staff | Atlanta Gas Light Co. | Energy conservation, economic development, and tariff issues. |
| 03/05 | Case Nos. 2004-00426, 2004-00421 | KY | Kentucky Industrial Utility Customers, Inc. | Kentucky Utilities Co., Louisville Gas & Electric | Environmental cost recovery, Jobs Creation Act of 2004 and §199 deduction, excess common equity ratio, deferral and amortization of nonrecurring O&M expense. |
| 06/05 | 2005-00068 | KY | Kentucky Industrial Utility Customers, Inc. | Kentucky Power Co. | Environmental cost recovery, Jobs Creation Act of 2004 and §199 deduction, margins on allowances used for AEP system sales. |

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| 06/05 | 050045-EI | FL | South Florida Hospital and Healthcare Assoc. | Florida Power & Light Co. | Storm damage expense and reserve, RTO costs, O&M expense projections, return on equity performance incentive, capital structure, selective second phase post-test year rate increase. |
| 08/05 | 31056 | TX | Alliance for Valley Healthcare | AEP Texas Central Co. | Stranded cost true-up including regulatory assets and liabilities, ITC, EDIT, capacity auction, proceeds, excess mitigation credits, retrospective and prospective ADIT. |
| 09/05 | 20298-U | GA | Georgia Public Service Commission Adversary Staff | Atmos Energy Corp. | Revenue requirements, roll-in of surcharges, cost recovery through surcharge, reporting requirements. |
| 09/05 | 20298-U Panel with Victoria Taylor | GA | Georgia Public Service Commission Adversary Staff | Atmos Energy Corp. | Affiliate transactions, cost allocations, capitalization, cost of debt. |
| 10/05 | 04-42 | DE | Delaware Public Service Commission Staff | Artesian Water Co. | Allocation of tax net operating losses between regulated and unregulated. |
| 11/05 | 2005-00351 2005-00352 | KY | Kentucky Industrial Utility Customers, Inc. | Kentucky Utilities Co., Louisville Gas & Electric | Workforce Separation Program cost recovery and shared savings through VDT surcredit. |
| 01/06 | 2005-00341 | KY | Kentucky Industrial Utility Customers, Inc. | Kentucky Power Co. | System Sales Clause Rider, Environmental Cost Recovery Rider, Net Congestion Rider, Storm damage, vegetation management program, depreciation, off-system sales, maintenance normalization, pension and OPEB. |
| 03/06 | PUC Docket 31994 | TX | Cities | Texas-New Mexico Power Co. | Stranded cost recovery through competition transition or change. |
| 05/06 | 31994 Supplemental | TX | Cities | Texas-New Mexico Power Co. | Retrospective ADFIT, prospective ADFIT. |
| 03/06 | U-21453, U-20925, U-22092 | LA | Louisiana Public Service Commission Staff | Entergy Gulf States, Inc. | Jurisdictional separation plan. |
| 03/06 | NOPR Reg 104385-OR | IRS | Alliance for Valley Health Care and Houston Council for Health Education | AEP Texas Central Company and CenterPoint Energy Houston Electric | Proposed Regulations affecting flow-through to ratepayers of excess deferred income taxes and investment tax credits on generation plant that is sold or deregulated. |
| 04/06 | U-25116 | LA | Louisiana Public Service Commission Staff | Entergy Louisiana, Inc. | 2002-2004 Audit of Fuel Adjustment Clause Filings. Affiliate transactions. |
| 07/06 | R-00061366, Et. al. | PA | Met-Ed Ind. Users Group Pennsylvania Ind. Customer Alliance | Metropolitan Edison Co., Pennsylvania Electric Co. | Recovery of NUG-related stranded costs, government mandated program costs, storm damage costs. |
| 07/06 | U-23327 | LA | Louisiana Public Service Commission Staff | Southwestern Electric Power Co. | Revenue requirements, formula rate plan, banking proposal. |
| 08/06 | U-21453, U-20925, U-22092 (Subdocket J) | LA | Louisiana Public Service Commission Staff | Entergy Gulf States, Inc. | Jurisdictional separation plan. |

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| 11/06 | 05CVH03-3375 Franklin County Court Affidavit | OH | Various Taxing Authorities (Non-Utility Proceeding) | State of Ohio Department of Revenue | Accounting for nuclear fuel assemblies as manufactured equipment and capitalized plant. |
| 12/06 | U-23327 Subdocket A Reply Testimony | LA | Louisiana Public Service Commission Staff | Southwestern Electric Power Co. | Revenue requirements, formula rate plan, banking proposal. |
| 03/07 | U-29764 | LA | Louisiana Public Service Commission Staff | Entergy Gulf States, Inc., Entergy Louisiana, LLC | Jurisdictional allocation of Entergy System Agreement equalization remedy receipts. |
| 03/07 | PUC Docket 33309 | TX | Cities | AEP Texas Central Co. | Revenue requirements, including functionalization of transmission and distribution costs. |
| 03/07 | PUC Docket 33310 | TX | Cities | AEP Texas North Co. | Revenue requirements, including functionalization of transmission and distribution costs. |
| 03/07 | 2006-00472 | KY | Kentucky Industrial Utility Customers, Inc. | East Kentucky Power Cooperative | Interim rate increase, RUS loan covenants, credit facility requirements, financial condition. |
| 03/07 | U-29157 | LA | Louisiana Public Service Commission Staff | Cleco Power, LLC | Permanent (Phase II) storm damage cost recovery. |
| 04/07 | U-29764 Supplemental and Rebuttal | LA | Louisiana Public Service Commission Staff | Entergy Gulf States, Inc., Entergy Louisiana, LLC | Jurisdictional allocation of Entergy System Agreement equalization remedy receipts. |
| 04/07 | ER07-682-000 Affidavit | FERC | Louisiana Public Service Commission | Entergy Services, Inc. and the Entergy Operating Companies | Allocation of intangible and general plant and A&G expenses to production and state income tax effects on equalization remedy receipts. |
| 04/07 | ER07-684-000 Affidavit | FERC | Louisiana Public Service Commission | Entergy Services, Inc. and the Entergy Operating Companies | Fuel hedging costs and compliance with FERC USOA. |
| 05/07 | ER07-682-000 Affidavit | FERC | Louisiana Public Service Commission | Entergy Services, Inc. and the Entergy Operating Companies | Allocation of intangible and general plant and A&G expenses to production and account 924 effects on MSS-3 equalization remedy payments and receipts. |
| 06/07 | U-29764 | LA | Louisiana Public Service Commission Staff | Entergy Louisiana, LLC, Entergy Gulf States, Inc. | Show cause for violating LPSC Order on fuel hedging costs. |
| 07/07 | 2006-00472 | KY | Kentucky Industrial Utility Customers, Inc. | East Kentucky Power Cooperative | Revenue requirements, post-test year adjustments, TIER, surcharge revenues and costs, financial need. |
| 07/07 | ER07-956-000 Affidavit | FERC | Louisiana Public Service Commission | Entergy Services, Inc. | Storm damage costs related to Hurricanes Katrina and Rita and effects of MSS-3 equalization payments and receipts. |
| 10/07 | 05-UR-103 Direct | WI | Wisconsin Industrial Energy Group | Wisconsin Electric Power Company, Wisconsin Gas, LLC | Revenue requirements, carrying charges on CWIP, amortization and return on regulatory assets, working capital, incentive compensation, use of rate base in lieu of capitalization, quantification and use of Point Beach sale proceeds. |

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| 10/07 | 05-UR-103 Surrebuttal | WI | Wisconsin Industrial Energy Group | Wisconsin Electric Power Company, Wisconsin Gas, LLC | Revenue requirements, carrying charges on CWIP, amortization and return on regulatory assets, working capital, incentive compensation, use of rate base in lieu of capitalization, quantification and use of Point Beach sale proceeds. |
| 10/07 | 25060-U Direct | GA | Georgia Public Service Commission Public Interest Adversary Staff | Georgia Power Company | Affiliate costs, incentive compensation, consolidated income taxes, §199 deduction. |
| 11/07 | 06-0033-E-CN Direct | WV | West Virginia Energy Users Group | Appalachian Power Company | IGCC surcharge during construction period and post-in-service date. |
| 11/07 | ER07-682-000 Direct | FERC | Louisiana Public Service Commission | Entergy Services, Inc. and the Entergy Operating Companies | Functionalization and allocation of intangible and general plant and A&G expenses. |
| 01/08 | ER07-682-000 Cross-Answering | FERC | Louisiana Public Service Commission | Entergy Services, Inc. and the Entergy Operating Companies | Functionalization and allocation of intangible and general plant and A&G expenses. |
| 01/08 | 07-551-EL-AIR Direct | OH | Ohio Energy Group, Inc. | Ohio Edison Company, Cleveland Electric Illuminating Company, Toledo Edison Company | Revenue requirements. |
| 02/08 | ER07-956-000 Direct | FERC | Louisiana Public Service Commission | Entergy Services, Inc. and the Entergy Operating Companies | Functionalization of expenses, storm damage expense and reserves, tax NOL carrybacks in accounts, ADIT, nuclear service lives and effects on depreciation and decommissioning. |
| 03/08 | ER07-956-000 Cross-Answering | FERC | Louisiana Public Service Commission | Entergy Services, Inc. and the Entergy Operating Companies | Functionalization of expenses, storm damage expense and reserves, tax NOL carrybacks in accounts, ADIT, nuclear service lives and effects on depreciation and decommissioning. |
| 04/08 | 2007-00562, 2007-00563 | KY | Kentucky Industrial Utility Customers, Inc. | Kentucky Utilities Co., Louisville Gas and Electric Co. | Merger surcredit. |
| 04/08 | 26837 Direct Bond, Johnson, Thebert, Kollen Panel | GA | Georgia Public Service Commission Staff | SCANA Energy Marketing, Inc. | Rule Nisi complaint. |
| 05/08 | 26837 Rebuttal Bond, Johnson, Thebert, Kollen Panel | GA | Georgia Public Service Commission Staff | SCANA Energy Marketing, Inc. | Rule Nisi complaint. |
| 05/08 | 26837 Suppl Rebuttal Bond, Johnson, Thebert, Kollen Panel | GA | Georgia Public Service Commission Staff | SCANA Energy Marketing, Inc. | Rule Nisi complaint. |

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| 06/08 | 2008-00115 | KY | Kentucky Industrial Utility Customers, Inc. | East Kentucky Power Cooperative, Inc. | Environmental surcharge recoveries, including costs recovered in existing rates, TIER. |
| 07/08 | 27163 Direct | GA | Georgia Public Service Commission Public Interest Advocacy Staff | Atmos Energy Corp. | Revenue requirements, including projected test year rate base and expenses. |
| 07/08 | 27163 Taylor, Kollen Panel | GA | Georgia Public Service Commission Public Interest Advocacy Staff | Atmos Energy Corp. | Affiliate transactions and division cost allocations, capital structure, cost of debt. |
| 08/08 | 6680-CE-170 Direct | WI | Wisconsin Industrial Energy Group, Inc. | Wisconsin Power and Light Company | Nelson Dewey 3 or Colombia 3 fixed financial parameters. |
| 08/08 | 6680-UR-116 Direct | WI | Wisconsin Industrial Energy Group, Inc. | Wisconsin Power and Light Company | CWIP in rate base, labor expenses, pension expense, financing, capital structure, decoupling. |
| 08/08 | 6680-UR-116 Rebuttal | WI | Wisconsin Industrial Energy Group, Inc. | Wisconsin Power and Light Company | Capital structure. |
| 08/08 | 6690-UR-119 Direct | WI | Wisconsin Industrial Energy Group, Inc. | Wisconsin Public Service Corp. | Prudence of Weston 3 outage, incentive compensation, Crane Creek Wind Farm incremental revenue requirement, capital structure. |
| 09/08 | 6690-UR-119 Surrebuttal | WI | Wisconsin Industrial Energy Group, Inc. | Wisconsin Public Service Corp. | Prudence of Weston 3 outage, Section 199 deduction. |
| 09/08 | 08-935-EL-SSO, 08-918-EL-SSO | OH | Ohio Energy Group, Inc. | First Energy | Standard service offer rates pursuant to electric security plan, significantly excessive earnings test. |
| 10/08 | 08-917-EL-SSO | OH | Ohio Energy Group, Inc. | AEP | Standard service offer rates pursuant to electric security plan, significantly excessive earnings test. |
| 10/08 | 2007-00564, 2007-00565, 2008-00251 2008-00252 | KY | Kentucky Industrial Utility Customers, Inc. | Louisville Gas and Electric Co., Kentucky Utilities Company | Revenue forecast, affiliate costs, depreciation expenses, federal and state income tax expense, capitalization, cost of debt. |
| 11/08 | EL08-51 | FERC | Louisiana Public Service Commission | Entergy Services, Inc. | Spindletop gas storage facilities, regulatory asset and bandwidth remedy. |
| 11/08 | 35717 | TX | Cities Served by Oncor Delivery Company | Oncor Delivery Company | Recovery of old meter costs, asset ADFIT, cash working capital, recovery of prior year restructuring costs, levelized recovery of storm damage costs, prospective storm damage accrual, consolidated tax savings adjustment. |
| 12/08 | 27800 | GA | Georgia Public Service Commission | Georgia Power Company | AFUDC versus CWIP in rate base, mirror CWIP, certification cost, use of short term debt and trust preferred financing, CWIP recovery, regulatory incentive. |
| 01/09 | ER08-1056 | FERC | Louisiana Public Service Commission | Entergy Services, Inc. | Entergy System Agreement bandwidth remedy calculations, including depreciation expense, ADIT, capital structure. |
| 01/09 | ER08-1056 Supplemental Direct | FERC | Louisiana Public Service Commission | Entergy Services, Inc. | Blytheville leased turbines; accumulated depreciation. |

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| 02/09 | EL08-51 Rebuttal | FERC | Louisiana Public Service Commission | Entergy Services, Inc. | Spindletop gas storage facilities regulatory asset and bandwidth remedy. |
| 02/09 | 2008-00409 Direct | KY | Kentucky Industrial Utility Customers, Inc. | East Kentucky Power Cooperative, Inc. | Revenue requirements. |
| 03/09 | ER08-1056 Answering | FERC | Louisiana Public Service Commission | Entergy Services, Inc. | Entergy System Agreement bandwidth remedy calculations, including depreciation expense, ADIT, capital structure. |
| 03/09 | U-21453, U-20925 U-22092 (Sub J) Direct | LA | Louisiana Public Service Commission Staff | Entergy Gulf States Louisiana, LLC | Violation of EGSI separation order, ETI and EGSL separation accounting, Spindletop regulatory asset. |
| 04/09 | Rebuttal | | | | |
| 04/09 | 2009-00040 Direct-Interim (Oral) | KY | Kentucky Industrial Utility Customers, Inc. | Big Rivers Electric Corp. | Emergency interim rate increase; cash requirements. |
| 04/09 | PUC Docket 36530 | TX | State Office of Administrative Hearings | Oncor Electric Delivery Company, LLC | Rate case expenses. |
| 05/09 | ER08-1056 Rebuttal | FERC | Louisiana Public Service Commission | Entergy Services, Inc. | Entergy System Agreement bandwidth remedy calculations, including depreciation expense, ADIT, capital structure. |
| 06/09 | 2009-00040 Direct- Permanent | KY | Kentucky Industrial Utility Customers, Inc. | Big Rivers Electric Corp. | Revenue requirements, TIER, cash flow. |
| 07/09 | 080677-EI | FL | South Florida Hospital and Healthcare Association | Florida Power & Light Company | Multiple test years, GBRA rider, forecast assumptions, revenue requirement, O&M expense, depreciation expense, Economic Stimulus Bill, capital structure. |
| 08/09 | U-21453, U- 20925, U-22092 (Subdocket J) Supplemental Rebuttal | LA | Louisiana Public Service Commission | Entergy Gulf States Louisiana, LLC | Violation of EGSI separation order, ETI and EGSL separation accounting, Spindletop regulatory asset. |
| 08/09 | 8516 and 29950 | GA | Georgia Public Service Commission Staff | Atlanta Gas Light Company | Modification of PRP surcharge to include infrastructure costs. |
| 09/09 | 05-UR-104 Direct and Surrebuttal | WI | Wisconsin Industrial Energy Group | Wisconsin Electric Power Company | Revenue requirements, incentive compensation, depreciation, deferral mitigation, capital structure, cost of debt. |
| 09/09 | 09AL-299E | CO | CF&I Steel, Rocky Mountain Steel Mills LP, Climax Molybdenum Company | Public Service Company of Colorado | Forecasted test year, historic test year, proforma adjustments for major plant additions, tax depreciation. |
| 09/09 | 6680-UR-117 Direct and Surrebuttal | WI | Wisconsin Industrial Energy Group | Wisconsin Power and Light Company | Revenue requirements, CWIP in rate base, deferral mitigation, payroll, capacity shutdowns, regulatory assets, rate of return. |

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| 10/09 | 09A-415E Answer | CO | Cripple Creek & Victor Gold Mining Company, et al. | Black Hills/CO Electric Utility Company | Cost prudence, cost sharing mechanism. |
| 10/09 | EL09-50 Direct | FERC | Louisiana Public Service Commission | Entergy Services, Inc. | Waterford 3 sale/leaseback accumulated deferred income taxes, Entergy System Agreement bandwidth remedy calculations. |
| 10/09 | 2009-00329 | KY | Kentucky Industrial Utility Customers, Inc. | Louisville Gas and Electric Company, Kentucky Utilities Company | Trimble County 2 depreciation rates. |
| 12/09 | PUE-2009-00030 | VA | Old Dominion Committee for Fair Utility Rates | Appalachian Power Company | Return on equity incentive. |
| 12/09 | ER09-1224 Direct | FERC | Louisiana Public Service Commission | Entergy Services, Inc. | Hypothetical versus actual costs, out of period costs, Spindletop deferred capital costs, Waterford 3 sale/leaseback ADIT. |
| 01/10 | ER09-1224 Cross-Answering | FERC | Louisiana Public Service Commission | Entergy Services, Inc. | Hypothetical versus actual costs, out of period costs, Spindletop deferred capital costs, Waterford 3 sale/leaseback ADIT. |
| 01/10 | EL09-50 Rebuttal Supplemental Rebuttal | FERC | Louisiana Public Service Commission | Entergy Services, Inc. | Waterford 3 sale/leaseback accumulated deferred income taxes, Entergy System Agreement bandwidth remedy calculations. |
| 02/10 | ER09-1224 Final | FERC | Louisiana Public Service Commission | Entergy Services, Inc. | Hypothetical versus actual costs, out of period costs, Spindletop deferred capital costs, Waterford 3 sale/leaseback ADIT. |
| 02/10 | 30442 Wackerly-Kollen Panel | GA | Georgia Public Service Commission Staff | Atmos Energy Corporation | Revenue requirement issues. |
| 02/10 | 30442 McBride-Kollen Panel | GA | Georgia Public Service Commission Staff | Atmos Energy Corporation | Affiliate/division transactions, cost allocation, capital structure. |
| 02/10 | 2009-00353 | KY | Kentucky Industrial Utility Customers, Inc., Attorney General | Louisville Gas and Electric Company, Kentucky Utilities Company | Ratemaking recovery of wind power purchased power agreements. |
| 03/10 | 2009-00545 | KY | Kentucky Industrial Utility Customers, Inc. | Kentucky Power Company | Ratemaking recovery of wind power purchased power agreement. |
| 03/10 | E015/GR-09-1151 | MN | Large Power Interveners | Minnesota Power | Revenue requirement issues, cost overruns on environmental retrofit project. |
| 03/10 | EL10-55 | FERC | Louisiana Public Service Commission | Entergy Services, Inc., Entergy Operating Cos | Depreciation expense and effects on System Agreement tariffs. |
| 04/10 | 2009-00459 | KY | Kentucky Industrial Utility Customers, Inc. | Kentucky Power Company | Revenue requirement issues. |

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| 04/10 | 2009-00458, 2009-00459 | KY | Kentucky Industrial Utility Customers, Inc. | Kentucky Utilities Company, Louisville Gas and Electric Company | Revenue requirement issues. |
| 08/10 | 31647 | GA | Georgia Public Service Commission Staff | Atlanta Gas Light Company | Revenue requirement and synergy savings issues. |
| 08/10 | 31647 Wackerly-Kollen Panel | GA | Georgia Public Service Commission Staff | Atlanta Gas Light Company | Affiliate transaction and Customer First program issues. |
| 08/10 | 2010-00204 | KY | Kentucky Industrial Utility Customers, Inc. | Louisville Gas and Electric Company, Kentucky Utilities Company | PPL acquisition of E.ON U.S. (LG&E and KU) conditions, acquisition savings, sharing deferral mechanism. |
| 09/10 | 38339 Direct and Cross-Rebuttal | TX | Gulf Coast Coalition of Cities | CenterPoint Energy Houston Electric | Revenue requirement issues, including consolidated tax savings adjustment, incentive compensation FIN 48; AMS surcharge including roll-in to base rates; rate case expenses. |
| 09/10 | EL10-55 | FERC | Louisiana Public Service Commission | Entergy Services, Inc., Entergy Operating Cos | Depreciation rates and expense input effects on System Agreement tariffs. |
| 09/10 | 2010-00167 | KY | Gallatin Steel | East Kentucky Power Cooperative, Inc. | Revenue requirements. |
| 09/10 | U-23327 Subdocket E Direct | LA | Louisiana Public Service Commission | SWEPCO | Fuel audit: S02 allowance expense, variable O&M expense, off-system sales margin sharing. |
| 11/10 | U-23327 Rebuttal | LA | Louisiana Public Service Commission | SWEPCO | Fuel audit: S02 allowance expense, variable O&M expense, off-system sales margin sharing. |
| 09/10 | U-31351 | LA | Louisiana Public Service Commission Staff | SWEPCO and Valley Electric Membership Cooperative | Sale of Valley assets to SWEPCO and dissolution of Valley. |
| 10/10 | 10-1261-EL-UNC | OH | Ohio OCC, Ohio Manufacturers Association, Ohio Energy Group, Ohio Hospital Association, Appalachian Peace and Justice Network | Columbus Southern Power Company | Significantly excessive earnings test. |
| 10/10 | 10-0713-E-PC | WV | West Virginia Energy Users Group | Monongahela Power Company, Potomac Edison Power Company | Merger of First Energy and Allegheny Energy. |
| 10/10 | U-23327 Subdocket F Direct | LA | Louisiana Public Service Commission Staff | SWEPCO | AFUDC adjustments in Formula Rate Plan. |
| 11/10 | EL10-55 Rebuttal | FERC | Louisiana Public Service Commission | Entergy Services, Inc., Entergy Operating Cos | Depreciation rates and expense input effects on System Agreement tariffs. |

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| 12/10 | ER10-1350 Direct | FERC | Louisiana Public Service Commission | Entergy Services, Inc. Entergy Operating Cos | Waterford 3 lease amortization, ADIT, and fuel inventory effects on System Agreement tariffs. |
| 01/11 | ER10-1350 Cross-Answering | FERC | Louisiana Public Service Commission | Entergy Services, Inc., Entergy Operating Cos | Waterford 3 lease amortization, ADIT, and fuel inventory effects on System Agreement tariffs. |
| 03/11 | ER10-2001 Direct | FERC | Louisiana Public Service Commission | Entergy Services, Inc., Entergy Arkansas, Inc. | EAI depreciation rates. |
| 04/11 | Cross-Answering | | | | |
| 04/11 | U-23327 Subdocket E | LA | Louisiana Public Service Commission Staff | SWEPCO | Settlement, incl resolution of S02 allowance expense, var O&M expense, sharing of OSS margins. |
| 04/11 | 38306 Direct | TX | Cities Served by Texas- New Mexico Power Company | Texas-New Mexico Power Company | AMS deployment plan, AMS Surcharge, rate case expenses. |
| 05/11 | Suppl Direct | | | | |
| 05/11 | 11-0274-E-GI | WV | West Virginia Energy Users Group | Appalachian Power Company, Wheeling Power Company | Deferral recovery phase-in, construction surcharge. |
| 05/11 | 2011-00036 | KY | Kentucky Industrial Utility Customers, Inc. | Big Rivers Electric Corp. | Revenue requirements. |
| 06/11 | 29849 | GA | Georgia Public Service Commission Staff | Georgia Power Company | Accounting issues related to Vogtle risk-sharing mechanism. |
| 07/11 | ER11-2161 Direct and Answering | FERC | Louisiana Public Service Commission | Entergy Services, Inc. and Entergy Texas, Inc. | ETI depreciation rates; accounting issues. |
| 07/11 | PUE-2011-00027 | VA | Virginia Committee for Fair Utility Rates | Virginia Electric and Power Company | Return on equity performance incentive. |
| 07/11 | 11-346-EL-SSO 11-348-EL-SSO 11-349-EL-AAM 11-350-EL-AAM | OH | Ohio Energy Group | AEP-OH | Equity Stabilization Incentive Plan; actual earned returns; ADIT offsets in riders. |
| 08/11 | U-23327 Subdocket F Rebuttal | LA | Louisiana Public Service Commission Staff | SWEPCO | Depreciation rates and service lives; AFUDC adjustments. |
| 08/11 | 05-UR-105 | WI | Wisconsin Industrial Energy Group | WE Energies, Inc. | Suspended amortization expenses; revenue requirements. |
| 08/11 | ER11-2161 Cross-Answering | FERC | Louisiana Public Service Commission | Entergy Services, Inc. and Entergy Texas, Inc. | ETI depreciation rates; accounting issues. |
| 09/11 | PUC Docket 39504 | TX | Gulf Coast Coalition of Cities | CenterPoint Energy Houston Electric | Investment tax credit, excess deferred income taxes; normalization. |
| 09/11 | 2011-00161 2011-00162 | KY | Kentucky Industrial Utility Consumers, Inc. | Louisville Gas & Electric Company, Kentucky Utilities Company | Environmental requirements and financing. |

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| 10/11 | 11-4571-EL-UNC 11-4572-EL-UNC | OH | Ohio Energy Group | Columbus Southern Power Company, Ohio Power Company | Significantly excessive earnings. |
| 10/11 | 4220-UR-117 Direct | WI | Wisconsin Industrial Energy Group | Northern States Power-Wisconsin | Nuclear O&M, depreciation. |
| 11/11 | 4220-UR-117 Surrebuttal | WI | Wisconsin Industrial Energy Group | Northern States Power-Wisconsin | Nuclear O&M, depreciation. |
| 11/11 | PUC Docket 39722 | TX | Cities Served by AEP Texas Central Company | AEP Texas Central Company | Investment tax credit, excess deferred income taxes; normalization. |
| 02/12 | PUC Docket 40020 | TX | Cities Served by Oncor | Lone Star Transmission, LLC | Temporary rates. |
| 03/12 | 11AL-947E Answer | CO | Climax Molybdenum Company and CF&I Steel, L.P. d/b/a Evraz Rocky Mountain Steel | Public Service Company of Colorado | Revenue requirements, including historic test year, future test year, CACJA CWIP, contra-AFUDC. |
| 03/12 | 2011-00401 | KY | Kentucky Industrial Utility Customers, Inc. | Kentucky Power Company | Big Sandy 2 environmental retrofits and environmental surcharge recovery. |
| 4/12 | 2011-00036 Direct Rehearing Supplemental Direct Rehearing | KY | Kentucky Industrial Utility Customers, Inc. | Big Rivers Electric Corp. | Rate case expenses, depreciation rates and expense. |
| 04/12 | 10-2929-EL-UNC | OH | Ohio Energy Group | AEP Ohio Power | State compensation mechanism, CRES capacity charges, Equity Stabilization Mechanism |
| 05/12 | 11-346-EL-SSO 11-348-EL-SSO | OH | Ohio Energy Group | AEP Ohio Power | State compensation mechanism, Equity Stabilization Mechanism, Retail Stability Rider. |
| 05/12 | 11-4393-EL-RDR | OH | Ohio Energy Group | Duke Energy Ohio, Inc. | Incentives for over-compliance on EE/PDR mandates. |
| 06/12 | 40020 | TX | Cities Served by Oncor | Lone Star Transmission, LLC | Revenue requirements, including ADIT, bonus depreciation and NOL, working capital, self insurance, depreciation rates, federal income tax expense. |
| 07/12 | 120015-EI | FL | South Florida Hospital and Healthcare Association | Florida Power & Light Company | Revenue requirements, including vegetation management, nuclear outage expense, cash working capital, CWIP in rate base. |
| 07/12 | 2012-00063 | KY | Kentucky Industrial Utility Customers, Inc. | Big Rivers Electric Corp. | Environmental retrofits, including environmental surcharge recovery. |
| 09/12 | 05-UR-106 | WI | Wisconsin Industrial Energy Group, Inc. | Wisconsin Electric Power Company | Section 1603 grants, new solar facility, payroll expenses, cost of debt. |
| 10/12 | 2012-00221 2012-00222 | KY | Kentucky Industrial Utility Customers, Inc. | Louisville Gas and Electric Company, Kentucky Utilities Company | Revenue requirements, including off-system sales, outage maintenance, storm damage, injuries and damages, depreciation rates and expense. |

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| 10/12 | 120015-EI Direct | FL | South Florida Hospital and Healthcare Association | Florida Power & Light Company | Settlement issues. |
| 11/12 | 120015-EI Rebuttal | FL | South Florida Hospital and Healthcare Association | Florida Power & Light Company | Settlement issues. |
| 10/12 | 40604 | TX | Steering Committee of Cities Served by Oncor | Cross Texas Transmission, LLC | Policy and procedural issues, revenue requirements, including AFUDC, ADIT – bonus depreciation & NOL, incentive compensation, staffing, self-insurance, net salvage, depreciation rates and expense, income tax expense. |
| 11/12 | 40627 Direct | TX | City of Austin d/b/a Austin Energy | City of Austin d/b/a Austin Energy | Rate case expenses. |
| 12/12 | 40443 | TX | Cities Served by SWEPCO | Southwestern Electric Power Company | Revenue requirements, including depreciation rates and service lives, O&M expenses, consolidated tax savings, CWIP in rate base, Turk plant costs. |
| 12/12 | U-29764 | LA | Louisiana Public Service Commission Staff | Entergy Gulf States Louisiana, LLC and Entergy Louisiana, LLC | Termination of purchased power contracts between EGSL and ETI, Spindletop regulatory asset. |
| 01/13 | ER12-1384 Rebuttal | FERC | Louisiana Public Service Commission | Entergy Gulf States Louisiana, LLC and Entergy Louisiana, LLC | Little Gypsy 3 cancellation costs. |
| 02/13 | 40627 Rebuttal | TX | City of Austin d/b/a Austin Energy | City of Austin d/b/a Austin Energy | Rate case expenses. |
| 03/13 | 12-426-EL-SSO | OH | The Ohio Energy Group | The Dayton Power and Light Company | Capacity charges under state compensation mechanism, Service Stability Rider, Switching Tracker. |
| 04/13 | 12-2400-EL-UNC | OH | The Ohio Energy Group | Duke Energy Ohio, Inc. | Capacity charges under state compensation mechanism, deferrals, rider to recover deferrals. |
| 04/13 | 2012-00578 | KY | Kentucky Industrial Utility Customers, Inc. | Kentucky Power Company | Resource plan, including acquisition of interest in Mitchell plant. |
| 05/13 | 2012-00535 | KY | Kentucky Industrial Utility Customers, Inc. | Big Rivers Electric Corporation | Revenue requirements, excess capacity, restructuring. |
| 06/13 | 12-3254-EL-UNC | OH | The Ohio Energy Group, Inc., Office of the Ohio Consumers' Counsel | Ohio Power Company | Energy auctions under CBP, including reserve prices. |
| 07/13 | 2013-00144 | KY | Kentucky Industrial Utility Customers, Inc. | Kentucky Power Company | Biomass renewable energy purchase agreement. |
| 07/13 | 2013-00221 | KY | Kentucky Industrial Utility Customers, Inc. | Big Rivers Electric Corporation | Agreements to provide Century Hawesville Smelter market access. |
| 10/13 | 2013-00199 | KY | Kentucky Industrial Utility Customers, Inc. | Big Rivers Electric Corporation | Revenue requirements, excess capacity, restructuring. |

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| 12/13 | 2013-00413 | KY | Kentucky Industrial Utility Customers, Inc. | Big Rivers Electric Corporation | Agreements to provide Century Seabree Smelter market access. |
| 01/14 | ER10-1350 | FERC | Louisiana Public Service Commission | Entergy Services, Inc. | Waterford 3 lease accounting and treatment in annual bandwidth filings. |
| 04/14 | ER13-432 Direct | FERC | Louisiana Public Service Commission | Entergy Gulf States Louisiana, LLC and Entergy Louisiana, LLC | UP Settlement benefits and damages. |
| 05/14 | PUE-2013-00132 | VA | HP Hood LLC | Shenandoah Valley Electric Cooperative | Market based rate; load control tariffs. |
| 07/14 | PUE-2014-00033 | VA | Virginia Committee for Fair Utility Rates | Virginia Electric and Power Company | Fuel and purchased power hedge accounting, change in FAC Definitional Framework. |
| 08/14 | ER13-432 Rebuttal | FERC | Louisiana Public Service Commission | Entergy Gulf States Louisiana, LLC and Entergy Louisiana, LLC | UP Settlement benefits and damages. |
| 08/14 | 2014-00134 | KY | Kentucky Industrial Utility Customers, Inc. | Big Rivers Electric Corporation | Requirements power sales agreements with Nebraska entities. |
| 09/14 | E-015/CN-12-1163 Direct | MN | Large Power Intervenor | Minnesota Power | Great Northern Transmission Line; cost cap; AFUDC v. current recovery; rider v. base recovery; class cost allocation. |
| 10/14 | 2014-00225 | KY | Kentucky Industrial Utility Customers, Inc. | Kentucky Power Company | Allocation of fuel costs to off-system sales. |
| 10/14 | ER13-1508 | FERC | Louisiana Public Service Commission | Entergy Services, Inc. | Entergy service agreements and tariffs for affiliate power purchases and sales; return on equity. |
| 10/14 | 14-0702-E-42T 14-0701-E-D | WV | West Virginia Energy Users Group | First Energy-Monongahela Power, Potomac Edison | Consolidated tax savings; payroll; pension, OPEB, amortization; depreciation; environmental surcharge. |
| 11/14 | E-015/CN-12-1163 Surrebuttal | MN | Large Power Intervenor | Minnesota Power | Great Northern Transmission Line; cost cap; AFUDC v. current recovery; rider v. base recovery; class allocation. |
| 11/14 | 05-376-EL-UNC | OH | Ohio Energy Group | Ohio Power Company | Refund of IGCC CWIP financing cost recoveries. |
| 11/14 | 14AL-0660E | CO | Climax, CF&I Steel | Public Service Company of Colorado | Historic test year v. future test year; AFUDC v. current return; CACJA rider, transmission rider; equivalent availability rider; ADIT; depreciation; royalty income; amortization. |
| 12/14 | EL14-026 | SD | Black Hills Industrial Intervenor | Black Hills Power Company | Revenue requirement issues, including depreciation expense and affiliate charges. |
| 12/14 | 14-1152-E-42T | WV | West Virginia Energy Users Group | AEP-Appalachian Power Company | Income taxes, payroll, pension, OPEB, deferred costs and write offs, depreciation rates, environmental projects surcharge. |
| 01/15 | 9400-YO-100 Direct | WI | Wisconsin Industrial Energy Group | Wisconsin Energy Corporation | WEC acquisition of Integrys Energy Group, Inc. |

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| 01/15 | 14F-0336EG 14F-0404EG | CO | Development Recovery Company LLC | Public Service Company of Colorado | Line extension policies and refunds. |
| 02/15 | 9400-YO-100 Rebuttal | WI | Wisconsin Industrial Energy Group | Wisconsin Energy Corporation | WEC acquisition of Integrys Energy Group, Inc. |
| 03/15 | 2014-00396 | KY | Kentucky Industrial Utility Customers, Inc. | AEP-Kentucky Power Company | Base, Big Sandy 2 retirement rider, environmental surcharge, and Big Sandy 1 operation rider revenue requirements, depreciation rates, financing, deferrals. |
| 03/15 | 2014-00371 2014-00372 | KY | Kentucky Industrial Utility Customers, Inc. | Kentucky Utilities Company and Louisville Gas and Electric Company | Revenue requirements, staffing and payroll, depreciation rates. |
| 04/15 | 2014-00450 | KY | Kentucky Industrial Utility Customers, Inc. and the Attorney General of the Commonwealth of Kentucky | AEP-Kentucky Power Company | Allocation of fuel costs between native load and off- system sales. |
| 04/15 | 2014-00455 | KY | Kentucky Industrial Utility Customers, Inc. and the Attorney General of the Commonwealth of Kentucky | Big Rivers Electric Corporation | Allocation of fuel costs between native load and off- system sales. |
| 04/15 | ER2014-0370 | MO | Midwest Energy Consumers' Group | Kansas City Power & Light Company | Affiliate transactions, operation and maintenance expense, management audit. |
| 05/15 | PUE-2015-00022 | VA | Virginia Committee for Fair Utility Rates | Virginia Electric and Power Company | Fuel and purchased power hedge accounting; change in FAC Definitional Framework. |
| 05/15 09/15 | EL10-65 Direct, Rebuttal Complaint | FERC | Louisiana Public Service Commission | Entergy Services, Inc. | Accounting for AFUDC Debt, related ADIT. |
| 07/15 | EL10-65 Direct and Answering Consolidated Bandwidth Dockets | FERC | Louisiana Public Service Commission | Entergy Services, Inc. | Waterford 3 sale/leaseback ADIT, Bandwidth Formula. |
| 09/15 | 14-1693-EL-RDR | OH | Public Utilities Commission of Ohio | Ohio Energy Group | PPA rider for charges or credits for physical hedges against market. |
| 12/15 | 45188 | TX | Cities Served by Oncor Electric Delivery Company | Oncor Electric Delivery Company | Hunt family acquisition of Oncor; transaction structure; income tax savings from real estate investment trust (REIT) structure; conditions. |
| 12/15 01/16 | 6680-CE-176 Direct, Surrebuttal, Supplemental Rebuttal | WI | Wisconsin Industrial Energy Group, Inc. | Wisconsin Power and Light Company | Need for capacity and economics of proposed Riverside Energy Center Expansion project; ratemaking conditions. |

**Expert Testimony Appearances
of
Lane Kollen
as of September 2016**

| Date | Case | Jurisdct. | Party | Utility | Subject |
|----------------------------------|---|-----------|--|---|--|
| 03/16 04/16 05/16 06/16 | EL01-88 Remand Direct Answering Cross-Answering Rebuttal | FERC | Louisiana Public Service Commission | Entergy Services, Inc. | Bandwidth Formula: Capital structure, fuel inventory, Waterford 3 sale/leaseback, Vidalia purchased power, ADIT, Blythesville, Spindletop, River Bend AFUDC, property insurance reserve, nuclear depreciation expense. |
| 03/16 | 15-1673-E-T | WV | West Virginia Energy Users Group | Appalachian Power Company | Terms and conditions of utility service for commercial and industrial customers, including security deposits. |
| 04/16 | 39971 Panel Direct | GA | Georgia Public Service Commission Staff | Southern Company, AGL Resources, Georgia Power Company, Atlanta Gas Light Company | Southern Company acquisition of AGL Resources, risks, opportunities, quantification of savings, ratemaking implications, conditions, settlement. |
| 04/16 | 2015-00343 | KY | Office of the Attorney General | Atmos Energy Corporation | Revenue requirements, including NOL ADIT, affiliate transactions. |
| 04/16 | 2016-00070 | KY | Office of the Attorney General | Atmos Energy Corporation | R & D Rider. |
| 05/16 | 16-G-0058 16-G-0059 | NY | New York City | Keyspan Gas East Corp., Brooklyn Union Gas Company | Depreciation, including excess reserves, leak prone pipe. |
| 06/16 | 160088-EI | FL | South Florida Hospital and Healthcare Association | Florida Power and Light Company | Fuel Adjustment Clause Incentive Mechanism re: economy sales and purchases, asset optimization. |
| 07/16 | 160021-EI | FL | South Florida Hospital and Healthcare Association | Florida Power and Light Company | Revenue requirements, including capital recovery, depreciation, ADIT. |
| 08/16 | 15-1022-EL-UNC 16-1105-EL-UNC | OH | Ohio Energy Group | AEP Ohio Power Company | SEET earnings, effects of other pending proceedings. |
| 9/16 | 2016-00162 | KY | Office of the Attorney General | Columbia Gas Kentucky | Revenue requirements, O&M expense, depreciation, affiliate transactions. |
| 09/16 | E-22 Sub 519, 532, 533 | NC | Nucor Steel | Dominion North Carolina Power Company | Revenue requirements, deferrals and amortizations. |
| 09/16 | 15-1256-G-390P (Reopened) 16-0922-G-390P | WV | West Virginia Energy Users Group | Mountaineer Gas Company | Infrastructure rider, including NOL ADIT and other income tax normalization and calculation issues. |

EXHIBIT ____ (LK-2)

SNL

Gen J M Gaylin

Plant Financials

| | 2002 Y | 2003 Y | 2004 Y | 2005 Y | 2006 Y | 2007 Y | 2008 Y | 2009 Y | 2010 Y | 2011 Y |
|--|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Operational Statistics | | | | | | | | | | |
| Operating Capacity (MW) | NA | NA | NA | NA | NA | NA | NA | 2,840.00 | 2,840.00 | 2,800.00 |
| Summer Peak Capacity (MW) | NA | NA | NA | NA | NA | NA | NA | 2,840.00 | 2,840.00 | 2,800.00 |
| Winter Peak Capacity (MW) | NA | NA | NA | NA | NA | NA | NA | 2,840.00 | 2,840.00 | 2,800.00 |
| Net Generation (MWh) | NA | NA | NA | NA | NA | NA | NA | 19,160,246 | 18,885,659 | 18,184,347 |
| Capacity Factor (%) | NA | NA | NA | NA | NA | NA | NA | 82.85 | 81.66 | 79.84 |
| Heat Rate | NA | NA | NA | NA | NA | NA | NA | 9,721 | 9,890 | 9,750 |
| Reported Plant Production Costs | | | | | | | | | | |
| Fuel Expenses | | | | | | | | | | |
| Fuel Expense | 188,735,090 | 176,369,833 | 185,144,865 | 204,637,371 | 195,220,629 | 234,034,698 | 373,547,808 | 431,858,144 | 387,478,015 | 368,587,061 |
| Fuel (\$/MWh) | 10.81 | 9.83 | 9.94 | 10.69 | 11.71 | 12.34 | 17.70 | 22.53 | 20.52 | 20.16 |
| Estimated Fuel Costs? | No | No | No | No | No | No | No | No | No | No |
| Non-Fuel Operating & Maintenance Expenses | | | | | | | | | | |
| Op. Supervision & Engineering | 1,455,661 | 2,741,258 | 3,523,523 | 4,065,648 | 4,419,269 | 5,164,046 | 4,808,780 | 4,034,804 | 4,073,077 | 3,504,039 |
| Total Steam/Hydraulic Expense | 26,158,545 | 32,625,352 | 38,113,751 | 45,421,810 | 39,004,037 | 49,534,185 | 64,286,017 | 60,838,914 | 81,390,752 | 68,138,059 |
| Steam Transferred (Credit) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Electric Expenses | 73,409 | 81,413 | 96,448 | 83,838 | 87,835 | 90,924 | 107,750 | 92,318 | 107,185 | 89,084 |
| Misc. Power Expenses | 18,124,229 | 18,964,718 | 15,558,955 | 17,885,951 | 26,184,227 | 31,935,816 | 18,944,834 | 18,825,804 | 19,031,024 | 15,939,601 |
| Rent | 84,433,721 | 83,428,748 | 63,716,277 | 51,357,511 | 51,238,897 | 52,464,691 | 63,760,493 | 68,487,077 | 0 | 2,093 |
| Allowances | 2,575,232 | 2,579,628 | 2,587,459 | 3,390,088 | 2,711,582 | 1,729,119 | 1,819,572 | 952,910 | 1,338,871 | 2,118,607 |
| Total Non-Fuel Operating Expenses | 112,818,787 | 120,391,113 | 123,574,413 | 122,184,646 | 123,625,847 | 140,818,781 | 153,728,446 | 151,241,927 | 85,841,808 | 89,801,363 |
| Supervision & Engineering | 1,411,096 | 728,744 | 951,533 | 1,512,110 | 1,133,483 | 1,456,461 | 1,635,931 | 1,351,904 | 1,240,514 | 1,071,722 |
| Structures | 758,775 | 1,732,187 | 1,034,035 | 1,522,882 | 2,317,826 | 2,752,835 | 2,588,394 | 2,569,837 | 2,899,529 | 1,930,409 |
| Boiler/Reactor/Reservoirs & Dams | 25,837,798 | 24,851,095 | 23,269,886 | 24,404,353 | 33,273,628 | 27,953,910 | 28,843,194 | 32,850,580 | 33,583,028 | 37,372,652 |
| Electric Plant | 3,743,981 | 3,289,227 | 2,270,046 | 2,494,126 | 4,456,386 | 4,110,734 | 3,084,212 | 4,288,965 | 6,424,043 | 4,999,880 |
| Misc. Plant | 800,600 | 944,437 | 681,770 | 1,186,780 | 1,355,636 | 1,089,061 | 1,261,308 | 1,805,581 | 1,552,509 | 1,648,132 |
| Total Maintenance Expense | 32,352,229 | 31,553,690 | 28,207,070 | 31,120,231 | 42,535,740 | 37,362,991 | 35,214,039 | 42,886,667 | 45,479,623 | 47,022,785 |
| Maintenance Expense (\$/MWh) | 2.08 | 1.76 | 1.51 | 1.83 | 2.55 | 1.97 | 1.87 | 2.24 | 2.41 | 2.59 |
| Non-Fuel O&M (\$/MWh) | 8.24 | 8.48 | 8.15 | 8.01 | 9.97 | 9.40 | 8.85 | 10.13 | 6.96 | 7.52 |
| Estimated Non-Fuel O&M Cost? | No | No | No | No | No | No | No | No | No | No |
| Production Costs and Ratios | | | | | | | | | | |
| Total Production Costs (\$) | 311,905,116 | 328,314,836 | 338,926,348 | 357,942,248 | 361,382,018 | 412,316,470 | 562,490,291 | 625,786,738 | 518,899,547 | 503,391,219 |
| Total Production (\$/MWh) | 19.85 | 18.29 | 18.09 | 18.70 | 21.68 | 21.75 | 28.66 | 32.68 | 27.48 | 27.68 |
| Variable Production Expense (\$) | 184,942,737 | 196,136,747 | 204,811,873 | 227,738,915 | 220,374,393 | 260,581,409 | 400,038,862 | 457,946,775 | 414,834,218 | 395,826,360 |
| Fixed Production Expense (\$) | 128,863,379 | 132,177,889 | 132,114,475 | 130,203,333 | 141,007,623 | 151,735,061 | 162,450,429 | 167,839,963 | 104,065,329 | 107,784,859 |
| Variable Production Expense (\$/MWh) | 11.77 | 10.83 | 11.00 | 11.90 | 13.22 | 13.74 | 18.96 | 23.90 | 21.97 | 21.78 |
| Fixed Production Expense (\$/kWYr) | 48.83 | 50.84 | 50.81 | 50.08 | 53.82 | 57.48 | 61.53 | 83.88 | 39.42 | 41.45 |
| SNL Modeled Production Costs | | | | | | | | | | |
| Non-Fuel Non-Allowance Variable O&M Cost (\$) | NA | NA | NA | NA | NA | NA | NA | 79,757,136 | 80,528,961 | 84,176,624 |
| Allowance Costs (\$) | NA | NA | NA | NA | NA | NA | NA | 952,910 | 1,339,871 | 2,118,807 |
| Non-Fuel Variable O&M Cost (\$) | NA | NA | NA | NA | NA | NA | NA | 80,710,046 | 81,868,832 | 86,295,231 |
| Fuel Costs (\$) | NA | NA | NA | NA | NA | NA | NA | 403,848,611 | 342,087,394 | 349,009,963 |
| Variable O&M Costs (\$) | NA | NA | NA | NA | NA | NA | NA | 484,558,657 | 423,958,226 | 435,305,194 |
| Non-Fuel Variable O&M Costs per MWh | NA | NA | NA | NA | NA | NA | NA | 4.21 | 4.33 | 4.75 |
| Fuel Cost per MWh | NA | NA | NA | NA | NA | NA | NA | 21.08 | 18.11 | 19.19 |
| Fixed O&M Cost (\$) | NA | NA | NA | NA | NA | NA | NA | 113,418,548 | 49,552,700 | 50,528,927 |
| Fixed O&M Cost per kW-Year | NA | NA | NA | NA | NA | NA | NA | 42.96 | 18.77 | 19.43 |
| Total Operating & Maintenance Expense (\$) | NA | NA | NA | NA | NA | NA | NA | 597,977,205 | 473,508,926 | 485,834,121 |
| Total Operating & Maintenance Expense per MWh | NA | NA | NA | NA | NA | NA | NA | 31.21 | 25.07 | 26.72 |

Note: SNL Energy reports generation and fuel consumption at the power plant and prime mover level, gathered from the Energy Information Administration forms 923 and 906 (EIA 923/906). Data from these forms is provided in both a preliminary/monthly report and a final annual report. The EIA does not provide a formal deadline for publication. Monthly reports are published 3 to 8 months after month-end, and annual data may not be published for 24 months from year-end.

In the case of pumped storage facilities, Net Generation (MWh) represents the total generation before energy used for pumping.

Additional data is sourced from the Federal Energy Regulatory Commission Form 1 (FERC Form 1) and the Environmental Protection Agency's Continuous Emissions Monitoring Systems (CEMS). In the absence of current-year filings, SNL utilizes regression analysis to generate cost estimates. Inputs to the model are taken from the EIA 923, FERC Form 1 and CEMS.

EXHIBIT ____ (LK-3)

AEP Input Record Citations

Tr. Vol. X (May 9, 2012) (Medine Cross-Examination)

- 2116: *"I have two objectives with this testimony, both of which are designed to provide a full record to the Commission in making their decision in this case."*
- 2137:14-22: *"...we're not results driven in our analysis. We try to represent what we believe to be the answer, so in this particular case when we were using Aurora, we don't change the inputs when we are working for an investments house, when we are working for a utility, when we are working for a Commission. The model represents our best knowledge at that moment and that's what we're using and it's not intended to be biased in any way."*
- 2151: 9-10: *"[Mr. Harter] did include the heat rates which were not on the list and were not customized."*
- 2152:13-17: *"each PJM, each dispatch are has its own load shape and so actually this is within an area we relied on that third-party assistance to help figure out the proper shapes of those curves and where to access that data."*
- 2154:25-2155:5: *"I didn't necessarily consider it to be an error. It was what we were --- it was our representation as to what we thought retirement dates were and, of course, you know, these two plants are very small and operate at margins so the net impact is relatively small."*
- 2158:14- : *"I believe 22, 23, 24 were correct and what --- consistent with what Mr. Harter testified to and I just wanted to make the record complete on all the inputs. So beginning on 26 is the discussion about heat rates and that goes on through 29."*
- 2162:11-2163:6:
 - *"Q: Now, when you looked -- you looked at the results of the initial run and obviously the second run of the model...And were you surprised that Ohio Power ended up calculating a credit of more than \$200 a megawatt day for Ohio Power?"*
 - *A: No....Obviously Ohio Power has relatively cheap generation, and so I'm not surprised that they -- you know, that their units dispatch very well and that reflects, you know, on the size of the competitiveness of their units, so I wasn't surprised, A, about that amount, or B, surprised by the relatively smaller amount for CSP."*
- 2163:13-2164:8:
 - *"Q. And is it your understanding that it's -- is it a best practice in the industry to run a model like this once and not -- and not go back and do any calibration or benchmarking?"*
 - *A. It depends on exactly what you're doing it for. The model may have been run once to calculate the initial data, but the model is being run dozens of times before it was run for this case. So I have worked on an engagement for the federal government using Aurora, and we must have run the model -- you know, we exercised the model quite a bit so let's put it that way. So saying it's only been run once is a misstate. We keep the model hot, so to speak, with our latest assumptions so ultimately it only needs to be run for that -- if there's no change in the assumptions and we agree that we were not going to pick and choose inputs to bias the results in any way, we were --- basically the model was hot, it was free to run it for this analysis, and so there wasn't a need to do multiple runs on the analysis."*

- 2165:2-8: *"Q. Did you check the model's market prices against actual market prices? A. I believe so. Q. And you believe that compares accurately and favorably? A. I believe that it produces a justifiable LMP, yes."*
- 2165:9- 2166:3:
 - *"Q. Did you check the modeled fuel costs against actual costs of plants?*
 - *A. It depends on the purpose. The fuel costs it's a forecast. It's not based upon trying to do backcasts, so to speak, so it's a forecast so it is based upon what our best guess is of knowing what fuel costs are going to be in the future.*
 - *Q. "So are you saying you don't think it's a best practice or appropriate to check the model with actual prices?*
 - *A. We're starting with actual prices to use of the 923 data to the extent that's accurate. And then we add to that our understanding and we are actively involved in both buying and selling coal assistance for parties so we know what current market prices are. We do a very detailed analysis to determine future market prices both in supply and demand so, yes, I think it has a level of accuracy that we can support."*
- 2166:4-23:
 - *"Q. Why not use actual forward prices that are out there for this kind of a short term? A. Because forward prices, you know, are forward prices. They're not forecasts and so there is a relationship between a forecast and a forward price but a forward price is simply what you or I would agree to do today to buy power or coal or whatever two years from now. And we believe it's more accurate to use a fundamental forecast rather than a forward price curve for any kind -- anything but sort of the prompt period and if you do the analysis of the forward price curves, you know that forward price curves you know move on a dime. If the forward price today is \$50, you know, prompt year plus one will be 52, 54, and a month from now it will go to 60, 62, 64. They go up and down with the wind, with the weather, with everything. So we just don't believe that the prompt -- excuse me, that the forward price curve is the way to go."*
- 2168:8-10: *"I would rather use an analyst's judgment as to what's going to happen with future prices than rely solely on a forward price curve."*
- 2169:9: *"It was not a results-oriented analysis."*
- 2170:6-11: *"Obviously forecasting is a dangerous business and there are multiple factors, some of which you can predict, some of which you can't. So for example, could we have predicted that there was no winter this year? Probably not. Could we have predicted Fukushima? Probably not."*
- 2170:18-25: *"Q. And your forecast produces \$15 megawatt hour margins for AEP Ohio. A. It produces what produces it. It was not obviously -- you know, you can change some factors that would make the number higher, some factors that would make the number lower. That was what came out of the model realm with the set of assumptions that were in there."*
- 2175:5-7: *"Q. So you think AEP could experience margins greater than \$15 during this period? 7 A. Yes, yes."*
- 2175:23-2176:
 - *"Q. Okay. So, now, you're here. Are you saying that the model reflects the real world, real operation of the pool?*

- *A. I'm saying this is a very good analytical tool coming up for actually trying to generate a power cost and coming up with a sense as to what the economics or the value of the energy credit would be. Is it going to be exactly right? Probably not. Almost assuredly not. But it's an attempt to try to find a number that is reasonable that makes sense. To ignore it -- the alternative being to ignore it or to develop, you know, sort of a proxy that doesn't make any sense is worse in my mind. It's better to have a number based upon as much good information as possible and, again, I have to assume that you have also done the calculation. There is an energy value there. To ignore it doesn't make sense to us."*
- 2199:1-17:
 - *Q. I thought you said the MLR was only applied to the off-system sales and not to the nonshopping load.*
 - *A. I'm sorry, did I say MLR? MLR -- LMP, I apologize.*
 - *Q. Okay. So you're imputing a margin to nonshopping customers that doesn't actually exist, aren't you?*
 - *A. To nonshopping? No, I think we are trying to calculate the gross margin and we have a methodology to calculate that which I think is extremely conservative based upon our understanding of what the rates are versus the LMP.*
 - *Q. Okay. But are nonshopping customers charged market-based rate?*
 - *A. They are charged retail rates which are higher than the LMP so our analysis is conservative.*
- 2203:3-16:
 - *Q. Okay. And if they don't, if the tariff rates for nonshopping customers don't increase, then that fact alone would suggest that the margin you are contributing 100 percent toward retained margins is overstated, would it not?*
 - *A. I think. I told you what the methodology was which I'll repeat, it's not based upon tariff rates. It's actually based upon the LMP, and the tariff rates from our investigation are significantly higher so this understates the energy credit. It doesn't overstate the energy credit and there's enough room between the two if there is a little bit of up or a little bit of down, I think it's more than covered.*
- 2206:2-14:
 - *Q. Ms. Medine, can you -- can you explain to me what are the inputs to the model?*
 - *A. What are the inputs that EVA provides or what are all the inputs?*
 - *Q. What are the -- all of the inputs generally speaking?*
 - *A. You know, I couldn't possibly go through the entire list. Obviously it's an 87 dis -- 60 dispatch model so it includes power generation and it includes transmission information. It includes fuel cost, emission allowance price, it goes on and on, so there is an enormous amount of information that's included."*
- 2209:7-24:
 - *Q. Okay. And help me understand what -- exactly what you've done to calibrate and benchmark the outputs and has that been relative to historical market performance or clearing prices.*
 - *A. I can't speak to everything we've done, I can really only speak to the engagement, of course, I've used Aurora so it will be an incomplete answer but we have looked at -- obviously we've looked at the results, whether they make sense. We've done for another*

engagement, as I mentioned, we did multiple runs of the Aurora, and we did sensitivity analyses using alternative gas prices, alternative coal prices, alternative emission allowances, so we were able to spend a considerable amount of time looking at the results and assessing their -- assessing the -- assessing, you know, how accurate we felt they were, and we did make some changes as part of that."

- 2210:7-14:
 - *Q. Okay. So did you calibrate the model with implied heat rates from actual experience?*
 - *A. Our focus in that analysis -- no, no, we used the exact same heat rates. Basically, I know we used the same heat rates. What we varied were coal prices in that particular analysis that you asked me not to talk about, coal prices and gas prices and electricity rates.*
- 2211:19-23:
 - *Q. But let me ask you a simple direct question here: Are the heat rates used in the model the off-the-shelf default heat rates that come with Aurora in the software?*
 - *A. Yes.*
- 2238:16-22:
 - *Q. Now, in your model I think you indicated clearly in your testimony that you're not using historic realized heat rate or an average heat rate for a period, you're using the most efficient or the optimal heat rate throughout your Aurora model, correct?*
 - *A. Correct. Those are the default numbers.*
- 2240:21-2242:9:
 - *Q. Okay, well, that's a correlation, but the reality is that the default heat rates don't reflect an actual experience or an actual expected operational reality, do they?*
 - *A. I think the point is that when the unit is up and running, they are approaching the most efficient heat rate. It's the averaging in of the down period, so it's a question -- I think there are two questions: One is a question of how you dispatch, which as I testified I do feel fairly comfortable with that, and I assume the next set of questions is are those costs properly affected, which is where I assume you're going.*
 - *Q. Well, I mean both are relevant, but again, what I'm asking you is that the heat rates you used don't match up with actual operational experience or even how we've already agreed power plants are operated.*
 - *A. I don't think I've agreed to either of those. So I basically said that what's presented here are the average annual heat rates. And again, there's some discretion of how they're calculated. The point on a dispatch is when you operate your plant, what is your heat rate? And we don't have segment data that specifically deals with that question. And so what we're saying is since the purpose of the model is the dispatch, that's where it's critical to get that proper number.*
 - *Q. I agree it's critical, but the ones you're using are optimal heat rates that are simply not experienced in the real world, are they?*
 - *A. Again, as I said, I think that that's not the case. I think that when the plants are operating full out, the heat rates are closest to the optimal numbers. And remember, most of the generation from AEP Ohio is coming from the large coal plants with high capacity factors.*
 - *Q. Okay. Which --*

- *A. And that situation actually will change over time to even a greater extent because as the smaller plants are retired, you're going to be increasing your capacity factors on your higher users.*
- *Q. And as gas prices are lower, those plants are not run as often either, correct?*
- *A. No. No. Again, getting into the forecasting world, but the reality is at some point with the massive retirements of coal plants including the 4,600 megawatts that AEP announced, you're going to have a shrinking base of coal generation. And the remaining plants which are fully scrubbed and fully -- the full pollution controls will operate at an either capacity factor simply to meet load because we'll have lost so much generation.*
- 2243:
 - *Q. Okay, well, do you agree that a relatively small heat rate difference can make a significant difference in the actual cost of the unit and margins experience?*
 - *A. No.*
 - *Q. Why not?*
 - *A. Remember, everything is calculated using these heat rates. So the MLR is calculated -- excuse me, the ML -- I get confused, LMP is calculated using these heat rates so those numbers flow through the entire model. So if you have a higher heat rate, you're going to have higher costs and higher LMP. So if you were to change that, it doesn't get just changed in isolation.*
 - *Q. Right. But if using inaccurate heat rate, it produces inaccurate results of all those things, doesn't it?*
 - *A. Well, again, we don't think so. One thing we think the accuracy is enhanced in terms of the dispatch. Secondly, as I was saying, that number flows through the entire calculations. So if I were to just change AEP's to average historical, or even worse, historical, whatever number you would want, it would change -- it wouldn't be accurate because the other systems aren't done in the same manner. So you need to be consistent if you're going to calculate an LMP for the area. So I hear what you're saying, I do think there's some -- potentially some issues, but I'm saying it's not the magnitude you're suggesting because those heat rates flow through the entire calculation.*
- 2245:1-7: *So heat rates are not inaccurate in my mind because they reflect the most efficient operation mode which we acknowledge is not -- every plant is not always operating at the most efficient but the big generators are. And that's where the bulk of your generation comes from. We can't simply just change -- the answer is yes, we have one.*
- 2246:7-10: *Using average heat rate versus the most efficient. I think again the point of the analysis is to try to capture the dispatch. And that's based on the most efficient.*
- 2248:24:
 - *Q. Okay. So you would acknowledge and recognize that's the case that the capacity factors you've used are higher than the actual experience in recent years?*
 - *A. Sure. Would you like me to explain why?*
 - *Q. Sure. Why don't you.*
 - *A. I think as was discussed that our analysis assumed CSAPR which for you who don't know is the cross-states air pollution rule coming in effect 1/1/13 which dispatch for a number of utilities and improves gas for both gas plants and fully equipped coal-fired plants. So we're not surprised to see a higher utilization of those but you have included on this table some of the other units that are not controlled. Muskingum and Kammer you would actually see a*

decline in the capacity factor. So I assume that you deliberately selected the plants that were either scrubbed or gas.

- 2268:20-:
 - *Q. Now, let me ask you to switch topics. Talking about forward gas prices. What were your assumptions in modeling for forward gas prices?*
 - *A. So we do a fundamental analysis for gas like we do for coal which takes into account literally do a well-by-well kind of analysis, and I believe they were around \$4.*
- 2273:5-23:
 - *Q. And you reject the using the forward price curves because you believe your forecast is better, right?*
 - *A. As a rule. And secondly, these numbers become annual numbers beginning in 2014. And obviously the monthly variations, hourly variations for that matter are very integral to forecasting both LMP as well as off-system sales.*
 - *Q. But the monthly data is here for the period -- the entire period that's covered in this case, correct?*
 - *A. No.*
 - *Q. Why not?*
 - *A. Because there's no -- because it's -- the monthly isn't annual average. All you've done is repeat the monthly numbers. So 36, 37 for every month of the period is not a monthly forecast. Or for price purposes. Annual number, that's just repeated every month.*
- 2275:5-13:
 - *Q. What is the vintage of your fuel forecast?*
 - *A. It would have been about three months.*
 - *Q. Three months ago?*
 - *A. Yes.*
 - *Q. So any changes that occurred since then are not reflected.*
 - *A. Correct, because we, as we mentioned, froze the inputs at that time.*
- 2277:7-15:
 - *A. "EIA's average 2012 Henry Hub natural gas spot forecast is \$2.45 per million British thermal units, a decline of \$1.55 per MMBtu from the 2011 average spot price. EIA expects that Henry Hub spot prices will average \$3.17 per MMBtu in 2013."*
 - *Q. Is that 2013, is that consistent with your forward gas production?*
 - *A. No, I told you like EIA, we have revised ours down as well.*
- 2278:10-23:
 - *Q. So is the similar decline here something you would reflect in your current forecast?*
 - *A. We input new gas prices, yes.*
 - *Q. Since the time you did the modeling for this testimony?*
 - *A. As I mentioned, we continue to update our numbers and so anytime we have a new forecast, it goes into forward so it's model ready. What's interesting about these is of course now we're seeing downward adjustments that are fairly significant. There were periods of time where we've seen upwards fairly significantly. So I'm not disputing. There are a lot of moving pieces in this analysis of which fuel prices is one.*
- 2278:24-2279:3:
 - *Q. But as we sit here today and look at the forward gas projections, the numbers you used in this modeling are, you would agree, are too high.*
 - *A. They're higher than we would currently have the model, correct.*
- 2281:12-17:
 - *Q. Okay. Do you -- is it your understanding that there's congestion as between AEP Dayton Hub, the AEP zone --*

- *A. That congestion is handled in the zonal model. The issue is within the zone whether there's congestion.*
- *Q. Well, that was my question. So you're saying the model reflects the zonal congestion; is that what you said?*
- *A. No, I'm saying that between zones the zonal model will capture the congestion. It's within the zone if there's congestion where there will be less accuracy.*
- *Q. So you may have said interzonal.*
- *A. Intrazonal. The congestion within the zone is the issue. Not between the zones.*
- *Q. Congestion within the zone is the issue that's not covered by the –*
- *A. The zonal model.*
- *Q. The zonal model?*
- *A. Correct. And our research showed that there was not a congestion issue within AEP zone which I confirmed with the PJM market monitor.*
- 2287:12:
 - *Q. Yeah. Now, I want to -- I'll take a risk here, I'm going to ask you an open-ended question. The Gavin unit shows the actual cost average of \$20.34 and then your projection uses \$13.14. Big difference.*
 - *A. Right.*
 - *Q. Big unit runs a lot, right?*
 - *A. (Witness nods head.)*
 - *Q. Can you explain that?*
 - *A. Sure. I can't explain everything because I don't know everything that was part of this, but a large part of the differences are due to some nonrecurring event and this is where I need to be a little careful since they're not all public. But with my -- I can cite the redacted version but basically there were additional payments made to a supplier in 2009 that some of which carried over to 2010 that were a one-time event. But they were very significant. And beginning in 2010 there was a very significant undershipment of coal which also would be a material change in the fuel costs and those were -- I believe some of those events carried over into 2011. But clearly at Kammer, as you may remember, in second half of 2007/the first half of 2008, coal prices tripled and some purchases were made for periods of one, two, three years, at the very high prices that are now expired subsequent to this period. So that's one of the reasons why the anomalous prices at Gavin, Kammer. At Conesville 4 -- where to start. At Conesville 4 there's an -- I'm trying to be careful so if I stray, let me know. There's some costs related to the preparation which was idled in January of 2012 that would have significantly affected the fuel costs at Conesville certainly in 2011 and possibly back to 2010. In addition in 2010 there was issues related to –*
 - *Q. I only asked you about Gavin. So I appreciate especially since you're -- as I understand your answer, all the information you gave was confidential you obtained during the audit you're using that here to explain your testimony?*
 - *A. No. So on the Conesville obviously public information –*
 - *Q. I just asked you about Gavin.*
 - *A. On Gavin I believe that the discussion is not redacted in the audit report. What's redacted is the name of the supplier and the amount of the payment.*
 - *Q. And you already gave your answer for Gavin. A. Right.*
 - *Q. So is it your testimony then that you believe if those events were normalized, you believe the \$13 rate for Gavin fuel cost is accurate historically and going forward? A. Well, it's certainly aggressive. So the -- but I think the presumption was a softening coal market with a very attractive supply situation.*

EXHIBIT ____ (LK-4)

Exhibit ESM-1

Energy and Ancillary Service Credits for CSP, OPCo and AEP Ohio Credits Provided by Year and as a Fixed Rate for the 6/1/2012-5/31/2015 Period

Energy Credits

| CSP | Year | Total Generation (MWh) | Off System Sales (MWh) | Gross Margin (2012 \$) | MLR ¹ | Retained Margin (2012 \$) | Energy Credit (\$/MWh) ² |
|----------|-------|------------------------|------------------------|------------------------|------------------|---------------------------|-------------------------------------|
| June-Dec | 2012 | 9,238,414 | 822,462 | 57,483,325 | 19% | 50,921,910 | \$57.67 |
| | 2013 | 19,051,169 | 3,609,324 | 121,142,148 | 19% | 98,376,727 | \$65.32 |
| | 2014 | 16,603,470 | 2,041,381 | 119,843,987 | 19% | 105,812,482 | \$70.26 |
| Jan-May | 2015 | 5,515,974 | 59,094 | 52,957,091 | 19% | 52,411,263 | \$84.12 |
| | Total | | | | | | \$68.07 |

| OPCo | Year | Total Generation (MWh) | Off System Sales (MWh) | Gross Margin (2012 \$) | MLR ¹ | Retained Margin ¹ (2012 \$) | Energy Credit (\$/MWh) ² |
|----------|-------|------------------------|------------------------|------------------------|------------------|--|-------------------------------------|
| June-Dec | 2012 | 21,868,821 | 9,152,981 | 250,626,361 | 22% | 170,178,962 | \$161.14 |
| | 2013 | 25,629,397 | 3,857,070 | 426,080,707 | 22% | 385,838,009 | \$214.20 |
| | 2014 | 25,654,769 | 3,970,787 | 432,393,371 | 22% | 391,453,715 | \$217.32 |
| Jan-May | 2015 | 11,281,816 | 2,296,000 | 188,181,389 | 22% | 162,069,500 | \$217.49 |
| | Total | | | | | | \$205.32 |

| Merged | Year | Total Generation (MWh) | Off System Sales (MWh) | Gross Margin (2012 \$) | MLR ¹ | Retained Margin ¹ (2012 \$) | Energy Credit (\$/MWh) ² |
|----------|-------|------------------------|------------------------|------------------------|------------------|--|-------------------------------------|
| June-Dec | 2012 | 31,107,235 | 8,373,663 | 308,109,685 | 40% | 254,734,719 | \$131.37 |
| | 2013 | 44,680,567 | 5,987,661 | 547,222,855 | 40% | 504,342,136 | \$152.50 |
| | 2014 | 42,258,239 | 4,016,475 | 552,237,359 | 40% | 521,922,064 | \$157.81 |
| Jan-May | 2015 | 16,797,789 | 1,155,836 | 241,138,479 | 40% | 231,196,780 | \$168.98 |
| | Total | | | | | | \$152.41 |

MLR
100%
in 2014/2015
151.37
152.50
166.98
176.24
156.51

AS Payments

| | CSP | OPCo | Merged |
|---------------------|--------------|--------------|--------------|
| 2011 AS Credits | \$10,037,014 | \$12,004,155 | \$22,041,169 |
| CP-5 (MW) | 4126 | 4935 | 9061 |
| AS Credit \$/MWhDay | \$6.66 | \$6.66 | \$6.66 |

1: The MLR is applied only to off system sales.

2: This calculation uses the 5 CP Demand numbers presented in KDP-5 and reprinted below.

| | CSP | OPCo | Merged |
|-----------|------|------|--------|
| CP-5 (MW) | 4126 | 4935 | 9061 |

CERTIFICATE OF SERVICE

In accordance with Rule 4901-1-05, Ohio Administrative Code, the PUCO's e-filing system will electronically serve notice of the filing of this document on the parties referenced on the service list of the docket card who have electronically subscribed to this case. In addition, the undersigned certifies that a courtesy copy of the foregoing document is also being served (via electronic mail) on the 18th day of October, 2016 to the persons listed below.



Michael L. Kurtz, Esq.

Kurt J. Boehm, Esq.

Jody Kyler Cohn, Esq.

aaragona@eimerstahl.com;
aehaedt@jonesday.com;
afreifeld@viridityenergy.com;
Amy.spiller@duke-energy.com;
Bojko@carpenterlipps.com;
campbell@whitt-sturtevant.com;
arthur.beeman@snrdenton.com;
bakahn@vorys.com;
BarthRoyer@aol.com;
bkelly@cpv.com;
cblend@porterwright.com;
bmcmahon@emh-law.com;
bpbarger@bcslawyers.com;
callwein@wamenergylaw.com;
carolyn.flahive@thompsonhine.com;
cathy@theoec.org;
cendsley@ofbf.org;
christopher.miller@icemiller.com;
clinton.vince@snrdenton.com;
cmontgomery@bricker.com;
cmooney@ohiopartners.org
cynthia.a.fonner@constellation.com;
dakutik@jonesday.com;
dan.barnowski@snrdenton.com;
Dan.Johnson@puc.state.oh.us;
Dane.Stinson@baileycavalieri.com;
Daniel.Shields@puc.state.oh.us;
dboehm@BKLawfirm.com;
drinebolt@ohiopartners.org;
David.fein@constellation.com;
dconway@porterwright.com;
dparram@taftlaw.com;
dianne.kuhnell@duke-energy.com;
djnichalski@hahnlaw.com;
dmeyer@kmklaw.com;
Doris.McCarter@puc.state.oh.us;
Dorothy.corbett@duke-energy.com;
doug.bonner@snrdenton.com;
dstahl@eimerstahl.com;
dsullivan@nrdc.org;
eisenstatl@dicksteinsharpapiro.com;
Elizabeth.watts@duke-energy.com;

emma.hand@snrdenton.com;
etter@occ.state.oh.us;
fdarr@mwncmh.com;
gary.a.jeffries@dom.com;
gpoulos@enernoc.com;
Maureen.willis@occ.ohio.gov;
Greg.Price@puc.state.oh.us;
gregory.dunn@icemiller.com;
greta.see@puc.state.oh.us;
glpetrucci@vorys.com
gthomas@gtpowergroup.com;
ghiloni@carpenterlipps.com;
haydenm@firstenergycorp.com;
henryeckhart@aol.com;
Hisham.Choueiki@puc.state.oh.us;
holly@raysmithlaw.com;
jmcdermott@firstenergycorp.com;
jejadwin@aep.com;
Jeanne.Kingery@duke-energy.com;
jeff.jones@puc.state.oh.us;
jestes@skadden.com;
jhummer@uaoh.net;
jkooper@hess.com;
jlang@calfee.com;
jmaskovyak@ohiopovertylaw.org;
jkylercohn@BKLawfirm.com;
john.jones@puc.state.oh.us;
Jonathan.Tauber@puc.state.oh.us;
joseph.clark@directenergy.com;
joliker@igsenergy.com;
judi.sobecki@DPLINC.com;
keith.nusbaum@snrdenton.com;
kern@occ.state.oh.us;
kguerry@hess.com;
Kim.Wissman@puc.state.oh.us;
kinderr@dicksteinsharpapiro.com;
korenergy@insight.rr.com;
kpkreider@kmklaw.com;
kwatson@cloppertlaw.com;

laurac@chappelleconsulting.net;
lehfeldtr@dicksteinsharpiro.com;
lkalepsclark@vorys.com;
lmcbride@calfee.com;
malina@wexlerwalker.com;
mkurtz@BKLLawfirm.com;
mjsettineri@vorys.com;
Michael.dillard@thompsonhine.com;
mpritchard@mwncmh.com;
matt@matthewcoxlaw.com;
mchristensen@columbuslaw.org;
msmalz@ohiopoveritylaw.org;
mwarnock@bricker.com;
ned.ford@fuse.net;
ohioesp2@aep.com;
paul.wight@skadden.com;
pfox@hilliardohio.gov;
Philip.Sineneng@ThompsonHine.com;
Randall.griffin@DPLINC.com;
rburke@cpv.com;
ricks@ohanet.org;
rjhart@hahnlaw.com;
rmason@ohiorestaurant.org;
ascenzo@duke-energy.com;
rremington@hahnlaw.com;
rsugarman@keglerbrown.com;
sam@mwncmh.com;
sandy.grace@exeloncorp.com;
Sarah.Parrot@puc.state.oh.us;
sbruce@oada.com;
small@occ.state.oh.us;
ssalamido@cloppertlaw.com;
ssolberg@eimerstahl.com;
stephanie.chmiel@thompsonhine.com;
smhoward@vorys.com;
Stephen.chriss@wal-mart.com;
stnourse@aep.com;
steven.beeler@puc.state.oh.us;
swolfe@viridityenergy.com;
talexander@calfee.com;
Stephen.Reilly@puc.state.oh.us;
Tammy.Turkenton@puc.state.oh.us;
terrance.mebane@thompsonhine.com;
terry.etter@occ.ohio.gov;
Thomas.Lindgren@ohioattorneygeneral.gov;
thomas.mcnamee@ohioattorneygeneral.gov;
thompson@whitt-sturtevant.com;
tlindsey@uaoh.net;
toddm@wamenergylaw.com;
todonnell@bricker.com;
tdougherty@theOEC.org;

trent@theoec.org;
tsantarelli@elpc.org;
tsiwo@bricker.com;
Werner.margard@ohioattorneygeneral.gov;
whitt@whitt-sturtevant.com;
william.wright@ohioattorneygeneral.gov;
wmassey@cov.com;
yost@occ.state.oh.us;
zkavitz@cwsllaw.com

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Summary: Testimony Direct Testimony/Exhibits of Lane Kollen on behalf of Ohio Energy Group and Office of the Ohio Consumers' Counsel electronically filed by Mr. Michael L. Kurtz on behalf of Ohio Energy Group and Office of Ohio Consumers' Counsel