

**BEFORE THE
MINNESOTA PUBLIC UTILITIES COMMISSION**

**IN THE MATTER OF THE
REQUEST BY MINNESOTA POWER
FOR A CERTIFICATE OF NEED
FOR THE GREAT NORTHERN
TRANSMISSION LINE**

**MPUC Docket No. E-015/CN-12-1163
OAH Docket No. 65-2500-31196**

**DIRECT TESTIMONY
AND APPENDICES
OF
LANE KOLLEN**

**ON BEHALF OF
LARGE POWER INTERVENORS**

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

September 2014

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DIRECT TESTIMONY OF LANE KOLLEN

I. SUMMARY AND QUALIFICATIONS

1
2

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

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

7

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

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

11

12 **Q. Please describe your education and professional experience.**

13 A. I earned a Bachelor of Business Administration in Accounting degree and a
14 Master of Business Administration degree from the University of Toledo. I also
15 earned a Master of Arts degree in theology from Luther Rice University. I am a

1 Certified Public Accountant (“CPA”), with a practice license, and a Certified
2 Management Accountant (“CMA”).

3 I have been an active participant in the utility industry for more than thirty
4 years, initially as an employee of The Toledo Edison Company from 1976 to 1983
5 and thereafter as a consultant in the industry since 1983. I have testified as an
6 expert witness on planning, ratemaking, accounting, finance, and tax issues in
7 proceedings before regulatory commissions and courts at the federal and state
8 levels on nearly two hundred occasions, including proceedings before the
9 Minnesota Public Utilities Commission (“Commission”). My qualifications and
10 regulatory appearances are further detailed in Appendix A to my testimony.

11

12 **Q. On whose behalf are you offering testimony?**

13 A. I am offering testimony on behalf of the Large Power Intervenors (“LPI”), a
14 group of large industrial customers taking electric service from Minnesota Power
15 (“MP” or the “Company”).

16

17 **Q. What is the purpose of your testimony?**

18 A. The purpose of my testimony is to address the cost of the Great Northern
19 Transmission Line (“GNTL”) project and recovery of the cost from retail
20 customers.

21

22 **Q. Please summarize your testimony.**

23 A. If the Commission grants Minnesota Power’s certificate of need petition in this

1 proceeding, LPI respectfully requests that the Commission condition that grant as
2 follows:

3 • First, it must be contingent upon Commission approving MP's not-yet-
4 filed petitions for the new 133 MW Renewable Optimization Agreements
5 ("ROAs") and the Facilities Construction Agreement ("FCA").¹ The 133
6 MW ROAs require that Manitoba Hydro ("MH") pay for 17.7% of the
7 cost of the GNTL and the FCA requires that MH pay for 5.0% of the cost
8 of the GNTL. If the ROAs and the FCA are not approved, then the
9 Company and its customers will be required to pay for 51.0% of the total
10 project cost, not the 28.3% claimed in this proceeding.

11
12 • Second, it must be conditioned on the establishment of a cap of [**TRADE**
13 **SECRET BEGINS:** **TRADE SECRET ENDS**] million in "as-
14 spent" dollars on the costs that are recoverable from customers. At this
15 cost, the economics of the GNTL and the related 250 MW purchased

¹ The Company recently executed the 133 MW Energy Sale Agreement and the related 133 MW Energy Exchange Agreement. These two agreements together are referred to as the "Renewable Optimization Agreements." The ROAs have not yet been submitted to the Commission for certification. The Company has completed and submitted to the Midcontinent Independent System Operator, Inc. ("MISO"), but not yet executed, the Facilities Construction Agreement ("FCA") for the GNTL project. The FCA will govern the construction, ownership, operation and maintenance of the GNTL project. The Company anticipates that it will file the FCA with the Federal Energy Regulatory Commission ("FERC") in late September or early October 2014. The FERC has 60 days to review the FCA. In its current form, the FCA requires that MH reimburse MP for 5% of the total project cost in the form of a contribution in aid of construction ("CIAC"). The Company is still negotiating another agreement with MH that addresses risk sharing and the related costs, including the costs of storm damage. The cost-sharing and must-take fees set forth in the FCA and ROAs are critical to the economics and funding requirements for the GNTL and the effect on customer rates.

1 power agreement (“PPA”) are approximately equivalent to the economics
2 of new combined cycle natural gas generation. Establishing a cap and
3 ensuring ratepayers are only obligated for 28.3% of the GNTL costs is
4 critical to the economics of the GNTL project.

- 5
6 • Third, the Commission should direct the Company to accrue allowance for
7 funds used during construction (“AFUDC”) rather than seek current
8 recovery of carrying charges during the construction period. It should do
9 so in this proceeding to pre-empt any subsequent request by the Company
10 to obtain current recovery in the annual transmission cost recovery rider
11 proceeding.

- 12
13 • Fourth, the Commission should authorize ratemaking recovery through the
14 Company’s transmission cost recovery rider, or another rider, rather than
15 through base rates. In this manner, after the project is completed and
16 placed in-service, reductions in the revenue requirement are flowed
17 through on a timely and accurate basis. Reductions in the revenue
18 requirement will occur as 1) the cost of the project is depreciated for book
19 and tax purposes and the balances of accumulated depreciation and
20 accumulated deferred income taxes grow, 2) the Company receives
21 revenues from MH through the must-take fee, and 3) the Company
22 receives MISO revenue credits for the use of its ownership share of the
23 GNTL by other parties.

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- Finally, the Commission should allocate the increase to customer classes based on base revenues excluding fuel and other riders. It should reject the Company’s plan to use the D-02 transmission demand allocator. Instead, the Commission should view this case as an opportunity to partially remedy the subsidization provided by the Large Power (“LP”) class to the residential class based on the findings and conclusions of law adopted in Case No. GR-09-1151.

II. THE COMMISSION NEEDS TO PROTECT RATEPAYERS FROM THE COMPANY’S EVER-INCREASING COST ESTIMATES

A. The Commission Needs to Enforce a Cap on the Costs of the GNTL Project

Q. Has the Company provided a definitive cost estimate?

A. No. The Company’s cost estimates have been repeatedly revised upward since the Company filed its Application in this proceeding. To date, the Company has provided five cost estimates starting with its Application in this proceeding. All of the estimates are in 2013 dollars and none of them include financing costs incurred during construction.

Q. Please explain the evolution of the five cost estimates.

A. In the Application, the Company provided a cost estimate for the project from

1 \$406.2 million to \$609.3 million, with a midpoint of \$507.8 million.² In April
2 2014, the Company revised and increased the cost estimate to a range of \$495.5
3 million to \$647.7 million, with a midpoint of \$571.6 million.³ In conjunction
4 with its Route Permit Application, the Company developed a more detailed cost
5 estimate for one of two potential routes of [TRADE SECRET BEGINS:
6 **TRADE SECRET ENDS**] million, according to Exhibit(__MD), Schedule 4
7 (Trade Secret). In response to LPI 24, the Company provided a further revised
8 cost estimate of \$676.243 million, which it cited in the FCA and used to quantify
9 the revenue requirement for the project in response to LPI 17. In its August 2014
10 testimony, the Company cited a range of \$557.8 million to \$710.1 million, with a
11 midpoint of \$634.0 million.⁴ All of these amounts are on a total project basis.⁵

12
13 **Q. Are the lack of a definitive cost estimate and the repeated upward revisions**
14 **in the cost estimates cause for concern?**

15 A. Yes, there are two primary concerns. The first concern is whether the 250 MW
16 Agreements and the 133 MW ROAs, combined with the cost of the GNTL

² Application at 27. The October 2013 cost estimate is in 2013 dollars and is based on a “proxy route” of 240 miles.

³ Donahue Direct at 4. The April 2014 cost estimate is in 2013 dollars and is based on a refined cost estimate.

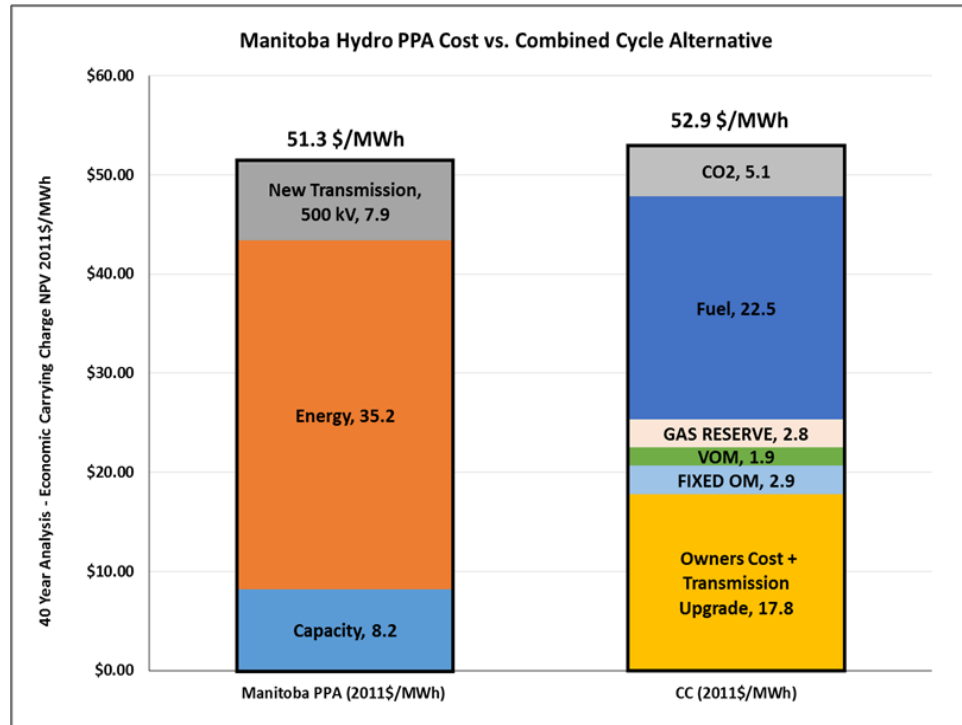
⁴ Donahue Direct at 5. The August 2014 cost estimate is in 2013 dollars and reflects the decision to locate the 500 kV series compensation at a site separate from the Blackberry substation.

⁵ The Company will own 51.0% of the project and a subsidiary of Manitoba Hydro (“MH”) will own the remaining 49%; however, MH will provide a contribution in aid of construction for 5.0% of the project, thus reducing the Company’s funding obligation to 46.0% of the project. In addition, pursuant to the 133 MW Energy Sale Agreement, MH will pay a must-take fee during the term of that agreement sufficient to compensate MP for 17.7% of the project costs, thus reducing the Company’s cost to 28.3% of the total project during the 20 year term of the agreement.

1 project, remain the least cost option for the Company's capacity and energy needs
2 compared to a natural gas-fired combined cycle alternative. The greater the cost
3 of this transmission project, the less likely that the purchased power agreements
4 will be the least cost option.

5 Based on our analysis, it is a close call between these options. This result
6 demonstrates the need for a cost-cap on the GNTL to ensure that the claimed
7 value of the project actually is realized. The following graph shows a slight
8 savings for the 250 MW Agreements and GNTL project compared to the
9 combined cycle alternative. I relied on the Company's cost estimate of \$676
10 million in 2013 dollars and the related revenue requirements for the GNTL that it
11 provided in response to LPI 17. I relied on the Company's assumptions for the
12 combined cycle alternative provided in response to LPI 14, along with the cost of
13 capital financing assumptions provided in response to LPI 17.

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The second concern is the rate effect on customers. The greater the cost of this transmission project, the greater the rate effect on customers, particularly on LPI customers under the Company's cost allocation proposal.

3

4

5

6 **Q. Do the construction cost estimates provided by the Company accurately**
7 **reflect the costs that will be incurred and that will be recovered from**
8 **customers?**

9 A. No. The Company's cost estimates are understated. They are stated in 2013
10 dollars, or real dollars, rather than in "as-spent" dollars, or nominal dollars. In
11 other words, the Company's construction cost estimates do not include
12 construction cost inflation. When construction dollars actually are spent, they are
13 recorded to construction work in progress ("CWIP"), in "as-spent" dollars, not in
14 2013 dollars.

1 In addition, the Company’s cost estimates are understated because they do
2 not include the financing costs that the Company will incur during construction.
3 These financing costs typically are capitalized and recorded to CWIP during the
4 construction period in accordance with Generally Accepted Accounting Principles
5 (“GAAP”).

6

7 **Q. Should construction cost inflation be included in these estimates to accurately**
8 **reflect the costs that will be incurred and that will be recovered from**
9 **customers?**

10 A. Yes. The cost of this project will increase due solely to construction cost inflation
11 over the construction period.⁶ The actual costs incurred and recorded for
12 accounting purposes will reflect the “as-spent” dollars, not the 2013 real dollars
13 reflected in the Company’s cost estimates. More importantly, the Company will
14 seek to recover the “as-spent” dollars from customers, not the real dollars.

15

16 **Q. How significant is the effect of the construction cost inflation on the costs that**
17 **will be incurred, assuming that there are no other changes in the Company’s**
18 **most recent cost estimate?**

19 A. The effect is real and likely will be significant. The effect would be to increase
20 the Company’s cost estimate to [TRADE SECRET BEGINS:
21 **TRADE SECRET ENDS]** million, an increase of [TRADE SECRET BEGINS:

⁶ There may be additional increases in the cost of the project due to changes in other factors.

1 **TRADE SECRET ENDS]** million over the Company's cost estimate of
2 **[TRADE SECRET BEGINS: TRADE SECRET ENDS]** million in 2013
3 dollars, assuming an annual construction cost inflation rate of **[TRADE SECRET**
4 **BEGINS: TRADE SECRET ENDS]**. I obtained this quantification from
5 the Company's response to LPI 17 (trade secret).
6

7 **Q. Should the financing costs incurred during construction also be included in**
8 **the cost estimates to accurately reflect the costs that will be incurred and that**
9 **will be recovered from customers?**

10 A. Yes. It is absolutely certain that the Company will incur financing costs on 46%
11 of the total cost of this project based on its 51.0% ownership interest less the 5%
12 in CIAC that will be paid by MH up front during the construction period. The
13 Company will fund the remaining 46% of the total cost of this project using a
14 combination of equity and debt, according to its response to LPI 22. The
15 Company will receive no must-take fee revenues from MH until *after*
16 construction is completed and the project is in-service.

17
18 **Q. Do you have other concerns?**

19 A. Yes. It is also absolutely certain that the Company will seek to recover the
20 financing costs incurred during construction from customers. It will do so either
21 by capitalizing the financing costs as AFUDC and then recovering those costs,
22 along with all other CWIP costs, over the service lives of the assets, or by
23 recovering a current return on CWIP during the construction period. Regardless

1 of the form and timing of the recovery of these financing costs, they should be
2 included in the cost estimates because they actually will be incurred and
3 customers actually will be required to pay them.

4

5 **Q. How significant is the effect of the financing costs on the costs that will be**
6 **incurred, assuming that there are no other changes in the Company's most**
7 **recent cost estimate?**

8 A. The effect would be to increase the Company's cost estimate to [TRADE
9 **SECRET BEGINS: TRADE SECRET ENDS]** million, an increase of
10 [TRADE SECRET BEGINS: TRADE SECRET ENDS] million to
11 the Company's cost estimate of [TRADE SECRET BEGINS:
12 **TRADE SECRET ENDS]** million in as-spent dollars that it provided in response
13 to LPI 17 (trade secret). I quantified this effect based on the Company's
14 quantification of AFUDC on the 133 MW for purposes of the MH must-take fee.
15 I simply grossed up the AFUDC on 17.7% of the project cost to 100% of the
16 project cost.

17

18 **Q. What do you recommend to address these concerns?**

19 A. I recommend that the Commission impose a cost cap limiting the recovery of the
20 GNTL costs to [TRADE SECRET BEGINS: TRADE SECRET ENDS]
21 million in as-spent dollars, or [TRADE SECRET BEGINS: TRADE
22 **SECRET ENDS]** million in 2013 dollars, the Company's cost estimate cited in
23 the FCA and used to quantify the revenue requirement in response to LPI 17.

1 This will ensure that the Company's customers obtain the claimed value of the
2 GNTL, the 250 MW Agreements, the 133 MW ROAs, and the FCA.

3

4 **Q. Isn't a cost-cap unduly restrictive and potentially punitive?**

5 A. No. First, the Commission has recent experience with such cost caps on high cost
6 projects. The Commission imposed a cost-cap on the recent environmental
7 upgrades on the Boswell 4 generating unit after the Company incurred significant
8 cost overruns for similar upgrades on the Boswell 3 generating unit.⁷ The
9 Company presently is on-track to complete the Boswell 4 upgrades below the cost
10 estimate.

11 Second, a cost-cap will ensure that the Company is accountable for the
12 cost of the project and properly incentivized to manage the project well and
13 control the actual costs.

14 Third, there is limited downside risk to the Company from such a cost-cap
15 because there are significant contingencies already built into the cost estimate,
16 both on individual components of the project and on the entire project. The
17 Company included [**TRADE SECRET BEGINS: TRADE SECRET**
18 **ENDS**] million for contingencies in its [**TRADE SECRET BEGINS:**
19 **TRADE SECRET ENDS**] million cost estimate, according to the buildup of that
20 cost estimate by component provided in response to LPI 24. The contingencies

⁷ *In the Matter of Minnesota Power's Petitions for approval of its Boswell Energy Center Unit 4 Environmental Retrofit Project and Boswell 4 Environmental Improvement Rider*, Docket No. E015/M-12-920, ORDER APPROVING BOSWELL ENERGY CENTER UNIT 4 RETROFIT PROJECT AND AUTHORIZING RIDER RECOVERY, pg. 7 (November 5, 2013).

1 add [TRADE SECRET BEGINS: TRADE SECRET ENDS] to the cost of
2 the project. All amounts are stated in 2013 dollars.

3

4 **B. The Commission Should Ensure that Ratepayers are Only Responsible for**
5 **28.3% of the GNTL Costs.**
6

7 **Q. The Company's testimony and discovery responses in this proceeding state**
8 **that it will own 51% of the total project and fund 46% of the total project**
9 **cost, but customers will be responsible for only 28.3% of the project cost.**
10 **Please explain the differences in the percentages of ownership, funding, and**
11 **customer impact and the significance of each.**

12 A. The Company will own 51% of the total project and would be required to fund
13 51% of the total project cost, but for the fact that MH will buy-down the
14 Company's funding requirement through a 5% CIAC, assuming that the FCA is
15 approved by the FERC and implemented. The Company will be required to
16 finance and fund the remaining 46% of the total project cost both during the
17 construction period and throughout the entire 20-year term of the 133 MW Energy
18 Sale Agreement. This was confirmed by the Company in its response to LPI-18.

19 However, if the ROAs are approved by the Commission, then MH will
20 reimburse MP for 17.7% of the total project cost over the 20-year term of the 133
21 MW Energy Sale Agreement through a must-take fee after construction is
22 completed and the project is placed in service. This fact was confirmed by the
23 Company in response to LPI 28. MH's payment of the must-take fee under the
24 133 MW Energy Sale Agreement will reduce the customer cost to 28.3% of the
25 total project cost. While MP still will be responsible for funding 46% of the total

1 project cost up front, it will receive revenues from MH sufficient to pay off the
2 entirety of the 17.7% of the total project costs by the end of the contract term of
3 the 133 MW Energy Sale Agreement.

4

5 **Q. Please describe how the must-take revenues from MH reduce the net cost of**
6 **the project to 28.3% by the end of the contract term of the Energy Sale**
7 **Agreement.**

8 A. Through the must-take fee, MH will reimburse MP for the “return on” and “return
9 of” 17.7% of the total project cost by the end of the contract term of the 133 MW
10 Energy Sale Agreement. The 133 MW Energy Sale Agreement specifies the
11 calculation of the must-take fee based on 17.7% of the total project costs. It
12 provides for a return *on* the total project cost. The total project cost includes the
13 financing costs incurred by MP during construction (referred to as “AFUDC” in
14 the 133 MW Energy Sale Agreement). It also provides for a return *of* the total
15 project cost (capital recovery) over the 20-year contract term.

16

17 **Q. How does the capital recovery for the 17.7% over the 20-year contract term**
18 **compare to the estimated service lives for these assets?**

19 A. The capital recovery period is much shorter than the Company’s estimated service
20 lives of 55 years for the transmission line and 44 years for the substation and
21 series compensation station.⁸

⁸ Application at 27.

1

2 **Q. Why is this important?**

3 A. The shorter capital recovery period is important because it may affect the rates
4 customers pay over the lives of the transmission line, substation, and series
5 compensation station due to a mismatch between the depreciable lives of the
6 assets for GAAP and the shorter recovery period pursuant to the calculation of the
7 must-take fee. If the Company depreciates 17.7% of the total project cost over the
8 estimated lives of the assets in accordance with GAAP, then the revenues MP
9 receives from MH through the must-take fee will exceed the revenue requirement
10 for the “return on” and “return of” associated with that 17.7% over the 20-year
11 term of the 133 MW Energy Sale Agreement. However, there will be no revenues
12 from MH after the 20-year term of the 133 MW Energy Sale Agreement for the
13 remaining service lives of the assets.

14

15 **Q. What are the ratemaking alternatives to address this mismatch?**

16 A. There are three alternatives. One alternative for retail ratemaking is to flow
17 through the excess revenues during the contract term to customers concurrently
18 with the receipt of the must-take fees from MH. This alternative will result in
19 customers paying for 28.3% of the GNTL costs over the lives of the assets, but
20 customers will pay for less than 28.3% of the GNTL costs during the 20-year term
21 of the ROAs and then pay for more than 28.3% of the costs after the 20-year term
22 of the ROAs.

23

As another alternative, the excess revenues could be deferred as a

1 regulatory liability during the 20-year term of the 133 MW Energy Sale
2 Agreement, used to reduce rate base, and amortized to reduce depreciation
3 expense over the remaining lives of the assets after the contract term. This
4 alternative will result in customers paying for 28.3% of the GNTL costs each year
5 over the lives of the assets.

6 Under the third alternative, the Company could depreciate 17.7% of the
7 total project cost over the 20-year term of the 133 MW Energy Sale Agreement
8 rather than over the service lives of the assets. Under this alternative, the
9 revenues received from MH will match the revenue requirement for the “return
10 on” and “return of” associated with that cost, including AFUDC. There will be no
11 over- or under-recovery during the 20-year term and customers will have no
12 revenue requirement for 17.7% of the total project cost after the 20-year term.
13 The net book value of this portion of the total project cost will be \$0 when the 133
14 MW Energy Sale Agreement expires. The remaining 28.3% of the project cost
15 still would be depreciated over the estimated services lives of the assets,
16 consistent with typical ratemaking practice. This alternative will result in
17 customers paying for 28.3% of the GNTL costs each year over the lives of the
18 assets.

19

20 **Q. Please provide an illustration of the three approaches.**

21 A. The following graph illustrates the manner in which the revenue requirement for
22 the Company’s 46% funding requirement is reduced by the must-take fee under
23 the three approaches using a simple example of a \$100 million project, with

1 ownership and other assumptions similar to the actual terms of the GNTL project
2 and related agreements. The ownership will be allocated 51.0% to MP and 49.0%
3 to MH. MP will be responsible for 46% of the total project revenue requirement
4 after the reduction for the MH CIAC of 5.0%, but before the reduction for the
5 must-take fees that reduce the revenue requirement by 17.7%. The revenue
6 requirement for the 46% is shown on the top line. The MP debt rate of return is
7 5.0%; the return on equity is 10.0%; the capital structure is 50% debt and 50%
8 equity; and the income tax rate is 40.0%. The project will have a 40 year service
9 life.

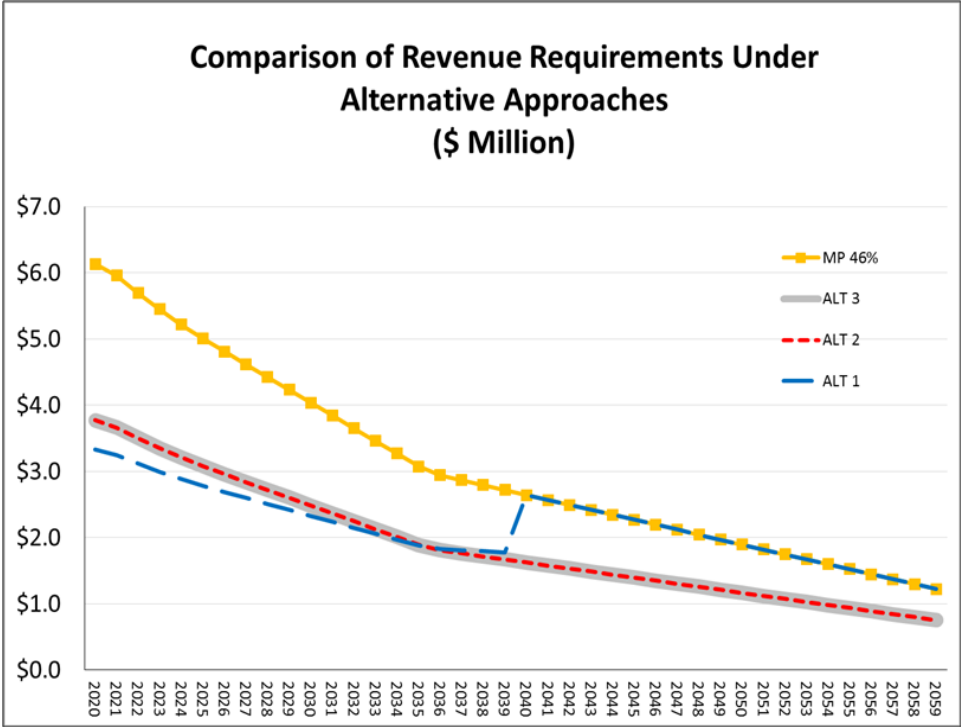
10 Under the first alternative, MP will compute the revenue requirement on
11 the 46% using a 40 year service life for depreciation purposes. MP will flow
12 through the must-take fee over the 20 year term of the ROAs with no deferrals.
13 This approach results in a significant annual savings compared to the 46% line
14 and a steady decline in the revenue requirement each year over the 20 year term
15 of the ROAs. After the expiration of the must-take fee and the flow through as a
16 reduction to the revenue requirement in the first 20 years, the revenue requirement
17 ratchets upward to the full 46% revenue requirement trajectory over the remaining
18 lives of the assets.

19 Under the second alternative, MP will compute the revenue requirement
20 on the 46% using a 40 year service life for depreciation purposes, but will defer
21 one half of the capital recovery received from MH through the must-take fee each
22 year during the 20 year term of the ROAs and then amortize the deferred capital
23 recovery equally over the 20 year service lives of the assets remaining after the

1 ROAs expire. This approach results in a steady decline in the revenue
2 requirement each year over the entire lives of the assets.

3 Under the last alternative, MP will compute the revenue requirement on
4 the 28.3% using a 40 year life for depreciation purposes, but will use a 20 year
5 life for the 17.7% for depreciation purposes. MP will flow through the must-take
6 fee over the 20 year term of the ROAs with no deferrals. In this manner, the
7 must-take fees will match exactly the depreciation expense on the 17.7%. This
8 approach results in the same annual revenue requirement as the second alternative
9 and a steady decline each year over the entire lives of the assets.

10



11

12

13 **Q. Are any of these three approaches acceptable?**

14 **A.** Yes. Any of these three approaches will ensure that customers actually pay only

1 for 28.3% of the total project cost and that they receive the carrying charge value
2 of the excess revenues received by the Company during the contract term of the
3 133 MW Energy Sale Agreement. All three approaches have the same net present
4 value.

5
6 **Q. Does the Company agree that the must-take revenues should be used to**
7 **reduce the revenue requirement?**

8 A. Yes. Mr. Donahue states that “[t]his ‘Must Take Fee’ credit will be included as
9 an offset to revenue requirements in both the Transmission Cost Recovery Rider
10 and the MISO Attachment O,” although he did not indicate which of the three
11 alternatives the Company will propose.⁹

12
13 **III. CUSTOMERS WILL BENEFIT FROM AFUDC INSTEAD OF CURRENT**
14 **RECOVERY OF FINANCING COSTS DURING CONSTRUCTION**
15

16 **Q. How does the recovery and timing of the financing costs incurred during**
17 **construction differ between AFUDC and current recovery of those costs**
18 **during construction?**

19 A. Under the AFUDC approach, the financing costs are capitalized and added to the
20 other costs included in CWIP. There is no current recovery of financing costs
21 during the construction period. When the project is completed and placed in-
22 service, all of the construction costs, including the AFUDC that was capitalized,
23 are removed from CWIP and added to plant-in-service. The Company then

1 recovers a “return of” and “return on” the plant-in-service, including the AFUDC
2 that was capitalized, over the lives of the assets. In this manner, the Company is
3 fully compensated for the financing costs incurred during construction, but these
4 costs are recovered in the same manner as all other components of the
5 construction cost.

6 Under the current recovery approach, the financing costs are not
7 capitalized and are not added to the other costs included in CWIP. Instead, they
8 are recovered as incurred, generally through a rider. In this manner, the Company
9 is fully compensated for the financing costs incurred during construction, but
10 these costs are recovered on a compressed or accelerated basis over the
11 construction period and they are recovered before the project is completed rather
12 than after it is completed and providing service.

13

14 **Q. Does the Company presently accrue AFUDC on the certification and other**
15 **pre-construction costs that it incurs?**

16 A. Yes. The Company presently capitalizes AFUDC on the project costs and
17 includes the AFUDC in CWIP, along with all other construction costs. It will
18 continue to capitalize AFUDC unless and until the Commission authorizes current
19 recovery of these financing costs.

20

21 **Q. Should the Commission direct the Company to accrue AFUDC and reject**

⁹Donahue Direct at 11.

1 **current recovery of financing costs?**

2 A. Yes. If the Commission grants MP's petition for a certificate of need for the
3 GNTL project, the Commission should condition its approval on the use of the
4 AFUDC approach and foreclose the option of current recovery. This is
5 appropriate for several reasons.

6 First, it is consistent with GAAP, which generally requires that financing
7 costs incurred during construction be capitalized to CWIP. The conceptual basis
8 for this requirement is that such costs are similar to other costs incurred during
9 construction that also are capitalized to CWIP and that have future value not
10 consumed during construction. That certainly is the case with the GNTL project.
11 It has value only after it is constructed and placed in-service. For a utility, once
12 the financing costs are capitalized and the project is completed, the costs are
13 included in rate base and earn a rate of return. The costs also are depreciated,
14 with the depreciation expense included in operating income.

15 Second, it is consistent with the regulatory concept that customers should
16 not pay for the costs of an asset unless and until it is used and useful. Stated
17 another way, customers should not be required to pay for the costs of an asset
18 before it is completed and in-service.

19 Third, it is consistent with the regulatory concept that customers should
20 pay for the costs of an asset over the estimated service life of the asset. Stated
21 another way, customers who use or obtain the benefit of the asset should pay for
22 the asset over the period that it provides service.

23 Fourth, it minimizes the rate effect on customers during construction by

1 deferring recovery of the financing costs from the estimated four year
2 construction period to the 40-55 year service lives of the assets.

3 Fifth, the accrual of AFUDC on the 28.3% is consistent with the fact that
4 the Company is required to accrue AFUDC on the 17.7% of the total project cost
5 that is subject to the must-take fee under the 133 MW Energy Sale Agreement,
6 assuming that the Commission subsequently certifies the ROAs and they are
7 implemented.

8 Sixth, a current return is not necessary for the Company to bolster or retain
9 its financial health during the construction period.

10

11 **Q. Is the Company fully compensated for its financing costs under the AFUDC**
12 **approach?**

13 A. Yes. The Company earns a rate of “return on” and “return of” the project costs,
14 including the AFUDC included in plant-in-service, over the life of the assets once
15 they are completed and placed in-service.

16

17 **Q. Does the Commission have discretion to direct the Company to accrue**
18 **AFUDC rather than allow current recovery of the financing costs during**
19 **construction?**

20 A. Yes. The Commission has discretion whether to allow recovery of transmission
21 costs through a transmission cost recovery rider and whether to allow current
22 recovery of financing costs during construction pursuant to Minn. Stat. §
23 216B.16, subd. 6a (Construction Work in Progress) and subd. 7b (Transmission

1 Cost Adjustment).

2 The Company's application and the Commission's Order in Docket No.
3 14-337 confirm that the Company must request recovery of transmission costs
4 through a transmission cost recovery rider and must request current recovery of
5 financing costs during construction; it cannot unilaterally include such projects
6 and costs in a rider without authorization by the Commission.

7

8 **IV. CUSTOMERS WILL BENEFIT FROM RECOVERY OF PROJECT COSTS**
9 **THROUGH A TRANSMISSION COST RECOVERY RIDER RATHER THAN**
10 **BASE RATES**
11

12 **Q. Has the Company requested a form of retail ratemaking recovery for the**
13 **project costs?**

14 A. No. The Company has not requested a specific form of retail ratemaking recovery
15 for the project costs in this proceeding. However, Mr. Donahue confirmed that
16 "the Company plans to include all costs associated with our funding obligation in
17 a future Transmission Cost Recovery Rider for retail rates," although he did not
18 address the manner in which it would include such costs or the timing.¹⁰ Despite
19 these protestations, the Company apparently does plan to seek current recovery of
20 financing costs through its transmission cost recovery rider starting in January
21 2016, according to the monthly revenue requirement calculations that it provided
22 in response to LPI 17.

23

1 **Q. Should the Commission foreclose the recovery of financing costs during the**
2 **construction period through a transmission cost recovery rider if it certifies**
3 **the GNTL project?**

4 A. Yes. If it grants MP's petition for a certificate of need for the GNTL project in
5 this proceeding, then the Commission should condition its approval on the use of
6 AFUDC to foreclose any subsequent efforts to obtain current recovery of
7 financing costs through the transmission cost recovery rider or any other rider
8 during the construction period. AFUDC is the more appropriate approach to the
9 recovery of financing costs incurred during construction and will minimize the
10 rate effects to customers by depreciating these costs over the lives of the assets
11 rather than recovering them in advance over the four-year construction period.

12
13 **Q. Once the GNTL project is completed and placed in-service, should the**
14 **project costs be recovered through a transmission cost recovery rider?**

15 A. Yes. The primary reason for doing so is to ensure that customers pay no more
16 and no less than the actual costs of this project as those costs are incurred. Once
17 in-service, the original cost of the project will be depreciated for book and income
18 tax purposes, thus reducing the revenue requirement for the project immediately
19 and continuously over its life as the accumulated depreciation and accumulated
20 deferred income tax balances grow. In addition, once in-service, the must-take
21 fee revenues will reduce the revenue requirement. Further, once in-service, the

¹⁰ Donahue Direct at 8.

1 Company may receive MISO revenue credits from the use of the project assets by
2 other parties, which also should be used to reduce the revenue requirement on a
3 timely basis.

4 None of these changes in the revenue requirement would be captured in a
5 timely manner if the costs are recovered through base rates. To the contrary, the
6 Company would retain the reductions in the revenue requirement between base
7 rate cases rather than timely reducing rates through the transmission cost recovery
8 rider. And although it is conceivable that certain credits could flow through the
9 fuel and purchased energy adjustment rider, it would be more transparent if
10 GNTL costs and credits were addressed in the transmission cost recovery rider.

11

12 **V. THE COMMISSION HAS THE OPPORTUNITY TO PARTIALLY REMEDY**
13 **THE CLASS SUBSIDIES PROVIDED BY THE LP CLASS**

14

15 **Q. Has the Company estimated the rate effect of the GNTL on customers?**

16 A. Yes. Under its plan, the Company estimates that the greatest increase will fall on
17 the LP class. In its application, the Company estimated that the increases will be
18 3.29% to residential customers, 3.05% to general service customers, 3.46% to
19 large light and power customers, and 4.93% to large power customers.¹¹ The
20 Company claims that it used a D-02 transmission demand allocation factor to
21 allocate the jurisdictional revenue requirement to customer classes.

22

¹¹ Application at 30.

1 **Q. Do the Company's present rates reflect the class cost of service found**
2 **reasonable by the Commission in the Company's most recent base rate**
3 **proceeding?**

4 A. No. In Case No. GR-09-1151, the Commission set the residential class rates well-
5 below and the LP rates well-above the class cost of service due to alleged
6 concerns regarding the impact of the rate increase on the residential class in that
7 proceeding. More specifically, even though the class cost of service indicated that
8 the residential rate increase should be much more and the LP rate increase should
9 be much less than the overall increase, the Commission instead increased
10 residential rates by 7.8% and LP rates by 15.2% compared to the overall increase
11 of 11.8%. In other words, the Commission's decision in that proceeding harmed
12 the LP class by increasing the subsidies that it provides to the residential class
13 instead of reducing them.

14
15 **Q. Has the Company provided its calculations of the rate impacts by class?**

16 A. No. The Company was asked to provide the calculations reflected in its
17 application in LPI 4. It did not provide them. It subsequently was asked to
18 provide the revenue requirement and class effects and calculations of its most
19 recent cost estimate in LPI 21. It provided the revenue requirement, but did not
20 provide the class effects or the calculations of those effects. In his testimony, Mr.
21 McMillan cited the effects of the most recent estimate on the average residential

1 bill and on the LP rate per kWh of energy, but did not provide the calculations.¹²
2 Thus, I have not been able to review the Company's actual calculations and do
3 not know how they were performed. If I had been able to do so, I may have
4 identified other concerns with the Company's calculations and reserve the right to
5 supplement my testimony on the rate impacts by class after the Company has
6 provided the support for its calculations.

7
8 **Q. Should the Commission consider the allocation of the GNTL revenue**
9 **requirement in isolation from all other revenue requirements?**

10 A. No. The Company's plan to seek recovery based on allocations using the D-02
11 transmission demand allocation factor for the cost of this project in isolation will
12 compound and perpetuate the present subsidies reflected in base rates. The
13 Commission should take this opportunity to partially remedy the subsidies
14 provided by the LP class to other classes.

15
16 **Q. What do you recommend?**

17 A. I recommend that the Commission allocate the increase to customer classes based
18 on base revenues excluding fuel and other riders. I also recommend that the
19 Company address in its responsive testimony the effects on customer classes,
20 including its calculations of these effects, and the opportunity to partially remedy
21 the subsidies provided by the LP class to other classes so that large customers are

¹¹ McMillan Direct at 17-18.

1 not further harmed over the life of the GNTL project.

2

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

4 **A. Yes.**

BEFORE THE
MINNESOTA PUBLIC UTILITIES COMMISSION

**IN THE MATTER OF THE
REQUEST BY MINNESOTA POWER
FOR A CERTIFICATE OF NEED
FOR THE GREAT NORTHERN
TRANSMISSION LINE**

**MPUC Docket No. E-015/CN-12-1163
OAH Docket No. 65-2500-31196**

**APPENDICES
OF
LANE KOLLEN**

**ON BEHALF OF THE
LARGE POWER INTERVENORS**

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

September 2014

APPENDIX A
QUALIFICATIONS

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 |
| Connecticut Industrial Energy Consumers | Occidental Chemical Corporation |
| ELCON | Ohio Energy Group |
| Enron Gas Pipeline Company | Ohio Industrial Energy Consumers |
| Florida Industrial Power Users Group | Ohio Manufacturers Association |
| Gallatin Steel | Philadelphia Area Industrial Energy |
| General Electric Company | Users Group |
| GPU Industrial Intervenors | PSI Industrial Group |
| Indiana Industrial Group | Smith Cogeneration |
| Industrial Consumers for | Taconite Intervenors (Minnesota) |
| Fair Utility Rates - Indiana | West Penn Power Industrial Intervenors |
| Industrial Energy Consumers - Ohio | West Virginia Energy Users Group |
| Kentucky Industrial Utility Customers, Inc. | Westvaco Corporation |
| 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 2014**

| Date | Case | Jurisdict. | 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 Intervenors | 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 2014**

| Date | Case | Jurisdic. | 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
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| Date | Case | Jurisdict. | 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 Intervenors | 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
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as of September 2014**

| 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 2014**

| Date | Case | Jurisdict. | 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. |
| 4/97 | U-20647 (Supplemental Surrebuttal) | LA | Louisiana Public Service Commission Staff | Gulf States Utilities Co. | |
| 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 (Rebuttal) | 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 2014**

| 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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| Date | Case | Jurisdic. | Party | Utility | Subject |
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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. |
| 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 | SWEPSCO, 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. |
| 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. |

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| 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. |
| 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. |

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| 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 | SWEPSCO | 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. |
| 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. |

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| 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. |
| 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. |

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| 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. |
| 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. |

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| 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. |
| 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. |

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| 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. |
| 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. |

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| 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. |
| 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. |

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| 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. |

**Expert Testimony Appearances
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| Date | Case | Jurisdic. | Party | Utility | Subject |
|-------------|---|------------------|---|---|---|
| 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. |

**Expert Testimony Appearances
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| Date | Case | Jurisdic. | Party | Utility | Subject |
|-------------|--|------------------|--|--|--|
| 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. |

**Expert Testimony Appearances
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| Date | Case | Jurisdict. | Party | Utility | Subject |
|-------------|--|-------------------|---|---|--|
| 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. |

**Expert Testimony Appearances
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| Date | Case | Jurisdic. | Party | Utility | Subject |
|-------------|---|------------------|--|---|--|
| 10/09 | 09A-415E | 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. |

**Expert Testimony Appearances
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| Date | Case | Jurisdic. | Party | Utility | Subject |
|-------------|------------------------------------|------------------|---|---|--|
| 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: SO2 allowance expense, variable O&M expense, off-system sales margin sharing. |
| 11/10 | U-23327 Rebuttal | LA | Louisiana Public Service Commission | SWEPCO | Fuel audit: SO2 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. |

**Expert Testimony Appearances
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| Date | Case | Jurisdic. | Party | Utility | Subject |
|-------------|--|------------------|--|--|---|
| 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 | SWEPSCO | Settlement, incl resolution of SO2 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 | SWEPSCO | 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 | 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. |
| 10/12 | 120015-EI Direct | FL | South Florida Hospital and Healthcare Association | Florida Power & Light Company | Settlement issues. |

**Expert Testimony Appearances
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| Date | Case | Jurisdic. | Party | Utility | Subject |
|-------------|-----------------------|------------------|---|--|--|
| 11/12 | 120015-El 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. |
| 12/13 | 2013-00413 | KY | Kentucky Industrial Utility Customers, Inc. | Big Rivers Electric Corporation | Agreements to provide Century Sebree Smelter market access. |

**Expert Testimony Appearances
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| Date | Case | Jurisdic. | Party | Utility | Subject |
|-------------|-------------------|------------------|---|---|--|
| 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. |
| 8/14 | ER13-432 Rebuttal | FERC | Louisiana Public Service Commission | Entergy Gulf States Louisiana, LLC and Entergy Louisiana, LLC | UP Settlement benefits and damages. |

APPENDIX B
RESPONSES TO INFORMATION REQUESTS

RESPONSE TO LPI IR 4

LARGE POWER INTERVENORS

Utility Information Request

Docket Number: E015/CN-12-1163

Date of Request: May 19, 2014

Requested From: Large Power Intervenors

Response Requested: May 30, 2014

By: Large Power Intervenors (Andrew Moratzka, Chad T. Marriott, Lane Kollen and Phil Hayet)

Request

No.

004 Please provide the Company's quantification of the effects of the project on customer rates, including, but not limited to, the derivation of the revenue requirement, all of the relevant class billing determinants, and the effects of the scheduling fee arrangement. Provide all assumptions, data, and computations, including electronic spreadsheets with formulas intact, e.g., revenue requirements model, class cost of service model, etc.

Response:

Minnesota Power and Manitoba Hydro are still negotiating the details of the scheduling fee arrangement and will provide a full response to this information request as soon as possible. Both parties are working to finalize these details by early July. Once those details are finalized, Minnesota Power will quantify the effect on customer rates.

Response by: David Moeller

List Sources of Information:

Title: Senior Attorney

Department: Corporate Legal Services

Telephone: 218-723-3963

RESPONSE TO LPI IR 14

LARGE POWER INTERVENORS

Utility Information Request

Docket Number: E015/CN-12-1163

Date of Request: August 20, 2014

Requested From: Large Power Intervenors

Response Requested: August 29, 2014

By: Large Power Intervenors (Andrew Moratzka, Chad T. Marriott, Lane Kollen and Phil Hayet)

Request
No.

- 014 If not previously provided, supply all capital related revenue requirement assumptions and results associated with the CC alternative (including transmission costs) to the GNTL/250 MW PPA modeled in Docket No. E015/M-11-938, and provide the most current capital related revenue requirement assumptions and revenue requirement calculations.
- a. If this analysis was created outside of PROVIEW, please provide the working model that developed revenue requirements over the operating life of the CC unit, based on its assumed capital construction costs;
 - b. If revenue requirements were conducted in PROVIEW, please provide the input assumptions and any workpapers that were used to develop inputs used in PROSYM; and
 - c. Also, provide all operating characteristic assumptions including but not limited to Capacity, Heat Rate, Maintenance, fuel costs, and O&M costs.

Response:

- a. Minnesota Power's most current capital revenue requirements and O&M costs for the CC alternative is shown in the accompanying **TRADE SECRET** Excel workbook titled "LPI IR 14_Latest CC Alternative Revenue Requirements_TS.xlsx". These capital revenue requirements and O&M costs for the CC alternative were used in Minnesota Power's 2013 Resource Plan approved by Minnesota Public Utilities Commission on November 12, 2013 in Docket No. E015/RP-13-53.
- b. The most current revenue requirements for the CC alternative were not calculated in Proview.

- c. Minnesota Power's most current operating characteristics for the CC alternative is shown in the accompanying **TRADE SECRET** Excel workbook titled "LPI IR 14_Latest CC Alternative Operating Characteristics_TS.xls". These operating characteristics for the CC alternative were used in the 2013 Resource Plan approved by Minnesota Public Utilities Commission on November 12, 2013 in Docket No. E015/RP-13-53.

Response by: Julie Pierce _____ List Sources of Information: _____
Title: Manager, Resource Planning _____
Department: Strategy and Planning _____
Telephone: 218-355-3829 _____

Revenue Requirements for Natural Gas Combined Cycle (CC) Capital: 1x1 7FA.05 CC

Baseload Performance

| | UOM | |
|--------------------|---------------|---------|
| Net Plant Output | kW | 316,800 |
| Net Plant Heatrate | Btu/kWh (Hvv) | 6,680 |

Fired Performance

| | | |
|--------------------------|---------------|--------|
| Incremental Plant Output | kW | 91,100 |
| Incremental Heatrate | Btu/kWh (Hvv) | 8,510 |

Net Fired Performance

| | | |
|--------------------------|---------------|---------|
| Net Fired Plant Output | kW | 407,900 |
| Net Fired Plant Heatrate | Btu/kWh (Hvv) | 7,110 |

Total Project Cost (2012)

| | | |
|--------------------|-------|---------------|
| Plant Capital | \$/kW | [REDACTED] |
| Owners Cost | \$/kW | [REDACTED] |
| AFUDC | \$/kW | [REDACTED] |
| Total Capital Cost | \$/kW | [REDACTED] |
| Net Plant Cost | | \$ [REDACTED] |

Emission Rate

| | | |
|-----|----------|-----|
| CO2 | lb/MMBtu | 120 |
|-----|----------|-----|

O&M Cost (2012)

| | | |
|--------------------------------------|----------|------------|
| Fixed | \$/kW/yr | [REDACTED] |
| Variable | \$/MWh | [REDACTED] |
| Incremental Variable for Duct Firing | \$/MWh | [REDACTED] |
| Total Weighted Variable | \$/MWh | [REDACTED] |

GT Major Maintenance (2012)

| | | |
|-------------|---------|------------|
| Maintenance | \$/GT-h | [REDACTED] |
|-------------|---------|------------|

Transmission Upgrades (2012)

| | | |
|----------|-------|------------|
| Net Cost | \$ | [REDACTED] |
| Net Cost | \$/kW | [REDACTED] |

| | |
|--------------------|----|
| FCR Build Location | MN |
| Escalation Rate | 3% |

| | |
|---------------------------------|------------|
| Fixed Charge Rate Capital* | [REDACTED] |
| Fixed Charge Rate Transmission* | [REDACTED] |

| Installation Year | Net Plant Cost (Including Transmission) | | | | Levelized Plant Cost | | | O&M | |
|-------------------|---|--------------|------------|-------------|----------------------|-------------|-------------------|---------------------|-------------------|
| | Net Plant Cost | Net Trx Cost | Total Cost | Total \$/kw | Total \$ | Total \$/kw | Total \$/MW-Month | Fixed (\$/MW-Month) | Variable (\$/MWh) |
| 2012 | | | | | | | | | |
| 2013 | | | | | | | | | |
| 2014 | | | | | | | | | |
| 2015 | | | | | | | | | |
| 2016 | | | | | | | | | |
| 2017 | | | | | | | | | |
| 2018 | | | | | | | | | |
| 2019 | | | | | | | | | |
| 2020 | | | | | | | | | |
| 2021 | | | | | | | | | |
| 2022 | | | | | | | | | |
| 2023 | | | | | | | | | |
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| 2025 | | | | | | | | | |
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| 2027 | | | | | | | | | |
| 2028 | | | | | | | | | |
| 2029 | | | | | | | | | |
| 2030 | | | | | | | | | |
| 2031 | | | | | | | | | |
| 2032 | | | | | | | | | |
| 2033 | | | | | | | | | |
| 2034 | | | | | | | | | |
| 2035 | | | | | | | | | |
| 2036 | | | | | | | | | |
| 2037 | | | | | | | | | |
| 2038 | | | | | | | | | |

[TRADE SECRET DATA EXCISED]

NOTES:

*Fixed Charge Rate from the Nov 2012 Update for 2013 IRP

¹Burns & McDonnell Project Assessment 10/3/2012

STRATEGIST INPUT

| | 2012 | 2,013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 |
|---|------|-------|------|------|------|------|------|------|------|
| Base Levelized Capital (\$000/Year) | | | | | | | | | |
| Fixed O&M + Gas Reservation Charge (\$000/Year) | | | | | | | | | |
| Variable (\$/MWh) | | | | | | | | | |
| Bid Price at Incremental & Minimum (\$/MWh) | | | | | | | | | |
| Low Levelized Capital (\$000/Year) | | | | | | | | | |
| High Levelized Capital (\$000/Year) | | | | | | | | | |

[TRADE SECRET DATA EXCISED]

LPI IR 014.1 Attachment Public Version

| Major Maintenance \$/MWh | Gas Reservation + Storage Chg \$/Year |
|-----------------------------|--|
| | |

2021

2022

2023

2024

2025

2026

2027

2028

2029

2030

2031

2032

2033

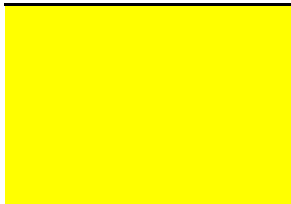
2034

2035

SECRET DATA EXCISED]

2036

2037



Latest Natural Gas Combine Cycle (CC) Alternative Operating Characteristics:

Source: 2013 Resource Plan

Annual Heat Rate and Capacity:

| | UOM | |
|--|---------------|---------|
| <u>Baseload Performance</u> | | |
| Net Plant Output | kW | 316,800 |
| Net Plant Average Heat rate | Btu/kWh (Hvv) | 6,680 |
| <u>Fired Performance (Duct Firing)</u> | | |
| Incremental Plant Output | kW | 91,100 |
| Incremental Average Heat rate | Btu/kWh (Hvv) | 8,510 |
| <u>Base Load + Fired Performance</u> | | |
| Net Fired Plant Output | kW | 407,900 |
| Net Fired Plant Heat rate | Btu/kWh (Hvv) | 7,110 |

O&M Cost:

All cost in 2012 Dollars

| | UOM | |
|------------------------|----------|-----------------------------|
| Fixed O&M | \$/kW/yr | [TRADE SECRET DATA EXCISED] |
| Variable O&M | \$/MWh | [TRADE SECRET DATA EXCISED] |
| Major Maintenance Cost | \$/MWh | [TRADE SECRET DATA EXCISED] |

Forced Outage Rate & Maintenance

| | UOM | |
|--------------------|----------------|-----------------------------|
| Annual Maintenance | Weeks per Year | [TRADE SECRET DATA EXCISED] |
| Forced Outage Rate | % Per Year | [TRADE SECRET DATA EXCISED] |

Emission Rates

| | UOM | |
|------|----------|-----------------------------|
| PM10 | Lb/MMBtu | [TRADE SECRET DATA EXCISED] |
| NOX | Lb/MMBtu | [TRADE SECRET DATA EXCISED] |
| SO2 | Lb/MMBtu | [TRADE SECRET DATA EXCISED] |
| CO2 | Lb/MMBtu | [TRADE SECRET DATA EXCISED] |
| Hg | Lb/Tbtu | [TRADE SECRET DATA EXCISED] |
| CO | Lb/MMBtu | [TRADE SECRET DATA EXCISED] |

LPI IR 014.2 Attachment Public Version

RESPONSE TO LPI IR 17

LARGE POWER INTERVENORS

Utility Information Request

Docket Number: E015/CN-12-1163

Date of Request: August 20, 2014

Requested From: Large Power Intervenors

Response Requested: August 29, 2014

By: Large Power Intervenors (Andrew Moratzka, Chad T. Marriott, Lane Kollen and Phil Hayet)

Request
No.

017 If not previously provided, please supply all capital related revenue requirement assumptions and revenue requirement calculations for the PPA / GNTL that reflect the present scope and structure of the project and the agreements that have been drafted. Also, provide all operating assumptions including but not limited to Capacity, Heat Rate, Maintenance, fuel costs, and O&M costs.

Response:

Provided in the attached **TRADE SECRET** Excel workbook labeled "LPI IR#17_GNTL Revenue Requirement_TS.xls" is the complete GNTL project revenue requirement and associated calculations. This workbook includes the entire GNTL project definition and what portion of the project is attributed to the Minnesota Power 250 MW PPA, the 133 MW Renewable Optimization Agreements, and the remaining 500 MW Manitoba Hydro portion each on their own Excel tab. Assumptions are included on the first tab of the Excel workbook.

Minnesota Power's latest projected pricing for the Manitoba Hydro 250 MW PPA is shown on the accompanying **TRADE SECRET CD** in the Excel workbook titled "LPI IR 17_Latest MHEB 250 MW PPA Pricing Model_Base Case_TS.xlsx". The attached Excel workbook is a model with drop down boxes that allow the user to change the PPA's projected energy pricing by selecting **[TRADE SECRET DATA EXCISED]**.

The operating assumptions Capacity, Heat Rate, Maintenance, fuel costs mentioned above in the IR do not apply to the MHEB 250 MW PPA and GNTL project.

Response by: Julie Pierce

List Sources of Information:

Title: Manager, Resource Planning

Department: Strategy and Planning

Telephone: 218-355-3829

Revenue Requirements for GNTL

BASE REVENUE REQUIREMENTS

| | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 |
|-----------------------------------|-----------------------|------|------|------|------|------|------|------|------|
| Total Revenue Requirements | [TRADE SECRET BEGINS] | | | | | | | | |

Revenue Requirements Breakout

- O&M
- A&G
- Property Taxes
- Book Depreciation
- Interest Expense
- Income Taxes
- Return on Equity

| | | | | | | | | | |
|-----------------------------------|--|--|--|--|--|--|--|--|--|
| [TRADE SECRET BEGINS] | | | | | | | | | |
| Total Revenue Requirements | | | | | | | | | |

CHECKPOINT

| | | | | | | | | | |
|---|-----------------------|---|---|---|---|---|---|---|---|
| | - | - | - | - | - | - | - | - | - |
| Total Base Revenue Requirement | [TRADE SECRET BEGINS] | | | | | | | | |
| MH Must Take Fee | | | | | | | | | |
| MH 500 MW | | | | | | | | | |
| MP allocated Revenue Requirement | | | | | | | | | |

| 2025 | 2026 | 2027 | 2028 | 2029 | 2030 | 2031 | 2032 | 2033 | 2034 | 2035 | 2036 | 2037 |
|------|------|------|------|------|------|------|------|------|------|------|------|------|
|------|------|------|------|------|------|------|------|------|------|------|------|------|

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| 2038 | 2039 | 2040 | 2041 | 2042 | 2043 | 2044 | 2045 | 2046 | 2047 | 2048 | 2049 | 2050 |
|------|------|------|------|------|------|------|------|------|------|------|------|------|
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2051 2052 2053 2054 2055 2056 2057 2058 2059 2060

[Redacted]

TRADE SECRET ENDS]

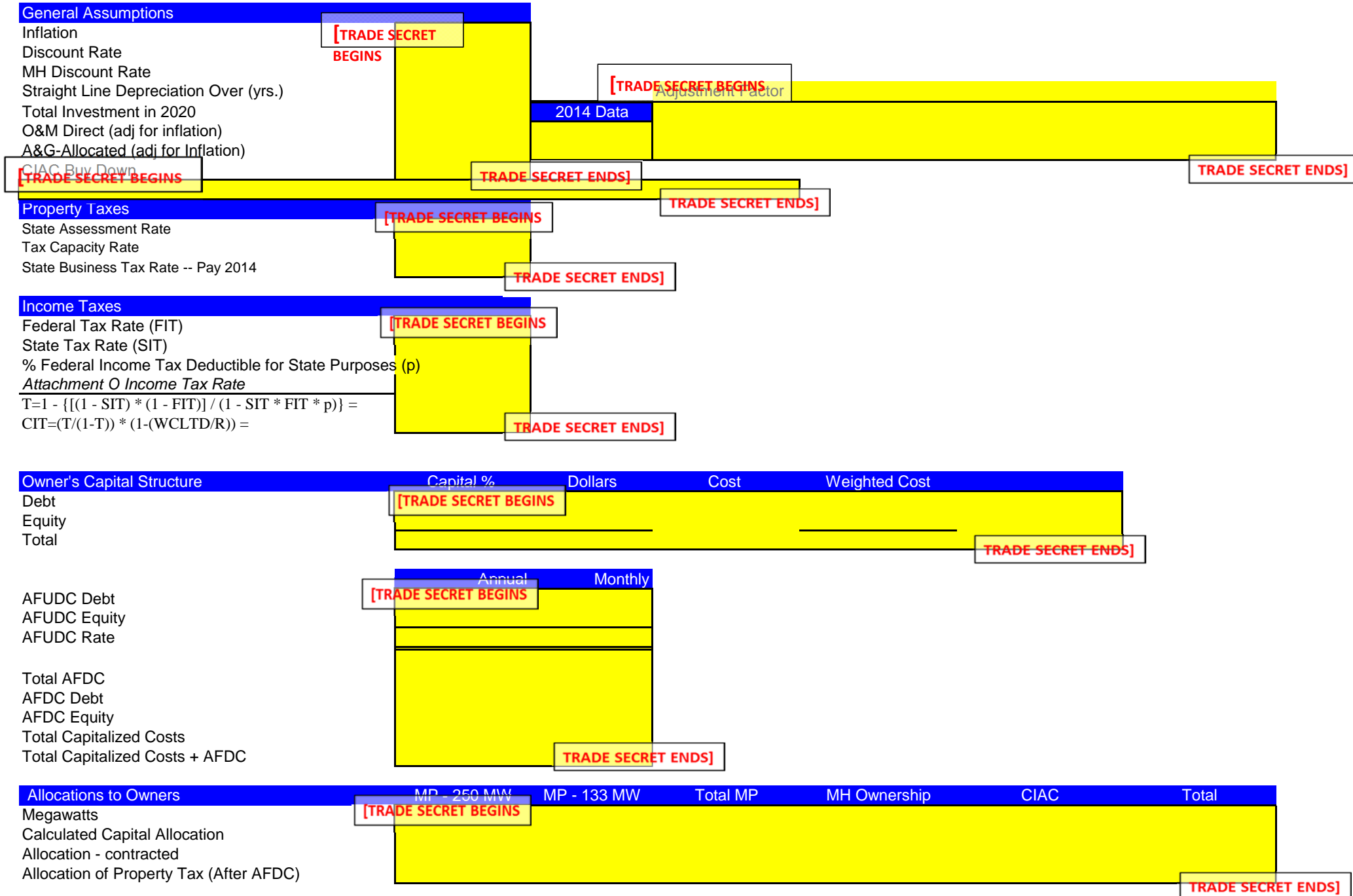
[Redacted]

TRADE SECRET ENDS]

[Redacted]

TRADE SECRET ENDS]

GNTL Model - Assumptions



Detailed Capital Spend

| | 2012 | Jan | Feb | Mar | Apr | May |
|--|-----------------------|-----|-----|-----|-----|-----|
| Plant Additions- 2013\$ (as detailed in LPI IR#25) | [TRADE SECRET BEGINS] | | | | | |
| Plant Additions- Escalated @2.5% | | | | | | |
| Total Project | | | | | | |

| | Through 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 |
|--------------|-----------------------|------|------|------|------|------|------|
| Annual Capex | [TRADE SECRET BEGINS] | | | | | | TRAD |

| 2013 | | | | | | | 2014 | | | | | | | | | | | |
|------|-----|-----|-----|-----|-----|-----|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Jun | Jul | Aug | Sep | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
| | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | |

[E SECRET ENDS]

2015

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|

| 2016 | | | | | | | 2017 | | | | | | | | |
|------|-----|-----|-----|-----|-----|-----|------|-----|-----|-----|-----|-----|-----|-----|-----|
| Jun | Jul | Aug | Sep | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | |

| | | | 2018 | | | | | | | | | | | |
|-----|-----|-----|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |

2019

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Jan | Feb | Mar |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |

| 2020 | | | Grand Total |
|------|-----|-----|-------------|
| Apr | May | Jun | |
| | | | |
| | | | |

TRADE SECRET ENDS]



\$ -

Rate Base Calculation

Year End Gross Plant (750 MW)

CIAC

Depreciable Plant

Accumulated Depreciation

Net Plant

Adjustments Deferred Taxes

Year End Rate Base

Average Rate Base

Balance Sheet

Assets

Deferred Tax Liability

Debt

Equity

Total

Revenue Requirement

Gross Revenue Requirement

AFUDC

O&M Direct (adj for inflation)

A&G-Allocated (adj for Inflation)

Property Taxes

Op Expense

Depreciation

Interest Expense

Income Taxes

Equity Return

OCI - AFDC

| | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 |
|-----------------------------------|------|------|------|------|------|------|------|------|------|------|------|
| [TRADE SECRET BEGINS] | | | | | | | | | | | |
| Year End Gross Plant (750 MW) | | | | | | | | | | | |
| CIAC | | | | | | | | | | | |
| Depreciable Plant | | | | | | | | | | | |
| Accumulated Depreciation | | | | | | | | | | | |
| Net Plant | | | | | | | | | | | |
| Adjustments Deferred Taxes | | | | | | | | | | | |
| Year End Rate Base | | | | | | | | | | | |
| Average Rate Base | | | | | | | | | | | |
| Balance Sheet | | | | | | | | | | | |
| Assets | | | | | | | | | | | |
| Deferred Tax Liability | | | | | | | | | | | |
| Debt | | | | | | | | | | | |
| Equity | | | | | | | | | | | |
| Total | | | | | | | | | | | |
| Revenue Requirement | | | | | | | | | | | |
| Gross Revenue Requirement | | | | | | | | | | | |
| AFUDC | | | | | | | | | | | |
| O&M Direct (adj for inflation) | | | | | | | | | | | |
| A&G-Allocated (adj for Inflation) | | | | | | | | | | | |
| Property Taxes | | | | | | | | | | | |
| Op Expense | | | | | | | | | | | |
| Depreciation | | | | | | | | | | | |
| Interest Expense | | | | | | | | | | | |
| Income Taxes | | | | | | | | | | | |
| Equity Return | | | | | | | | | | | |
| OCI - AFDC | | | | | | | | | | | |

Total

TRADE SECRET ENDS]



\$ -

Rate Base Calculation

Year End Gross Plant (750 MW)
CIAC
Depreciable Plant
Accumulated Depreciation
Net Plant
Adjustments Deferred Taxes
Year End Rate Base

Average Rate Base

Balance Sheet

Assets

Deferred Tax Liability
Debt
Equity
Total

Revenue Requirement

Gross Revenue Requirement
AFUDC

O&M Direct (adj for inflation)
A&G-Allocated (adj for Inflation)
Property Taxes
Op Expense

Depreciation
Interest Expense
Income Taxes
Equity Return
OCI - AFDC

| | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 |
|-----------------------------------|------|------|------|------|------|------|------|------|------|------|
| [TRADE SECRET BEGINS] | | | | | | | | | | |
| Year End Gross Plant (750 MW) | | | | | | | | | | |
| CIAC | | | | | | | | | | |
| Depreciable Plant | | | | | | | | | | |
| Accumulated Depreciation | | | | | | | | | | |
| Net Plant | | | | | | | | | | |
| Adjustments Deferred Taxes | | | | | | | | | | |
| Year End Rate Base | | | | | | | | | | |
| Average Rate Base | | | | | | | | | | |
| Balance Sheet | | | | | | | | | | |
| Assets | | | | | | | | | | |
| Deferred Tax Liability | | | | | | | | | | |
| Debt | | | | | | | | | | |
| Equity | | | | | | | | | | |
| Total | | | | | | | | | | |
| Revenue Requirement | | | | | | | | | | |
| Gross Revenue Requirement | | | | | | | | | | |
| AFUDC | | | | | | | | | | |
| O&M Direct (adj for inflation) | | | | | | | | | | |
| A&G-Allocated (adj for Inflation) | | | | | | | | | | |
| Property Taxes | | | | | | | | | | |
| Op Expense | | | | | | | | | | |
| Depreciation | | | | | | | | | | |
| Interest Expense | | | | | | | | | | |
| Income Taxes | | | | | | | | | | |
| Equity Return | | | | | | | | | | |
| OCI - AFDC | | | | | | | | | | |
| [TRADE SECRET BEGINS] | | | | | | | | | | |
| [TRADE SECRET ENDS] | | | | | | | | | | |
| [TRADE SECRET BEGINS] | | | | | | | | | | |
| [TRADE SECRET ENDS] | | | | | | | | | | |

| 2026 | 2027 | 2028 | 2029 | 2030 | 2031 | 2032 | 2033 | 2034 | 2035 | 2036 | 2037 | 2038 | 2039 | 2040 | 2041 | 2042 |
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
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| 2043 | 2044 | 2045 | 2046 | 2047 | 2048 | 2049 | 2050 | 2051 | 2052 | 2053 | 2054 | 2055 | 2056 | 2057 | 2058 | 2059 |
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
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\$ -

Rate Base Calculation

Year End Gross Plant (750 MW)
CIAC
Depreciable Plant
Accumulated Depreciation
Net Plant
Adjustments Deferred Taxes
Year End Rate Base

Average Rate Base

Balance Sheet

Assets

Deferred Tax Liability
Debt
Equity
Total

Revenue Requirement

Gross Revenue Requirement
AFUDC

O&M Direct (adj for inflation)
A&G-Allocated (adj for Inflation)
Property Taxes
Op Expense

Depreciation
Interest Expense
Income Taxes
Equity Return
OCI - AFDC

| | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 |
|-----------------------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| [TRADE SECRET BEGINS] | | | | | | | | | | | | | | |
| Year End Gross Plant (750 MW) | | | | | | | | | | | | | | |
| CIAC | | | | | | | | | | | | | | |
| Depreciable Plant | | | | | | | | | | | | | | |
| Accumulated Depreciation | | | | | | | | | | | | | | |
| Net Plant | | | | | | | | | | | | | | |
| Adjustments Deferred Taxes | | | | | | | | | | | | | | |
| Year End Rate Base | | | | | | | | | | | | | | |
| Average Rate Base | | | | | | | | | | | | | | |
| Balance Sheet | | | | | | | | | | | | | | |
| Assets | | | | | | | | | | | | | | |
| Deferred Tax Liability | | | | | | | | | | | | | | |
| Debt | | | | | | | | | | | | | | |
| Equity | | | | | | | | | | | | | | |
| Total | | | | | | | | | | | | | | |
| Revenue Requirement | | | | | | | | | | | | | | |
| Gross Revenue Requirement | | | | | | | | | | | | | | |
| AFUDC | | | | | | | | | | | | | | |
| O&M Direct (adj for inflation) | | | | | | | | | | | | | | |
| A&G-Allocated (adj for Inflation) | | | | | | | | | | | | | | |
| Property Taxes | | | | | | | | | | | | | | |
| Op Expense | | | | | | | | | | | | | | |
| Depreciation | | | | | | | | | | | | | | |
| Interest Expense | | | | | | | | | | | | | | |
| Income Taxes | | | | | | | | | | | | | | |
| Equity Return | | | | | | | | | | | | | | |
| OCI - AFDC | | | | | | | | | | | | | | |

| | | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | |
|-------------------------------------|-------|-----------------------|------|------|------|------|------|------|------|--|
| Cost Indicator | | [TRADE SECRET BEGINS] | | | | | | | | |
| PIS | | | | | | | | | | |
| CWIP | | | | | | | | | | |
| Total Plant | | | | | | | | | | |
| Annual Depreciation | | | | | | | | | | |
| Depreciation Reserve | | | | | | | | | | |
| Net Book Value | | | | | | | | | | |
| Total Cost Indicator | | | | | | | | | | |
| Property Tax Calculation | | | | | | | | | | |
| State Assessment Rate -- Pay 2014 | 0.00% | | | | | | | | | |
| Tax Capacity Value | | | | | | | | | | |
| Tax Capacity Rate | 0.00% | | | | | | | | | |
| State Business Tax Rate -- Pay 2014 | 0.00% | | | | | | | | | |
| Property Tax⁴ | | | | | | | | | | |

| 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 | 2031 | 2032 | 2033 | 2034 |
|------|------|------|------|------|------|------|------|------|------|------|
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| 2047 | 2048 | 2049 | 2050 | 2051 | 2052 | 2053 | 2054 | 2055 | 2056 |
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Deferred Tax Calculation

| Assumptions | |
|--------------------------------------|-----------------------|
| Property Type | [TRADE SECRET BEGINS] |
| Tax Life | [TRADE SECRET BEGINS] |
| Book Life | |
| Depreciable Tax Basis | |
| Depreciable Book Basis (for DT Calc) | |
| AFDC Debt | |
| AFDC Equity | |
| Total AFUDC | |
| Tax Rate | |

| Year | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 |
|--|-----------------------|-----------------------|------|------|------|------|------|
| METHOD | [TRADE SECRET BEGINS] | [TRADE SECRET BEGINS] | | | | | |
| Tax Rate | | [TRADE SECRET BEGINS] | | | | | |
| Tax Depreciation | | [TRADE SECRET BEGINS] | | | | | |
| Book Depreciation for Deferred Tax | | [TRADE SECRET BEGINS] | | | | | |
| Tax > Book | | [TRADE SECRET BEGINS] | | | | | |
| AFDC Debt | | [TRADE SECRET BEGINS] | | | | | |
| AFDC Deferred Tax | | [TRADE SECRET BEGINS] | | | | | |
| Cumulative Tax > Book (Temporary Difference) | | [TRADE SECRET BEGINS] | | | | | |
| Deferred Tax Liability | | [TRADE SECRET BEGINS] | | | | | |
| Cumulative Deferred Tax Liability | | [TRADE SECRET BEGINS] | | | | | |
| % allocated to ROA | | [TRADE SECRET BEGINS] | | | | | |
| % to MP | | [TRADE SECRET BEGINS] | | | | | |

| 2027 | 2028 | 2029 | 2030 | 2031 | 2032 | 2033 | 2034 | 2035 | 2036 | 2037 |
|------|------|------|------|------|------|------|------|------|------|------|
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| 2038 | 2039 | 2040 | 2041 | 2042 | 2043 | 2044 | 2045 | 2046 | 2047 | 2048 |
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| 2049 | 2050 | 2051 | 2052 | 2053 | 2054 | 2055 | 2056 | 2057 | 2058 | 2059 |
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| 2060 | Total |
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TRADE SECRET ENDS]



| | 2014 | 2015 | | | | | | |
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| | | Jan | Feb | Mar | Apr | May | Jun | Jul |
| Rate Base Calculation | | | | | | | | |
| Plant Additions | [TRADE SECRET BEGINS] | | | | | | | |
| CIAC | | | | | | | | |
| Depreciable Plant | | | | | | | | |
| Accumulated Depreciation | | | | | | | | |
| Net Plant | | | | | | | | |
| Adjustments Deferred Taxes | | | | | | | | |
| Ending Rate Base | | | | | | | | |
| Average Rate Base | | | | | | | | |
| Balance Sheet | | | | | | | | |
| Assets | | | | | | | | |
| Deferred Tax Liability | | | | | | | | |
| Debt | | | | | | | | |
| Equity | | | | | | | | |
| Total | | | | | | | | |
| Revenue Requirement | | | | | | | | |
| Gross Revenue Requirement | | | | | | | | |
| O&M Direct (adj for inflation) | | | | | | | | |
| A&G-Allocated (adj for Inflation) | | | | | | | | |
| Property Taxes | | | | | | | | |
| Op Expense | | | | | | | | |
| Depreciation | | | | | | | | |
| Interest Expense | | | | | | | | |
| Income Taxes | | | | | | | | |
| Equity Return | | | | | | | | |

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TRADE SECRET ENDS]

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| | | Jan | Feb | Mar | Apr | May | Jun |
| Rate Base Calculation | | | | | | | |
| Plant Additions | [TRADE SECRET BEGINS] | | | | | | |
| CIAC | | | | | | | |
| Depreciable Plant | | | | | | | |
| Accumulated Depreciation | | | | | | | |
| Net Plant | | | | | | | |
| Adjustments Deferred Taxes | | | | | | | |
| Ending Rate Base | | | | | | | |
| Average Rate Base | | | | | | | |
| Balance Sheet | | | | | | | |
| Assets | | | | | | | |
| Deferred Tax Liability | | | | | | | |
| Debt | | | | | | | |
| Equity | | | | | | | |
| Total | | | | | | | |
| Revenue Requirement | | | | | | | |
| Gross Revenue Requirement | | | | | | | |
| O&M Direct (adj for inflation) | | | | | | | |
| A&G-Allocated (adj for Inflation) | | | | | | | |
| Property Taxes | | | | | | | |
| Op Expense | | | | | | | |
| Depreciation | | | | | | | |
| Interest Expense | | | | | | | |
| Income Taxes | | | | | | | |
| Equity Return | | | | | | | |

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2059

2060

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| Rate Base Calculation | [TRADE SECRET BEGINS] | | | | | | | | | | | | |
| Gross Plant (750 MW) | | | | | | | | | | | | | |
| CIAC | | | | | | | | | | | | | |
| Depreciable Plant | | | | | | | | | | | | | |
| Accumulated Depreciation | | | | | | | | | | | | | |
| Net Plant | | | | | | | | | | | | | |
| Adjustments Deferred Taxes | | | | | | | | | | | | | |
| Ending Rate Base | | | | | | | | | | | | | |
| Average Rate Base | | | | | | | | | | | | | |
| Balance Sheet | | | | | | | | | | | | | |
| Assets | | | | | | | | | | | | | |
| Deferred Tax Liability | | | | | | | | | | | | | |
| Debt | | | | | | | | | | | | | |
| Equity | | | | | | | | | | | | | |
| Total | | | | | | | | | | | | | |
| Revenue Requirement | | | | | | | | | | | | | |
| Gross Revenue Requirement | | | | | | | | | | | | | |
| AFUDC | | | | | | | | | | | | | |
| O&M Direct (adj for inflation) | | | | | | | | | | | | | |
| A&G-Allocated (adj for Inflation) | | | | | | | | | | | | | |
| Property Taxes | | | | | | | | | | | | | |
| Op Expense | | | | | | | | | | | | | |
| Depreciation | | | | | | | | | | | | | |
| Interest Expense | | | | | | | | | | | | | |
| Income Taxes | | | | | | | | | | | | | |
| Equity Return | | | | | | | | | | | | | |
| | | [TRADE SECRET ENDS] | | | | | | | | | | | |

| | 2014 | 2015 | | | | | | | | | | | | | |
|-----------------------------------|-----------------------|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| | | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Jan | Feb |
| Rate Base Calculation | [TRADE SECRET BEGINS] | | | | | | | | | | | | | | |
| Plant Additions | | | | | | | | | | | | | | | |
| CIAC | | | | | | | | | | | | | | | |
| Depreciable Plant | | | | | | | | | | | | | | | |
| Accumulated Depreciation | | | | | | | | | | | | | | | |
| Net Plant | | | | | | | | | | | | | | | |
| Adjustments Deferred Taxes | | | | | | | | | | | | | | | |
| Rate Base | | | | | | | | | | | | | | | |
| AFDC Debt | [TRADE SECRET BEGINS] | | | | | | | | | | | | | | |
| AFDC Equity | | | | | | | | | | | | | | | |
| Total | [TRADE SECRET ENDS] | | | | | | | | | | | | | | |
| Running AFUDC | | | | | | | | | | | | | | | |
| AFUDC Rate | | | | | | | | | | | | | | | |
| Balance Sheet | | | | | | | | | | | | | | | |
| Assets | | | | | | | | | | | | | | | |
| Deferred Tax Liability | | | | | | | | | | | | | | | |
| Debt | | | | | | | | | | | | | | | |
| Equity | | | | | | | | | | | | | | | |
| Total | | | | | | | | | | | | | | | |
| Revenue Requirement | | | | | | | | | | | | | | | |
| Gross Revenue Requirement | | | | | | | | | | | | | | | |
| AFUDC | | | | | | | | | | | | | | | |
| O&M Direct (adj for inflation) | | | | | | | | | | | | | | | |
| A&G-Allocated (adj for Inflation) | | | | | | | | | | | | | | | |
| Property Taxes | | | | | | | | | | | | | | | |
| Op Expense | | | | | | | | | | | | | | | |
| Accumulated Capitalized Costs | | | | | | | | | | | | | | | |
| Depreciation | | | | | | | | | | | | | | | |
| Interest Expense | | | | | | | | | | | | | | | |
| Income Taxes | | | | | | | | | | | | | | | |
| Equity Return | | | | | | | | | | | | | | | |

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RESPONSE TO LPI IR 18

LARGE POWER INTERVENORS

Utility Information Request

Docket Number: E015/CN-12-1163

Date of Request: August 20, 2014

Requested From: Large Power Intervenors

Response Requested: August 29, 2014

By: Large Power Intervenors (Andrew Moratzka, Chad T. Marriott, Lane Kollen and Phil Hayet)

Request
No.

- 018 Please indicate if there is a “regulatory out” in the 250 MW PPA contract with Hydro-Manitoba.
- If so, then please identify all such regulatory out provisions; and
 - Provide an estimate of the costs that the Company projects it will incur if the 250 mW PPA is terminated, exclusive of replacement capacity. Explain each such cost and provide all supporting calculations, including assumptions, data, workpapers, electronic files with formulas intact, and provide a copy of all source documents relied on for this purpose.

Response:

The 250 MW PPA included conditions precedent that must be satisfied for both Minnesota Power and Manitoba Hydro. Minnesota Power’s included obtaining Minnesota Public Utilities Commission approval that was satisfied with the MPUC’s order in Docket No. E015/M-11-938. With that condition precedent satisfied Minnesota Power has a covenant in Section 3.1 of the PPA “to take all actions and do all things necessary to construct a new transmission interconnection with an in-service date of on or before the June 1, 2020 start date of the Contract Term...” Through pursuing the Great Northern Transmission Line, Minnesota Power is taking action to fulfill this covenant as approved by the MPUC.

In addition, Manitoba Hydro has agreed to share in the development costs of the Great Northern Transmission Line in both a stand-alone agreement as well as the soon to be executed Facilities Construction Agreement. These agreements minimize potential impacts to Minnesota Power’s customers.

The current cost sharing agreements requires MH to reimburse MP for 67% of the development cost of the GNTL. This agreement will remain enforce until the FCA becomes effective, at which time MP will be responsible for 46% of the project cost and MH will be responsible for 54% of the project cost. Minnesota Power currently estimates the development phase of the project will cost \$22,896,300. This amount will be shared by Minnesota Power and Manitoba Hydro as outlined above.

Response by: David Moeller

List Sources of Information:

Title: Senior Attorney

Department: Corporate Legal Services

Telephone: 218-723-3963

RESPONSE TO LPI IR 21

LARGE POWER INTERVENORS

Utility Information Request

Docket Number: E015/CN-12-1163

Date of Request: August 26, 2014

Requested From: Large Power Intervenors

Response Requested: September 4, 2014

By: Large Power Intervenors (Andrew Moratzka, Chad T. Marriott, Lane Kollen and Phil Hayet)

Request
No.

- 021 Refer to pages 17-18 of Mr. McMillan's Direct Testimony wherein he discusses the retail rate impact of the project.
- a. Please provide a schedule, in electronic format and with all formulas intact, providing the derivation of the revenue requirement on a total-project, total-Company, MN-retail, and customer-class basis. Provide a copy of all source work papers, spreadsheets, and documents relied on for these calculations. For example, if not incorporated in the electronic version of the primary schedule showing the derivation of the revenue requirements, provide the calculations of the (i) total project cost and allocation to the Company, (ii) allocation of total Company to retail and wholesale, (iii) CIAC, (iv) must-take fee, (v) depreciation expense, (vi) income tax expense, (vii) ad valorem/property tax expense, (viii) accumulated depreciation, (ix) accumulated deferred income taxes, (x) materials and supplies inventories, (xi) prepayments, (xii) cash working capital, (xiii) jurisdictional allocators, and (xiv) transmission demand class allocation factors, as well as any other calculations that feed into the primary schedule. In addition, please source the total project cost used for this purpose to the most recent cost estimate developed by the Company, and more specifically, to any cost estimate addressed and supported by Mr. Donahue.
 - b. Please state whether the cost of the project reflected in the computation of the revenue requirement provided in response to part (a) of this question includes AFUDC. If it does not include AFUDC, then please explain why it does not.
 - c. Please state whether the cost of the project reflected in the computation of the revenue requirement provided in response to part (a) of this question includes Company overheads for supervision and engineering and administrative and general costs. If it does not include these overheads, then please explain why it does not.

- d. Please indicate whether the retail rate effects provided in response to part (a) of this question were computed based on the accounting cost of the project (reflected “as and when spent” dollars) or on the cost of the project in current dollars. Please explain.
- e. Please provide the Company’s currently authorized return on equity, its most recent cost of short-term debt, its most recent weighted average cost of long-term debt, and its most recent capital structure, including short-term debt, at the end of the most recent 13 months.

Response:

See response to LPI IR 19 for the financial and model information. The Company's rate case order in Docket E015/GR-09-1151 and 2014 capital structure petition in Docket E015/S-14-145 provides the information for part (e).

Response by: Patrick Cutshall
 Title: Director, Investments & Tax
 Department: Investments & Analysis
 Telephone: 218-355-3529

List Sources of Information:

RESPONSE TO LPI IR 22

LARGE POWER INTERVENORS

Utility Information Request

Docket Number: E015/CN-12-1163

Date of Request: August 26, 2014

Requested From: Large Power Intervenors

Response Requested: September 4, 2014

By: Large Power Intervenors (Andrew Moratzka, Chad T. Marriott , Lane Kollen and Phil Hayet)

Request

No.

022 Please describe how the Company plans to finance the project. Provide a copy of all internal documents that address the manner of financing for the project and all terms of such financing, including all options considered.

Response:

The Company plans to finance the project with a balance of equity and first mortgage debt that supports our ratings. The majority of the capital investments will be in the years 2017 through 2020. Market conditions and the Company's internal cash generation during this time will direct the type and timing of financings. The Company will issue the required equity in the most efficient manner determined at the time of issuance and will issue debt continuing the strategy of balancing rates, risks and maturities.

Response by: Patrick Cutshall

List Sources of Information:

Title: Director, Investments & Tax

Department: Investments & Analysis

Telephone: 218-355-3529

RESPONSE TO LPI IR 24

LARGE POWER INTERVENORS

Utility Information Request

Docket Number: E015/CN-12-1163

Date of Request: August 26, 2014

Requested From: Large Power Intervenors

Response Requested: September 4, 2014

By: Large Power Intervenors (Andrew Moratzka, Chad T. Marriott, Lane Kollen and Phil Hayet)

Request

No.

024 Please provide a copy of the Company's most recent and most detailed cost estimate(s) for the project, separately showing each line segment and/or component of the project, and each type of cost (direct costs incurred from third parties, direct costs incurred internally, AFUDC, etc.). In addition, for all direct costs incurred internally, show labor, materials, and each other category of costs separately. Please indicate if the dollars are in current dollars (present value) or accounting dollars ("as and when spent"). If in present value dollars, please indicate the present value date.

Response:

A. Please find attached excel spreadsheet "GNTL FCA Detailed Estimate 7-10-14". This workbook represents current detailed estimate for the GNTL in 2013 dollars. The summary page should be treated as public information while all the detail tabs are labelled "Trade Secret".

Response by: Michael H. Donahue List Sources of Information:
Title: Trans. Project Development Mgr.
Department: Trans. Regulatory Compliance and Business Support
Telephone: 218-355-2617

| | | Blue Route |
|--------------------------------------|-----------|-------------------|
| Miles for Blue Route | | 222.52 |
| | | Est. (2013\$) |
| Material & Construction | \$ | - |
| Engineering and Program Management | \$ | - |
| Construction Phase Contingency | \$ | - |
| 500 kV Line Materials & Construction | \$ | - |
| MP Internal Services | \$ | - |
| Professional Permitting Support | \$ | - |
| ROW Acquisition Support | \$ | - |
| Land & Land Rights | \$ | 28,862,000 |
| 500 kV Transmission Line | \$ | 28,862,000 |

| | | |
|--|-----------|----------------|
| 500/230 kV Substation Materials & Construction | \$ | - |
| MP Internal & Professional Services | \$ | - |
| Land & Land Rights | \$ | 500,000 |
| Blackberry 500/230 kV Substation | \$ | 500,000 |

| | | |
|---|-----------|-----------|
| 500 kV Series Compensation Materials & Construction | \$ | (250,000) |
| Land & Land Rights | \$ | 250,000 |
| GNTL 500 kV Series Compensation Station | \$ | - |

| | | |
|---|-----------|----------|
| 230 kV Modifications Transmission Line Materials & Construction | \$ | - |
| 230 kV Modifications Substation Materials & Construction | \$ | - |
| Land & Land Rights | \$ | - |
| Minnesota Power 230 kV Modifications | \$ | - |

| | | |
|--|-----------|-------------------|
| TOTAL PROJECT | \$ | 29,362,000 |
| Capitalize Property Taxes | \$ | 44,200,000 |
| PROJECT CONTINGENCY (10%) | \$ | 2,936,200 |
| TOTAL ESTIMATED COST (2013\$) | \$ | 76,498,200 |
| Project Estimate with Contingency Allocated | | |
| 500 kV Transmission Line | \$ | 31,748,200 |
| Blackberry 500/230 kV Substation | \$ | 550,000 |
| GNTL 500 kV Series Compensation Station | \$ | - |
| Capitalized Property Taxes | \$ | 44,200,000 |
| Minnesota Power 230 kV Modifications | \$ | - |
| | \$ | 76,498,200 |

Project Funding Sources 2013 Dollars

| | | |
|---|-----------|-------------------|
| Minnesota Power Base Investment 28.3% | \$ | 21,648,991 |
| Minnesota Power Renewable Optimization Investment 17.7% | \$ | 13,540,181 |
| Total Minnesota Power -46% | \$ | 35,189,172 |
| Manitoba Hydro Portion - 54% | \$ | 41,309,028 |
| Total Project | \$ | 76,498,200 |

LPI IR 024.1 Attachment Public Version

[TRADE SECRET DATA EXCISED]

[TRADE SECRET DATA EXCISED]

[TRADE SECRET DATA EXCISED]

[TRADE SECRET DATA EXCISED]

RESPONSE TO LPI IR 28

LARGE POWER INTERVENORS

Utility Information Request

Docket Number: E015/CN-12-1163

Date of Request: August 26, 2014

Requested From: Large Power Intervenors

Response Requested: September 4, 2014

By: Large Power Intervenors (Andrew Moratzka, Chad T. Marriott , Lane Kollen and Phil Hayet)

Request
No.

- 028 Refer to Exhibit___(AJR) Schedule 2, the 133 MW Energy Sale Agreement (“Agreement”).
- a. Please confirm that the Contract Term, as defined in the Agreement, is 20 years starting with the date that the 500 kV Transmission Interconnection in-service date.
 - b. Please confirm that pursuant to Section 2.6, MH is obligated to pay the monthly must-take fee only during the Contract Term, which commences on the 500 kV Transmission Interconnection in-service date and terminates 240 months later, except that MH is not required to pay the must take fee in the last month of the Contract Term. If this is not correct, then please state the term during which MH is obligated to pay the monthly must-take fee.
 - c. Please confirm that MH is not obligated to pay the monthly must-take fee before the Contract Term commences or after the Contract Term terminates.
 - d. Please indicate where in the Company’s Application or testimony any witness describes the fact that this must-take fee is limited to a twenty-year period compared to the combination of the estimated four-year construction period and the 55 year life of the line and the 40 year life of the substation.
 - e. Please explain why the must-take fee does not apply during the construction period.
 - f. Please explain why the must-take fee does not apply after the 20th year of service.
 - g. Does the Company consider the 20-year limitation on the must-take fee an important component of the Agreement? Please explain your response.

- h. Please confirm that MP customers will be responsible for 46% of the capital-related costs of the project, not 28.3% of these costs, prior to and after the Contract Term.
- i. Please explain why the Contract Term of the Agreement is 20 years and not a longer period, possibly coincident with the life of the resources that will be used to supply the energy under the agreement.

Response:

- a. Yes.
- b. Yes.
- c. Yes.
- d. Mr. Rudeck’s testimony stated that “Manitoba Hydro will make monthly payments to Minnesota Power during the entire term of the agreement.” Minnesota Power will provide additional detail regarding the Monthly Must Take Fee in the upcoming Petition to the Commission seeking regulatory approval of the Agreement.
- e. The Monthly Must Take Fee is tied to delivery of energy on the new transmission line, which cannot begin until the line is placed in-service.
- f. The term of the Monthly Must Take Fee coincides with the Agreement.
- g. [TRADE SECRET DATA EXCISED]**
- h. MP customers will be responsible for the applicable revenue requirements, offset by any available credits including those provided from Manitoba Hydro under the Monthly Must Take Fee for the Contract Term and [TRADE SECRET DATA EXCISED].**
- i. See response to (g).

Response by: David Moeller
Title: Senior Attorney
Department: Corporate Legal Services
Telephone: 218-723-3963

List Sources of Information:

