

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.

- 1
- 2 • Finally, the Commission should allocate the increase to customer classes
- 3 based on base revenues excluding fuel and other riders. It should reject
- 4 the Company's plan to use the D-02 transmission demand allocator.
- 5 Instead, the Commission should view this case as an opportunity to
- 6 partially remedy the subsidization provided by the Large Power ("LP")
- 7 class to the residential class based on the findings and conclusions of law
- 8 adopted in Case No. GR-09-1151.

9

10 **II. THE COMMISSION NEEDS TO PROTECT RATEPAYERS FROM THE**

11 **COMPANY'S EVER-INCREASING COST ESTIMATES**

12

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

14

15 **Q. Has the Company provided a definitive cost estimate?**

16 A. No. The Company's cost estimates have been repeatedly revised upward since

17 the Company filed its Application in this proceeding. To date, the Company has

18 provided five cost estimates starting with its Application in this proceeding. All

19 of the estimates are in 2013 dollars and none of them include financing costs

20 incurred during construction.

21

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

23 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.

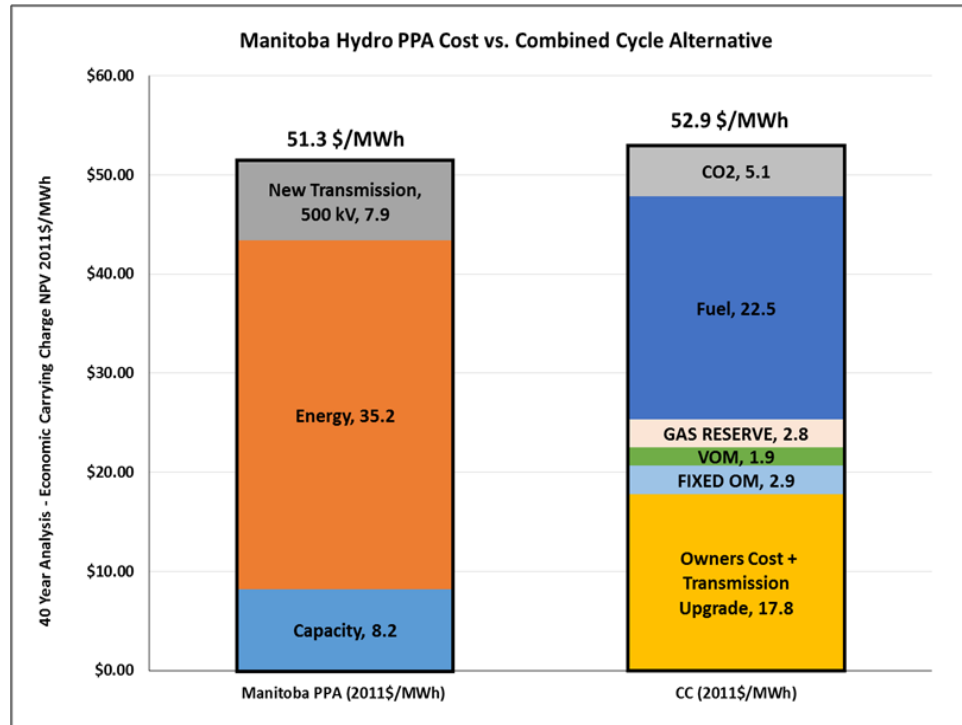
1 project, remain the least cost option for the Company's capacity and energy needs
2 compared to a natural gas-fired combined cycle alternative. The greater the cost
3 of this transmission project, the less likely that the purchased power agreements
4 will be the least cost option.

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.

14

15

16



1

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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.

10

11

12

13

14

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.

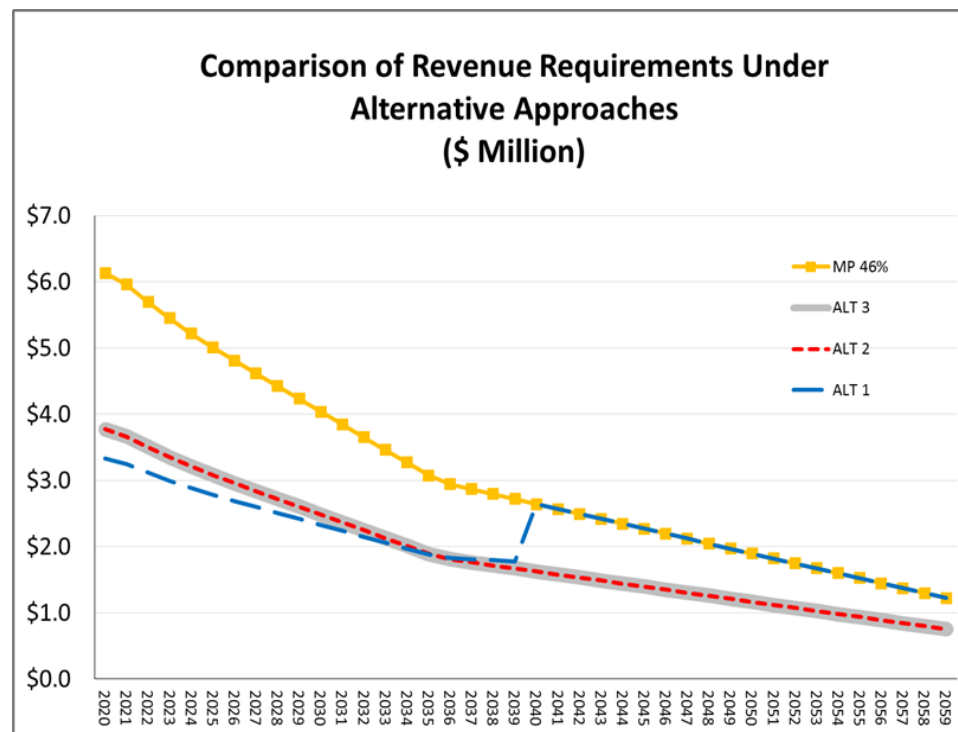
10 Under the first alternative, MP will compute the revenue requirement on
11 the 46% using a 40 year service life for depreciation purposes. MP will flow
12 through the must-take fee over the 20 year term of the ROAs with no deferrals.
13 This approach results in a significant annual savings compared 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**

⁹ Donahue 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

Cost Adjustment).

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

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

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

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

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	Jurisdic.	Party	Utility	Subject
10/86	U-17282 Interim	LA	Louisiana Public Service Commission Staff	Gulf States Utilities	Cash revenue requirements financial solvency.
11/86	U-17282 Interim Rebuttal	LA	Louisiana Public Service Commission Staff	Gulf States Utilities	Cash revenue requirements financial solvency.
12/86	9613	KY	Attorney General Div. of Consumer Protection	Big Rivers Electric Corp.	Revenue requirements accounting adjustments financial workout plan.
1/87	U-17282 Interim	LA 19th Judicial District Ct.	Louisiana Public Service Commission Staff	Gulf States Utilities	Cash revenue requirements, financial solvency.
3/87	General Order 236	WV	West Virginia Energy Users' Group	Monongahela Power Co.	Tax Reform Act of 1986.
4/87	U-17282 Prudence	LA	Louisiana Public Service Commission Staff	Gulf States Utilities	Prudence of River Bend 1, economic analyses, cancellation studies.
4/87	M-100 Sub 113	NC	North Carolina Industrial Energy Consumers	Duke Power Co.	Tax Reform Act of 1986.
5/87	86-524-E-SC	WV	West Virginia Energy Users' Group	Monongahela Power Co.	Revenue requirements, Tax Reform Act of 1986.
5/87	U-17282 Case In Chief	LA	Louisiana Public Service Commission Staff	Gulf States Utilities	Revenue requirements, River Bend 1 phase-in plan, financial solvency.
7/87	U-17282 Case In Chief Surrebuttal	LA	Louisiana Public Service Commission Staff	Gulf States Utilities	Revenue requirements, River Bend 1 phase-in plan, financial solvency.
7/87	U-17282 Prudence Surrebuttal	LA	Louisiana Public Service Commission Staff	Gulf States Utilities	Prudence of River Bend 1, economic analyses, cancellation studies.
7/87	86-524 E-SC Rebuttal	WV	West Virginia Energy Users' Group	Monongahela Power Co.	Revenue requirements, Tax Reform Act of 1986.
8/87	9885	KY	Attorney General Div. of Consumer Protection	Big Rivers Electric Corp.	Financial workout plan.
8/87	E-015/GR-87-223	MN	Taconite 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
of
Lane Kollen
as of September 2014**

Date	Case	Jurisdic.	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
of
Lane Kollen
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	Jurisdic.	Party	Utility	Subject
3/93	93-01-EL-EFC	OH	Ohio Industrial Energy Consumers	Ohio Power Co.	Affiliate transactions, fuel.
3/93	EC92-21000 ER92-806-000	FERC	Louisiana Public Service Commission Staff	Gulf States Utilities /Entergy Corp.	Merger.
4/93	92-1464-EL-AIR	OH	Air Products Armco Steel Industrial Energy Consumers	Cincinnati Gas & Electric Co.	Revenue requirements, phase-in plan.
4/93	EC92-21000 ER92-806-000 (Rebuttal)	FERC	Louisiana Public Service Commission	Gulf States Utilities /Entergy Corp.	Merger.
9/93	93-113	KY	Kentucky Industrial Utility Customers	Kentucky Utilities	Fuel clause and coal contract refund.
9/93	92-490, 92-490A, 90-360-C	KY	Kentucky Industrial Utility Customers and Kentucky Attorney General	Big Rivers Electric Corp.	Disallowances and restitution for excessive fuel costs, illegal and improper payments, recovery of mine closure costs.
10/93	U-17735	LA	Louisiana Public Service Commission Staff	Cajun Electric Power Cooperative	Revenue requirements, debt restructuring agreement, River Bend cost recovery.
1/94	U-20647	LA	Louisiana Public Service Commission Staff	Gulf States Utilities Co.	Audit and investigation into fuel clause costs.
4/94	U-20647 (Surrebuttal)	LA	Louisiana Public Service Commission Staff	Gulf States Utilities Co.	Nuclear and fossil unit performance, fuel costs, fuel clause principles and guidelines.
4/97	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	Jurisdicit.	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
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 Intervenors	West Penn Power Co.	Restructuring, deregulation, stranded costs, regulatory assets, liabilities, fossil decommissioning, revenue requirements, securitization.
11/97	R-974104	PA	Duquesne Industrial Intervenors	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 Intervenors	West Penn Power Co.	Restructuring, deregulation, stranded costs, regulatory assets, liabilities, fossil decommissioning, revenue requirements.
12/97	R-974104 (Surrebuttal)	PA	Duquesne Industrial Intervenors	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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Date	Case	Jurisdicht.	Party	Utility	Subject
11/99	PUC Docket 21527	TX	The Dallas-Fort Worth Hospital Council and Coalition of Independent Colleges and Universities	TXU Electric	Restructuring, stranded costs, taxes, securitization.
11/99	U-23358 Surrebuttal Affiliate Transactions Review	LA	Louisiana Public Service Commission Staff	Entergy Gulf States, Inc.	Service company affiliate transaction costs.
01/00	U-24182 Surrebuttal	LA	Louisiana Public Service Commission Staff	Entergy Gulf States, Inc.	Allocation of regulated and nonregulated costs, affiliate transactions, tax issues, and other revenue requirement issues.
04/00	99-1212-EL-ETP 99-1213-EL-ATA 99-1214-EL-AAM	OH	Greater Cleveland Growth Association	First Energy (Cleveland Electric Illuminating, Toledo Edison)	Historical review, stranded costs, regulatory assets, liabilities.
05/00	2000-107	KY	Kentucky Industrial Utility Customers, Inc.	Kentucky Power Co.	ECR surcharge roll-in to base rates.
05/00	U-24182 Supplemental Direct	LA	Louisiana Public Service Commission Staff	Entergy Gulf States, Inc.	Affiliate expense proforma adjustments.
05/00	A-110550F0147	PA	Philadelphia Area Industrial Energy Users Group	PECO Energy	Merger between PECO and Unicom.
05/00	99-1658-EL-ETP	OH	AK Steel Corp.	Cincinnati Gas & Electric Co.	Regulatory transition costs, including regulatory assets and liabilities, SFAS 109, ADIT, EDIT, ITC.
07/00	PUC Docket 22344	TX	The Dallas-Fort Worth Hospital Council and The Coalition of Independent Colleges and Universities	Statewide Generic Proceeding	Escalation of O&M expenses for unbundled T&D revenue requirements in projected test year.
07/00	U-21453	LA	Louisiana Public Service Commission	SWEPCO	Stranded costs, regulatory assets and liabilities.
08/00	U-24064	LA	Louisiana Public Service Commission Staff	CLECO	Affiliate transaction pricing ratemaking principles, subsidization of nonregulated affiliates, ratemaking adjustments.
10/00	SOAH Docket 473-00-1015 PUC Docket 22350	TX	The Dallas-Fort Worth Hospital Council and The Coalition of Independent Colleges and Universities	TXU Electric Co.	Restructuring, T&D revenue requirements, mitigation, regulatory assets and liabilities.
10/00	R-00974104 Affidavit	PA	Duquesne Industrial Intervenor	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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Date	Case	Jurisdic.	Party	Utility	Subject
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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Date	Case	Jurisdicht.	Party	Utility	Subject
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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Date	Case	Jurisdic.	Party	Utility	Subject
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
of
Lane Kollen
as of September 2014**

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
of
Lane Kollen
as of September 2014**

Date	Case	Jurisdicht.	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	Jurisdic.	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	Jurisdiction	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.

**Expert Testimony Appearances
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Date	Case	Jurisdic.	Party	Utility	Subject
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	Jurisdicht.	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
of
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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 Intervenor

Response Requested: May 30, 2014

By: Large Power Intervenor (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 Intervenor

Response Requested: August 29, 2014

By: Large Power Intervenor (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	[TRADE SECRET DATA EXCISED]
Owners Cost	\$/kW	
AFUDC	\$/kW	
Total Capital Cost	\$/kW	
Net Plant Cost		\$

Emission Rate

CO2	lb/MMBtu	120
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O&M Cost (2012)

Fixed	\$/kW/yr	[TRADE SECRET DATA EXCISED]
Variable	\$/MWh	
Incremental Variable for Duct Firing	\$/MWh	
Total Weighted Variable	\$/MWh	

GT Major Maintenance (2012)

Maintenance	\$/GT-h	[TRADE SECRET DATA EXCISED]
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Transmission Upgrades (2012)

Net Cost	\$	[TRADE SECRET DATA EXCISED]
Net Cost	\$/kW	

FCR Build Location	MN
Escalation Rate	3%

Fixed Charge Rate Capital*	[TRADE SECRET DATA EXCISED]
Fixed Charge Rate Transmission*	

		Net Plant Cost (Including Transmission)				Levelized Plant Cost			O&M	
Installation Year		Net Plant Cost	Net Trx Cost	Total Cost	Total \$/kw	Total \$	Total \$/kw	Total \$/MW-Month	Fixed (\$/MW-Month)	Variable (\$/MWh)
	2012	[TRADE SECRET DATA EXCISED]								
	2013									
	2014									
	2015									
	2016									
	2017									
	2018									
	2019									
	2020									
	2021									
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	2038									

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)	[TRADE SECRET DATA EXCISED]								
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)									

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	
Major Maintenance Cost	\$/MWh	

Forced Outage Rate & Maintenance

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

Emission Rates

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

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 Intervenor

Response Requested: August 29, 2014

By: Large Power Intervenor (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	[TRADE SECRET BEGINS]								
O&M									
A&G									
Property Taxes									
Book Depreciation									
Interest Expense									
Income Taxes									
Return on Equity									
Total Revenue Requirements									
CHECKPOINT	-	-	-	-	-	-	-	-	-
Total Base Revenue Requirement	[TRADE SECRET BEGINS]								
MH Must Take Fee									
MH 500 MW									
MP allocated Revenue Requirement									

2051	2052	2053	2054	2055	2056	2057	2058	2059	2060
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TRADE SECRET ENDS]

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TRADE SECRET ENDS]

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TRADE SECRET ENDS]

GNTL Model - Assumptions

General Assumptions						
Inflation	[TRADE SECRET BEGINS]					
Discount Rate						
MH Discount Rate						
Straight Line Depreciation Over (yrs.)						
Total Investment in 2020						
O&M Direct (adj for inflation)		2014 Data	Adjustment Factor			
A&G-Allocated (adj for Inflation)						
CIAC Buy Down	[TRADE SECRET BEGINS]	[TRADE SECRET ENDS]			[TRADE SECRET ENDS]	
Property Taxes	[TRADE SECRET BEGINS]		[TRADE SECRET ENDS]			
State Assessment Rate						
Tax Capacity Rate						
State Business Tax Rate -- Pay 2014			[TRADE SECRET ENDS]			
Income Taxes						
Federal Tax Rate (FIT)	[TRADE SECRET BEGINS]					
State Tax Rate (SIT)						
% Federal Income Tax Deductible for State Purposes (p)						
Attachment O Income Tax Rate						
$T=1 - \{ [(1 - SIT) * (1 - FIT)] / (1 - SIT * FIT * p) \} =$						
$CIT=(T/(1-T)) * (1-(WCLTD/R)) =$			[TRADE SECRET ENDS]			
Owner's Capital Structure						
	Capital %	Dollars	Cost	Weighted Cost		
Debt	[TRADE SECRET BEGINS]					
Equity						
Total			[TRADE SECRET ENDS]			
	Annual	Monthly				
AFUDC Debt	[TRADE SECRET BEGINS]					
AFUDC Equity						
AFUDC Rate						
Total AFDC						
AFDC Debt						
AFDC Equity						
Total Capitalized Costs						
Total Capitalized Costs + AFDC			[TRADE SECRET ENDS]			
Allocations to Owners						
	MP - 250 MW	MP - 133 MW	Total MP	MH Ownership	CIAC	Total
Megawatts	[TRADE SECRET BEGINS]					
Calculated Capital Allocation						
Allocation - contracted						
Allocation of Property Tax (After AFDC)						
			[TRADE SECRET ENDS]			

Detailed Capital Spend

Plant Additions- 2013\$ (as detailed in LPI IR#25)

Plant Additions- Escalated @2.5%

Total Project

	2012	Jan	Feb	Mar	Apr	May
	[TRADE SECRET BEGINS]					

Annual Capex

Through 2014	2015	2016	2017	2018	2019	2020
[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]

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[illegible]

2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036

2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050

2051	2052	2053	2054	2055	2056	2057	2058	2059	2060	Total

TRADE SECRET ENDS]

\$ -

[illegible]

Total

TRADE SECRET ENDS]

\$ -

[illegible]

2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053	2054	2055	2056	2057	2058	2059

\$ -

	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
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
Cost Indicator									
PIS		[TRADE SECRET BEGINS]							
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

2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046

2047	2048	2049	2050	2051	2052	2053	2054	2055	2056

Deferred Tax Calculation

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

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

2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037

2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048

2049	2050	2051	2052	2053	2054	2055	2056	2057	2058	2059



	2014	2015						
		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								

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

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

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

2019

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

Jul	Aug	Sep	Oct	Nov	Dec

TRADE SECRET ENDS]

	2014	2015							
		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug
Rate Base Calculation		[TRADE SECRET BEGINS]							
Plant Additions									
CIAC									
Depreciable Plant									
Accumulated Depreciation									
Net Plant									
Adjustments Deferred Taxes									
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									
Accumulated Capitalized Costs									
Depreciation									
Interest Expense									
Income Taxes									
Equity Return									

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

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

2018								2019							
May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug

				2020											
Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec

2021

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
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TRADE SECRET ENDS]



	2014	2015					
		Jan	Feb	Mar	Apr	May	Jun
Rate Base Calculation	[TRADE SECRET BEGINS]						
Plant Additions							
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							

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

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

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

			2019										
Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov

	2020											
Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec

2021

Jan

Feb

Mar

Apr

May

Jun

Jul

Aug

Sep

Oct

Nov

Dec

TRADE SECRET ENDS]

2059		2060											
		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
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																
Plant Additions																
CIAC																
Depreciable Plant																
Accumulated Depreciation																
Net Plant																
Adjustments Deferred Taxes																
Rate Base																
AFDC Debt																
AFDC Equity																
Total																
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																

2016

Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec

2017

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct

[illegible]

[illegible]

2021

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

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 Intervenor

Response Requested: August 29, 2014

By: Large Power Intervenor (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 Intervenor

Response Requested: September 4, 2014

By: Large Power Intervenor (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 Intervenor

Response Requested: September 4, 2014

By: Large Power Intervenor (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]

[illegible]

[illegible]

[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 Intervenorors

Response Requested: September 4, 2014

By: Large Power Intervenorors (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

List Sources of Information:

Title: Senior Attorney

Department: Corporate Legal Services

Telephone: 218-723-3963
