**COMMONWEALTH OF KENTUCKY**

**BEFORE THE PUBLIC SERVICE COMMISSION**

**IN THE MATTER OF:**

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|---|---|---|
| **APPLICATION OF COLUMBIA GAS** | **)** | |
| **OF KENTUCKY, INC. FOR AN** | **)** | **CASE NO. 2016-00162** |
| **ADJUSTMENT IN RATES** | **)** | |

**DIRECT TESTIMONY**

**AND EXHIBITS**

**OF**

**LANE KOLLEN**

**ON BEHALF OF**

**THE OFFICE OF THE ATTORNEY GENERAL**

**J. Kennedy and Associates, Inc.**
**570 Colonial Park Drive, Suite 305**
**Roswell, GA 30075**

**SEPTEMBER 2, 2016**

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# DIRECT TESTIMONY OF LANE KOLLEN

## I. QUALIFICATIONS AND SUMMARY

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

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

**Q. What is your occupation and by whom are you employed?**

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

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

A. I earned both a Bachelor of Business Administration in Accounting degree and a Master of Business Administration degree from the University of Toledo. I also earned a Master of Arts degree in Theology from Luther Rice University. I am a Certified Public Accountant, with a practice license, Certified Management Accountant, and Chartered Global Management Accountant. I am a member of numerous professional organizations, including the American Institute of Certified Public Accountants and the Society of Depreciation Professionals.

I have been an active participant in the utility industry for more than thirty years, both as an employee and as a consultant. Since 1986, I have been a consultant with J. Kennedy and Associates, Inc., providing services to state government agencies and consumers of utility services in the ratemaking, financial, tax, accounting, and management areas. From 1983 to 1986, I was a consultant with Energy Management Associates, providing services to investor and consumer owned utility companies. From 1976 to 1983, I was employed by The Toledo Edison Company in a series of positions encompassing accounting, tax, financial, and planning functions.

I have appeared as an expert witness on ratemaking, accounting, tax, finance, and planning issues before regulatory commissions and courts at the federal and state levels on hundreds of occasions. I have testified in dozens of proceedings before the Kentucky Public Service Commission (“Commission”). These proceedings include base, fuel adjustment clause, and environmental surcharge rate proceedings involving natural gas and electric utilities, including Atmos Energy Corporation, Big Rivers Electric Corporation, East Kentucky Power Cooperative, Kentucky Power Company, Kentucky Utilities Company, and Louisville Gas and Electric Company.[1]

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

A. I am providing testimony on behalf of the Office of the Attorney General of the Commonwealth of Kentucky ("AG").

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

A. The purpose of my testimony is to address and make recommendations on specific issues that affect the Company's requested base rate increase in this proceeding, quantify the effects of AG witness Mr. Richard Baudino's return on equity recommendation, and address and make recommendations regarding the Company's proposed changes to the Accelerated Main Replacement Program ("AMRP") and recovery of the related costs through the AMRP rider.

**Q. Please summarize your testimony.**

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

A. The AG recommends a base rate increase of no more than $7.577 million compared to the Company's request for a base rate increase of $25.408 million. The following table provides a summary of the AG recommendations and the effects on the Company's revenue requirement.[2]

**Columbia Gas of Kentucky, Inc.**
**Summary of Attorney General Recommendations**
**Revenue Requirement**
**KPSC Case No. 2016-00162**
**Forecasted Test Year Ended December 31, 2017**
**$ Millions**

| | Amount |
|---|---|
| **Columbia Gas Requested Increase** | 25.408 |
| **Effects on Increase of AG Operating Income Recommendations** | |
| Reduce Requested O&M Expense Increase | (7.315) |
| Reduce Depreciation Expense to Reject Switch from ASL to ELG Procedure | (3.558) |
| Reduce Depreciation Expense By Adjusting Slippage for All Capital Expenditures | (0.111) |
| Reduce Depreciation Expense By Removing Capital Initiatives from Gross Plant | (0.108) |
| Reduce Property Tax Expenses | (0.230) |
| **Effects on Increase of AG Rate Base Recommendations** | |
| Reject Change from ASL to ELG Procedure - A/D and ADIT | 0.131 |
| Adjust Slippage for All Capital Expenditures - Plant, A/D, and ADIT | (0.599) |
| Remove Capital Initiatives Not Budgeted - Plant, A/D, and ADIT | (0.456) |
| Reflect Zero Balance for Cash Working Capital | (0.687) |
| Remove NOL ADIT in Acct 190 | (0.153) |
| **Effects on Increase of AG Rate of Return Recommendations** | |
| Reflect Adjusted Capital Structure to Reflect Dividends | (0.616) |
| Reduce Short Term Debt Rate | (0.096) |
| Reflect Return on Equity of 9.0% | (4.033) |
| **Total AG Recommendations** | $ (17.831) |
| **AG Recommendation to Increase Base Rates** | $ 7.577 |

[2] I have attached a schedule showing all adjustments to rate base recommended by the AG as my Exhibit___(LK-2) and a schedule showing the quantification of the cost of capital and the effect on the revenue requirement of the return on equity recommended by the AG as my Exhibit___(LK-3).

I address all rate base and operating income AG recommendations and the cost of capital issues on the preceding table, except for the cost of short term debt and the return on equity, which are addressed by AG witness Mr. Richard Baudino. However, I quantify the effects on the revenue requirement of the recommendations addressed by Mr. Baudino.

The AG also recommends that the Commission reject the Company's request to include first generation plastic pipe and replacement of failed meters in the Accelerated Main Replacement Program ("AMRP") and to recover the related costs through the AMRP rider.

I have structured my testimony to sequentially address these issues.

## II. OPERATING INCOME ISSUES

### A. O&M Expense Is Excessive; Nearly 30% More Than Actual 2015 Expense

**Q. How does the O&M expense in the test year compare to the most recent actual historic years?**

A. The Company's projected O&M expense in the test year reflects excessive and unconstrained growth compared to historic expense and to the Company's projections in the last base rate proceeding, Case No. 2013-00167. The Company's projected O&M expense in the test year reflects an increase of $9.715 million, or

28.2%, to $44.170 million in the test year from $34.455 million in 2015. In contrast, the average growth in actual O&M expense has been $1.2 million annually since 2011, according to the actual O&M expense shown on Schedule I-1 and page 9 of Mr. Noel's Direct Testimony. The average growth in budget O&M expense has been only $0.4 million, also shown on page 9 of Mr. Noel's Direct Testimony.

To provide further perspective on the wildly excessive O&M expense in the test year, the Company's actual and budgeted O&M expense for the twelve months ending May 2016 is $37.507 million, for the base year ending August 2016 is $39.163 million, and for the test year is $44.170 million, according to the budget information that it filed in response to FR-16(7)(d). In other words, the rapid escalation in O&M expense is due primarily to budget increases that happen to coincide with the base period and test year in this proceeding.

The proposed increase in the test year compared to the twelve months ending May 2016 is nearly 18%, or an annualized growth rate of 11.2%, more than 5 times the rate of inflation. The Company projects almost no growth in O&M expense in the years following the test year, forecasting $45.072 million in 2018 and $45.971 million in 2019, an annual growth rate of 1.0%, according to the budget/forecast information that it filed in response to FR-16(7)(h)(1).

In addition, the projected test year O&M expense is much greater than the Company projected in its last base rate proceeding. In that proceeding, the Company projected relatively flat O&M expense from 2013 through 2016. It projected $32.955 million in 2013, $33.286 million in 2014, $32.175 million in 2015, and $32.273 million in 2016.[3]

These comparisons demonstrate that the projected O&M expense in the test year is unreasonable and unjustified. There are many factors driving these increases, nearly all of which are under the control of the Company and NiSource, including rapid growth in employees, even though the number of customers is projected to decline in the test year, increases due to new and expanded programs that are not cost justified, and increases in the NiSource Service Company management fee, despite a reduction in pension expense.

**Q. What is your overarching recommendation for the reasonable amount of O&M expense in the test year?**

A. I recommend that the Commission limit the O&M expense in the test year to $36.855 million, which still represents an increase of $2.4 million over the actual 2015 expense. This is a "top-down" adjustment because the excessive growth in the projected O&M expense is pervasive and not limited to specific issues or adjustments. This recommendation results in O&M expense that is consistent with

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[3] Case No. 2013-0167 filing, FR 16(12)(h)(1), a copy of which I have attached as my Exhibit___(LK-4).

the Company's actual history. This recommendation reflects a growth rate approximately two times the rate of inflation to address any actual increases in the scope of operations and maintenance necessary to respond to regulatory requirements. This recommendation also embeds the $1.487 million actual expense variance in excess of the approved budget incurred in 2015, as shown on page 9 of Mr. Noel's Direct Testimony, and includes another $2.4 million in growth over the two year period from 2015 to 2017, based on the Company's actual annual historic growth.

This overarching recommendation is a reduction of $7.315 million from the Company's requested test year O&M expense and it is the amount of the adjustment that I reflect on the table in the Summary section of my testimony. However, I also address specific O&M expense issues, which I recommend that the Commission recognize in support of my overarching recommendation, although it may choose to address the specific issues independently.

## B. New Incremental O&M Initiatives Are Not Required and Not Cost Justified

**Q. Please describe the incremental so-called "strategic O&M initiatives" included in the test year operating expenses and revenue requirement.**

A. The Company developed the O&M expense included in the test year for ratemaking purposes in two steps. First, the Company started with its approved O&M expense budget for 2017. The approved budget includes significant increases in O&M expense compared to 2015 and the base year and includes numerous O&M expense initiatives without specifically identifying the related amounts. Second, it identified additional discretionary O&M expenses, not included in its approved budget, for various so-called "strategic O&M initiatives" that further increase the O&M expense and the revenue requirement in the test year.

The Company reflected certain of the additional strategic O&M initiatives expenses in the test year as discretionary ratemaking adjustments tied to revenue recovery. If the Commission does not include the additional discretionary O&M expense in the revenue requirement, then presumably the Company will not incur those expenses. The same likely is true for the strategic O&M initiatives expenses included in the approved budget.

The additional so-called strategic O&M initiatives are identified and described by Company witnesses Mr. Danny Cote and Ms. Kimra Cole as follows.[4]

> $0.770 million in 2017 to accelerate the implementation of GPS technology not included in the approved O&M expense budget.
>
> $0.500 million in 2017 to identify and inspect potential cross-bore locations not included in the approved O&M expense budget.
>
> $0.012 million in 2017 for training center facility operating expenses not included in the approved O&M expense budget.

[4] Cote Direct Testimony at 15-21.

**Q. Are these additional strategic O&M initiatives required for safety or reliability?**

A. No. If they were, then they would have been included in the approved O&M expense budget, not added as ratemaking adjustments to increase the revenue requirement. The Company has been subject to the Distribution Integrity Management requirements since 2011 and already complies with those requirements that are discussed at length by Company witness Mr. Cote.

**Q. Are these additional discretionary strategic O&M initiatives justified by savings?**

A. No.

**Q. What is your recommendation?**

A. I recommend that the Commission disallow the $1.282 million in O&M expense associated with the additional "strategic O&M initiatives" not included in the approved budget if it does not adopt my overarching O&M expense recommendation. The amounts are discretionary and not necessary for safety or reliability purposes. They are not cost justified and represent an unnecessary increase in costs imposed on customers in the revenue requirement.

## C. Labor Expense Is Excessive and Driven By Increases in Staffing

**Q. Please provide a history of the Company's staffing levels.**

A. The Company has significantly increased its staffing levels from 118 in January 2013 to 158 at year end 2017,[5] despite the fact that the number of customers it serves has declined. This represents an extraordinary increase of 40 positions, or 34% in five years. The growth in the number of positions drives labor and related expenses and contributes to the excessive growth in O&M expense.

**Q. How does the growth in the number of positions compare to the Company's forecast in Case No. 2013-0167?**

A. In Case No. 2013-0167, the Company projected that the positions would grow from 119 to 131 during 2013, but would remain constant at 131 from year end 2013 through year end 2016.[6]

**Q. Has the Company justified these extraordinary increases in the number of positions and the related costs?**

A. No. The Company was asked to justify these increases in AG discovery. The company cited "wave" hiring in April 2015 and another projected "wave" hiring in

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[5] Company's response to Staff 1-33 providing the number of positions by month and year for the most recent three calendar years, base period and test year. I have attached a copy of this response as my Exhibit___(LK-5).

[6] Company's filing in Case No. 2013-0167 filing, FR 16(12)(h)(9), a copy of which I have attached as my Exhibit___(LK-6).

January 2017, ostensibly to "backfill vacant positions." [7] If this were correct, then the number of positions would remain relatively constant; instead, there has been extraordinary growth. The Company is creating new positions, not merely backfilling vacant positions.

**Q. What is your recommendation?**

A. I recommend that the Commission disallow the labor and related expenses associated with the rampant growth in the number of positions compared to the 131 positions forecast in Case No. 2013-0167 if it does not adopt my overarching O&M expense recommendation. The Company operated with 130 positions as recently as January 2015. The Commission should direct the Company to actively manage and constrain its expenses, including labor and related expenses. A disallowance will provide the Company an incentive to manage its operations with fewer positions. The reduction from present levels can be accomplished through attrition. The Company certainly should not be incentivized to increase positions even more as it proposes in January 2017.

**Q. What is the effect of your recommendation?**

A. The effect is a reduction in O&M expense and the revenue requirement of $2.019

[7] Company's response to AG 2-14, a copy of which I have attached as my Exhibit___(LK-7).

million.[8]

**D. Meter Reading O&M Expense Is Excessive**

**Q. Please describe the Company's requested meter reading O&M expense.**

A. The Company requests $0.547 million for meter reading O&M expense in the test year, according to its response to PSC 2-8.[9] This is an average of $0.046 million per month.

**Q. How does the amount for this expense in the test year compare to the Company's actual meter reading expense?**

A. It is $0.319 million more than the most recent actual meter reading expense on an annualized basis. The most recent actual meter reading expense from July 2015 (the month after the AMR installations were completed) through February 2016 (the forecast portion of the base year started in March 2016) was an average of $0.019 million per month, or $0.228 million on an annualized basis, according to the Company's response to PSC 2-8.

**Q. What is your recommendation?**

[8] I provide the calculation of this amount on my Exhibit___(LK-8).
[9] I have attached a copy of this response as my Exhibit___(LK-9).

A. I recommend that the Commission reduce meter reading O&M expense and the revenue requirement by $0.319 million if it does not adopt my overarching O&M expense recommendation.

## <u>E. Uncollectible Accounts O&M Expense Is Excessive Due to an Error</u>

**Q. Please describe the uncollectible accounts expense included in the test year.**

A. The Company included $1.262 million in uncollectible expense in the test year, comprised of $1.655 million per books (shown in account 904 on Schedule C-2.2B), less a ratemaking adjustment of $0.678 million (shown on WPD-2.4D), plus $0.235 million included through the gross revenue conversion factor applied to the operating income deficiency.[10]

**Q. Is the amount included by the Company in the test year correct?**

A. No. It should be $0.775 million, consisting of $0.540 million based on the test year revenues prior to the proposed increase (as shown on WPD-2.4D) plus the $0.235 million based on the Company's proposed increase, although the $0.235 million may be less depending on the rate increase authorized by the Commission.

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[10] The Company included uncollectible accounts expense of .923329% in the gross revenue conversion factor as shown on Schedule H-1 of its filing. I calculated the additional uncollectible accounts expense included in the revenue requirement through the gross revenue conversion factor by multiplying the 0.923329% times the Company's requested increase of $25.408 million.

It appears that there is an error in the calculation of the ratemaking adjustment. The Company correctly calculated the uncollectible accounts expense prior to the proposed increase. However, the Company incorrectly calculated the ratemaking adjustment necessary to reduce the per books expense to the ratemaking expense. As I previously noted and sourced, the Company's per books uncollectible expense was $1.655 million. Instead of subtracting this amount, the Company inexplicably subtracted a per books amount of $1.219 million, which consisted of input value amounts and were not sourced to any other schedule or workpaper.

**Q. How does the Company's uncollectible accounts expense for the test year compare to the base year?**

A. The Company's per books uncollectible accounts expense is $0.813 million in the base year, or 1.63% of the $50.028 million in residential gas for sales revenues in the base period. The Company proposes uncollectible accounts expense of 0.923329% on residential gas for sales revenues of $49.634 million prior to the proposed rate increase in the test year, or $0.540 million. These revenues amounts are shown on Schedule I-2 in the filing.

**Q. What is your recommendation?**

A. I recommend that the Commission correct this error in the Company's filing and reduce the uncollectible accounts expense and revenue requirement by $0.436 million if it does not adopt my overarching O&M expense recommendation. There will be an additional reduction in the uncollectible accounts expense related to the adjustments recommended by the AG. However, I have included this additional reduction in the quantifications for the various adjustments recommended by the AG and shown on the table in the Summary section of my testimony.

## F. Advertising Expense Is Excessive

**Q. Please describe the Company's proposed increase in advertising expense in the test year.**

A. The Company proposes an increase of $0.111 million in public awareness/pipeline safety and community support and other advertising, from $0.079 million in the base year to $0.190 million in the test year, according to Schedule F-6. This is a 141% increase in a discretionary and controllable expense. The Company provides no support for this significant increase. Although Company witnesses Ms. Croom and Mr. Noel address O&M expenses in the test year, neither witness nor any other witness addresses or supports this proposed increase in advertising expense.

**Q. What is your recommendation?**

A. I recommend that the Commission reject this increase if it does not adopt my overarching O&M expense recommendation. The Company offers no justification for this increase. The most recent actual/budget advertising expense reflected in the base year is better evidence of the reasonable amount of expense than an additional discretionary amount included in the test year that unnecessarily increases the revenue requirement and may or may not actually be incurred.

**<u>G. Professional Services Expense Is Excessive</u>**

**Q. Please describe the Company's proposed increase in professional services expenses in the test year.**

A. The Company proposes an increase of $0.242 million in auditing and consulting services expense, from $0.175 million in the base year to $0.417 million in the test year, according to Schedule F-7. This is a 138% increase. The Company separately reflected the increase in auditing services expense from $0.143 million in the base year to $0.163 million in the test year and claims that it is due to fee increases. However, the Company provides no support for the proposed increase in "consulting services" from $0.032 million to $0.253 million, a 691% increase. Although Company witnesses Ms. Croom and Mr. Noel address O&M expenses in the test year, neither witness nor any other witness addresses or supports this proposed increase in consulting services expense.

**Q. What is your recommendation?**

A. I recommend that the Commission reject the increase in consulting services expense if it does not adopt my overarching O&M expense recommendation. The Company offers no justification for this increase. The most recent actual/budget consulting services expense reflected in the base year is better evidence of the reasonable amount of expense than an additional discretionary amount included in the test year that unnecessarily increases the revenue requirement and may or may not actually be incurred.

**<u>H. NiSource Corporate Services Company Management Fee Is Excessive</u>**

**Q. Please describe the NiSource Corporate Services Company ("NCSC") management fee expense reflected in the revenue requirement.**

A. The Company includes $17.442 million for the management fee in the revenue requirement. This represents an increase of $1.541 million over the projection of $15.901 million for the base period, a total increase of 9.7%, or a compound annual growth rate of 7.3%, more than three times the rate of inflation.

The NCSC charges to the Company consist of direct charges incurred to provide specific services to the Company and allocated charges for costs common to the Company and other affiliates when it is not practical or possible to direct charge.[11]

**Q. Please describe the growth in NCSC charges to the Company since 2012.**

A. The growth has been significant and relentless. Total charges (expense and capital) have increased from $13.449 million in 2012 to $20.006 million in 2017, a total increase of $6.557 million. This represents an increase of 49%, or a compound annual growth rate of 8.3%, an exorbitant growth rate at more than four times the rate of inflation.

**Q. Has the Company justified this level of growth?**

A. No. The Company has provided data that shows where the growth occurred, but has not justified its inability to control the growth in these NCSC charges.[12]

**Q. What is your recommendation?**

A. I recommend that the Commission include only $16.326 million in the test for the NCSC management fee, or a reduction of $1.116 million, if it does not adopt my overarching O&M expense recommendation. This represents a 2.0% annual growth rate compared to the base period and still reflects the excessive growth projected in

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[11] See FR 16(7)(u) filed in this proceeding for a description of the NCSC billing process, the allocation bases, and a summary of charges to the Company since 2012.

[12] Company responses to AG 2-16 and 2-20.

the base period.

**I. Third Party Damage Reimbursements Are Understated, Resulting in Excessive O&M Expense**

**Q. Please describe how the Company accounts for third party damage reimbursements.**

A. The Company records the reimbursements as a reduction (credit) to O&M expense, according to its response to AG 2-19.[13]

**Q. What was the credit to O&M expense in the test year and how does that compare to the credits historically?**

A. The Company credited $0.099 million to O&M expense in the test year, according to its response to AG 2-19. This credit is a fraction of the credits recorded in prior years. For example, in 2015, the Company recorded a credit of $0.378 million.

**Q. What is your recommendation?**

A. I recommend that the Commission reflect the same credit in the test year as the Company actually recorded in 2015, the most recent year for which actual information is available, if it does not adopt my overarching O&M expense

[13] I have attached a copy of this response as my Exhibit___(LK-10).

recommendation. To the extent the Company argues that its recoveries will decline due to its initiatives to reduce such third party damages, then the O&M expense also should decline; however, the Company's filing did not reflect any such reductions. In any event, I recommend the same adjustment of whether it is viewed an increase in the credit for third party reimbursements or a reduction in the O&M expense incurred in the first place to remedy the third party damages.

## J. Depreciation Rates and Expense Are Excessive; Change to ELG Procedure Is Not Reasonable

**Q. Please describe the Company's request to change its depreciation rates.**

A. The Company proposes to change its depreciation rates effective at the beginning of the test year to reflect the results of the depreciation study performed by Mr. John Spanos with a study date of December 31, 2015. Mr. Spanos proposes a fundamental change in the determination of depreciation rates to use the Equal Life Group ("ELG") procedure instead of the Average Service Life ("ASL") procedure. The Company's approved depreciation rates reflect the ASL procedure and, to the best of my knowledge, have never reflected the ELG procedure. Although Mr. Spanos proposes a change to the ELG procedure, he also provided the depreciation rates using the ASL procedure in response to AG discovery.[14]

[14] Company's response to AG 1-9, a copy of which I have attached as my Exhibit___(LK-11).

**Q. How do the ELG and ASL depreciation rates resulting from Mr. Spanos' study compare to the present depreciation rates?**

A. For most plant accounts, the proposed ELG and ASL depreciation rates are significantly greater than the present ASL depreciation rates. As is typically the case, the ELG depreciation rates are significantly greater than the ASL rates using the same depreciation parameters (interim retirement curves, cost of removal, gross salvage, average service lives). The Company provided a comparison of the present depreciation rates, the proposed ELG rates, and the ASL rates in response to AG discovery.[15]

Using the plant balances in the depreciation study, the present depreciation rates produce $8.731 million in annual depreciation expense.[16] The proposed ELG depreciation rates produce $14.091 million in annual depreciation expense.[17] Alternatively, the ASL depreciation rates produce $10.860 million in annual depreciation expense. In other words, even if all parameters in the depreciation study are accepted, the proposed change to the ELG procedure alone increases depreciation expense by $3.231 million compared to the ASL procedure using plant

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[15] *Id.*

[16] Company's response to AG 1-13 (Attachment A), a copy of which I have attached as my Exhibit___(LK-12).

[17] Company's response to AG 1-1 (Attachment C), a copy of which I have attached as my Exhibit___(LK-13).

balances at December 31, 2015. The test year effect is even greater due to the increases in plant balances.

**Q. Does the Company recover the entirety of its plant balances regardless of whether the ELG or ASL procedure is used?**

A. Yes. The difference is in the timing of the recovery. Under the ELG procedure, particularly if it is adopted after the utility historically has used the ASL procedure, the capital recovery periods are accelerated and shortened, and thus, the depreciation rates are greater than if the ASL procedure is used and/or maintained. This result is borne out by the significantly greater ELG depreciation rates compared to the ASL rates resulting from the Company's depreciation study.

**Q. Why is that?**

A. The ELG procedure utilizes a statistical technique that stratifies vintage year plant data into equal life groups and depreciates each equal life group over its remaining life so that the plant balance in each group is fully depreciated at the end of its life. The ASL procedure averages all plant balances in the account and depreciates the balance over the remaining life of the entire group. To illustrate this point, assume that the analyst stratifies the data so that for hypothetical account 999 1980 vintage equal life group, there is a gross plant balance of $100 and accumulated depreciation of $80 at the study date of June 30, 2016. Assume further that the remaining life for the account is 40 years. This 1980 vintage equal life group must be fully depreciated by June 30, 2020, so the depreciation will be $5 or 5.0% for the next four years using the ELG procedure. The depreciation expense is determined in a similar manner for each vintage equal life group and declines for the account in each subsequent vintage year due to the longer remaining life, all else equal. The resulting depreciation expense is summed and then divided by the gross plant to determine the weighted average depreciation rate. This process is repeated by the analyst in each depreciation study.

**Q. Is the ELG procedure more accurate than the ASL procedure?**

A. No. First, at its very heart, the ELG procedure is simply an alternative statistical methodology to determine the timing of depreciation expense and recovery. The result of the ELG procedure is to accelerate recovery in the early years and decelerate recovery in the latter years compared to the ASL procedure on vintage year plant balances, all else equal.

Second, although the ELG procedure requires a more refined stratification of the data, this stratification is itself the result of judgment and assumptions, which are subject to the discretion of the analyst and easily biased, whether intentionally or unintentionally. Thus, the claimed precision is illusory at best and easily biased at worst.

Third, both the ELG and ASL procedures require estimates of all parameters, which inherently are subject to change based on actual results each time another depreciation study is performed. For example, the interim retirement curves frequently change from depreciation study to depreciation study, which then requires a recalibration of the equal life groups and belies the alleged accuracy of the ELG procedure.

**Q. Should the Commission adopt the Company's proposal to change to the ELG procedure from the ASL procedure?**

A. No. There is no compelling reason to unnecessarily increase depreciation rates and expense. The ASL procedure is fully compensatory and provides the Company full recovery of its plant costs, which includes the time value of the recovery because plant costs are included in rate base and earn a return until they are depreciated. The ASL procedure is as accurate as the ELG procedure, but smooths the data so that the depreciation rates for the group tend to remain constant, all else equal, over the service life compared to the ELG procedure, which results in greater depreciation rates initially, but then lower depreciation rates as each equal life group is assumed fully retired. The ASL procedure provides a normalized depreciation expense for ratemaking purposes, all else equal.

**Q. What is the effect of your recommendation to reject the Company's request to change to the ELG procedure from the ASL procedure?**

A. The effect is a reduction in the revenue requirement of $3.427 million, comprised of a $3.558 million reduction in depreciation expense, and an increase in the return on rate base of $0.131 million.[18]

## <u>K. Property Tax Expense Is Excessive</u>

**Q. Please describe how the Company calculated property tax expense in the test year.**

A. The Company calculated an effective property tax rate for 2015 of 1.2726% and then escalated it 1.5% annually for 2016 and 2017, according to its response to AG 1-7. The resulting property tax rate of 1.3111% was applied to the sum of the assessed value at December 31, 2014, 2015 plant additions, and 2016 plant additions, as shown on Workpaper WPD-2.4H.

**Q. Should the Commission adopt the Company's proposed property tax expense?**

A. No. There are two problems in the calculation. First, the valuation is overstated because the Company used gross plant additions for the increase in the assessed

[18] The calculations of these amounts are shown on my Exhibit___(LK-14).

value; it failed to reduce the gross plant additions by the increase in accumulated depreciation in 2015 and 2016. The valuation is based on net plant, not gross plant, and the Company calculated the 2015 property tax rate based on net plant, not gross plant. The increase in accumulated depreciation in 2015 and 2016, net of retirements, is approximately $9 million. Second, the Company assumed that the effective property tax rate would escalate 1.5% per year. No witness provided any testimony in support of this assumption.

**Q. What is your recommendation?**

A. I recommend that the Commission reduce property tax expense to reflect a reduction in the assessed value at December 31, 2016 to reflect the increase in accumulated depreciation in 2015 and 2016 and reflect a reduction in the effective property tax rate to the actual rate in 2015.

**Q. What is the effect of your recommendation?**

A. The effect is a reduction in the revenue requirement of $0.230 million.[19]

## III. RATE BASE ISSUES

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[19] The calculations are shown on my Exhibit___(LK-15).

**A. <u>Construction Cost Slippage Experience on Non-AMRP Projects Should Be Applied to Reduce Plant-Related Rate Base Costs and Operating Expenses, Not Increase Them</u>**

**Q. Please describe the Company's request to increase rate base for construction cost slippage.**

A. The Company included $2.165 million in rate base and $0.064 million in depreciation expense to reflect a so-called 5.3% slippage factor.[20] The Company applied this 5.3% slippage factor to all plant additions, both non-AMRP and AMRP, reflected in the capital budget from March 2016 through December 2017, and which are included in test year rate base, as shown on its WPB 2.2.[21]

The Company used this slippage factor to increase capital expenditures, plant additions, accumulated deferred income taxes, and depreciation expense.

**Q. What is the basis for this proposed 5.3% slippage factor?**

A. The Company calculated the proposed 5.3% slippage factor as the average of historical experience for both non-AMRP and AMRP actual capital expenditures compared to budgeted capital expenditures for the ten years 2006-2015. The non-AMRP slippage factor is negative 6.7% (actual capital expenditures are less than budget) and the AMRP slippage factor is 21.1% (actual capital expenditures are

[20] The calculations of these amounts are shown on my Exhibit___(LK-16).
[21] The Company provided the electronic version of this workpaper in response to AG 1-1.

more than budget). In the last 3 years, the non-AMRP slippage factor averaged negative 5.6% and the AMRP averaged 25.3%.[22]

**Q. Should the Commission apply a 5.3% slippage factor to the projected plant additions and retirements from March 2016 through December 2017?**

A. No. Fundamentally, it is inappropriate to apply *any* slippage factor to the AMRP plant additions. The Company recovers the entirety of the actual AMRP plant costs through the AMRP rider, whether more or less than the budgeted costs.[23] The AMRP rider includes a true-up provision. If the actual AMRP plant costs are more than budgeted, then the Company will recover those costs through the AMRP. In fact, the Company has an incentive to incur and include additional costs in the AMRP rider because the recovery increases the Company's earnings with almost no regulatory lag. If there was or is any forecast/budget error in the plant additions or any mismatch between actual costs and the costs subject to the roll-in, then this difference will be reflected in the AMRP rider true-up filing.

**Q. What slippage factor should be applied in this case?**

A. The Commission should apply a negative 6.7% slippage factor to the non-AMRP

[22] Company response to Staff 2-4. I have attached a copy of this response as my Exhibit___(LK-17).

[23] Cooper Direct Testimony at 14-15. Ms. Cooper describes the manner in which the Company recovers the AMRP costs through the AMRP Rider and the manner in which it will true-up the amount included in the base revenue requirement and its actual spend in the test year when the AMRP Rider is reset for calendar year 2018.

plant additions and retirements to reflect the Company's actual experience in spending less than budgeted on the non-AMRP plant. The Company is made whole on spending greater than budgeted on AMRP plant through the AMRP rider.

**Q. What is the effect on the revenue requirement of your recommendation?**

A. The effect is a reduction in the revenue requirement of $0.710 million, comprised of $0.599 million due to the reduction in rate base and $0.111 million due to the reduction in depreciation.[24] I show the revenue requirement effects of the reduction in rate base in the Rate Base section and the reduction in depreciation expense in the Operating Income section of the table in the Summary section of my testimony.

## B. New Incremental Capital Initiatives Are Not Required or Cost Justified

**Q. Please describe the incremental capital costs added to the capital budget in the test year for ratemaking purposes by the Company.**

A. The Company developed the plant related costs included in the test year for

[24] The calculations are shown on my Exhibit___(LK-18). This includes the effects on plant in service, accumulated depreciation, ADIT, and depreciation expense. The Company did not separately show the non-AMRP and AMRP capital expenditures and plant additions in its filing. Consequently, after I removed the 5.3% slippage factor applied to all (non-AMRP and AMRP) capital expenditures from March 2016 through December 2017 in the Company's workpapers, I then applied the negative 6.7% slippage factor to all capital expenditures. I recognize that this overstates the effect on the base revenue requirement, all else equal. The Company may choose to revise this calculation in its Rebuttal Testimony. If not, then the Company will be able to true up to the actual AMRP capital expenditures in its AMRP true-up filings.

ratemaking purposes in three steps.[25] First, the Company relied on its approved capital budgets for 2016 and 2017 to determine plant additions in the base year through the end of the test year. Second, it identified additional discretionary capital costs, not included in its approved capital budgets, for various so-called "capital initiatives" that increased the plant additions in the base year and through the end of the test year. Third, it applied a "slippage" factor that increased both the budgeted and additional discretionary plant additions by 5.3% in the base year and through the end of the test year.[26]

The Company reflected the additional capital costs in the base year and through the end of the test year as discretionary ratemaking adjustments tied to revenue recovery. If the Commission does not include the discretionary capital costs in the revenue requirement, then presumably the Company will not incur those costs. The so-called "capital initiatives" are identified and described by Company witness Mr. S. Mark Katko as follows.[27]

> $0.900 million in 2016 and $2.000 million in 2017 not included in the "age and condition" category in the approved capital budget.
>
> $1.882 million in 2017 for a new "training facility" not included in the approved capital budget.

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[25] Plant related costs start with capital expenditures and include plant additions and retirements, depreciation expense and accumulated depreciation, current and deferred income tax expense and accumulated deferred income taxes.

[26] Katko Direct at 4, 8.

[27] *Id.,* 5-6.

> $1.326 million in 2017 for global positioning system (“GPS”) technology not included in the approved capital budget.
>
> $0.630 million in 2017 for replacement of mobile data terminals (“MDT”) not included in the approved capital budget.

The Company simply lists, but provides no additional description or support for, the proposed increase in capital expenditures and plant additions for “age and condition.” Company witness Mr. Cote provides additional descriptions and support for the proposed new training facility and GPS technology. Company witness Mr. Cole provides additional description and support for the proposed replacement MDTs.

**Q. Are the incremental “age and condition” discretionary capital expenditures consistent with the Company’s historic or post-test year “age and condition” capital expenditures?**

A. No. The Company’s “age and condition” incremental capital expenditures result in an anomalous result for 2016 and 2017 compared to the approved budgets and forecasts for this category in the twelve months ending May 2016, base period, and the forecast years 2018 and 2019. More specifically, the Company’s “age and condition” capital expenditures are shown as $12.4 million for the twelve months ending May 2016, $13.2 million for the base period, and $15.2 million for the forecast years 2018 and 2019, according to the information provided in response to

FR-16(7)(d). In contrast to this pattern of steady budget/forecast increases in this category, the Company's proposed slippage and incremental capital expenditures increase the 2016 amount to $16.2 million and the test year amount to $18.2 million, adding $1.7 million to the 2016 approved capital expenditures of $14.5 million, which are rolled forward into the test year, and $2.9 million to the 2017 approved capital expenditures of $15.3 million.

**Q. What is your conclusion regarding the "age and condition" incremental capital expenditures?**

A. The Company's proposed ratemaking adjustments appear to be nothing more than an effort to increase the test year rate base and revenue requirement for costs that it may not even incur or that it otherwise might incur in years after the test year. The Company has not justified any increase in this category for ratemaking purposes. The Company has not identified any specific projects that are required, but were not in the approved budget, or even if they are required, why it cannot reduce capital expenditures on other projects in this or other categories.

**Q. If these capital initiatives are discretionary and are not included in the Company's approved capital budget, then should the Commission require savings sufficient to justify including the costs in the revenue requirement?**

A. Yes. The incremental capital expenditures should not be included in the revenue requirement unless there are savings sufficient to justify the costs. The expenditures are not required for safety or customer service. If they were required, they would have been included in the approved capital budgets for 2016 and 2017, which are subject to management scrutiny and approval in the normal course of business. The discretionary capital initiatives obviously are timed to coincide with the test year in this proceeding and increase the revenue requirement.

Consequently, the Commission should carefully review the need for these projects, assess them on an economic basis, and determine whether they result in savings in the test year or recurring savings that will pay back the discretionary capital costs without imposing unnecessary and uneconomic costs on the Company's customers.

**Q. Are these discretionary capital initiatives justified on an economic basis?**

A. No. First, the Company has provided no justification for the discretionary age and condition capital initiative. This appears to be a case where the Company simply added capital expenditures to its capital budgets to increase the test year rate base and revenue requirement. The Company has not proposed or described an actual "age and condition initiative." At best, these costs are simply incremental capital expenditures in the normal course of business, not included in the approved capital budget, controllable by the Company, and avoidable. Even if the Commission includes the additional costs in rate base and the revenue requirement, the costs still are discretionary. The Company may not actually incur the costs. In that case, the Company will have successfully increased its revenues simply through a forecast assumption untethered to its actual capital expenditures.

Second, the Company has not justified the proposed training center on an economic basis, despite multiple discovery requests by the AG and the Commission Staff to provide this information. In AG 1-17, the AG sought a copy of "all cost benefit analyses for the proposed training center compared to the status quo." In its response, the Company stated "refer to the Columbia Gas of Kentucky's Application for a Declaratory Order, Case No. 2016-00181 for a complete description of the proposed training center and related costs and benefits." The Application in Case No. 2016-00181 does not identify or quantify any savings.

In response to Staff 1-25 for cost benefit information, the Company referred to its Application in Case No. 2016-00181. The Application in that proceeding cites a capital cost of $1.955 million, a service life of 30 years and incremental O&M expense of $0.012 million. The Application also asserts that no debt will be issued for the facility. If there is no debt issued, then it necessarily will be financed with common equity in the form of retained earnings. The incremental O&M expense apparently reflects only facility operating costs and includes no cost for instructors or materials, which likely would be incurred for the training facility to provide functional and useful training.

In its response to Staff 1-25, the Company also claimed that if the facility was not constructed, it would incur incremental travel costs of $0.315 million to send its employees to training centers in Ohio or Pennsylvania. However, the Company does not presently incur these costs, even in the absence of the new training facility, and did not include these costs in its approved O&M expense budget for the first 10 months of the test year until the proposed new facility would be operational in November 2017.

At a minimum, the new training facility will increase costs by $0.433 million for an equity only return on the capital cost, income taxes on the equity return, depreciation expense, and incremental O&M expense on an annual basis, although the O&M expense included in the test year does not reflect the annualized expense and obviously is understated even for the two months the facility would be in service.

Third, the Company has not justified the GPS technology initiative on an economic basis. It claims that "[p]otential savings would not be realized until GPS data collection is substantially complete in a specific geographic region," according to its response to Staff 2-29(d). Instead of savings, the Company proposes to compound the cost of the discretionary capital initiative with an incremental O&M

expense of $0.770 million for the related strategic O&M initiative to "accelerate this GPS effort,"[28] which it also included in the revenue requirement.

Fourth, the Company has not justified the MDT capital initiative on an economic basis. In fact, it was unable to quantify any savings in response to Staff 2-27(c), although it appears that it included $0.059 in maintenance expense on the MDTs in the test year, according to its response to Staff 2-27(b). If the Commission authorizes the capital cost for the MDT in the revenue requirement, then it should remove this maintenance expense.

**Q. What is your recommendation?**

A. I recommend that the Commission exclude the costs of these discretionary capital initiatives from rate base and the revenue requirement. They were not included in the approved capital budget. They are discretionary. They are not necessary for safety or reliability. They are not economic and impose unnecessary costs on customers.

**Q. What is the effect of your recommendation on the revenue requirement?**

A. The effect is a reduction in the revenue requirement of $0.564 million, comprised of $0.456 million due to the reduction in rate base and $0.108 million due to the

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[28] Cote Direct Testimony at 16.

reduction in depreciation.[29] I show the revenue requirement effects of the reduction in rate base in the Rate Base section and the reduction in depreciation expense in the Operating Income section of the table in the Summary section of my testimony.

**C. Cash Working Capital is Excessive and Should be Reduced to $0 in the Absence of A Valid Lead/Lag Study**

**Q. Please describe the Company's request for a cash working capital allowance in rate base.**

A. The Company included a cash working capital ("CWC") allowance of $5.637 million based on the one-eighth O&M expense methodology.[30]

**Q. Is this methodology reasonable?**

A. No. It is outdated and inaccurate. The methodology is simple, but does not reflect the leads and lags in the Company's operating cash flows. Only the lead/lag study approach measures these leads and lags and accurately determines the average investment by either the Company's customers or its investors. In fact, the Company does not support this methodology as superior to the lead/lag methodology and claims that the only basis for using this methodology in this proceeding is that it has

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[29] The calculations are shown on my Exhibit___(LK-19). This includes the effects on plant in service, accumulated depreciation, ADIT, and depreciation expense.

[30] Schedule B-5.2.

been accepted by the Commission in previous proceedings, according to its response to AG 1-6(a).

**Q. Has NiSource, the Company's parent and owner of numerous other natural gas and electric utilities, performed and filed lead/lag studies in other jurisdictions?**

A. Yes. Consequently, there is no need to guess at the results of a lead/lag study if one had been performed by the Company for this case. NiSource utilities are required to use the lead/lag methodology in Ohio, Massachusetts, Virginia, and Maryland, according to the Company's response to AG 1-6(b). The Company provided a copy of the cash working capital studies and the related direct testimony filed by NiSource natural gas utilities since 2012 in response to AG 1-6(c).

These studies all result in negative cash working capital if the studies are adjusted to remove non-cash items and balance sheet items in accordance with standard practice for lead/lag studies and if the revenue lag days are adjusted in the Massachusetts studies to reflect the revenue lag days consistent with the Company's billing practices in Kentucky. Although the Company did not perform a cash working capital study using the lead/lag methodology in this proceeding, there is no reason to believe that the result of a Company-specific lead/lag study would be positive cash working capital when the results for its affiliates all are negative when adjusted properly.

**Q. What is your recommendation?**

A. I recommend that the Commission set the Company's cash working capital at $0 in the absence of a properly performed lead/lag study, even though there is little doubt that it should be negative. The one-eighth of O&M expense methodology is outdated and inaccurate. All the Company's lead/lag studies in other jurisdictions, when properly adjusted, demonstrate unequivocally that a properly performed cash working capital study results in negative cash working capital, meaning that customers provide the Company with capital to fund other rate base investments.

**Q. Have you quantified the effect of your recommendation?**

A. Yes. The effect is to reduce the revenue requirement by $0.687 million. I multiplied the Company's proposed cash working capital times the Company's grossed-up rate of return.

**<u>D. Net Operating Loss ("NOL") Accumulated Deferred Income Taxes ("ADIT") Is Excessive Because It Does Not Reflect Taxable Income from Rate Increase</u>**

**Q. Please describe the NOL ADIT included by the Company in rate base.**

A. The Company included $1.258 million in NOL ADIT (an asset) in rate base, as shown on WPB-6 Sheet 2 of 3. The Company calculated this amount based on projected taxable income for the test year as shown on Attachment A provided in response to AG 1-20(a), although this response does not provide the calculation of taxable income in 2016 or 2017 sought in the request.

**Q. Is the NOL ADIT included by the Company in rate base correctly calculated for the test year?**

A. No. It should be $0. The Company's calculation assumes that there will be *no* rate increase, according to its response to AG 1-20(b). If there is a rate increase of at least $3.514 million, an amount equal to the NOL ADIT divided by the income tax rate, then the taxable income in the test year will be sufficient to fully utilize the NOL carryforward and there will be no NOL ADIT at the end of the test year, all else equal.

**Q. In its response to AG 1-20(d), the Company states "The NOL ADIT could be eliminated if the Commission grants a rate increase in this proceeding, all else equal. As explained in the response to AG Set 1-20(c), the consolidated group in which Columbia files a federal return must utilize NOL in order for the Columbia's NOL to be monetized." Should the Commission consider whether the "consolidated group" has sufficient taxable income to utilize the NOL carryforward?**

A. No. The Company calculated income tax expense and ADIT as if it filed a separate tax return on a standalone basis, consistent with Commission precedent. This methodology ignores consolidated tax savings and maximizes the income tax expense included in the revenue requirement. The Commission should not consider the NiSource consolidated income tax calculation on this single income tax issue unless it is prepared to reconsider the broader issue of whether consolidated tax savings should be reflected in the revenue requirement.

**Q. Have you quantified the effect of your recommendation?**

A. Yes. The effect is to reduce the revenue requirement by $0.153 million. I multiplied the Company's proposed NOL ADIT times the Company's grossed-up rate of return.

## IV. COST OF CAPITAL QUANTIFICATIONS

### A. Common Equity Is Overstated and Short Term Debt Is Understated

**Q. Have you reviewed the Company's calculation of the common equity capitalization in the test year?**

A. Yes. The Company's proposed capital structure and cost of capital is shown on Schedule J-1.1. It reflects 52.42% common equity, 46.32% long term debt, and 1.26% short term debt. This schedule is sponsored by Company witness Mr. Paul

Moul.

Mr. Moul provides further detail on the capital structure in Attachment A PRM-5 attached to his Direct Testimony. He shows the actual capital structure at February 29, 2016, the projected capital structure at the end of the base period at August 31, 2016, the projected capital structure at the end of the test year at December 31, 2017, and the 13 month average for the test year.

On Attachment A PRM-5, Mr. Moul further separates the common equity into common stock, which does not change from period to period, additional paid in capital, which does not change from period to period, and retained earnings, which changes to reflect the net of the earnings (increases) and dividends (reductions) from period to period. The increase in retained earnings from August 31, 2016 to December 31, 2017 is $17.469 million, or an average of net income less dividends of $1.1 million per month. This reflects the Company's projected net income *after* the rate increase in this proceeding, assuming that all costs are approved and reflected in the revenue requirement. This also reflects no common dividend in the test year, according to Schedule K Sheet 3 of 4.

**Q. Is the Company's assumption that it will pay no common dividend in the test year reasonable?**

A. No. It has paid a common dividend since 2008, according to the financial metrics shown on Schedule K Sheet 3 of 4. It paid a common dividend of $8.0 million in 2015 and projects a dividend of $4.0 million in the base period. It just simply assumed that it would not pay a dividend at all in the test year, although no witness provided any support for that assumption, including Mr. Moul, who sponsors the capital structure and costs of each component for the test year.

**Q. What is your recommendation?**

A. I recommend that the Commission assume that the Company will pay a common dividend of $4.0 million in the test year, the same dividend it assumed in the base period. This assumption is consistent with the Company's history. The Company's assumption is not. This recommendation will reduce common equity and increase short term debt.

**Q. Have you quantified the effect of your recommendation for less equity and more debt in the capital structure?**

A. Yes. This recommendation reduces the revenue requirement by $0.616 million. The calculations are detailed on my Exhibit___(LK-3).[31]

[31] In Section I of that exhibit, I replicate the Company's proposed capital structure and calculated the grossed-up cost of capital. In Section II, I modify the capital structure to reflect this recommendation. I calculate the difference in the grossed up cost of capital and multiply it times the rate base, as adjusted by the AG recommendations.

**B. Quantification of AG's Recommendation for Cost of Short Term Debt**

**Q. Have you quantified the effect of the AG's recommendation for the cost of short-term debt?**

A. Yes. Mr. Baudino recommends a reduction in the cost of short term debt to 1.0% from 2.50%. This recommendation reduces the revenue requirement by $0.096 million.[32]

**C. Quantification of AG's Recommendation for Return on Equity**

**Q. Have you quantified the effect of the AG's recommendation for the return on common equity?**

A. Yes. Mr. Baudino recommends a return on equity of 9.0%. This recommendation reduces the Company's revenue requirement by $4.033 million. Each 10 basis points in the return on equity in either direction affects the revenue requirement by $0.202 million. This amount is incremental to the reductions in the revenue requirement for the AG recommendations on the capital structure and cost of short term debt.

[32] The calculations are detailed in Section III on my Exhibit___(LK-3). I calculate the difference in the grossed up cost of capital in Section III compared to Section II and multiply it times the rate base, as adjusted by the AG recommendations.

## V. ACCELERATED MAIN REPLACEMENT PROGRAM AND RIDER

### A. Commission Should Reject Proposal to Expand Scope of AMRP

**Q. Please describe the Company's proposal to expand the scope of the AMRP and recovery of costs through the AMRP rider.**

A. The Company proposes to include the replacement of Aldyl-A and various other types of plastic pipe in the AMRP and AMRP rider. The Company presently replaces segments of first generation plastic pipe when leaks are found or when the Optimain risk score indicates it should be replaced.[33] The Company does not propose any change to this process. The Company does not propose a specific or comprehensive replacement plan.

The Company also proposes to include the replacement of meter families that fail its statistical meter sampling program in the AMRP and AMRP rider. The Company presently replaces these meters when they fail.[34] The Company does not propose any change to this process.

**Q. What revisions does the Company propose to the AMRP tariff and the calculation of the revenue requirements?**

A. The company proposes no change to the AMRP rider tariff language or the

[33] Belle Direct Testimony at 14-15.
[34] Cooper Direct Testimony at 11-12.

calculation of the revenue requirements to include the cost of replacement plastic pipe. The Company proposes a change to the AMRP rider tariff language and the calculation to include the cost of failed meters and the "associated operation and maintenance expense." The "ongoing cost of the meter sampling program and the associated meter changeouts" will not be included in the AMRP rider and will continue to be included in base rates.[35] The Company provided clean and redlined versions of the proposed changes to the AMRP rider as Eleventh Revised Sheet No. 58.

**B. <u>Expansion of AMRP to Include First Generation Plastic Pipe Is Not Necessary or Appropriate</u>**

**Q. Does the Company propose a "plan" to systematically replace its plastic pipe?**

A. No. It plans no changes in its present practice of replacing plastic pipe when it identifies leaks or when its Optimain risk score indicates that it should be replaced. In response to AG discovery, the Company states that "The only element of the process that would change would be that Columbia would code the associated job order as eligible for the AMRP rider."[36]

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[35] *Id.*

[36] Company's response to AG 1-4 (attachment excluded), a copy of which I have attached as my Exhibit___(LK-20).

**Q. How does the Company presently account for the replacement of plastic pipe?**

A. The Company presently expenses the cost of replacing a segment of 50 feet or less. It presently capitalizes to plant the cost of replacing a segment of more than 50 feet.[37]

**Q. Does the Company propose any changes in accounting in conjunction with the proposed AMRP recovery?**

A. The Company did not specifically identify any proposed changes in accounting, although its response to AG 2-8 can be read to indicate that it intends to account for the present O&M expense as capital expenditures in the future if its proposal is adopted. The Company states in that response "These shorter replacement projects have historically been included in Columbia's O&M expenses based on company asset accounting practices. Moving forward, these costs would be included as part of Columbia's AMRP as an expenditure attributable to the replacement of eligible pipe."

Neither the present nor the proposed AMRP rider tariff language include a provision for recovering O&M expense. The AMRP rider tariff language includes a provision for "Reduction for savings in Account No. 887 -Maintenance of Mains." The proposed AMRP rider tariff language suggests that there would be a change in

[37] *Id.*

accounting if the Commission adopts the Company's proposal to include the costs of plastic pipe in the AMRP and to recover the costs through the AMRP rider.

**Q. What is the significance of the accounting and tariff language?**

A. As I previously explained, it is not clear whether the Company proposes to continue to recover replacement costs presently expensed through base rates or change its accounting to capitalize these costs and recover them through the AMRP Rider. If the Commission approves the expansion of the AMRP to include plastic pipe and recovery of the costs through the AMRP rider, then the Commission should make it clear that recovery through the AMRP rider does not include the maintenance expense for replacing segments of 50 feet or less. Otherwise, the Company may recover these costs twice, once through base rates as "maintenance" expense, and again through the AMRP rider in some manner.

**Q. Should the Commission adopt the Company's proposal to expand the scope of the AMRP to include plastic pipe and include the costs in the AMRP rider?**

A. No. There is no compelling reason to do so. The Company recovers the entirety of the ongoing maintenance expense in the base revenue requirement. The Company also recovers the cost of capital expenditures in the base revenue requirement through a return on rate base and recovery of the related operating expenses, primarily depreciation and property tax expense.

On the other hand, there are compelling reasons not to do so. First, the Company offers no specific or comprehensive plan to replace plastic pipe, nor does there appear to be a pressing requirement to develop and adopt such a plan or to modify its present practices. Nevertheless, if the Commission provides recovery contemporaneous with the incurrence of costs, the Company will be incentivized to greatly expand the replacement of plastic pipe and increase its earnings through AMRP recoveries. Second, this will create an open-ended form of recovery with escalating rate increases. Third, there will be almost no controls, reporting, or approvals required to constrain or balance this likely expansion of scope and cost.

## C. Expansion of AMRP to Include Failed Meters Is Not Necessary or Appropriate

**Q. What is the present scope and cost of replacing failed meters?**

A. It is relatively insignificant. No meters were replaced in 2012 or 2013 and there was no cost in those years. The Company replaced 925 meters in 2014 at a cost of $0.125 million, which presumably was capitalized to plant and not expensed. The Company replaced 798 meters in 2015 at a cost of $0.109 million. The Company estimates that it will replace 1,746 meters in the base period at a cost of $0.237 million. It is not clear how the Company could estimate the cost for the base period given the uncertainty regarding the number of meters that will fail and its claim that it could not do so for the test year.

Assuming that these costs are capitalized, the revenue requirement effect each year is minimal, or approximately $0.020 to $0.030 million, and will be recovered, net of the savings from retirements of the old meters, in the next base rate proceeding.

**Q. Despite the Company's assertions that it cannot forecast the number of replacement meters or the cost in the test year and that it included no replacement meter costs in the revenue requirement, did the Company actually include replacement meter costs in the revenue requirement?**

A. Yes. The Company included $0.182 million in capital expenditures and plant additions for replacement meter costs in the test year, according to its response to AG discovery.[38]

**Q. Should the Commission expand the scope of the AMRP and allow recovery of these costs through the AMRP rider?**

A. No. This is a solution in search of a problem. There is no compelling need to accelerate the Company's recovery of these costs through the AMRP rider. The

[38] Company's response to AG 2-6, which provides a history of the capital expenditures and plant additions for meters separated into "new" meters and "replacement" meters, including the amounts for the base period and test year. I have attached a copy of this response as my Exhibit___(LK-21).

costs of replacement meters presently are recovered through the base ratemaking process and should continue to be recovered through this process. The cost is relatively minor and the effects of regulatory lag through the base ratemaking process are minimal. In any event, the cost of new replacement meters is offset by savings from retired failed meters, including reductions in O&M expense and fewer bill complaints, as well as the cessation of depreciation, and may result in increased revenues due to improved accuracy and billing.

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

A. Yes.

**COMMONWEALTH OF KENTUCKY**

**BEFORE THE PUBLIC SERVICE COMMISSION**

**IN THE MATTER OF:**

| | | |
|---|---|---|
| **APPLICATION OF COLUMBIA GAS** | **)** | |
| **OF KENTUCKY, INC. FOR AN** | **)** | **CASE NO. 2016-00162** |
| **ADJUSTMENT IN RATES** | **)** | |

**EXHIBITS**

**OF**

**LANE KOLLEN**

**ON BEHALF OF**

**THE OFFICE OF THE ATTORNEY GENERAL**

**J. Kennedy and Associates, Inc.**
**570 Colonial Park Drive, Suite 305**
**Roswell, GA 30075**

**SEPTEMBER 2, 2016**

**EXHIBIT ____ (LK-1)**

# RESUME OF LANE KOLLEN, VICE PRESIDENT

## EDUCATION

**University of Toledo, BBA**
Accounting

**University of Toledo, MBA**

**Luther Rice University, MA**

## PROFESSIONAL CERTIFICATIONS

**Certified Public Accountant (CPA)**

**Certified Management Accountant (CMA)**

## PROFESSIONAL AFFILIATIONS

**American Institute of Certified Public Accountants**

**Georgia Society of Certified Public Accountants**

**Institute of Management Accountants**

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

**RESUME OF LANE KOLLEN, VICE PRESIDENT**

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**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.

## CLIENTS SERVED

### Industrial Companies and Groups

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

### 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)

## 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 August 2016**

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

**Expert Testimony Appearances**
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**as of August 2016**

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

**Expert Testimony Appearances**
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**as of August 2016**

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

**Expert Testimony Appearances
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| Date | Case | Jurisdict. | 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
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# as of August 2016

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

**Expert Testimony Appearances**
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**as of August 2016**

| Date | Case | Jurisdict. | 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<br>12/95 | U-21485 (Supplemental Direct)<br>U-21485 (Surrebuttal) | 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. |
| 1/96 | 95-299-EL-AIR<br>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<br>11/96 | U-22092<br>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 | Jurisdict. | 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. |

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

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

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

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

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

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

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| 11/02 | 2002-00146<br>2002-00147 | KY | Kentucky Industrial Utilities Customers, Inc. | Kentucky Utilities Co., Louisville Gas & Electric Co. | Environmental compliance costs and surcharge recovery. |
| 01/03 | 2002-00169 | KY | Kentucky Industrial Utilities Customers, Inc. | Kentucky Power Co. | Environmental compliance costs and surcharge recovery. |
| 04/03 | 2002-00429<br>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<br>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,<br>ER03-583-001,<br>ER03-583-002<br>ER03-681-000,<br>ER03-681-001<br>ER03-682-000,<br>ER03-682-001,<br>ER03-682-002<br>ER03-744-000,<br>ER03-744-001<br>(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<br>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<br>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<br>Supplemental Surrebuttal | LA | Louisiana Public Service Commission Staff | Entergy Gulf States, Inc. | Revenue requirements, corporate franchise tax, conversion to LLC, capital structure, post-test year adjustments. |
| 03/04 | 2003-00433 | KY | Kentucky Industrial Utility Customers, Inc. | Louisville Gas & Electric Co. | Revenue requirements, depreciation rates, O&M expense, deferrals and amortization, earnings sharing mechanism, merger surcredit, VDT surcredit. |

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

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

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

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| 10/07 | 05-UR-103<br>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<br>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<br>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<br>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<br>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<br>Direct | OH | Ohio Energy Group, Inc. | Ohio Edison Company, Cleveland Electric Illuminating Company, Toledo Edison Company | Revenue requirements. |
| 02/08 | ER07-956-000<br>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<br>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,<br>2007-00563 | KY | Kentucky Industrial Utility Customers, Inc. | Kentucky Utilities Co., Louisville Gas and Electric Co. | Merger surcredit. |
| 04/08 | 26837<br>Direct<br>Bond, Johnson, Thebert, Kollen Panel | GA | Georgia Public Service Commission Staff | SCANA Energy Marketing, Inc. | Rule Nisi complaint. |
| 05/08 | 26837<br>Rebuttal<br>Bond, Johnson, Thebert, Kollen Panel | GA | Georgia Public Service Commission Staff | SCANA Energy Marketing, Inc. | Rule Nisi complaint. |
| 05/08 | 26837<br>Suppl Rebuttal<br>Bond, Johnson, Thebert, Kollen Panel | GA | Georgia Public Service Commission Staff | SCANA Energy Marketing, Inc. | Rule Nisi complaint. |

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

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| 02/09 | EL08-51 Rebuttal | FERC | Louisiana Public Service Commission | Entergy Services, Inc. | Spindletop gas storage facilities regulatory asset and bandwidth remedy. |
| 02/09 | 2008-00409 Direct | KY | Kentucky Industrial Utility Customers, Inc. | East Kentucky Power Cooperative, Inc. | Revenue requirements. |
| 03/09 | ER08-1056 Answering | FERC | Louisiana Public Service Commission | Entergy Services, Inc. | Entergy System Agreement bandwidth remedy calculations, including depreciation expense, ADIT, capital structure. |
| 03/09<br><br><br><br>04/09 | U-21453, U-20925 U-22092 (Sub J) Direct<br>Rebuttal | 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 | 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**
**of**
**Lane Kollen**
**as of August 2016**

| Date | Case | Jurisdict. | Party | Utility | Subject |
|---|---|---|---|---|---|
| 10/09 | 09A-415E Answer | CO | Cripple Creek & Victor Gold Mining Company, et al. | Black Hills/CO Electric Utility Company | Cost prudence, cost sharing mechanism. |
| 10/09 | EL09-50 Direct | FERC | Louisiana Public Service Commission | Entergy Services, Inc. | Waterford 3 sale/leaseback accumulated deferred income taxes, Entergy System Agreement bandwidth remedy calculations. |
| 10/09 | 2009-00329 | KY | Kentucky Industrial Utility Customers, Inc. | Louisville Gas and Electric Company, Kentucky Utilities Company | Trimble County 2 depreciation rates. |
| 12/09 | PUE-2009-00030 | VA | Old Dominion Committee for Fair Utility Rates | Appalachian Power Company | Return on equity incentive. |
| 12/09 | ER09-1224 Direct | FERC | Louisiana Public Service Commission | Entergy Services, Inc. | Hypothetical versus actual costs, out of period costs, Spindletop deferred capital costs, Waterford 3 sale/leaseback ADIT. |
| 01/10 | ER09-1224 Cross-Answering | FERC | Louisiana Public Service Commission | Entergy Services, Inc. | Hypothetical versus actual costs, out of period costs, Spindletop deferred capital costs, Waterford 3 sale/leaseback ADIT. |
| 01/10 | EL09-50 Rebuttal<br>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.,<br>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**
**of**
**Lane Kollen**
**as of August 2016**

| Date | Case | Jurisdict. | 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: S02 allowance expense, variable O&M expense, off-system sales margin sharing. |
| 11/10 | U-23327 Rebuttal | LA | Louisiana Public Service Commission | SWEPCO | Fuel audit: S02 allowance expense, variable O&M expense, off-system sales margin sharing. |
| 09/10 | U-31351 | LA | Louisiana Public Service Commission Staff | SWEPCO and Valley Electric Membership Cooperative | Sale of Valley assets to SWEPCO and dissolution of Valley. |
| 10/10 | 10-1261-EL-UNC | OH | Ohio OCC, Ohio Manufacturers Association, Ohio Energy Group, Ohio Hospital Association, Appalachian Peace and Justice Network | Columbus Southern Power Company | Significantly excessive earnings test. |
| 10/10 | 10-0713-E-PC | WV | West Virginia Energy Users Group | Monongahela Power Company, Potomac Edison Power Company | Merger of First Energy and Allegheny Energy. |
| 10/10 | U-23327 Subdocket F Direct | LA | Louisiana Public Service Commission Staff | SWEPCO | AFUDC adjustments in Formula Rate Plan. |
| 11/10 | EL10-55 Rebuttal | FERC | Louisiana Public Service Commission | Entergy Services, Inc., Entergy Operating Cos | Depreciation rates and expense input effects on System Agreement tariffs. |

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

| Date | Case | Jurisdict. | 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<br>04/11 | ER10-2001 Direct<br>Cross-Answering | FERC | Louisiana Public Service Commission | Entergy Services, Inc., Entergy Arkansas, Inc. | EAI depreciation rates. |
| 04/11 | U-23327 Subdocket E | LA | Louisiana Public Service Commission Staff | SWEPCO | Settlement, incl resolution of S02 allowance expense, var O&M expense, sharing of OSS margins. |
| 04/11<br>05/11 | 38306 Direct<br>Suppl 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 | 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<br>11-348-EL-SSO<br>11-349-EL-AAM<br>11-350-EL-AAM | OH | Ohio Energy Group | AEP-OH | Equity Stabilization Incentive Plan; actual earned returns; ADIT offsets in riders. |
| 08/11 | U-23327 Subdocket F Rebuttal | LA | Louisiana Public Service Commission Staff | SWEPCO | Depreciation rates and service lives; AFUDC adjustments. |
| 08/11 | 05-UR-105 | WI | Wisconsin Industrial Energy Group | WE Energies, Inc. | Suspended amortization expenses; revenue requirements. |
| 08/11 | ER11-2161 Cross-Answering | FERC | Louisiana Public Service Commission | Entergy Services, Inc. and Entergy Texas, Inc. | ETI depreciation rates; accounting issues. |
| 09/11 | PUC Docket 39504 | TX | Gulf Coast Coalition of Cities | CenterPoint Energy Houston Electric | Investment tax credit, excess deferred income taxes; normalization. |
| 09/11 | 2011-00161<br>2011-00162 | KY | Kentucky Industrial Utility Consumers, Inc. | Louisville Gas & Electric Company, Kentucky Utilities Company | Environmental requirements and financing. |

**Expert Testimony Appearances
of
Lane Kollen
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| Date | Case | Jurisdict. | Party | Utility | Subject |
|---|---|---|---|---|---|
| 10/11 | 11-4571-EL-UNC<br>11-4572-EL-UNC | OH | Ohio Energy Group | Columbus Southern Power Company, Ohio Power Company | Significantly excessive earnings. |
| 10/11 | 4220-UR-117<br>Direct | WI | Wisconsin Industrial Energy Group | Northern States Power-Wisconsin | Nuclear O&M, depreciation. |
| 11/11 | 4220-UR-117<br>Surrebuttal | WI | Wisconsin Industrial Energy Group | Northern States Power-Wisconsin | Nuclear O&M, depreciation. |
| 11/11 | PUC Docket 39722 | TX | Cities Served by AEP Texas Central Company | AEP Texas Central Company | Investment tax credit, excess deferred income taxes; normalization. |
| 02/12 | PUC Docket 40020 | TX | Cities Served by Oncor | Lone Star Transmission, LLC | Temporary rates. |
| 03/12 | 11AL-947E<br>Answer | CO | Climax Molybdenum Company and CF&I Steel, L.P. d/b/a Evraz Rocky Mountain Steel | Public Service Company of Colorado | Revenue requirements, including historic test year, future test year, CACJA CWIP, contra-AFUDC. |
| 03/12 | 2011-00401 | KY | Kentucky Industrial Utility Customers, Inc. | Kentucky Power Company | Big Sandy 2 environmental retrofits and environmental surcharge recovery. |
| 4/12 | 2011-00036<br>Direct Rehearing<br>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<br>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<br>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. |

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

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

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

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

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

| Date | Case | Jurisdict. | Party | Utility | Subject |
|---|---|---|---|---|---|
| 03/16<br><br>0/16<br>04/16<br>05/16<br>06/16 | EL01-88<br>Remand<br>Direct<br>Answering<br>Cross-Answering<br>Rebuttal | FERC | Louisiana Public Service Commission | Entergy Services, Inc. | Bandwidth Formula: Capital structure, fuel inventory, Waterford 3 sale/leaseback, Vidalia purchased power, ADIT, Blythesville, Spindletop, River Bend AFUDC, property insurance reserve, nuclear depreciation expense. |
| 03/16 | 15-1673-E-T | WV | West Virginia Energy Users Group | Appalachian Power Company | Terms and conditions of utility service for commercial and industrial customers, including security deposits. |
| 04/16 | 39971<br>Panel Direct | GA | Georgia Public Service Commission Staff | Southern Company, AGL Resources, Georgia Power Company, Atlanta Gas Light Company | Southern Company acquisition of AGL Resources, risks, opportunities, quantification of savings, ratemaking implications, conditions, settlement. |
| 04/16 | 2015-00343 | KY | Office of the Attorney General | Atmos Energy Corporation | Revenue requirements, including NOL ADIT, affiliate transactions. |
| 04/16 | 2016-00070 | KY | Office of the Attorney General | Atmos Energy Corporation | R & D Rider. |
| 05/16 | 16-G-0058<br>16-G-0059 | NY | New York City | Keyspan Gas East Corp., Brooklyn Union Gas Company | Depreciation, including excess reserves, leak prone pipe. |
| 06/16 | 160088-EI | FL | South Florida Hospital and Healthcare Association | Florida Power and Light Company | Fuel Adjustment Clause Incentive Mechanism re: economy sales and purchases, asset optimization. |
| 07/16 | 160021-EI | FL | South Florida Hospital and Healthcare Association | Florida Power and Light Company | Revenue requirements, including capital recovery, depreciation, ADIT. |
| 08/16 | 15-1022-EL-UNC<br>16-1105-EL-UNC | OH | Ohio Energy Group | AEP Ohio Power Company | SEET earnings, effects of other pending proceedings. |

**EXHIBIT ____ (LK-2)**

**Columbia Gas of Kentucky, Inc.**
**Summary of Attorney General Recommendations**
**Rate Base**
**KPSC Case No. 2016-00162**
**Forecasted Test Year Ended December 31, 2017**
**$ Millions**

| | Amount |
|---|---|
| Rate Base per Columbia Gas | $ 253.361 |
| Adjustments: | |
| Reject Change from ASL to ELG Procedure - A/D and ADIT | 1.074 |
| Adjust Slippage for All Capital Expenditures - Plant, A/D, and ADIT | (4.910) |
| Remove Capital Initiatives Not Budgeted - Plant, A/D, and ADIT | (3.737) |
| Reflect Zero Balance for Cash Working Capital | (5.637) |
| Remove NOL ADIT in Acct 190 | (1.258) |
| Net Change in Rate Base AG Recommendation | (14.468) |
| Adjusted Rate Base AG Recommendation | 238.893 |

**EXHIBIT ____ (LK-3)**

**Columbia Gas of Kentucky, Inc.**
**Cost of Capital - With AG Recommended Adjustments**
**KPSC Case No. 2016-00162**
**Forecasted Test Period: Twelve Months Ended December 31, 2017**
**$ Millions**

## I. Columbia Gas Cost of Capital Per Filing

| | Capital Amount | Capital Ratio | Component Costs | Weighted Avg Cost | Grossed Up Cost |
|---|---|---|---|---|---|
| Short Term Debt | 3.114 | 1.26% | 2.50% | 0.03% | 0.03% |
| Long Term Debt | 114.699 | 46.33% | 5.64% | 2.61% | 2.61% |
| Common Equity | 129.778 | 52.42% | 11.00% | 5.77% | 9.55% |
| Total Capital | 247.591 | 100.00% | | 8.41% | 12.19% |

## II. Columbia Gas Cost of Capital Adjusted to Include AG Adjustments to Capital Structure To Include Dividends

| | As-Filed Capital Amount | AG Adjust | AG Adjusted Capital Amount | Capital Ratio | Component Costs | Weighted Avg Cost | Grossed Up Cost |
|---|---|---|---|---|---|---|---|
| Short Term Debt | 3.114 | 4.000 | 7.114 | 2.87% | 2.50% | 0.07% | 0.07% |
| Long Term Debt | 114.699 | | 114.699 | 46.33% | 5.64% | 2.61% | 2.61% |
| Common Equity | 129.778 | (4.000) | 125.778 | 50.80% | 11.00% | 5.59% | 9.25% |
| Total Capital | 247.591 | | 247.591 | 100.00% | | 8.27% | 11.93% |

| | |
|---|---|
| Change in Grossed Up Weighted Avg Cost of Capital | -0.26% |
| Rate Base Recommended by AG | 238.893 |
| Revenue Requirement Effect of Adjustment | (0.616) |

### III. Columbia Gas Cost of Capital Adjusted to Reflect Lower Short Term Debt Rate

| | Capital Amount | Capital Ratio | Component Costs | Weighted Avg Cost | Grossed Up Cost |
|---|---|---|---|---|---|
| Short Term Debt | 7.114 | 2.87% | 1.00% | 0.03% | 0.03% |
| Long Term Debt | 114.699 | 46.33% | 5.64% | 2.61% | 2.61% |
| Common Equity | 125.778 | 50.80% | 11.00% | 5.59% | 9.25% |
| Total Capital | 247.591 | 100.00% | | 8.23% | 11.89% |
| Change in Grossed Up Weighted Avg Cost of Capital | | | | | -0.04% |
| Rate Base Recommended by AG | | | | | 238.893 |
| Revenue Requirement Effect of Adjustment | | | | | (0.096) |

### IV. Columbia Gas Cost of Capital Adjusted to Include AG Recommended ROE of 9.0%

| | Capital Amount | Capital Ratio | Component Costs | Weighted Avg Cost | Grossed Up Cost |
|---|---|---|---|---|---|
| Short Term Debt | 7.114 | 2.87% | 1.00% | 0.03% | 0.03% |
| Long Term Debt | 114.699 | 46.33% | 5.64% | 2.61% | 2.61% |
| Common Equity | 125.778 | 50.80% | 9.00% | 4.57% | 7.56% |
| Total Capital | 247.591 | 100.00% | | 7.21% | 10.20% |
| Change in Grossed Up Weighted Avg Cost of Capital | | | | | -1.69% |
| Rate Base Recommended by AG | | | | | 238.893 |
| Revenue Requirement Effect of Adjustment | | | | | (4.033) |
| Every 1% ROE Change | | | | | (2.016) |

**EXHIBIT ____ (LK-4)**

# Columbia Gas of Kentucky, Inc.
## Case No. 2013-00167
## Forecasted Income Statement Summary
## Calendar Years 2013 - 2016

| Line No. | Description | 2013 (000) | 2014 (000) | 2015 (000) | 2016 (000) |
|---|---|---|---|---|---|
| 1 | Gas Revenue | $ 113,570 | $ 120,384 | $ 119,740 | $ 121,741 |
| 2 | Gas Purchase Expense | 54,428 | 61,177 | 61,130 | 63,467 |
| 3 | Plant Revenue | 59,142 | 59,207 | 58,610 | 58,274 |
| 4 | O&M Expenses | 32,955 | 33,286 | 32,175 | 32,273 |
| 5 | Depreciation | 7,126 | 7,689 | 8,202 | 8,648 |
| 6 | Other Taxes | 3,165 | 3,476 | 3,851 | 4,131 |
| 7 | Plant Expenses | 43,246 | 44,451 | 44,228 | 45,052 |
| 8 | Operating Income Before Taxes | 15,896 | 14,756 | 14,382 | 13,222 |
| 9 | Income Taxes | 5,120 | 4,604 | 4,381 | 3,791 |
| 10 | Net Operating Income | 10,776 | 10,152 | 10,001 | 9,431 |
| 11 | Other Income | 2,672 | 2,695 | 2,631 | 2,697 |
| 12 | Income Before Interest | 13,448 | 12,847 | 12,632 | 12,128 |
| 13 | Interest Expense | 5,143 | 5,405 | 5,553 | 6,015 |
| 14 | Net Income from Subsidiaries | 8 | - | - | - |
| 15 | Net Income | $ 8,313 | $ 7,442 | $ 7,079 | $ 6,113 |

**EXHIBIT ____ (LK-5)**

**COLUMBIA GAS OF KENTUCKY, INC.**
**RESPONSE TO STAFF'S FIRST REQUEST FOR INFORMATION**
**DATED MAY 11, 2016**

33. List separately the budgeted and actual numbers of full- and part-time employees by employee group, by month and by year, for the three most recent calendar years, the base period, and the forecasted test period.

**Response:**

Please refer to Attachment A for this response.

Columbia Gas of Kentucky, Inc.
Case No. 2016-00162
Employee Headcount
For the Three Most Recent Calendar Years

| Line No. | Employee Group | Jan 2013 | Feb 2013 | Mar 2013 | Apr 2013 | May 2013 | Jun 2013 | Jul 2013 | Aug 2013 | Sep 2013 | Oct 2013 | Nov 2013 | Dec 2013 | Total 2013 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | **Exempt Employees** | | | | | | | | | | | | | |
| 2 | Actual | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 21 | 21 | 21 | 21 | 20 |
| 3 | Original Budget | 18 | 18 | 18 | 18 | 18 | 18 | 18 | 18 | 18 | 18 | 18 | 18 | 18 |
| 4 | **Manual** | | | | | | | | | | | | | |
| 5 | Actual | 82 | 85 | 84 | 84 | 86 | 87 | 87 | 85 | 84 | 84 | 89 | 90 | 86 |
| 6 | Original Budget | 88 | 94 | 94 | 94 | 94 | 94 | 94 | 94 | 94 | 94 | 94 | 94 | 94 |
| 7 | **Admin/Tech** | | | | | | | | | | | | | |
| 8 | Actual | 16 | 16 | 16 | 15 | 17 | 16 | 16 | 17 | 17 | 17 | 17 | 17 | 16 |
| 9 | Original Budget | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 16 |
| 10 | **Regular Employees** | | | | | | | | | | | | | |
| 11 | **Actual** | **118** | **121** | **120** | **119** | **123** | **123** | **123** | **122** | **122** | **122** | **127** | **128** | **122** |
| 12 | **Original Budget** | **122** | **128** | **128** | **128** | **128** | **128** | **128** | **128** | **128** | **128** | **128** | **128** | **128** |
| 13 | **Part Time** | | | | | | | | | | | | | |
| 14 | Actual | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 1 | 2 | 2 | 2 | 1 | 2 |
| 15 | Original Budget | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 16 | **TOTAL EMPLOYEES** | | | | | | | | | | | | | |
| 17 | **Actual** | **119** | **122** | **121** | **120** | **125** | **125** | **125** | **123** | **124** | **124** | **129** | **129** | **124** |
| 18 | **Original Budget** | **122** | **128** | **128** | **128** | **128** | **128** | **128** | **128** | **128** | **128** | **128** | **128** | **128** |

| Line No. | Employee Group | Jan 2014 | Feb 2014 | Mar 2014 | Apr 2014 | May 2014 | Jun 2014 | Jul 2014 | Aug 2014 | Sep 2014 | Oct 2014 | Nov 2014 | Dec 2014 | Total 2014 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 19 | **Exempt Employees** | | | | | | | | | | | | | |
| 20 | Actual | 21 | 21 | 24 | 24 | 25 | 25 | 25 | 25 | 24 | 22 | 23 | 23 | 24 |
| 21 | Original Budget | 21 | 23 | 23 | 23 | 23 | 23 | 23 | 23 | 23 | 23 | 23 | 23 | 23 |
| 22 | **Manual** | | | | | | | | | | | | | |
| 23 | Actual | 90 | 94 | 93 | 92 | 91 | 91 | 90 | 88 | 87 | 87 | 87 | 88 | 90 |
| 24 | Original Budget | 93 | 95 | 95 | 95 | 95 | 96 | 96 | 96 | 96 | 96 | 96 | 96 | 95 |
| 25 | **Admin/Tech** | | | | | | | | | | | | | |
| 26 | Actual | 17 | 17 | 17 | 17 | 16 | 15 | 15 | 17 | 17 | 17 | 16 | 16 | 16 |
| 27 | Original Budget | 18 | 18 | 18 | 18 | 18 | 18 | 18 | 18 | 18 | 18 | 18 | 18 | 18 |
| 28 | **Regular Employees** | | | | | | | | | | | | | |
| 29 | **Actual** | **128** | **132** | **134** | **133** | **132** | **131** | **130** | **130** | **128** | **126** | **126** | **127** | **130** |
| 30 | **Original Budget** | **132** | **136** | **136** | **136** | **136** | **137** | **137** | **137** | **137** | **137** | **137** | **137** | **136** |
| 31 | **Part Time** | | | | | | | | | | | | | |
| 32 | Actual | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 1 | 1 | 1 | 2 | 1 | 2 |
| 33 | Original Budget | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| 34 | **TOTAL EMPLOYEES** | | | | | | | | | | | | | |
| 35 | **Actual** | **130** | **134** | **136** | **135** | **134** | **133** | **132** | **131** | **129** | **127** | **128** | **128** | **131** |
| 36 | **Original Budget** | **134** | **138** | **138** | **138** | **138** | **139** | **139** | **139** | **139** | **139** | **139** | **139** | **138** |

Columbia Gas of Kentucky, Inc.
Case No. 2016-00162
Employee Headcount
For the Three Most Recent Calendar Years

| Line No. | Employee Group | Jan 2015 | Feb 2015 | Mar 2015 | Apr 2015 | May 2015 | Jun 2015 | Jul 2015 | Aug 2015 | Sep 2015 | Oct 2015 | Nov 2015 | Dec 2015 | Total 2015 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | **Exempt Employees** | | | | | | | | | | | | | |
| 2 | Actual | 24 | 24 | 25 | 25 | 25 | 25 | 25 | 26 | 26 | 26 | 26 | 26 | 25 |
| 3 | Original Budget | 24 | 24 | 24 | 24 | 24 | 24 | 25 | 25 | 25 | 25 | 25 | 25 | 25 |
| 4 | **Manual** | | | | | | | | | | | | | |
| 5 | Actual | 89 | 91 | 90 | 103 | 101 | 100 | 100 | 100 | 101 | 101 | 101 | 101 | 98 |
| 6 | Original Budget | 95 | 95 | 101 | 101 | 101 | 101 | 101 | 101 | 101 | 101 | 101 | 101 | 100 |
| 7 | **Admin/Tech** | | | | | | | | | | | | | |
| 8 | Actual | 17 | 17 | 17 | 16 | 17 | 17 | 18 | 17 | 17 | 17 | 17 | 17 | 17 |
| 9 | Original Budget | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 16 |
| 10 | **Regular Employees** | | | | | | | | | | | | | |
| 11 | **Actual** | **130** | **132** | **132** | **144** | **143** | **142** | **143** | **143** | **144** | **144** | **144** | **144** | **140** |
| 12 | **Original Budget** | **135** | **135** | **141** | **141** | **141** | **141** | **142** | **142** | **142** | **142** | **142** | **142** | **141** |
| 13 | **Part Time** | | | | | | | | | | | | | |
| 14 | Actual | 0 | 0 | 0 | 0 | 1 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 2 |
| 15 | Original Budget | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| 16 | **TOTAL EMPLOYEES** | | | | | | | | | | | | | |
| 17 | **Actual** | **130** | **132** | **132** | **144** | **144** | **144** | **145** | **146** | **147** | **147** | **147** | **147** | **142** |
| 18 | **Original Budget** | **136** | **136** | **142** | **142** | **142** | **142** | **143** | **143** | **143** | **143** | **143** | **143** | **142** |

Columbia Gas of Kentucky, Inc.
Case No. 2016-00162
Employee Headcount
Base Period: For the Twelve Months Ended August 31, 2016
Forecasted Period: For the Twelve Months Ended December 31, 2017

| Line No. | Employee Group | Sep 2015 | Oct 2015 | Nov 2015 | Dec 2015 | Jan 2016 | Feb 2016 | Mar 2016 | Apr 2016 | May 2016 | Jun 2016 | Jul 2016 | Aug 2016 | Total Base Period |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | **Exempt Employees** | | | | | | | | | | | | | |
| 2 | Base Period | 26 | 26 | 26 | 26 | 27 | 26 | 25 | 29 | 29 | 29 | 29 | 29 | 27 |
| 3 | Original Budget | 25 | 25 | 25 | 25 | 27 | 27 | 25 | 29 | 29 | 29 | 29 | 29 | 27 |
| 4 | **Manual** | | | | | | | | | | | | | |
| 5 | Base Period | 101 | 101 | 101 | 101 | 96 | 108 | 108 | 106 | 104 | 102 | 102 | 102 | 103 |
| 6 | Original Budget | 101 | 101 | 101 | 101 | 98 | 98 | 108 | 106 | 104 | 102 | 102 | 102 | 102 |
| 7 | **Admin/Tech** | | | | | | | | | | | | | |
| 8 | Base Period | 17 | 17 | 17 | 17 | 19 | 19 | 19 | 20 | 20 | 20 | 20 | 20 | 19 |
| 9 | Original Budget | 16 | 16 | 16 | 16 | 20 | 20 | 19 | 20 | 20 | 20 | 20 | 20 | 19 |
| 10 | **Regular Employees** | | | | | | | | | | | | | |
| 11 | **Base Period** | **144** | **144** | **144** | **144** | **142** | **153** | **152** | **155** | **153** | **151** | **151** | **151** | **149** |
| 12 | **Original Budget** | **142** | **142** | **142** | **142** | **145** | **145** | **152** | **155** | **153** | **151** | **151** | **151** | **148** |
| 13 | **Part Time** | | | | | | | | | | | | | |
| 14 | Base Period | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| 15 | Original Budget | 1 | 1 | 1 | 1 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 2 |
| 16 | **TOTAL EMPLOYEES** | | | | | | | | | | | | | |
| 17 | **Base Period** | **147** | **147** | **147** | **147** | **145** | **156** | **155** | **158** | **156** | **154** | **154** | **154** | **152** |
| 18 | **Original Budget** | **143** | **143** | **143** | **143** | **148** | **148** | **155** | **158** | **156** | **154** | **154** | **154** | **150** |

| Line No. | Employee Group | Jan 2017 | Feb 2017 | Mar 2017 | Apr 2017 | May 2017 | Jun 2017 | Jul 2017 | Aug 2017 | Sep 2017 | Oct 2017 | Nov 2017 | Dec 2017 | Total Forecasted Period |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 19 | **Exempt Employees** | | | | | | | | | | | | | |
| 20 | Forecasted Period | 31 | 32 | 33 | 33 | 33 | 33 | 33 | 33 | 33 | 33 | 33 | 33 | 33 |
| 21 | **Manual** | | | | | | | | | | | | | |
| 22 | Forecasted Period | 102 | 102 | 102 | 102 | 102 | 102 | 102 | 102 | 102 | 102 | 102 | 102 | 102 |
| 23 | **Admin/Tech** | | | | | | | | | | | | | |
| 24 | Forecasted Period | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 |
| 25 | **Regular Employees** | | | | | | | | | | | | | |
| 26 | **Forecasted Period** | **153** | **154** | **155** | **155** | **155** | **155** | **155** | **155** | **155** | **155** | **155** | **155** | **155** |
| 27 | **Part Time** | | | | | | | | | | | | | |
| 28 | Forecasted Period | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| 29 | **TOTAL EMPLOYEES** | | | | | | | | | | | | | |
| 30 | **Forecasted Period** | **156** | **157** | **158** | **158** | **158** | **158** | **158** | **158** | **158** | **158** | **158** | **158** | **158** |

**EXHIBIT ____ (LK-6)**

**Columbia Gas of Kentucky, Inc.**
**CASE NO. 2013-00167**
**Forecasted Test Period Filing Requirements**
**Filing Requirement 12-h-9**

**Description of Filing Requirement:**

Employee level;

**Response:**

Please refer to the attached.

**Responsible Witness:**

S. Mark Katko

FR 16(12)(h)(9)

Columbia Gas of Kentucky, Inc.
Filing Requirement 12-h-9
Employee Level

| Line No. | | 2013 | 2014 | 2015 | 2016 |
|---|---|---|---|---|---|
| 1 | Year End | 131 | 131 | 131 | 131 |
| 2 | Average | 128 | 131 | 131 | 131 |

**EXHIBIT ____ (LK-7)**

**COLUMBIA GAS OF KENTUCKY, INC.**
**RESPONSE TO ATTORNEY GENERAL'S SUPPLEMENTAL REQUEST FOR INFORMATION**
**DATED AUGUST 5, 2016**

14. Refer to Attachment A to the Company's response to Staff 1-33.

a. Explain the step up in the number of employees in April 2015 compared to March 2015.

b. Explain the step up in the number of employees in January 2017 compared to January 2016. Identify each additional position and the relationship to any or all of the Company's proposed strategic O&M initiatives.

**Response:**

a. The increase in the number of employees in April 2015 was due to Columbia's "wave" hiring of field employees. Columbia added 13 employees to its gas operations to fill the current vacancies and anticipated vacancies.

b. Columbia is projecting another "wave" hire for gas operations in January 2017, or earlier, to backfill vacant positions due to employees retiring or moving to the construction and engineering organization or other like areas of the company. Per union contract requirements, Columbia will fill the positions as

Utility B. Advanced workforce training, enhanced operator qualifications (OQ), training center and curriculum development, and the third party damage prevention program will all be impacted by the anticipated "wave" hire. In an effort to be fiscally conservative and have greater impact, Columbia hires employees in waves, allowing them to be trained at the same time, thus creating greater efficiencies and cost savings. Once employees are trained they can backfill employees who are receiving enhanced OQ training or are migrating to damage prevention roles within Columbia.

**EXHIBIT ____ (LK-8)**

**Columbia Gas of Kentucky, Inc.**
**Attorney General Recommendation to Reduce Labor and Related Expenses**
**KPSC Case No. 2016-00162**
**Forecasted Test Year Ended December 31, 2017**
**$ Millions**

Sources: Schedule G-2

| | | |
|---|---|---|
| Total O&M Labor Dollars Included in Test Year | 9.359 | |
| Total O&M Benefits Included in Test Year | 1.782 | |
| Total O&M Related Payroll Tax Expense Included in Test Year | 0.672 | |
| Total Labor Related Expenses Included in Test Year | | 11.813 |
| Total Employees Forecasted For Test Year | | 158 |
| Total Labor Related Expenses Per Employee | | 0.075 |
| Reduction in Employees from 158 to 131 | | -27 |
| AG Recommended Reduction to Labor and Related Expenses | | (2.019) |

**EXHIBIT ____ (LK-9)**

**COLUMBIA GAS OF KENTUCKY, INC.
RESPONSE TO STAFF'S SECOND REQUEST FOR INFORMATION
DATED JULY 8, 2016**

8. Refer to the Miller Testimony. page 24, lines 13-17, where Columbia discusses its deployment of automated meter reading ("AMR") and the savings for meter reading expenses.

a. Provide the monthly meter reading expense for Columbia beginning with the first month of fiscal year 2014 through the most recent month available. This should be considered an ongoing request to be updated through the conclusion of this proceeding.

b. Provide the amount of meter reading expense Columbia has included in the base period and forecasted test year, and explain how those amounts were determined.

**Response**:

a. Please see Staff 2-8 Attachment A for the response.
b. Please see Staff 2-8 Attachment B for the response. The amounts shown in the base and forecasted test period include total meter reading costs

(outside services which represents contract labor, labor and other items). This amount differs from the amount presented for the AMR program which only includes outside services. These amounts were determined using historical information to project what future costs might be.

Meter Reading Expense

| | | |
|---|---|---|
| 2014 | | |
| | January | $127,005.99 |
| | February | $124,491.92 |
| | March | $126,530.44 |
| | April | $115,660.96 |
| | May | $134,999.49 |
| | June | $130,102.04 |
| | July | $129,403.09 |
| | August | $125,511.21 |
| | September | $120,431.41 |
| | October | $88,125.62 |
| | November | $78,141.39 |
| | December | $91,792.73 |
| | | $1,392,196.29 |
| 2015 | | |
| | January | $12,932.76 |
| | February | $47,341.25 |
| | March | $79,024.42 |
| | April | $71,291.37 |
| | May | $44,768.58 |
| | June | $43,185.91 |
| | July | $20,773.03 |
| | August | $26,310.06 |
| | September | $21,034.11 |
| | October | ($4,898.10) |
| | November | $25,565.14 |
| | December | $14,532.47 |
| | | $401,861.00 |
| 2016 | | |
| | January | $15,622.73 |
| | February | $32,333.87 |
| | March | $23,735.24 |
| | April | $27,426.03 |
| | May | $23,870.62 |
| | June | $25,895.10 |
| | | $148,883.59 |

PSC Case No. 2016-00162
Staff Set 2 DR No. 008
Attachment B
Respondent: J. T. Croom

Meter Reading Expense

Test Period (Sep. 2015 - Aug. 2016)

| | |
|---|---|
| September | 21,034.11 |
| October | (4,898.10) |
| November | 25,565.14 |
| December | 14,532.47 |
| January | 15,622.73 |
| February | 32,333.87 |
| March | 37,274.00 |
| April | 42,189.00 |
| May | 44,335.00 |
| June | 45,692.00 |
| July | 44,621.00 |
| August | 49,641.00 |
| | $367,942.22 |

Forecast Period (Calendar Year 2017)

| | |
|---|---|
| January | 38,481.00 |
| February | 35,160.00 |
| March | 39,603.00 |
| April | 42,923.00 |
| May | 49,535.00 |
| June | 49,394.00 |
| July | 47,682.00 |
| August | 54,440.00 |
| September | 50,995.00 |
| October | 47,390.00 |
| November | 45,019.00 |
| December | 46,508.00 |
| | $547,130.00 |

**EXHIBIT ____ (LK-10)**

**COLUMBIA GAS OF KENTUCKY, INC.**
**RESPONSE TO ATTORNEY GENERAL'S SUPPLEMENTAL REQUEST FOR INFORMATION**
**DATED AUGUST 5, 2016**

19. Refer to the Company's response to Staff 2-21.

a. Provide the actual costs of third party damage by FERC account for each year 2012 through 2015, and the costs included by FERC account in the base year and test year.

b. Provide the revenues recovered for third party damage by FERC account for each year 2012 through 2015, and the revenues by FERC account in the base year and test year.

**Response**:

a. Please see AG 2-19 Attachment A for the response.
b. Please see AG 2-19 Attachment A for the response. Columbia does not record revenues when it recovers expense associated with third party damages, except in the Other Gas Revenue 495 account where it records the recovery of lost gas related to third party damage. Instead, Columbia

records a credit to the O&M expense accounts that were originally charged when the damage occurred.

**Third Party Damages by FERC Account**

| Account | Description | 2012 | 2013 | 2014 | 2015 | Base Period* | Test Period* |
|---|---|---|---|---|---|---|---|
| 495 | Other Gas Revenues | (50,071.37) | (40,673.19) | (19,592.99) | (10,372.10) | (2,655.46) | - |
| 878 | Meter and House Regulator Expense | - | - | (9,787.08) | (33,286.33) | (11,636.00) | (8,568.00) |
| 879 | Customer Installations Expenses | - | - | (2,777.75) | (2,057.25) | (1,183.00) | (591.00) |
| 887 | Maintenance of Mains | (67,133.35) | (123,714.82) | (44,573.82) | (129,891.18) | (33,078.00) | (37,444.00) |
| 892 | Maintenance of Services | (148,893.31) | (116,480.95) | (147,564.08) | (200,151.49) | (110,464.00) | (51,457.00) |
| 903 | Customer Records and Collection Expenses | - | - | (1,149.50) | (2,024.00) | (1,936.00) | (595.00) |
| | Total | (266,098.03) | (280,868.96) | (225,445.22) | (377,782.35) | (160,952.46) | (98,655.00) |

* 495 Forecasted Other Gas Revenue is based off a historical seven year average, therefore direct allocation attributed to Third Party Damages can not be ascertained.

EXHIBIT ____ (LK-11)

**COLUMBIA GAS OF KENTUCKY, INC.**
**RESPONSE TO ATTORNEY GENERAL'S INITIAL**
**REQUEST FOR INFORMATION**
**DATED JULY 8, 2016**

9. Refer to page 13, lines 17-18 of Mr. Spanos' Direct Testimony wherein he states:

> I have conducted depreciation calculations using both the average service life and equal life group procedures.

Provide the depreciation rates using the ALG procedure. Provide all schedules, data, assumptions, workpapers, including all electronic spreadsheets with formulas intact.

**Response**:

The attached schedule, Attachment A to AG 1-9 -, sets forth the depreciation rates utilizing the Average Service Life procedure. All other schedules, data, assumptions, workpapers and spreadsheets are the same.

**COLUMBIA GAS OF KENTUCKY, INC.**

**ESTIMATED SURVIVOR CURVES, NET SALVAGE, ORIGINAL COST, BOOK RESERVE AND CALCULATED ANNUAL DEPRECIATION ACCRUALS RELATED TO GAS PLANT AS OF DECEMBER 31, 2015**

| | DEPRECIABLE GROUP | SURVIVOR CURVE | NET SALVAGE | ORIGINAL COST AS OF DECEMBER 31, 2015 | BOOK RESERVE | FUTURE BOOK ACCRUALS | CALCULATED ANNUAL ACCRUAL AMOUNT | CALCULATED ANNUAL ACCRUAL RATE | COMPOSITE REMAINING LIFE |
|---|---|---|---|---|---|---|---|---|---|
| | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8)=(7)/(4) | (9)=(6)/(7) |
| DEPRECIABLE PLANT | | | | | | | | | |
| DISTRIBUTION PLANT | | | | | | | | | |
| | LAND AND LAND RIGHTS | | | | | | | | |
| 374.4 | LAND RIGHTS | 70-R2 | 0 | 661,305.66 | 168,767 | 492,539 | 9,266 | 1.40 | 53.2 |
| 374.5 | RIGHTS-OF-WAY | 75-S4 | 0 | 2,666,575.55 | 901,108 | 1,765,468 | 32,709 | 1.23 | 54.0 |
| | *TOTAL ACCOUNT 374* | | | 3,327,881.21 | 1,069,875 | 2,258,007 | 41,975 | 1.26 | |
| | STRUCTURES AND IMPROVEMENTS | | | | | | | | |
| 375.34 | MEASURING AND REGULATING | 52-R1.5 | (20) | 1,868,813.92 | 487,435 | 1,755,142 | 40,589 | 2.17 | 43.2 |
| 375.7 | OTHER DISTRIBUTION SYSTEM | | | | | | | | |
| | DISTRIBUTION SYSTEM STRUCTURES | Square * | 0 | 7,807,297.57 | 3,119,082 | 4,688,215 | 165,874 | 2.12 | 28.3 |
| | OTHER BUILDINGS | 37-S2 | 0 | 162,502.60 | 74,524 | 87,979 | 4,079 | 2.51 | 21.6 |
| | *TOTAL ACCOUNT 375.7* | | | 7,969,800.17 | 3,193,606 | 4,776,194 | 169,953 | 2.13 | |
| | *TOTAL ACCOUNT 375* | | | 9,838,614.09 | 3,681,041 | 6,531,336 | 210,542 | 2.14 | |
| 376 | MAINS | | | | | | | | |
| | CAST IRON | 70-R1.5 * | (20) | 222,637.37 | 213,724 | 53,441 | 3,014 | 1.35 | 17.7 |
| | BARE STEEL | 70-R1.5 * | (20) | 17,458,363.07 | 16,341,933 | 4,608,103 | 252,501 | 1.45 | 18.2 |
| | COATED STEEL | 70-R1.5 | (20) | 62,001,629.58 | 16,608,049 | 57,793,906 | 1,027,902 | 1.66 | 56.2 |
| | PLASTIC | 70-R1.5 | (20) | 118,726,602.05 | 23,167,366 | 119,304,556 | 1,987,830 | 1.67 | 60.0 |
| | *TOTAL ACCOUNT 376* | | | 198,409,232.07 | 56,331,072 | 181,760,006 | 3,271,247 | 1.65 | |
| 378 | MEASURING AND REGULATING STATION EQUIPMENT - GENERAL | 41-S0 | (15) | 9,992,551.53 | 3,572,331 | 7,919,103 | 219,546 | 2.20 | 36.1 |
| 379.1 | MEASURING AND REGULATING STATION EQUIPMENT - CITY GATE | 40-R1.5 | (15) | 254,900.59 | 267,731 | 25,405 | 1,324 | 0.52 | 19.2 |
| 380 | SERVICES | 40-R1.5 | (65) | 115,258,005.47 | 57,280,572 | 132,895,137 | 4,377,717 | 3.80 | 30.4 |
| 381 | METERS | 37-R2 | 4 | 13,270,915.01 | 4,679,195 | 8,060,883 | 347,552 | 2.62 | 23.2 |
| 381.1 | METERS - AMI | 15-S2.5 | 0 | 8,705,079.06 | 335,815 | 8,369,264 | 627,908 | 7.21 | 13.3 |
| 382 | METER INSTALLATIONS | 42-S2 | (5) | 8,991,831.33 | 4,450,213 | 4,991,210 | 187,105 | 2.08 | 26.7 |
| 383 | HOUSE REGULATORS | 45-S1.5 | (5) | 5,504,717.40 | 1,447,854 | 4,332,099 | 123,594 | 2.25 | 35.1 |
| 384 | HOUSE REGULATOR INSTALLATIONS | 45-S1.5 | 0 | 2,257,522.00 | 1,744,500 | 513,022 | 18,755 | 0.83 | 27.4 |
| 385 | INDUSTRIAL MEASURING AND REGULATING STATION EQUIPMENT | 32-R0.5 | (10) | 3,047,363.19 | 855,577 | 2,496,523 | 110,970 | 3.64 | 22.5 |
| 387.4 | OTHER EQUIPMENT - CUSTOMER INFORMATION SERVICES | 33-R2.5 | (5) | 4,461,168.45 | 1,535,314 | 3,148,913 | 139,528 | 3.13 | 22.6 |
| TOTAL DISTRIBUTION PLANT | | | | 383,319,781.40 | 137,251,090 | 363,300,908 | 9,677,763 | 2.52 | |
| GENERAL PLANT | | | | | | | | | |
| | OFFICE FURNITURE AND EQUIPMENT | | | | | | | | |
| 391.1 | FURNITURE | 20-SQ | 0 | 713,480.71 | 182,802 | 530,679 | 35,683 | 5.00 | 14.9 |
| 391.11 | EQUIPMENT | 15-SQ | 0 | 18,815.57 | 13,169 | 5,647 | 1,255 | 6.67 | 4.5 |
| 391.12 | INFORMATION SYSTEMS | 5-SQ | 0 | 668,137.98 | 480,697 | 187,441 | 133,649 | 20.00 | 1.4 |
| 392.2 | TRANSPORTATION EQUIPMENT - TRAILERS | 16-L4 | 10 | 120,240.20 | 24,303 | 83,913 | 9,949 | 8.27 | 8.4 |
| 394 | TOOLS, SHOP AND GARAGE EQUIPMENT | 25-SQ | 0 | 2,945,416.95 | 1,195,493 | 1,749,924 | 117,696 | 4.00 | 14.9 |
| 395 | LABORATORY EQUIPMENT | 20-SQ | 0 | 9,257.77 | 7,106 | 2,152 | 463 | 5.00 | 4.6 |
| 396 | POWER OPERATED EQUIPMENT | 18-S0.5 | 10 | 258,254.72 | 182,667 | 49,762 | 5,440 | 2.11 | 9.1 |

**COLUMBIA GAS OF KENTUCKY, INC.**

**ESTIMATED SURVIVOR CURVES, NET SALVAGE, ORIGINAL COST, BOOK RESERVE AND CALCULATED ANNUAL DEPRECIATION ACCRUALS RELATED TO GAS PLANT AS OF DECEMBER 31, 2015**

| DEPRECIABLE GROUP | SURVIVOR CURVE | NET SALVAGE | ORIGINAL COST AS OF DECEMBER 31, 2015 | BOOK RESERVE | FUTURE BOOK ACCRUALS | CALCULATED ANNUAL ACCRUAL AMOUNT | CALCULATED ANNUAL ACCRUAL RATE | COMPOSITE REMAINING LIFE |
|---|---|---|---|---|---|---|---|---|
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8)=(7)/(4) | (9)=(6)/(7) |
| 398 MISCELLANEOUS EQUIPMENT | | | | | | | | |
| FULLY ACCRUED | FULLY ACCRUED | | 3,290.19 | 3,290 | 0 | 0 | - | - |
| AMORTIZED | 15-SQ | 0 | 87,786.75 | 32,535 | 55,252 | 5,857 | 6.67 | 9.4 |
| TOTAL ACCOUNT 398 | | | 91,076.94 | 35,825 | 55,252 | 5,857 | 6.43 | |
| TOTAL GENERAL PLANT | | | 4,824,680.84 | 2,122,062 | 2,664,770 | 309,992 | 6.43 | |
| TOTAL DEPRECIABLE PLANT | | | 388,144,462.24 | 139,373,152 | 365,965,678 | 9,987,755 | 2.57 | |
| UNRECOVERED RESERVE TO BE AMORTIZED | | | | | | | | |
| 391.1 FURNITURE | | | | (269,654) | | 89,885 *** | | |
| 391.11 EQUIPMENT | | | | (26,413) | | 8,804 *** | | |
| 391.12 INFORMATION SYSTEMS | | | | 39,733 | | (13,244) *** | | |
| 394 EQUIPMENT | | | | 58,023 | | (19,341) *** | | |
| 395 LABORATORY EQUIPMENT | | | | (44) | | 15 *** | | |
| 398 MISCELLANEOUS EQUIPMENT | | | | (16,625) | | 5,542 *** | | |
| TOTAL UNRECOVERED RESERVE TO BE AMORTIZED | | | | (214,980) | | 71,660 | | |
| AMORTIZABLE PLANT | | | | | | | | |
| 303 MISCELLANEOUS INTANGIBLE PLANT | | | 5,340,619.47 | 2,072,601 | 3,268,018 | 767,437 | ** | |
| 375.71 STRUCTURES AND IMPROVEMENTS - LEASEHOLDS | | | 259,808.94 | 145,132 | 114,677 | 58,686 | ** | |
| 378.21 MEASURING AND REGULATING STATION EQUIPMENT - FMV | | | (777,092.00) | | (777,092) | (25,903) | **** | |
| TOTAL AMORTIZABLE PLANT | | | 4,823,336.41 | 2,217,733 | 2,605,603 | 800,220 | | |
| NONDEPRECIABLE AND NOT STUDIED PLANT | | | | | | | | |
| 301 ORGANIZATION | | | 521.20 | | | | | |
| 374.1 LAND | | | 206.00 | | | | | |
| 374.2 LAND | | | 877,756.18 | (523) | | | | |
| 376.02 MAINS - ARO | | | 814,307.71 | 267,592 | | | | |
| 376.03 MAINS - ARO | | | 124,320.94 | 10,384 | | | | |
| TOTAL NONDEPRECIABLE PLANT | | | 1,817,112.03 | 277,453 | | | | |
| TOTAL GAS PLANT | | | 394,784,910.68 | 141,653,358 | 368,571,281 | 10,859,635 | | |

* Indicates the use of an interim survivor curve. Each asset class has a probable retirement date.

** Accrual rate based on individual asset amortization.

*** 3-Year amortization of unrecovered reserve related to implementation of amortization accounting.

**EXHIBIT ____ (LK-12)**

**COLUMBIA GAS OF KENTUCKY, INC.
RESPONSE TO ATTORNEY GENERAL'S INITIAL
REQUEST FOR INFORMATION
DATED JULY 8, 2016**

13. Refer to pages VI-3, VI-4, and VI-5 of the depreciation study. Provide similar schedules for the present depreciation rates.

**Response**:

Page VI-3 represents text and not a schedule. Additionally, the information on pages VI-4 and VI-5 are calculated based on the parameters such as life, net salvage, depreciation procedure and surviving plant. Therefore, it is not possible to provide a similar schedule for present depreciation rates, however, the attached schedule, Attachment A to AG 1-13, sets forth the proforma expense using the present depreciation rates.

COLUMBIA GAS OF KENTUCKY, INC.

CALCULATION OF PRO FORMA EXPENSE USING CURRENT ANNUAL ACCRUAL RATES
RELATED TO GAS PLANT AS OF DECEMBER 31, 2015

| | DEPRECIABLE GROUP | ORIGINAL COST AS OF DECEMBER 31, 2015 | CURRENT ANNUAL ACCRUAL RATE | PRO FORMA EXPENSE |
|---|---|---|---|---|
| | (1) | (2) | (3) | (4)=(2)*(3) |
| **DEPRECIABLE PLANT** | | | | |
| **DISTRIBUTION PLANT** | | | | |
| | LAND AND LAND RIGHTS | | | |
| 374.4 | LAND RIGHTS | 661,305.66 | 1.53 | 10,118 |
| 374.5 | RIGHTS-OF-WAY | 2,666,575.55 | 1.22 | 32,532 |
| | *TOTAL ACCOUNT 374* | 3,327,881.21 | | 42,650 |
| | STRUCTURES AND IMPROVEMENTS | | | |
| 375.34 | MEASURING AND REGULATING | 1,868,813.92 | 1.96 | 36,629 |
| 375.7 | OTHER DISTRIBUTION SYSTEM STRUCTURES | | | |
| | DISTRIBUTION SYSTEM STRUCTURES | 7,807,297.57 | 1.99 | 155,365 |
| | OTHER BUILDINGS | 162,502.60 | 1.99 | 3,234 |
| | *TOTAL ACCOUNT 375.7* | 7,969,800.17 | | 158,599 |
| | *TOTAL ACCOUNT 375* | 9,838,614.09 | | 195,228 |
| 376 | MAINS | | | |
| | CAST IRON | 222,637.37 | 1.57 | 3,495 |
| | BARE STEEL | 17,458,363.07 | 1.57 | 274,096 |
| | COATED STEEL | 62,001,629.58 | 1.57 | 973,426 |
| | PLASTIC | 118,726,602.05 | 1.57 | 1,864,008 |
| | *TOTAL ACCOUNT 376* | 198,409,232.07 | | 3,115,025 |
| 378 | MEASURING AND REGULATING STATION EQUIPMENT - GENERAL | 9,992,551.53 | 2.35 | 234,825 |
| 379.1 | MEASURING AND REGULATING STATION EQUIPMENT - CITY GATE | 254,900.59 | 2.27 | 5,786 |
| 380 | SERVICES | 115,258,005.47 | 2.59 | 2,985,182 |
| 381 | METERS | 13,270,915.01 | 2.59 | 343,717 |
| 381.1 | METERS - AMI | 8,705,079.06 | 2.59 | 225,462 |
| 382 | METER INSTALLATIONS | 8,991,831.33 | 2.39 | 214,905 |
| 383 | HOUSE REGULATORS | 5,504,717.40 | 1.39 | 76,516 |
| 384 | HOUSE REGULATOR INSTALLATIONS | 2,257,522.00 | 1.10 | 24,833 |
| 385 | INDUSTRIAL MEASURING AND REGULATING STATION EQUIPMENT | 3,047,363.19 | 2.09 | 63,690 |
| 387.4 | OTHER EQUIPMENT - CUSTOMER INFORMATION SERVICES | 4,461,168.45 | 2.34 | 104,391 |
| **TOTAL DISTRIBUTION PLANT** | | **383,319,781.40** | | **7,632,210** |
| **GENERAL PLANT** | | | | |
| | OFFICE FURNITURE AND EQUIPMENT | | | |
| 391.1 | FURNITURE | 713,480.71 | 5.00 | 35,674 |
| 391.11 | EQUIPMENT | 18,815.57 | 6.67 | 1,255 |
| 391.12 | INFORMATION SYSTEMS | 668,137.98 | 20.00 | 133,628 |
| | TOTAL ACCOUNT 391 | 1,400,434.26 | | 170,557 |
| 392.2 | TRANSPORTATION EQUIPMENT - TRAILERS | 120,240.20 | 2.94 | 3,535 |
| 394 | TOOLS, SHOP AND GARAGE EQUIPMENT | 2,945,416.95 | 4.00 | 117,817 |
| 395 | LABORATORY EQUIPMENT | 9,257.77 | 5.00 | 463 |
| 396 | POWER OPERATED EQUIPMENT | 258,254.72 | - | 0 |
| 398 | MISCELLANEOUS EQUIPMENT | | | |
| | FULLY ACCRUED | 3,290.19 | - | 0 |
| | AMORTIZED | 87,786.75 | 6.67 | 5,855 |
| | TOTAL ACCOUNT 398 | 91,076.94 | | 5,855 |
| **TOTAL GENERAL PLANT** | | **4,824,680.84** | | **298,227** |
| **TOTAL DEPRECIABLE PLANT** | | **388,144,462.24** | | **7,930,437** |
| AMORTIZABLE PLANT | | | | |
| 303 | MISCELLANEOUS INTANGIBLE PLANT | 5,340,619.47 | * | 767,437 |
| 375.71 | STRUCTURES AND IMPROVEMENTS - LEASEHOLDS | 259,808.94 | * | 58,686 |
| 378.21 | MEASURING AND REGULATING STATION EQUIPMENT - FMV | (777,092.00) | ** | (25,903) |
| **TOTAL AMORTIZABLE PLANT** | | **4,823,336.41** | | **800,220** |
| **TOTAL GAS PLANT** | | **392,967,798.65** | | **8,730,657** |

**COLUMBIA GAS OF KENTUCKY, INC.**

**CALCULATION OF PRO FORMA EXPENSE USING CURRENT ANNUAL ACCRUAL RATES RELATED TO GAS PLANT AS OF DECEMBER 31, 2015**

| DEPRECIABLE GROUP | ORIGINAL COST AS OF DECEMBER 31, 2015 | CURRENT ANNUAL ACCRUAL RATE | PRO FORMA EXPENSE |
|---|---|---|---|
| (1) | (2) | (3) | (4)=(2)*(3) |

* Expense calculated individually for each asset.
** Expense calculated using 30 year amortization period.

**EXHIBIT ____ (LK-13)**

**COLUMBIA GAS OF KENTUCKY, INC.**
**RESPONSE TO ATTORNEY GENERAL'S INITIAL**
**REQUEST FOR INFORMATION**
**DATED JULY 8, 2016**

1. Provide all schedules and workpapers, including all electronic spreadsheets in live format with all formulas intact. This includes, but is not limited to, all schedules and workpapers in support of Mr. Moul's testimony and exhibits and Mr. Spanos' testimony, exhibits, and depreciation study.

**Response**:

Please see the following attachments to this response:

- AG 1-1 Attachment A - Schedules A through K, filed in this docket as CKY_R_AGDR1_NUM1_Attachment_A_072216.
- AG 1-1 Attachment B – Workpapers supporting the ratemaking adjustments for Schedule D-2.4, filed in this docket as CKY_R_AGDR1_NUM1_Attachment_B_072216.
- AG 1-1 Attachment C – Depreciation Study - Depreciation Rates, filed in this docket as CKY_R_AGDR1_NUM1_Attachment_C_072216.
- AG 1-1 Attachment D – Depreciation Study - Life Analysis.

**COLUMBIA GAS OF KENTUCKY, INC.**

**TABLE 1. ESTIMATED SURVIVOR CURVES, NET SALVAGE, ORIGINAL COST, BOOK RESERVE AND CALCULATED ANNUAL DEPRECIATION ACCRUALS RELATED TO GAS PLANT AS OF DECEMBER 31, 2015**

| | DEPRECIABLE GROUP | SURVIVOR CURVE | NET SALVAGE | ORIGINAL COST AS OF DECEMBER 31, 2015 | BOOK RESERVE | FUTURE BOOK ACCRUALS | CALCULATED ANNUAL ACCRUAL AMOUNT | CALCULATED ANNUAL ACCRUAL RATE | COMPOSITE REMAINING LIFE |
|---|---|---|---|---|---|---|---|---|---|
| | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8)=(7)/(4) | (9)=(6)/(7) |
| **DEPRECIABLE PLANT** | | | | | | | | | |
| **DISTRIBUTION PLANT** | | | | | | | | | |
| | LAND AND LAND RIGHTS | | | | | | | | |
| 374.4 | LAND RIGHTS | 70-R2 | 0 | 661,305.66 | 168,767 | 492,539 | 11,507 | 1.74 | 42.8 |
| 374.5 | RIGHTS-OF-WAY | 75-S4 | 0 | 2,666,575.55 | 901,108 | 1,765,468 | 34,398 | 1.29 | 51.3 |
| | *TOTAL ACCOUNT 374* | | | 3,327,881.21 | 1,069,875 | 2,258,007 | 45,905 | 1.38 | |
| | STRUCTURES AND IMPROVEMENTS | | | | | | | | |
| 375.34 | MEASURING AND REGULATING | 52-R1.5 | (20) | 1,868,813.92 | 487,435 | 1,755,142 | 59,475 | 3.18 | 29.5 |
| 375.7 | OTHER DISTRIBUTION SYSTEM STRUCTURES | | | | | | | | |
| | DISTRIBUTION SYSTEM STRUCTURES | Square * | 0 | 7,807,297.57 | 3,112,927 | 4,694,370 | 166,092 | 2.13 | 28.3 |
| | OTHER BUILDINGS | 37-S2 | 0 | 162,502.60 | 80,679 | 81,824 | 3,891 | 2.39 | 21.0 |
| | *TOTAL ACCOUNT 375.7* | | | 7,969,800.17 | 3,193,606 | 4,776,194 | 169,983 | 2.13 | |
| | *TOTAL ACCOUNT 375* | | | 9,838,614.09 | 3,681,041 | 6,531,336 | 229,458 | 2.33 | |
| 376 | MAINS | | | | | | | | |
| | CAST IRON | 70-R1.5 * | (20) | 222,637.37 | 176,826 | 90,339 | 5,305 | 2.38 | 17.0 |
| | BARE STEEL | 70-R1.5 * | (20) | 17,458,363.07 | 13,500,531 | 7,449,505 | 425,249 | 2.44 | 17.5 |
| | COATED STEEL | 70-R1.5 | (20) | 62,001,629.58 | 17,588,017 | 56,813,938 | 1,348,670 | 2.18 | 42.1 |
| | PLASTIC | 70-R1.5 | (20) | 118,726,602.05 | 25,065,698 | 117,406,224 | 2,782,677 | 2.34 | 42.2 |
| | *TOTAL ACCOUNT 376* | | | 198,409,232.07 | 56,331,072 | 181,760,006 | 4,561,901 | 2.30 | |
| 378 | MEASURING AND REGULATING STATION EQUIPMENT - GENERAL | 41-S0 | (15) | 9,992,551.53 | 3,572,331 | 7,919,103 | 331,538 | 3.32 | 23.9 |
| 379.1 | MEASURING AND REGULATING STATION EQUIPMENT - CITY GATE | 40-R1.5 | (15) | 254,900.59 | 267,731 | 25,405 | 1,530 | 0.60 | 16.6 |
| 380 | SERVICES | 40-R1.5 | (65) | 115,258,005.47 | 57,280,572 | 132,895,137 | 5,882,086 | 5.10 | 22.6 |
| 381 | METERS | 37-R2 | 4 | 13,270,915.01 | 4,679,195 | 8,060,883 | 437,690 | 3.30 | 18.4 |
| 381.1 | METERS - AMI | 15-S2.5 | 0 | 8,705,079.06 | 335,815 | 8,369,264 | 702,040 | 8.06 | 11.9 |
| 382 | METER INSTALLATIONS | 42-S2 | (5) | 8,991,831.33 | 4,450,213 | 4,991,210 | 219,448 | 2.44 | 22.7 |
| 383 | HOUSE REGULATORS | 45-S1.5 | (5) | 5,504,717.40 | 1,447,854 | 4,332,099 | 150,511 | 2.73 | 28.8 |
| 384 | HOUSE REGULATOR INSTALLATIONS | 45-S1.5 | 0 | 2,257,522.00 | 1,744,500 | 513,022 | 22,741 | 1.01 | 22.6 |
| 385 | INDUSTRIAL MEASURING AND REGULATING STATION EQUIPMENT | 32-R0.5 | (10) | 3,047,363.19 | 855,577 | 2,496,523 | 154,798 | 5.08 | 16.1 |
| 387.4 | OTHER EQUIPMENT - CUSTOMER INFORMATION SERVICES | 33-R2.5 | (5) | 4,461,168.45 | 1,535,314 | 3,148,913 | 166,840 | 3.74 | 18.9 |
| **TOTAL DISTRIBUTION PLANT** | | | | **383,319,781.40** | **137,251,090** | **363,300,908** | **12,906,486** | **3.37** | |
| **GENERAL PLANT** | | | | | | | | | |
| | OFFICE FURNITURE AND EQUIPMENT | | | | | | | | |
| 391.1 | FURNITURE | 20-SQ | 0 | 713,480.71 | 182,802 | 530,679 | 35,683 | 5.00 | 14.9 |
| 391.11 | EQUIPMENT | 15-SQ | 0 | 18,815.57 | 13,169 | 5,647 | 1,255 | 6.67 | 4.5 |
| 391.12 | INFORMATION SYSTEMS | 5-SQ | 0 | 668,137.98 | 480,697 | 187,441 | 133,649 | 20.00 | 1.4 |
| | TOTAL ACCOUNT 391 | | | 1,400,434.26 | 676,668 | 723,767 | 170,587 | 12.18 | |
| 392.2 | TRANSPORTATION EQUIPMENT - TRAILERS | 16-L4 | 10 | 120,240.20 | 24,303 | 83,913 | 10,996 | 9.15 | 7.6 |
| 394 | TOOLS, SHOP AND GARAGE EQUIPMENT | 25-SQ | 0 | 2,945,416.95 | 1,195,493 | 1,749,924 | 117,696 | 4.00 | 14.9 |
| 395 | LABORATORY EQUIPMENT | 20-SQ | 0 | 9,257.77 | 7,106 | 2,152 | 463 | 5.00 | 4.6 |
| 396 | POWER OPERATED EQUIPMENT | 18-S0.5 | 10 | 258,254.72 | 182,667 | 49,762 | 6,693 | 2.59 | 7.4 |

**COLUMBIA GAS OF KENTUCKY, INC.**

**TABLE 1. ESTIMATED SURVIVOR CURVES, NET SALVAGE, ORIGINAL COST, BOOK RESERVE AND CALCULATED ANNUAL DEPRECIATION ACCRUALS RELATED TO GAS PLANT AS OF DECEMBER 31, 2015**

| | DEPRECIABLE GROUP | SURVIVOR CURVE | NET SALVAGE | ORIGINAL COST AS OF DECEMBER 31, 2015 | BOOK RESERVE | FUTURE BOOK ACCRUALS | CALCULATED ANNUAL ACCRUAL AMOUNT | CALCULATED ANNUAL ACCRUAL RATE | COMPOSITE REMAINING LIFE |
|---|---|---|---|---|---|---|---|---|---|
| | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8)=(7)/(4) | (9)=(6)/(7) |
| 398 | MISCELLANEOUS EQUIPMENT | | | | | | | | |
| | FULLY ACCRUED | FULLY ACCRUED | | 3,290.19 | 3,290 | 0 | 0 | - | - |
| | AMORTIZED | 15-SQ | 0 | 87,786.75 | 32,535 | 55,252 | 5,857 | 6.67 | 9.4 |
| | TOTAL ACCOUNT 398 | | | 91,076.94 | 35,825 | 55,252 | 5,857 | 6.43 | |
| **TOTAL GENERAL PLANT** | | | | **4,824,680.84** | **2,122,062** | **2,664,770** | **312,292** | **6.47** | |
| **TOTAL DEPRECIABLE PLANT** | | | | **388,144,462.24** | **139,373,152** | **365,965,678** | **13,218,778** | **3.41** | |
| **UNRECOVERED RESERVE TO BE AMORTIZED** | | | | | | | | | |
| 391.1 | FURNITURE | | | | (269,654) | | 89,885 ** | | |
| 391.11 | EQUIPMENT | | | | (26,413) | | 8,804 ** | | |
| 391.12 | INFORMATION SYSTEMS | | | | 39,733 | | (13,244) ** | | |
| 394 | EQUIPMENT | | | | 58,023 | | (19,341) ** | | |
| 395 | LABORATORY EQUIPMENT | | | | (44) | | 15 ** | | |
| 398 | MISCELLANEOUS EQUIPMENT | | | | (16,625) | | 5,542 ** | | |
| **TOTAL UNRECOVERED RESERVE TO BE AMORTIZED** | | | | | **(214,980)** | | **71,660** | | |
| **AMORTIZABLE PLANT** | | | | | | | | | |
| 303 | MISCELLANEOUS INTANGIBLE PLANT | | | 5,340,619.47 | 2,072,601 | 3,268,018 | 767,437 | *** | |
| 375.71 | STRUCTURES AND IMPROVEMENTS - LEASEHOLDS | | | 259,808.94 | 145,132 | 114,677 | 58,686 | *** | |
| 378.21 | MEASURING AND REGULATING STATION EQUIPMENT - FMV | | | (777,092.00) | | (777,092) | (25,903) | **** | |
| **TOTAL AMORTIZABLE PLANT** | | | | **4,823,336.41** | **2,217,733** | **2,605,603** | **800,220** | | |
| **NONDEPRECIABLE AND NOT STUDIED PLANT** | | | | | | | | | |
| 301 | ORGANIZATION | | | 521.20 | | | | | |
| 374.1 | LAND | | | 206.00 | | | | | |
| 374.2 | LAND | | | 877,756.18 | (523) | | | | |
| 376.02 | MAINS - ARO | | | 814,307.71 | 267,592 | | | | |
| 376.03 | MAINS - ARO | | | 124,320.94 | 10,384 | | | | |
| **TOTAL NONDEPRECIABLE PLANT** | | | | **1,817,112.03** | **277,453** | | | | |
| **TOTAL GAS PLANT** | | | | **394,784,910.68** | **141,653,358** | **368,571,281** | **14,090,658** | | |

* Indicates the use of an interim survivor curve. Each asset class has a probable retirement date.
** 3-Year amortization of unrecovered reserve related to implementation of amortization accounting.
*** Accrual rate based on individual asset amortization.
**** Fair Market Value recovered over 30 years.

**EXHIBIT ____ (LK-14)**

**Columbia Gas of Kentucky, Inc.**
**Attorney General Recommendations To Adjust Depreciation Expense and Related Rate Base**
**To Reject Company's Switch from ASL to ELG Methodology**
**KPSC Case No. 2016-00162**
**Forecasted Test Year Ended December 31, 2017**
**$ Millions**

| | | |
|---|---|---|
| **Depreciation Expense** | | |
| **Adjustment 1** | | |
| Depreciation Expense as Filed by Company | | 15.940 |
| Depreciation Expense to Reflect Change from ELG to ASL Methodology | | 12.381 |
| Reduction in Depreciation Expense to Reflect Change from ELG to ASL Methodology | | (3.558) |
| | | |
| **Rate Base Changes - Reject Company's Switch from ASL to ELG** | | |
| Gross Plant 13 Month Avg as Filed | | 437.890 |
| Gross Plant 13 Month Avg after Adjustment 1 | | 437.890 |
| Change in Gross Plant | | - |
| | | |
| A/D 13 Month Avg as Filed | | (151.710) |
| A/D 13 Month Avg after Adjustment 1 | | (149.952) |
| Change in A/D | | 1.758 |
| | | |
| Composite Tax Rate | 38.90% | |
| Change in ADIT | | (0.684) |
| | | |
| Total Change in Rate Base | | 1.074 |
| | | |
| Grossed-Up Rate of Return | 12.19% | |
| Total Change in Return on Rate Base | | 0.131 |
| | | |
| Reduction in Revenue Requirement | | (3.428) |

**EXHIBIT ____ (LK-15)**

**Columbia Gas of Kentucky, Inc.**
**Attorney General Recommendation to Reduce Property Tax Expenses**
**KPSC Case No. 2016-00162**
**Forecasted Test Year Ended December 31, 2017**
**$ Millions**

Sources: WPD-2.4H and Response to AG 1-7

| | | |
|---|---|---|
| As-Filed Estimated Assessed Value at December 31, 2016 | 300.859 | |
| As-Filed Estimated Effective Property Tax Rate | 1.3110% | |
| As-Filed Property Tax Expense Included in Test Year | | 3.944 |
| | | |
| As-Filed Estimated Assessed Value at December 31, 2016 | 300.859 | |
| Adjust Estimated Assessed Value To Reduce for Additional Accum. Depreciation, Net of Retirements, during 2015 and 2016 | (9.000) | |
| As-Filed Estimated Assessed Value at December 31, 2016 | 291.859 | |
| Effective Property Tax Rate Based on Actual 2015 Effective Tax Rate | 1.2726% | |
| As-Filed Property Tax Expense Included in Test Year | | 3.714 |
| | | |
| AG Recommended Reduction to Property Tax Expenses | | (0.230) |

**EXHIBIT ____ (LK-16)**

**Columbia Gas of Kentucky, Inc.**
**Effects of Company's Adjustments to Include a Slippage Factor of 5.3%**
**KPSC Case No. 2016-00162**
**Forecasted Test Year Ended December 31, 2017**
**$ Millions**

| | | |
|---|---|---|
| **Depreciation Expense** | | |
| Depreciation Expense As Filed By Company | | 15.940 |
| Depreciation Expense to Reflect Slippage Factor of 0% | | 15.875 |
| Increase in Depreciation Expense to Reflect Slippage Factor of 0% | | 0.064 |
| **Rate Base Changes** | | |
| Gross Plant 13 Month Avg As Filed By Company | | 437.890 |
| Gross Plant 13 Month Avg to Reflect Slippage Factor of 0% | | 435.892 |
| Change in Gross Plant | | 1.998 |
| A/D 13 Month Avg As Filed By Company | | (151.710) |
| A/D 13 Month Avg to Reflect Slippage Factor of 0% | | (151.984) |
| Change in A/D | | 0.273 |
| Composite Tax Rate | 38.90% | |
| Change in ADIT | | (0.106) |
| Total Change in Rate Base - Slippage Factor of 0% | | 2.165 |
| Grossed-Up Rate of Return | 12.19% | |
| Total Change in Return on Rate Base | | 0.264 |
| Revenue Requirement to Include Slippage Factor of 5.3% | | 0.328 |

**EXHIBIT ____ (LK-17)**

**COLUMBIA GAS OF KENTUCKY, INC.**
**RESPONSE TO STAFF'S SECOND REQUEST FOR INFORMATION**
**DATED JULY 8, 2016**

4. Refer to the Miller Testimony, page 13, line 1, where Columbia's proposal to seek recognition and recovery in the forecasted test period of the positive 5.3 percent slippage factor which it experienced over the past ten years for capital expenditures is discussed. Also refer to the Direct Testimony of Eric T. Belle ("Belle Testimony") and the Direct Testimony of S. Mark Katko ("Katko Testimony").

a. Provide a breakdown of Columbia's budgeted and actual capital expenditures for the ten years mentioned in the Miller Testimony. Where applicable, separate the capital expenditures broken down by Accelerated Main Replacement Program ("AMRP") and non-AMRP capital investments.

b. Explain what steps Columbia has taken to mitigate the positive slippage factor over this ten-year period.

c. Explain why Columbia believes that using the prior ten years' positive slippage factor is a better indicator of capital investment than its own internal planning processes.

d. For the three most recent historical fiscal years. 2013, 2014, and 2015, provide side-by-side monthly comparisons of budgeted additions to gross plant and actual additions to gross plant broken down by AMRP and non-AMRP capital expenditures.

e. For the available months of fiscal year 2016, provide a side-by-side monthly comparison of budgeted and actual additions to gross plant broken down by AMRP and non-AMRP capital investments. This should be considered an ongoing request to be updated monthly.

f. The forecasted test year in Columbia's most recent general rate case, Case No. 2013-00167, was the 12 months ended December 31, 2014. The 13-month average of total utility plant included in the net investment rate base filed by Columbia in that proceeding was $356,161,789. Provide Columbia's actual 13-month average of total utility plant for that period. Include the actual monthly amounts and the calculation of the 13-month average balance in the response.

**Response**:

a. Please see Staff 2-4 Attachment A.
b. Columbia's Capital Planning Group develops a tactical plan that identifies the number of crews required to meet the budgeted spend and conducts quarterly meetings to discuss potential revisions to that plan based on actual costs.

Monthly progress on the plan is reported by Financial Planning and monitored by several groups including Capital Planning and Engineering. Engineering conducts a monthly grass roots budget review of each individual job order and blanket job type that comprise the five budget categories and considers project deferrals or additions based on the most current cost projections. Additionally, Engineering may make recommendations to move dollars from one budget category to another based on actual and projected expenditures and required project completion dates. These actions are intended to meet Columbia's budget by year end.

c. Columbia has relied on Commission precedent to recognize both positive and negative slippage. *See, In the Matter of: Application of Kentucky American Water Company for an Adjustment of Rates Supported by a Fully Forecasted Test Year,* Case No. 2012-00520, 2013 Ky. PUC LEXIS 936, Order (October 25, 2013). Columbia believes that disciplined capital planning and execution are optimal goals. However, year-to-year adjustments due to differences in weather, unexpected construction costs, permitting and scheduling demands of state and municipal officials, and the like, can result in investment changes that are not on a predictable projection.

d. Please see Staff 2-4 Attachment B.

e. Please see Staff 2-4 Attachment C.

f. Please see Staff 2-4 Attachment D.

Columbia Gas of Kentucky, Inc.
Capital Expenditures
2006 - 2015 Budget v. Actual
($000)

| | Budget | | | Actual | | | Increase (Decrease) | | | Increase (Decrease) % | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Year | Non-AMRP | AMRP | Total | Non-AMRP | AMRP | Total | Non-AMRP | AMRP | Total | Non-AMRP | AMRP | Total |
| 2006 | 9,000 | - | 9,000 | 8,159 | - | 8,159 | (841) | - | (841) | -9.3% | N/A | -9.3% |
| 2007 | 12,403 | - | 12,403 | 9,494 | - | 9,494 | (2,909) | - | (2,909) | -23.5% | N/A | -23.5% |
| 2008 | 9,571 | 5,140 | 14,711 | 8,891 | 4,690 | 13,581 | (680) | (450) | (1,130) | -7.1% | -8.8% | -7.7% |
| 2009 | 5,756 | 7,100 | 12,856 | 3,858 | 9,140 | 12,998 | (1,898) | 2,040 | 142 | -33.0% | 28.7% | 1.1% |
| 2010 | 5,254 | 5,000 | 10,254 | 5,301 | 4,824 | 10,125 | 47 | (176) | (129) | 0.9% | -3.5% | -1.3% |
| 2011 | 4,809 | 7,350 | 12,159 | 5,129 | 9,219 | 14,348 | 320 | 1,869 | 2,189 | 6.7% | 25.4% | 18.0% |
| 2012 | 5,530 | 9,120 | 14,650 | 7,546 | 11,358 | 18,904 | 2,016 | 2,238 | 4,254 | 36.5% | 24.5% | 29.0% |
| 2013 | 9,135 | 12,200 | 21,335 | 8,849 | 15,898 | 24,747 | (286) | 3,698 | 3,412 | -3.1% | 30.3% | 16.0% |
| 2014 | 17,558 | 12,200 | 29,758 | 16,984 | 15,206 | 32,190 | (574) | 3,006 | 2,432 | -3.3% | 24.6% | 8.2% |
| 2015 | 15,905 | 14,200 | 30,105 | 14,359 | 17,255 | 31,614 | (1,546) | 3,055 | 1,509 | -9.7% | 21.5% | 5.0% |
| Cumulative Total | 94,921 | 72,310 | 167,231 | 88,570 | 87,590 | 176,160 | (6,351) | 15,280 | 8,929 | -6.7% | 21.1% | 5.3% |

Columbia Gas of Kentucky, Inc.
Capital Expenditures
2013 - 2015 Budget v. Actual by Month
($000)

2013

| | AMRP | | | Non-AMRP | | | Total | | |
|---|---|---|---|---|---|---|---|---|---|
| | Budget | Actual | Inc (Dec) | Budget | Actual | Inc (Dec) | Budget | Actual | Inc (Dec) |
| January | 675 | 455 | (220) | 790 | (86) | (876) | 1,465 | 369 | (1,096) |
| February | 593 | 656 | 63 | 950 | 485 | (465) | 1,543 | 1,141 | (402) |
| March | 685 | 1,084 | 399 | 934 | 934 | (0) | 1,619 | 2,017 | 399 |
| April | 1,184 | 910 | (274) | 735 | 787 | 52 | 1,919 | 1,697 | (222) |
| May | 1,255 | 1,053 | (202) | 879 | 610 | (269) | 2,134 | 1,663 | (471) |
| June | 1,224 | 906 | (318) | 779 | 605 | (174) | 2,003 | 1,511 | (492) |
| July | 1,431 | 1,716 | 286 | 627 | 152 | (475) | 2,058 | 1,868 | (190) |
| August | 1,215 | 2,375 | 1,159 | 625 | 843 | 218 | 1,840 | 3,218 | 1,378 |
| September | 981 | 1,927 | 946 | 739 | 850 | 111 | 1,720 | 2,777 | 1,057 |
| October | 1,010 | 2,925 | 1,915 | 680 | 1,253 | 573 | 1,690 | 4,178 | 2,488 |
| November | 1,001 | 1,743 | 743 | 499 | 1,181 | 682 | 1,500 | 2,925 | 1,425 |
| December | 946 | 149 | (797) | 898 | 1,234 | 336 | 1,844 | 1,384 | (461) |
| Total | 12,200 | 15,898 | 3,698 | 9,135 | 8,849 | (286) | 21,335 | 24,747 | 3,412 |

2014

| | AMRP | | | Non-AMRP | | | Total | | |
|---|---|---|---|---|---|---|---|---|---|
| | Budget | Actual | Inc (Dec) | Budget | Actual | Inc (Dec) | Budget | Actual | Inc (Dec) |
| January | 1,033 | 529 | (503) | 555 | 686 | 131 | 1,588 | 1,215 | (373) |
| February | 951 | 791 | (160) | 542 | 506 | (37) | 1,494 | 1,297 | (196) |
| March | 1,043 | 1,282 | 240 | 3,448 | 1,293 | (2,155) | 4,491 | 2,576 | (1,915) |
| April | 1,112 | 1,273 | 160 | 1,103 | 2,030 | 927 | 2,215 | 3,303 | 1,088 |
| May | 926 | 1,717 | 792 | 1,718 | 1,910 | 193 | 2,643 | 3,628 | 984 |
| June | 1,152 | 1,924 | 772 | 1,813 | 2,286 | 473 | 2,965 | 4,210 | 1,246 |
| July | 1,015 | 1,718 | 703 | 1,965 | 1,537 | (429) | 2,980 | 3,255 | 275 |
| August | 886 | 1,977 | 1,091 | 1,940 | 1,152 | (788) | 2,826 | 3,129 | 303 |
| September | 910 | 2,456 | 1,546 | 1,783 | 1,886 | 103 | 2,693 | 4,341 | 1,649 |
| October | 939 | 1,896 | 958 | 1,547 | 1,430 | (117) | 2,486 | 3,327 | 841 |
| November | 929 | 585 | (344) | 819 | 1,163 | 343 | 1,748 | 1,748 | (1) |
| December | 1,305 | (945) | (2,249) | 324 | 1,105 | 782 | 1,629 | 161 | (1,468) |
| Total | 12,200 | 15,206 | 3,006 | 17,558 | 16,984 | (574) | 29,758 | 32,190 | 2,432 |

2015

| | AMRP | | | Non-AMRP | | | Total | | |
|---|---|---|---|---|---|---|---|---|---|
| | Budget | Actual | Inc (Dec) | Budget | Actual | Inc (Dec) | Budget | Actual | Inc (Dec) |
| January | 542 | 479 | (63) | 757 | 434 | (324) | 1,300 | 913 | (387) |
| February | 686 | 728 | 43 | 772 | 777 | 6 | 1,457 | 1,505 | 48 |
| March | 1,257 | 693 | (564) | 1,192 | 655 | (537) | 2,449 | 1,348 | (1,101) |
| April | 1,417 | 1,219 | (198) | 1,185 | 883 | (302) | 2,603 | 2,103 | (500) |
| May | 1,342 | 1,769 | 427 | 1,722 | 1,048 | (674) | 3,064 | 2,817 | (247) |
| June | 1,574 | 1,263 | (311) | 1,466 | 1,828 | 362 | 3,040 | 3,091 | 51 |
| July | 1,349 | 1,667 | 318 | 1,896 | 1,303 | (593) | 3,245 | 2,970 | (275) |
| August | 1,528 | 1,785 | 257 | 1,659 | 1,091 | (568) | 3,187 | 2,876 | (311) |
| September | 1,572 | 2,049 | 476 | 1,541 | 1,410 | (130) | 3,113 | 3,459 | 346 |
| October | 1,451 | 1,747 | 296 | 1,474 | 1,131 | (344) | 2,926 | 2,877 | (48) |
| November | 971 | 2,371 | 1,400 | 1,420 | 1,996 | 577 | 2,391 | 4,368 | 1,977 |
| December | 510 | 1,484 | 974 | 821 | 1,803 | 982 | 1,331 | 3,287 | 1,956 |
| Total | 14,200 | 17,255 | 3,055 | 15,905 | 14,359 | (1,546) | 30,105 | 31,614 | 1,509 |

Columbia Gas of Kentucky, Inc.
Capital Expenditures
2016 Budget v. Actual by Month
($000)

| | 2016 | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | AMRP | | | Non-AMRP | | | Total | | |
| | Budget | Actual | Inc (Dec) | Budget | Actual | Inc (Dec) | Budget | Actual | Inc (Dec) |
| January | 588 | 994 | 406 | 453 | 975 | 522 | 1,041 | 1,968 | 928 |
| February | 300 | 908 | 608 | 826 | 1,132 | 306 | 1,126 | 2,040 | 914 |
| March | 350 | 1,367 | 1,017 | 1,128 | 1,556 | 428 | 1,478 | 2,922 | 1,445 |
| April | 550 | 2,374 | 1,824 | 1,175 | 1,821 | 645 | 1,725 | 4,194 | 2,469 |
| May | 950 | 2,039 | 1,089 | 990 | 1,295 | 305 | 1,940 | 3,334 | 1,394 |
| June | 1,300 | 2,183 | 883 | 1,521 | 726 | (795) | 2,821 | 2,909 | 88 |
| Total Year-to-Date | 4,038 | 9,864 | 5,826 | 6,094 | 7,504 | 1,410 | 10,132 | 17,369 | 7,236 |

**COLUMBIA GAS OF KENTUCKY, INC.**
**PLANT IN SERVICE BY GAS PLANT ACCOUNT**
**ACTUAL PERIOD 12/31/2013 to 12/31/2014**

| Line No. | Account No. | 12/31/2013 | 1/31/2014 | 2/28/2014 | 3/31/2014 | 4/30/2014 | 5/31/2014 | 6/30/2014 | 7/31/2014 | 8/31/2014 | 9/30/2014 | 10/31/2014 | 11/30/2014 | 12/31/2014 | 13 MONTH AVERAGE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | $ | $ | $ | $ | $ | $ | $ | $ | $ | $ | $ | $ | $ | $ |
| 1 | **Intangible Plant, Gas** | **2,935,063** | **2,963,558** | **2,987,346** | **3,010,402** | **4,821,109** | **4,847,585** | **4,902,300** | **4,537,704** | **4,576,431** | **4,599,493** | **4,621,392** | **4,592,484** | **4,671,567** | **4,158,956** |
| 2 | 301.00 | 521 | 521 | 521 | 521 | 521 | 521 | 521 | 521 | 521 | 521 | 521 | 521 | 521 | 521 |
| 3 | 303.00 | 74,348 | 74,348 | 74,348 | 74,348 | 74,348 | 74,348 | 74,348 | 74,348 | 74,348 | 74,348 | 74,348 | 74,348 | 74,348 | 74,348 |
| 4 | 303.10 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 5 | 303.20 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 6 | 303.30 | 2,860,194 | 2,888,690 | 2,912,477 | 2,935,533 | 4,746,240 | 4,772,717 | 4,827,431 | 4,462,835 | 4,501,562 | 4,524,624 | 4,546,524 | 4,517,615 | 4,596,698 | 4,084,088 |
| 7 | **Distribution Plant, Gas** | **327,919,377** | **328,757,300** | **329,499,750** | **330,745,326** | **335,162,064** | **337,080,178** | **339,529,585** | **340,582,952** | **342,481,436** | **344,454,149** | **347,326,595** | **352,117,346** | **354,917,088** | **339,274,857** |
| 8 | 374.10 | 206 | 206 | 206 | 206 | 206 | 206 | 206 | 206 | 206 | 206 | 206 | 206 | 206 | 206 |
| 9 | 374.20 | 878,505 | 878,505 | 878,505 | 878,505 | 878,505 | 878,505 | 878,402 | 878,402 | 878,402 | 878,402 | 878,402 | 878,402 | 878,402 | 878,449 |
| 10 | 374.40 | 644,620 | 644,620 | 644,620 | 644,620 | 644,620 | 644,620 | 644,342 | 644,342 | 644,342 | 644,342 | 660,389 | 660,389 | 660,389 | 648,174 |
| 11 | 374.50 | 2,666,572 | 2,666,572 | 2,666,572 | 2,666,572 | 2,666,572 | 2,666,572 | 2,666,572 | 2,666,572 | 2,666,572 | 2,666,572 | 2,666,572 | 2,666,572 | 2,666,572 | 2,666,572 |
| 12 | 375.20 | 2,125 | 2,125 | 2,125 | 2,125 | 2,125 | 2,125 | 2,125 | 2,125 | 2,125 | 2,125 | 2,125 | 2,125 | 2,125 | 2,125 |
| 13 | 375.30 | 10,848 | 10,848 | 10,848 | 10,848 | 10,848 | 10,848 | 10,848 | 10,848 | 10,848 | 10,848 | 10,848 | 10,848 | 10,848 | 10,848 |
| 14 | 375.40 | 1,226,493 | 1,219,295 | 1,220,272 | 1,223,325 | 1,224,487 | 1,224,487 | 1,221,746 | 1,221,746 | 1,249,519 | 1,244,895 | 1,244,895 | 1,247,072 | 1,246,874 | 1,231,931 |
| 15 | 375.60 | 88,210 | 88,210 | 88,210 | 88,210 | 88,210 | 88,210 | 88,210 | 88,210 | 88,210 | 88,210 | 88,210 | 88,210 | 88,210 | 88,210 |
| 16 | 375.70 | 7,271,205 | 7,460,615 | 7,460,615 | 7,460,615 | 7,460,615 | 7,460,615 | 7,460,615 | 7,460,615 | 7,460,615 | 7,460,615 | 7,359,806 | 7,359,806 | 7,359,806 | 7,422,781 |
| 17 | 375.71 | 156,050 | 156,050 | 156,050 | 156,050 | 156,050 | 156,050 | 156,050 | 156,050 | 156,050 | 156,050 | 256,845 | 256,845 | 256,845 | 179,310 |
| 18 | 375.80 | 33,261 | 33,261 | 33,261 | 33,261 | 33,261 | 33,261 | 33,261 | 33,261 | 33,261 | 33,261 | 33,261 | 33,261 | 33,261 | 33,261 |
| 19 | 376.00 | 172,290,053 | 172,655,802 | 172,704,927 | 173,229,735 | 175,367,796 | 176,543,264 | 177,834,883 | 178,488,258 | 178,921,680 | 179,978,133 | 180,939,736 | 185,034,573 | 183,904,139 | 177,530,229 |
| 20 | 378.10 | 247,320 | 247,320 | 247,320 | 247,320 | 247,320 | 247,320 | 247,320 | 247,320 | 247,320 | 247,320 | 240,322 | 240,322 | 240,322 | 245,705 |
| 21 | 378.20 | 5,145,802 | 5,202,951 | 5,537,550 | 5,536,605 | 5,590,407 | 5,606,986 | 5,584,021 | 5,597,339 | 5,654,755 | 5,667,179 | 5,748,315 | 5,722,263 | 5,881,368 | 5,575,042 |
| 22 | 378.30 | 45,443 | 45,443 | 45,443 | 45,443 | 45,443 | 45,443 | 45,443 | 45,443 | 45,443 | 45,443 | 45,443 | 45,443 | 45,443 | 45,443 |
| 23 | 379.10 | 254,901 | 254,901 | 254,901 | 254,901 | 254,901 | 254,901 | 254,901 | 254,901 | 254,901 | 254,901 | 254,901 | 254,901 | 254,901 | 254,901 |
| 24 | 380.00 | 101,350,003 | 101,550,810 | 101,695,817 | 102,306,896 | 102,828,659 | 103,338,620 | 104,158,918 | 104,576,597 | 105,696,978 | 106,503,611 | 107,386,711 | 107,886,198 | 108,042,402 | 104,409,401 |
| 25 | 381.00 | 12,378,038 | 12,374,327 | 12,397,420 | 12,518,634 | 12,560,671 | 12,579,909 | 12,597,258 | 12,577,058 | 12,634,543 | 12,630,528 | 12,606,772 | 12,619,303 | 12,620,683 | 12,545,780 |
| 26 | 381.10 | 1,057,236 | 1,057,236 | 1,057,236 | 1,057,236 | 2,692,554 | 2,888,362 | 3,211,809 | 3,142,440 | 3,156,463 | 3,208,042 | 4,117,785 | 4,193,699 | 7,758,802 | 2,969,146 |
| 27 | 382.00 | 8,372,512 | 8,380,074 | 8,390,137 | 8,393,913 | 8,396,099 | 8,396,862 | 8,399,269 | 8,403,938 | 8,415,639 | 8,444,488 | 8,473,153 | 8,500,497 | 8,514,077 | 8,421,589 |
| 28 | 383.00 | 5,121,129 | 5,148,274 | 5,166,624 | 5,172,942 | 5,182,057 | 5,192,212 | 5,202,382 | 5,212,666 | 5,224,921 | 5,239,225 | 5,262,421 | 5,298,410 | 5,311,104 | 5,210,336 |
| 29 | 384.00 | 2,282,264 | 2,282,264 | 2,282,264 | 2,282,264 | 2,282,264 | 2,282,264 | 2,282,264 | 2,282,264 | 2,282,264 | 2,282,264 | 2,282,264 | 2,282,264 | 2,282,264 | 2,282,264 |
| 30 | 385.00 | 2,919,762 | 2,920,619 | 2,918,929 | 2,911,095 | 2,924,389 | 2,914,640 | 2,924,635 | 2,968,245 | 2,981,621 | 2,992,733 | 2,992,151 | 2,991,199 | 2,955,907 | 2,947,379 |
| 31 | 387.20 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 32 | 387.41 | 711,152 | 711,152 | 711,152 | 711,152 | 711,152 | 711,152 | 711,152 | 711,152 | 711,152 | 711,152 | 711,152 | 711,152 | 711,152 | 711,152 |
| 33 | 387.42 | 773,834 | 773,834 | 773,834 | 773,834 | 773,834 | 773,834 | 773,834 | 773,834 | 773,834 | 773,834 | 773,834 | 773,834 | 772,914 | 773,763 |
| 34 | 387.44 | 165,500 | 165,500 | 165,500 | 165,500 | 165,500 | 165,500 | 165,500 | 165,500 | 165,500 | 165,500 | 165,500 | 165,500 | 165,500 | 165,500 |
| 35 | 387.45 | 1,712,691 | 1,712,842 | 1,875,768 | 1,859,876 | 1,859,876 | 1,859,767 | 1,859,976 | 1,859,976 | 2,010,627 | 2,010,627 | 2,010,933 | 2,080,408 | 2,138,929 | 1,911,715 |
| 36 | 387.46 | 113,644 | 113,644 | 113,644 | 113,644 | 113,644 | 113,644 | 113,644 | 113,644 | 113,644 | 113,644 | 113,644 | 113,644 | 113,644 | 113,644 |
| 37 | **General Plant, Gas** | **5,201,381** | **5,208,597** | **5,208,770** | **5,283,751** | **5,334,139** | **5,344,013** | **5,373,568** | **5,361,296** | **5,361,530** | **5,367,061** | **4,490,594** | **4,438,688** | **4,433,692** | **5,108,237** |
| 38 | 391.10 | 1,124,078 | 1,124,078 | 1,124,078 | 1,122,277 | 1,122,277 | 1,122,064 | 1,119,099 | 1,115,163 | 1,113,483 | 1,113,483 | 245,438 | 245,206 | 224,371 | 916,546 |
| 39 | 391.11 | 18,816 | 18,816 | 18,816 | 18,816 | 18,816 | 18,816 | 18,816 | 18,816 | 18,816 | 18,816 | 18,816 | 18,816 | 18,816 | 18,816 |
| 40 | 391.12 | 607,839 | 607,839 | 607,839 | 604,764 | 604,764 | 604,764 | 604,764 | 604,764 | 604,764 | 604,764 | 604,764 | 604,764 | 609,140 | 605,810 |
| 41 | 392.20 | 99,946 | 99,946 | 99,946 | 99,946 | 99,946 | 99,946 | 99,946 | 99,946 | 99,946 | 99,946 | 99,946 | 99,946 | 95,778 | 99,625 |
| 42 | 392.21 | 24,462 | 24,462 | 24,462 | 24,462 | 24,462 | 24,462 | 24,462 | 24,462 | 24,462 | 24,462 | 24,462 | 24,462 | 24,462 | 24,462 |
| 43 | 393.00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 44 | 394.10 | 24,241 | 24,241 | 24,241 | 24,241 | 24,241 | 24,241 | 24,241 | 24,241 | 24,241 | 24,241 | 24,241 | 24,241 | 24,241 | 24,241 |
| 45 | 394.11 | 335,308 | 335,308 | 335,308 | 335,308 | 335,308 | 335,308 | 335,308 | 335,308 | 335,308 | 335,308 | 335,308 | 335,308 | 335,308 | 335,308 |
| 46 | 394.20 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 47 | 394.30 | 2,576,213 | 2,583,429 | 2,583,602 | 2,675,049 | 2,725,437 | 2,735,524 | 2,768,044 | 2,759,707 | 2,761,622 | 2,761,019 | 2,760,300 | 2,708,626 | 2,724,256 | 2,701,756 |
| 48 | 395.00 | 9,258 | 9,258 | 9,258 | 9,258 | 9,258 | 9,258 | 9,258 | 9,258 | 9,258 | 9,258 | 9,258 | 9,258 | 9,258 | 9,258 |
| 49 | 396.00 | 258,255 | 258,255 | 258,255 | 258,255 | 258,255 | 258,255 | 258,255 | 258,255 | 258,255 | 258,255 | 258,255 | 258,255 | 258,255 | 258,255 |
| 50 | 398.00 | 122,966 | 122,966 | 122,966 | 111,376 | 111,376 | 111,376 | 111,376 | 111,376 | 111,376 | 117,510 | 109,807 | 109,807 | 109,807 | 114,161 |
| 51 | **Grand Total** | **336,055,821** | **336,929,455** | **337,695,866** | **339,039,478** | **345,317,312** | **347,271,777** | **349,805,453** | **350,481,951** | **352,419,396** | **354,420,703** | **356,438,581** | **361,148,518** | **364,022,347** | **348,542,051** |

**EXHIBIT ____ (LK-18)**

**Columbia Gas of Kentucky, Inc.**
**Attorney General Recommendations To Adjust Depreciation Expense and Related Rate Base**
**To Adjust Slippage Factor**
**KPSC Case No. 2016-00162**
**Forecasted Test Year Ended December 31, 2017**
**$ Millions**

| | | |
|---|---|---|
| **Depreciation Expense** | | |
| **Adjustment 2** | | |
| Depreciation Expense After Adjustment 1 - ELG to ASL | | 12.381 |
| Depreciation Expense to Reflect Slippage Factor of -6.70% | | 12.270 |
| Reduction in Depreciation Expense to Reflect Slippage Factor of -6.70% | | (0.111) |
| | | |
| **Rate Base Changes - Adjustment 2** | | |
| Gross Plant 13 Month Avg after Adjustment 1 - ELG to ASL | | 437.890 |
| Gross Plant 13 Month Avg after Adjustment 2 - Adjust Slippage Factor | | 433.367 |
| Change in Gross Plant | | (4.523) |
| | | |
| A/D 13 Month Avg after Adjustment 1 - ELG to ASL | | (149.952) |
| A/D 13 Month Avg after Adjustment 2 - Adjust Slippage Factor | | (150.586) |
| Change in A/D | | (0.633) |
| | | |
| Composite Tax Rate | 38.90% | |
| Change in ADIT | | 0.246 |
| | | |
| Total Change in Rate Base - Adjustment 2 - Adjust Slippage Factor | | (4.910) |
| | | |
| Grossed-Up Rate of Return | 12.19% | |
| Total Change in Return on Rate Base | | (0.599) |
| | | |
| Reduction in Revenue Requirement | | (0.710) |

**EXHIBIT ____ (LK-19)**

**Columbia Gas of Kentucky, Inc.**
**Attorney General Recommendations To Adjust Depreciation Expense and Related Rate Base**
**To Remove Capital Initiatives Included in the Test Year**
**KPSC Case No. 2016-00162**
**Forecasted Test Year Ended December 31, 2017**
**$ Millions**

| | | |
|---|---|---|
| **Depreciation Expense** | | |
| **Adjustment 3** | | |
| Depreciation Expense After Adjustment 2 - Adjust Slippage | | 12.270 |
| Gross Plant After Adjustment 2 | 433.367 | |
| 13 month Avg Depr Rate | 2.83% | |
| Reduction in Gross Plant - Capital Initiatives | (3.819) | |
| Reduction in Depreciation Expense to Reflect Removal of Capital Initiatives | | (0.108) |
| | | |
| **Rate Base Changes - Adjustment 3** | | |
| Change in Gross Plant - Remove Capital Initiatives | | (3.819) |
| Change in A/D | | 0.134 |
| Composite Tax Rate | 38.90% | |
| Change in ADIT | | (0.052) |
| Total Change in Rate Base - Adjustment 3 | | (3.737) |
| Grossed-Up Rate of Return | 12.19% | |
| Total Change in Return on Rate Base | | (0.456) |
| Reduction in Revenue Requirement | | (0.564) |

| Capital Initiatives Not Budgeted | 2016 | 2017 | Test Year Adds 2017 |
|---|---|---|---|
| Age and Condition | 0.900 | 2.000 | 1.900 |
| New Training Facility | | 1.882 | 0.941 |
| Global Positioning System ("GPS") | | 1.326 | 0.663 |
| Mobile Data Terminals ("MDT") | | 0.630 | 0.315 |
| Total Test Year Adds for Capital Initiatives | | | 3.819 |

**EXHIBIT ____ (LK-20)**

**COLUMBIA GAS OF KENTUCKY, INC.**
**RESPONSE TO ATTORNEY GENERAL'S INITIAL**
**REQUEST FOR INFORMATION**
**DATED JULY 8, 2016**

4. Refer to page 15, lines 1-4 of Mr. Belle's Direct Testimony wherein he states: "However, given the safety concerns that arise when this pipe is subjected to stress intensification, the safest course of action is for Columbia to replace first-generation pipe when it is encountered within the scope of an AMRP project."

a. Provide an expanded description of the process presently used by the Company to identify the first-generation pipe that is leaking or otherwise subject to safety concerns and how the process will change if replacement costs are included in the AMRP and recovered through the rider.

b. Describe how the Company presently recovers the replacement costs for first-generation pipe and explain, in detail, why the Company believes that form of recovery is inadequate.

**Response**:

a. Columbia does not identify small sections of first generation pipe that are included within the scope of a larger bare steel or cast iron replacement project. However, when any leak is found on such pipe outside of an AMRP project, personnel trained in leak classification and response will conduct an investigation into the severity of the leak and classify it as Grade 1, 2+, 2, or 3 depending on whether the leak is hazardous or non-hazardous, the susceptibility for gas migration and the timeliness of the required repair. In such cases, the pipe is not identified as a first generation material until excavation occurs for the leak repair. Columbia's *DPI/FFR Field Reference Guide*[1] requires the responsible personnel to identify the color of the pipe which can then be used to identify whether it consists of first generation materials. Any evidence of cracking precludes repair and requires replacement. However, the data associated with an authorized repair on first generation materials would be imported into Columbia's Optimain program where the relative risk of the pipe segment would be calculated and prioritized with other pipeline segments for consideration as a future AMRP project.

The only element of the process that would change would be that Columbia would code the associated job order as eligible for the AMRP rider.

[1] This guide is included in its entirety in AG 1-4 Attachment A.

b. Currently, replacement of small individual segments of Aldyl-A pipe 50 feet or less are considered an O&M expense and may be recovered in a future rate case depending on timing. Currently, replacement of such sections greater than 50 feet are capitalized, but not currently included in Columbia's AMRP rider. Those costs would be recovered in a future rate case as well. Columbia's request to include the replacement of first generation plastic as part of the AMRP rider is due to its susceptibility of future leaks or safety related concerns. Should the first generation plastic in Columbia's system begin to leak or exhibit safety related concerns in an accelerated fashion, Columbia would like to be positioned to accelerate the replacement and recovery of this pipe similar to its priority pipe.

**EXHIBIT ____ (LK-21)**

**COLUMBIA GAS OF KENTUCKY, INC.
RESPONSE TO ATTORNEY GENERAL'S SUPPLEMENTAL
REQUEST FOR INFORMATION
DATED AUGUST 5, 2016**

6. Provide the capital expenditures and plant additions for new meters in each calendar year 2012 through 2015, the base year, and the test year separated into new service meter installations and replacement meter installations.

**Response**:

Please see AG 2-6 Attachment A.

**Summary of CKY Meters and Meter Installations**

| | Calendar Year | Calendar Year | Calendar Year | Calendar Year | Base Period | Forecasted Test Period |
|---|---|---|---|---|---|---|
| **Capital Expenditures (107 CWIP)** | **2012** | **2013** | **2014** | **2015** | **September 2015 - August 2016** | **January - December 2017** |
| Meters - 567 | 451,072 | 435,558 | 487,737 | 525,676 | 431,515 | 599,000 |
| New Service Meter Installations -569 | 94,874 | 77,281 | 105,718 | 193,952 | 195,929 | 212,000 |
| Replacement Meter Installations - 579 | 66,183 | 63,297 | 109,828 | 128,669 | 123,012 | 182,000 |
| | 612,129 | 576,136 | 703,283 | 848,297 | 750,456 | 993,000 |

| | | | | | | |
|---|---|---|---|---|---|---|
| **Plant Additions (101/106)** | | | | | | |
| Meters - 567 (GPA 381) | 457,516 | 417,035 | 456,087 | 509,424 | 509,076 | 599,000 |
| New Service Meter Installations -569 (GPA 382) | 76,871 | 79,692 | 62,538 | 360,489 | 477,758 | 212,000 |
| Replacement Meter Installations - 579 (GPA 382) | 103,060 | 85,185 | 104,095 | 146,906 | 92,305 | 182,000 |
| | 637,447 | 581,912 | 622,719 | 1,016,818 | 1,079,140 | 993,000 |