

**PUBLIC DISCLOSURE**

**BEFORE THE**

**GEORGIA PUBLIC SERVICE COMMISSION**

**IN RE: GEORGIA POWER COMPANY'S            )**  
**APPLICATION FOR THE                            )**  
**CERTIFICATION OF UNITS 3 AND 4            )**     **DOCKET NO. 27800**  
**AT PLANT VOGTLE AND UPDATED            )**  
**INTEGRATED RESOURCE PLAN                )**

**DIRECT TESTIMONY**  
**AND EXHIBITS**  
**OF**  
**LANE KOLLEN**

**ON BEHALF OF THE**  
**GEORGIA PUBLIC SERVICE COMMISSION**  
**PUBLIC INTEREST ADVOCACY STAFF**

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

**DECEMBER 19, 2008**

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**DIRECT TESTIMONY OF LANE KOLLEN**

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**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 from Luther Rice University. I am a Certified Public Accountant, with a practice license, and a Certified Management Accountant.

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 Kennedy and Associates, providing services to state government agencies and large 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 accounting, finance, ratemaking, and planning issues before regulatory commissions and courts at the federal and state levels on more than one hundred occasions. I have developed and presented papers at various industry conferences

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1 on ratemaking, accounting, and tax issues. I have testified in numerous proceedings before  
2 the Georgia Public Service Commission (“Commission”), including Georgia Power  
3 Company (“Company”) base rate proceedings in Docket Nos. 3840, 9355 and 25060, Atmos  
4 Energy Corporation base rate proceedings in Docket Nos. 20298 and 27163, and Atlanta Gas  
5 Light Company (“AGLC”) base rate proceedings in Docket Nos. 3780, 8390, 14311, and  
6 18638. In addition, I have directed audits on behalf of the Commission Staff of the affiliate  
7 transactions and corporate cost allocations affecting the Company, Atmos and AGLC and  
8 their respective costs for ratemaking purposes in Docket Nos. 9355, 13147, 14311, 20298,  
9 25060 and 27163. My qualifications and regulatory appearances are further detailed in my  
10 Exhibit\_\_(LK-1).

11  
12 **Q. On whose behalf are you testifying?**

13 A. I am offering testimony on behalf of the Commission Public Interest Advocacy Staff (“PIA  
14 Staff”).

15  
16 **Q. Please state the purpose of your testimony.**

17 A. The purpose of my testimony is: (1) to address ratemaking options for recovery of the Vogtle  
18 3 and 4 costs during construction and to make recommendations to the Commission for the  
19 form of and methodology for such recovery in the event the Commission authorizes the  
20 Company to proceed with construction and authorizes the Company to recover some or all of  
21 its financing costs during construction, (2) to address the Company’s computation of the  
22 proposed certification amount and to make recommendations to correct errors in the  
23 computation, (3) to address the use of trust preferred equity financing, and (4) to address  
24 ratemaking incentives.

25  
26 **Q. Please summarize your testimony.**

27 A. I make the following PIA Staff recommendations:

28  
29 **1. The Commission should reject the Company’s proposed recovery of financing costs**  
30 **during construction.**

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The PIA Staff recommends that the Commission require the Company to add the financing costs to all other construction costs during the construction period by accruing allowance for funds used during construction (“AFUDC”) rather than authorizing the recovery of these plant costs during the construction period through a construction work in progress (“CWIP”) surcharge. The AFUDC approach correctly adds the financing costs incurred during construction to the cost of the plant in accordance with the requirements of generally accepted accounting principles. The AFUDC approach correctly recovers the entirety of the cost of the plant from ratepayers who are served by the plant over the life of the plant rather than recovering nearly a third of the cost of the plant from ratepayers during the construction period and before the plant generates a single kWh. The AFUDC approach is lower cost to ratepayers and provides a net present value savings of at least \$218 million compared to the Company’s CWIP in rate base approach. The AFUDC approach provides a financial incentive for the Company to control the actual costs incurred due to the delay in recovery until the commercial operation of the plant.

In the event that the Commission does not adopt PIA Staff’s recommendation to reject the Company’s CWIP proposal in its entirety, then the Commission should include the conditions set forth in recommendations 2 through 5 below.

**2. If the Commission does not adopt PIA Staff’s recommendation to include all financing costs in the plant cost through the AFUDC approach, as opposed to CWIP in rate base, then the Commission should limit the amount in rate base.**

The PIA Staff recommends that the Commission provide only a limited amount of CWIP in rate base, if any amount is allowed, such as 25% or 50% rather than the 100% proposed by the Company. The amount allowed in rate base should be based on financial need, as measured primarily by the financial metrics used by the bond rating agencies.

**3. If the Commission allows some amount of CWIP in rate base, then the Company**

1           **should be directed to accumulate recoveries from ratepayers during the construction**  
2           **period as a regulatory liability.**

3  
4           The PIA Staff recommends that the Commission require the Company to accumulate  
5           recoveries from ratepayers during the construction period as a regulatory liability, if any  
6           amount of CWIP is allowed in rate base, rather than as a reduction in the amount of AFUDC  
7           added to the cost of the plant. The PIA Staff recommends that the Commission use this  
8           regulatory liability to reduce and levelize the peak revenue requirement during the first years  
9           after the units enter commercial operation in 2016 and 2017. This will mitigate the rate  
10          increases associated with the commercial operation of the units.

11  
12          **4. If the Commission allows some amount of CWIP in rate base, then the Commission**  
13          **should reject the Company's proposed CWIP surcharge.**

14  
15          The PIA Staff recommends that the Commission provide CWIP in rate base recovery, if any  
16          amount is allowed, through the traditional base ratemaking process rather than through a  
17          CWIP surcharge as proposed by the Company. The traditional base ratemaking process  
18          provides an opportunity for the Commission to periodically assess the Company's revenue  
19          requirement and financial condition on a comprehensive basis rather than allowing the  
20          Company incremental and single issue recovery through a largely automatic surcharge  
21          mechanism with reduced opportunities for review.

22  
23          **5. If the Commission authorizes a CWIP surcharge recovery mechanism, then the**  
24          **Commission should adopt the design and methodology set forth by the PIA Staff.**

25  
26          The PIA Staff recommends that the Commission adopt the PIA Staff's proposed design and  
27          methodology if the Commission authorizes a CWIP surcharge recovery mechanism, rather  
28          than leaving these matters to a compliance filing as proposed by the Company. These  
29          matters directly impact the amounts that will be charged to ratepayers and are too important  
30          to leave to the Company's discretion in a compliance filing. The inclusion in this testimony

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1 of a proposed surcharge design and methodology should not be construed as agreement by  
2 the PIA Staff that approval of any surcharge mechanism is appropriate or represents sound  
3 regulatory policy. Instead, the PIA Staff includes the proposed design and methodology so  
4 that the Commission has a complete record in the event that it decides that such a surcharge  
5 is appropriate.

6  
7 **6. The Commission should correct the Company’s proposed certification amount.**

8  
9 PIA Staff recommends that the Commission correct the Company’s proposed certification  
10 amount. The amount should be reduced to \$6,309.954 million, which is \$136.610 million  
11 less than the \$6,446.565 million amount proposed by the Company. The Company’s  
12 computation of the certification amount is overstated due to two incorrect assumptions, both  
13 of which have the effect of inflating the AFUDC component of the total cost. These  
14 erroneous assumptions are: (1) the failure to use and reflect lower cost short term debt during  
15 the construction period, and (2) the failure to reflect the lower cost of long term debt  
16 associated with the Company’s planned use of U.S. Department of Energy (“DOE”) debt  
17 guarantees.

18  
19 **7. The Commission should direct the Company to use lower cost trust preferred equity**  
20 **rather than conventional preferred equity financing.**

21  
22 PIA Staff recommends that the Commission direct the Company to use trust preferred equity  
23 financing. Trust preferred equity financing is lower cost than conventional preferred equity  
24 financing because the dividends effectively are tax deductible, similar to debt financing,  
25 whereas the cost of conventional preferred equity financing must be grossed-up for income  
26 taxes, similar to the cost of common equity.

27  
28 **8. The Commission should provide a ratemaking incentive to achieve the certification**  
29 **cost and limit cost overruns.**

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1 Finally, the PIA Staff recommends that the Commission adopt a ratemaking incentive to  
2 effectively manage the project cost so that there is an appropriate sharing of the completion  
3 cost, or cancellation cost if the units are not completed, risks between the Company and its  
4 ratepayers. The PIA Staff recommends that the Commission adopt such an incentive through  
5 the rate of return on equity applied to the Vogtle 3 and 4 net plant rate base amounts over  
6 their respective service lives. If the actual plant cost, including AFUDC at the 100% level, is  
7 within a bandwidth of \$250 million more or \$250 million less than the certification amount,  
8 then the PIA Staff recommends that there be no return on equity incentive. However, for  
9 each \$100 million below or above the upper or lower thresholds of this \$500 million  
10 bandwidth, the PIA Staff recommends an increment or decrement in the rate of return on  
11 common equity of 10 basis points applied to the common equity portion of the total cost of  
12 the units. In this manner, if the actual cost is \$500 million less than the certificated amount,  
13 then the return on equity increment will be 0.25% over the lives of the units (( $\$500$  million  
14 less  $\$250$  million lower threshold)/ $\$100$  million times 0.1%).

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1 **Q. Please describe the Company’s proposed CWIP in rate base approach for financing**  
2 **costs incurred during construction.**

3 A. The Company proposes to recover the financing costs incurred on and after January 1, 2011  
4 as these costs are incurred through a construction work in progress or CWIP surcharge rather  
5 than capitalizing these costs as AFUDC. The Company provided an alternative and lower  
6 quantification of the certification cost to reflect this proposal. This proposal would result in  
7 the recovery of nearly 30% of the cost of the plant from ratepayers during the construction  
8 period and before the units enter commercial operation.

9  
10 **Q. Does the Company fully recover its costs under either the AFUDC or the CWIP in rate**  
11 **base approach?**

12 A. Yes. The Company fully recovers its costs under either approach, both the return of and on  
13 the plant costs, including the financing costs. From the Company’s perspective, the primary  
14 distinction between the two approaches is the timing of the recovery of the plant costs, i.e.,  
15 whether the entirety of the costs should be recovered over the life of the plant (AFUDC  
16 approach) or whether some of the costs should be recovered during construction and the  
17 residual over the life of the plant (CWIP in rate base approach).

18  
19 **Q. Does the AFUDC approach more closely follow that required by generally accepted**  
20 **accounting principles for capitalized plant costs?**

21 A. Yes. Generally accepted accounting principles (“GAAP”) require that financing costs be  
22 capitalized into the cost of an asset because such costs are no different in concept than the  
23 cost labor and materials used to construct an asset and because the cost has future economic  
24 value. Statement of Financial Accounting Standards No. 34, *Capitalization of Interest Cost*,  
25 states the following:

26  
27 **39. The Board concluded that interest cost is a part of the cost of acquiring an**  
28 **asset if a period of time is required in which to carry out the activities necessary**  
29 **to get it ready for its intended use. In reaching this conclusion, the Board**  
30 **considered that the point in time at which an asset is ready for its intended use is**  
31 **critical in determining its acquisition cost. Assets are expected to provide future**  
32 **economic benefits, and the notion of expected future economic benefits implies**

1 fitness for a particular purpose. Although assets may be capable of being  
2 applied to a variety of possible uses, the use intended by the enterprise in  
3 deciding to acquire an asset has an important bearing on the nature and value  
4 of the economic benefits that it will yield.  
5

6 **40.** Some assets are ready for their intended use when purchased. Others  
7 are constructed or otherwise developed for a particular use by a series of  
8 activities whereby diverse resources are combined to form a new asset or a less  
9 valuable resource is transformed into a more valuable resource. Activities take  
10 time for their accomplishment. During the period of time required, the  
11 expenditures for the materials, labor, and other resources used in creating the  
12 asset must be financed. Financing has a cost. The cost may take the form of  
13 explicit interest on borrowed funds, or it may take the form of a return foregone  
14 on an alternative use of funds, but regardless of the form it takes, a financing  
15 cost is necessarily incurred. *On the premise that the historical cost of acquiring  
16 an asset should include all costs necessarily incurred to bring it to the condition  
17 and location necessary for its intended use, the Board concluded that, in principle,  
18 the cost incurred in financing expenditures for an asset during a required  
19 construction or development period is itself a part of the asset's historical  
20 acquisition cost.* (emphasis added).  
21

22 **Q. How does the CWIP in rate base approach differ from the normal GAAP requirement**  
23 **to capitalize carrying costs in the plant costs and then depreciate the plant costs over**  
24 **the useful service life of the asset?**

25 A. The CWIP in rate base approach excludes financing costs incurred during construction from  
26 the plant cost even though normal GAAP requires the capitalization of these costs. This  
27 occurs due to a unique confluence of ratemaking and accounting whereby the prepayments of  
28 the financing costs by ratepayers generally precludes the capitalization of these costs,  
29 although I subsequently describe an alternative to this normal practice that the Commission  
30 could consider in conjunction with a CWIP in rate base approach.  
31

32 **Q. Company witnesses Ms. Daiss and Mr. Morris claim that there is a “savings” to**  
33 **ratepayers of approximately \$1.9 billion from CWIP in rate base, consisting of the \$1.6**  
34 **billion in financing costs that are paid by ratepayers during the construction period**  
35 **and an additional \$300 million in avoided financing costs on the financing costs that the**  
36 **Company will not be required to finance. Please respond.**

37 A. This claim is incorrect for two reasons. The first reason is that fundamentally there are no

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1 such savings. Under the Company's CWIP proposal, the ratepayers will pay \$1.9 billion of  
2 the capitalized cost during construction, consisting of \$1.6 billion in direct payments and  
3 another \$300 million in foregone financing costs in order to achieve the reduction in  
4 capitalized costs. Simply put, the reason the completed cost of the plant is lower in nominal  
5 dollars under the CWIP in rate base approach is that the ratepayers prepay a portion of the  
6 plant cost. This is no different than prepaying the principal on a mortgage. The ratepayers  
7 still pay the total amount of the principal.

8  
9 The second reason is that the additional \$300 million in savings alleged by the Company is  
10 based on the incorrect premise that ratepayers have no cost of money. What these witnesses  
11 fail to acknowledge is that the financing costs avoided by the Company are fully paid for by  
12 the ratepayers, including the \$300 million and quite likely, much more than the \$300 million.  
13 Under the Company's proposal, ratepayers will pay directly the \$1.6 billion to the Company  
14 during the construction years 2011 through 2017, but will lose at least another \$300 million  
15 in the return on the amounts they pay to the Company during the construction period and will  
16 continue to lose additional amounts throughout the life of the plant. Ratepayers, regardless  
17 of whether they are residential, commercial, industrial or some other class of ratepayers,  
18 incur financing costs through lost investment opportunities or accumulated debt. Thus, the  
19 \$300 million in alleged savings cited by Ms. Daiss and Mr. Morris does not magically  
20 disappear; it is not free money and it is not savings to ratepayers. It still is paid by the  
21 ratepayers and more, if the cost of money for ratepayers is greater than for the utility and if  
22 the effect over the entire construction period and commercial life of the plant is properly  
23 considered.

24  
25 **Q. Does the AFUDC approach cost less than the CWIP in rate base approach on a net  
26 present value basis?**

27 **A.** Yes. The AFUDC approach is lower cost on a net present value basis, according to the  
28 Company's own quantification of the revenue requirements under the two approaches. The  
29 Company quantifies the savings from the AFUDC approach at \$218.423 million on a net  
30 present value basis using an after tax incremental cost of capital as the discount rate rather

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1 than the weighted average cost of capital used for the AFUDC rate.

2  
3 The Company quantified the annual and total nominal and net present value revenue  
4 requirements under both approaches using its BAM software. These same quantifications  
5 were used by the Company and relied on by the PIA Staff to assess the economics of the  
6 Vogtle 3 and 4 units compared to other resource options. I have summarized the Company's  
7 computations of the annual and total revenue requirements on a nominal and net present  
8 value basis (amounts are stated in 2016 dollars) using the output from the BAM software in  
9 my Exhibit\_\_(LK-3).

10  
11 **Q. Are the Company's computations of the net present value revenue requirements and**  
12 **the resulting savings from the AFUDC approach correctly quantified?**

13 A. No. The Company's quantification of the net present value savings is significantly  
14 understated because the Company used a lower after tax discount rate rather than the  
15 Company's weighted average cost of capital. The Company's use of this lower discount rate  
16 understated the net present value savings due to the AFUDC approach by \$358.048 million.  
17 In other words, correctly quantified, the AFUDC approach actually will save ratepayers  
18 \$576.471 million compared to the Company's CWIP in rate base proposal on a net present  
19 value basis. The computations using the Company's weighted average cost of capital as the  
20 discount rate are detailed on my Exhibit\_\_(LK-4).

21  
22 **Q. Why is it important to assess the costs under the AFUDC and the CWIP in rate base**  
23 **approaches on a net present value basis rather than on a nominal dollar basis?**

24 A. The simple answer is that the net present value basis states everything on a comparable basis  
25 by specifically recognizing the time value of money. That is why economic analyses are  
26 performed on a net present value basis rather than a nominal dollar basis.

27  
28 **Q. Why does the AFUDC approach result in net present value savings compared to the**  
29 **CWIP in rate base approach?**

30 A. There are two primary reasons. The first reason is that the Company used an incremental and

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1 higher cost of capital as the rate of return to compute the CWIP in rate base revenue  
2 requirements during the construction period and a lower embedded cost of capital as the rate  
3 of return to compute the AFUDC during the construction period. The second reason is that  
4 the AFUDC approach avoids the inherent penalty under the CWIP approach from the  
5 unnecessary prepayment of income taxes during construction due to the income tax gross-up  
6 on the equity component of the rate of return. The prepayment of income taxes under the  
7 CWIP approach harms ratepayers, but does not benefit the Company. The Company simply  
8 acts as a tax collector for the federal and state governments, collecting from ratepayers and  
9 then remitting to the governments.

10  
11 **Q. Does the Commission have to decide between the AFUDC approach and the CWIP in  
12 rate base approach in this proceeding?**

13 A. No. The Company's certification request is not contingent on the Commission authorizing  
14 CWIP in rate base. The Commission does not have to decide this issue in conjunction with  
15 the certification. Instead, the Commission can decline to decide the issue in this proceeding  
16 and then consider it again in late 2010 in conjunction with its review and consideration of the  
17 Company's next base rate filing pursuant to its rate plan or otherwise consider the issue in  
18 conjunction with other subsequent base rate filings.

19  
20 **Q. Are there alternatives to either 100% AFUDC or 100% CWIP in rate base?**

21 A. Yes. If the Commission determines that some amount of CWIP in rate base is appropriate,  
22 then it can determine either a specific dollar amount or a percentage of CWIP that is less than  
23 100% as the appropriate amount to include in rate base. For example, if the Commission  
24 determines that some CWIP in rate base is appropriate commencing January 1, 2011, then it  
25 could authorize the Company to include 25% or some other percentage of the project CWIP  
26 in rate base at that time rather than the 100% requested by the Company. In the event that  
27 some amount of CWIP was allowed in rate base, the Company then would capitalize  
28 AFUDC on the amount that is not included in rate base. Thus, if the Commission allowed  
29 25% CWIP in rate base, then 75% of the CWIP would continue to be subject to AFUDC.  
30 Similarly, if the Commission allowed \$100 million in CWIP in rate base, then the remaining

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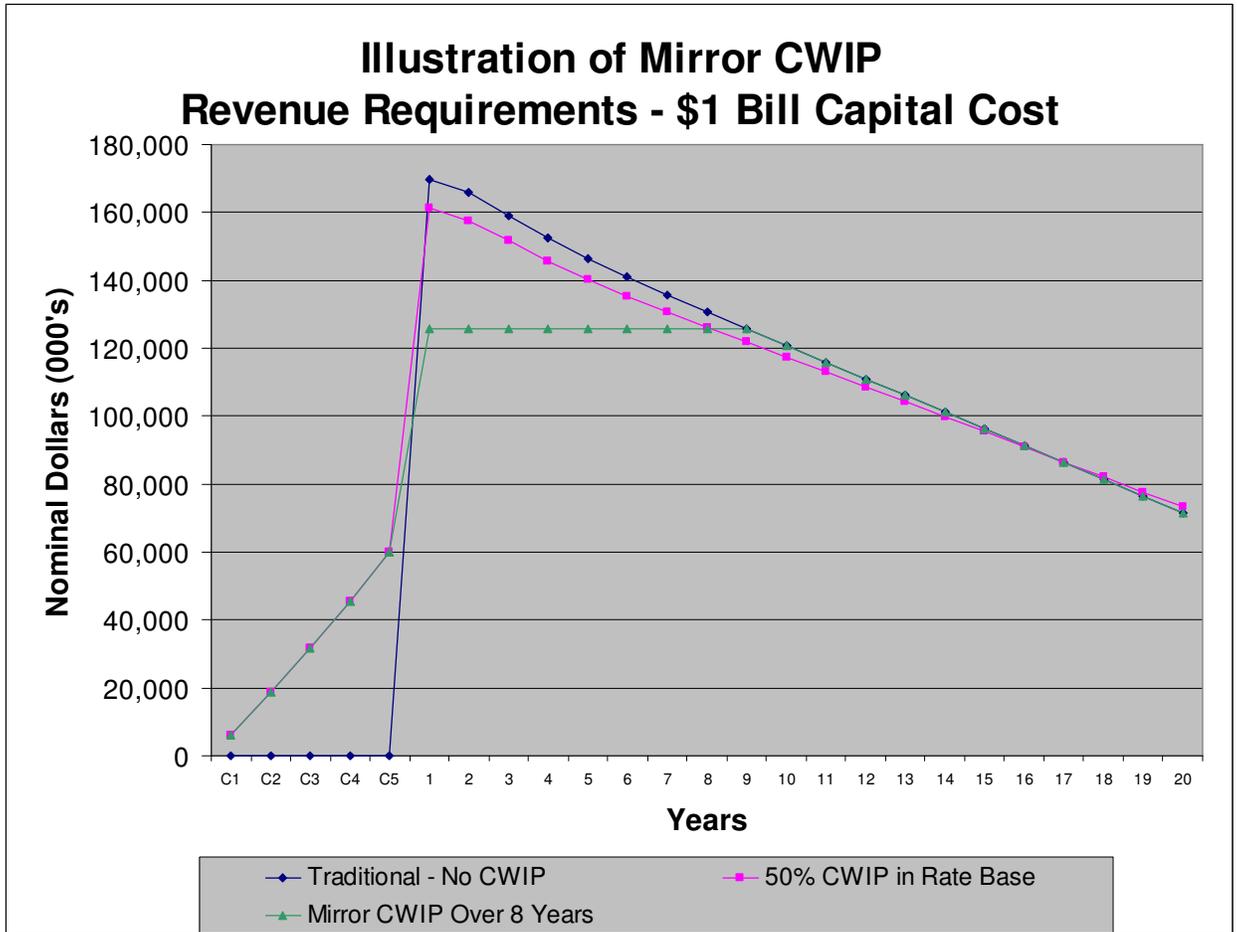
1 balance of the CWIP would accrue AFUDC.

2  
3 **Q. Is there an alternative to the CWIP in rate base approach that would provide the**  
4 **Commission more flexibility in future ratemaking proceedings?**

5 A. Yes. There is an alternative approach known as “mirror CWIP.” Under this approach, the  
6 Commission would allow some amount of CWIP in rate base. However, instead of reducing  
7 the AFUDC and the construction cost of the plant, the Commission would direct the  
8 Company to record amounts recovered from ratepayers in a regulatory liability, or contra-  
9 AFUDC account, and direct the Company to accrue a carrying charge on this regulatory  
10 liability amount at the same return as the AFUDC rate. The Commission then could use this  
11 regulatory liability to reduce and levelize the revenue requirements of the units once they  
12 enter commercial operation by amortizing the regulatory liability in amounts that will  
13 achieve this objective. The amortization commonly is structured so that it occurs over  
14 approximately the same number of years as the recoveries from ratepayers during  
15 construction, hence the term “mirror” CWIP.

16  
17 **Q. Have you prepared an illustration of the mirror CWIP proposal on revenue**  
18 **requirements?**

19 A. Yes. The following chart graphically portrays the trajectories of the traditional revenue  
20 requirements with no CWIP in rate base, the revenue requirements with some CWIP in rate  
21 base during the construction period, and then the revenue requirements using the mirror  
22 CWIP approach using generic assumptions rather than the Company’s trade secret  
23 information in this proceeding. The mirror CWIP approach reduces and levelizes the peak  
24 revenue requirement during the early years of commercial operation before the revenue  
25 requirements return to the trajectory for the traditional revenue requirements.



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1           **III. ALTERNATIVE FORMS OF CWIP IN RATE BASE RECOVERY THROUGH**  
2                           **TRADITIONAL BASE RATEMAKING OR SURCHARGE**

3  
4    **Alternative Forms of CWIP in Rate Base Recovery**

5  
6    **Q.     If the Commission allows the Company to recover some amount of CWIP in rate base**  
7           **during construction, how should it do so?**

8    A.     The best approach is to direct the Company to periodically file for base rate increases, subject  
9           to both the statutory requirements for such filings and the Commission’s minimum filing  
10          requirements. In this manner, the Commission can periodically and comprehensively review  
11          the Company’s need for rate increases based on the entirety of its rate base investment,  
12          including an appropriate level of CWIP in rate base, operating expenses, and its current  
13          return requirements, including the financial metrics affecting its bond ratings. This also is  
14          the best approach because the Commission can address the actual need for CWIP in rate base  
15          and the amount of CWIP in rate base, if any, in those future base rate filings rather than  
16          making this decision today based on uncertain projections for the next nine years. The  
17          Commission will have actual and better information in those future base rate proceedings,  
18          which will allow it to address the Company’s actual need for CWIP at that time.

19  
20   **Q.     If the Commission allows the Company to recover some amount of CWIP in rate base**  
21           **during construction, why shouldn’t the recovery be through a surcharge as proposed in**  
22           **concept by the Company?**

23   A.     First, there is no specific CWIP surcharge proposal set forth by the Company, other than the  
24           “concept” of a CWIP surcharge. The Company offered no such proposal either in its  
25           Application or through the testimony of its witnesses. In response to the PIA Staff’s request  
26           in STF-K&A-1-5 to provide the computational methodology and the tariff for such a  
27           proposal, the Company failed to do so. The Company’s response to STF-K&A-1-5 was that:  
28           “[t]he proposed base rate tariff referred to is conceptual. A specific tariff will not be  
29           designed until the proceedings in this docket are complete and the Commission has approved  
30           a particular approach.” Despite written and conference call follow-up requests by the PIA

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1 Staff, the Company still has not provided a proposal for review. The Commission should not  
2 approve an undisclosed and unknown computational methodology or allow the Company to  
3 design the methodology after the proceeding is otherwise completed.  
4

5 Second, once established, the CWIP surcharge presumably would operate automatically, thus  
6 limiting the Commission's discretion to consider other offsetting cost reductions, revenue  
7 increases and other factors normally considered in a comprehensive manner in the traditional  
8 ratemaking process. For example, under the traditional ratemaking process, the Commission  
9 could consider the Company's financial metrics as the project progressed to determine the  
10 amount of CWIP in rate base, if any, necessary to maintain the Company's bond ratings. In  
11 contrast, the CWIP surcharge would limit the Commission's discretion by requiring it to  
12 prematurely assess the need for CWIP as a condition of certification rather than as a matter of  
13 need in subsequent proceedings throughout the construction period.  
14

15 Third, if it adopts a surcharge in this proceeding, then the Commission also will need to  
16 address in this proceeding how the CWIP surcharge will terminate upon commercial  
17 operation of each unit, assuming that it will terminate. The Commission will need to address  
18 how the termination of the surcharge will be synchronized with a traditional base rate  
19 increase and fuel adjustment clause reductions contemporaneous with the surcharge  
20 termination. If, however, the CWIP surcharge will not terminate upon commercial operation  
21 of each unit, then the Commission also will need to address in this proceeding how the  
22 surcharge will continue and what costs will be recovered in addition to the financing costs  
23 associated with construction. For example, the Commission will need to determine what  
24 depreciation rates should be used, what amount of operation and maintenance expense  
25 should be included, etc. In addition, upon commercial operation, the initial cost will  
26 commence book and tax depreciation, thus quickly reducing the carrying costs on the units  
27 through accumulated depreciation and accumulated deferred income tax reductions to the  
28 construction costs. If the Commission does not adopt a surcharge in this proceeding, then it  
29 will not have to address all those issues at this time and instead can consider those issues in  
30 the Company's subsequent rate case filings, which provide a more appropriate forum and

1 process to do so.

2  
3 **CWIP in Rate Base Surcharge Methodology**  
4

5 **Q. If the Commission authorizes some amount of CWIP in rate base in this proceeding**  
6 **and also authorizes a CWIP surcharge, how should the surcharge amounts be**  
7 **computed?**

8 A. I recommend that the surcharge be computed once each year immediately prior to the  
9 commencement of the first billing cycle in the year in which the surcharge will be effective.  
10 For example, the proposed surcharge for 2011 would be filed on or before November 30,  
11 2010. The Company would provide the Staff a spreadsheet with the computation of the  
12 surcharge. The revenue requirement formula would be based on month-end projected  
13 balances of CWIP included in the surcharge (either a dollar amount if specified by the  
14 Commission or a dollar amount computed by multiplying the percentage CWIP in rate base  
15 allowed by the Commission) for each month December 31, 2010 through November 30,  
16 2011 multiplied by each month's (January through December) return on rate base, including  
17 the income tax gross-ups on the equity component(s) of the return.

18  
19 The resulting actual surcharge revenue recoveries would be trued up annually and after the  
20 fact to the actual financing costs using actual month end CWIP balances and the actual return  
21 on rate base each month for the year. The true-up amount would be amortized on a straight  
22 line basis over the twelve months and the unamortized true-up amount added to or subtracted  
23 from the CWIP amounts used in the subsequent year's computation of the surcharge.  
24

25 **Q. What rate of return should be allowed for the surcharge?**

26 A. The Commission should use the same rate of return as it allows for the AFUDC rate,  
27 including the use and cost of short term debt and DOE-guaranteed debt as I subsequently  
28 describe.

1                                    **IV. CERTIFICATION AMOUNT SHOULD BE REDUCED**

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**Q. Please describe the certification amount proposed by the Company.**

A. The certification cost proposed by the Company was computed based on numerous assumptions, including the materials and labor costs as well as the financing costs to construct the units during the construction period. The financing costs will be capitalized into the cost of the units under the traditional AFUDC approach. The Company’s computation of AFUDC included in the proposed certification cost is based on numerous assumptions regarding the incremental costs to finance the plant. These assumptions include the use of a targeted capital structure; return on common equity of 11.25%, projected incremental and embedded costs of long term debt and preferred equity; and no use of short term debt.

**Q. Is the Company’s assumption of no short term debt reasonable either in actuality or for purposes of the AFUDC rate used to compute AFUDC in the certification amount?**

A. No. Most utilities use short term debt to finance their construction expenditures. Utilities use short term debt for at least two reasons. First, it generally is lower cost than other forms of financing. Consequently, utilities use short term debt to reduce the total cost of the project. Second, it reduces the costs of the utility’s other financing by providing the utility with more flexibility in timing the issuance of the other financing to capture lower interest rates and by allowing the utility to issue larger amounts at one time, thus reducing financing costs as a percentage of the total amount issued. The utility typically finances with short term debt initially and then times the issuance of other financing so that it minimizes the cost of the financing based on its ongoing assessment of market conditions and interest rates. The utility also is able to reduce the effects of issuance expenses on the cost of the financing by allocating the fixed costs over larger issuance amounts.

**Q. How does the cost of short term debt compare to the Company’s assumption of the cost of long-term debt in the AFUDC certification amount?**

A. The cost of short term debt is significantly less than the embedded [REDACTED] cost of long-term

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1 debt used by the Company to compute the AFUDC component in the certification amount  
2 and the [REDACTED] incremental cost of long-term debt assumed by the Company. The present  
3 cost of short term debt is less than 1% for commercial paper with maturities up to 270 days,  
4 1.6% to 2.7% for one month to one year LIBOR, and 2.0% to 2.7% for two year to thirty year  
5 LIBOR swaps, according to the rates published in the Wall Street Journal.  
6

7 **Q. Has the Company studied or analyzed the use of short term debt during the**  
8 **construction period?**

9 A. No, according to the Company's response to STF-HPSC-3-3. In this response, the Company  
10 stated "[t]he Company has not made specific plans regarding the use of short term debt  
11 during the construction period and has performed no studies or analysis to date in this  
12 regard." I have attached a copy of the Company's response to STF-HPSC-3-3 as my  
13 Exhibit\_\_(LK-5).  
14

15 **Q. Does the Company plan on using short term debt at all during construction?**

16 A. No, according to its response to STF-HPSC-3-5. In this response, the Company provided its  
17 financing plans pursuant to the AFUDC and CWIP in rate base alternatives, neither of which  
18 include short term debt. I have attached a copy of the Company's response to STF-HPSC-3-  
19 5 as my Exhibit\_\_(LK-6).  
20

21 **Q. Should the Commission direct the Company to maximize the prudent use of short debt**  
22 **during construction?**

23 A. Yes. The use of lower cost short term debt is prudent and reasonable and will reduce the  
24 actual cost of the units by reducing the actual financing costs and AFUDC. The Commission  
25 should make it clear that failure to use appropriate amounts of short term debt to finance  
26 construction will subject excessive financing costs to disallowance.  
27

28 **Q. Should the Commission reflect lower cost short term debt in the AFUDC amount**  
29 **included in the certification amount?**

30 A. Yes. The Commission should certify an amount that reflects reasonable assumptions and the

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1 prudent use of short term debt is a reasonable assumption.  
2

3 **Q. Does the fact that the Commission allows the Company to recover interest from**  
4 **ratepayers on deferred fuel balances at the short term debt interest rate and to exclude**  
5 **such costs from its present AFUDC rate conceptually bar the Commission from either**  
6 **requiring the Company to maximize the prudent and reasonable use of short term for**  
7 **construction financing or requiring the Company to include this incremental short**  
8 **term debt in its AFUDC rate and the certification cost?**

9 A. No. To the contrary, the Commission should direct the Company to maximize the prudent  
10 and reasonable use of short term debt for construction of the units as a condition of  
11 certification. The incremental short term debt used to finance the construction of these units  
12 should be incorporated into the AFUDC rate and into the certification amount.  
13

14 **Q. Have you quantified the effect of this recommendation on the certification amount?**

15 A. Yes. This recommendation reduces the certification amount to \$6,340.635 million, a  
16 reduction of \$105.930 million compared to the Company's request, all else equal. This  
17 quantification is based on the Company's requested amount using the AFUDC approach,  
18 adjusted only for the use of a prudent amount of short term debt and with no other  
19 adjustments to the certification amount that the Commission may determine to be  
20 appropriate. For this quantification, I assumed that approximately 10% of the Company's  
21 cumulative construction financing during the construction period would be through short  
22 term debt and that the cost of the short term debt would average 3.0% annually over the  
23 construction period. I assumed that the 10% debt would displace long-term debt so that the  
24 total debt in the capital structure would remain at ■■■ as proposed by the Company. The  
25 computations are detailed on my Exhibit \_\_\_(LK-7).  
26

27 **Q. Does the Company plan on financing the units using debt guaranteed by the U.S.**  
28 **Department of Energy under provisions of the Energy Policy Act of 2005?**

29 A. Yes. The Company plans on financing ■■■ of the cost of the units and the cost of the initial  
30 fuel loads through debt guaranteed by the Department of Energy ("DOE"), based on its

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1 response to STF-HPSC-3-6S. The Company already has applied to the DOE in the initial  
2 phase of obtaining such financing. The Company reflected the DOE guaranteed debt in the  
3 projected financial metrics addressed by Company witnesses Ms. Daiss and Mr. Morris in  
4 their panel testimony in this proceeding and in its projected financial statements provided in  
5 response to STF-HPSC-3-6S (supplemental). I have attached a copy of the Company's  
6 response to HPSC-3-6S as my Exhibit\_\_\_(LK-8).

7  
8 **Q. What are the benefits of using DOE guaranteed debt on the Company's cost of**  
9 **financing?**

10 A. The DOE guarantee will reduce the cost of the debt issued to construct the plant. The  
11 Company has assumed that the DOE-guaranteed debt will cost [REDACTED] less than conventional  
12 long term debt financing, according to its response to HPSC-3-6S.

13  
14 **Q. Has the Company reflected these savings in its requested certification amount?**

15 A. No. First, the Company used a target capital structure of [REDACTED] long term debt, [REDACTED] preferred  
16 equity and [REDACTED] common equity to compute the AFUDC component of the requested  
17 certification amount and to compute the revenue requirements rather than the [REDACTED] DOE  
18 guaranteed debt and [REDACTED] preferred and common equity that it actually intends to issue for the  
19 project. Second, the Company has not reflected the [REDACTED] reduction in the long-term debt  
20 interest rates resulting from the DOE guarantee to compute the AFUDC component of the  
21 requested certification amount or to compute the revenue requirements.

22  
23 **Q. Should the Commission reflect the entirety of the 80% DOE guaranteed debt financing**  
24 **in the AFUDC reflected in the certification amount?**

25 A. No, subject to an important condition. The condition is that the savings associated with the  
26 DOE guaranteed debt that are not captured in the AFUDC computation instead must be used  
27 to contemporaneously reduce the return included in the revenue requirement on the  
28 Company's other (non-Vogle 3 and 4) rate base. This condition is necessary so that the  
29 Company does not retain the savings from the DOE guaranteed debt for its parent company  
30 shareholder by financing [REDACTED] of the project cost with DOE guaranteed debt, but assuming

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1 for AFUDC purposes that it financed the project based on its embedded capital structure and  
2 costs. If the AFUDC is greater than the actual financing costs incurred on the project, then  
3 the savings should be provided to the ratepayers in some manner. These savings can be  
4 provided to ratepayers either through periodic and timely base rate proceedings or through a  
5 timely surcredit rider.  
6

7 **Q. Should the Commission reflect the lower cost of the DOE guaranteed debt in the**  
8 **AFUDC amount included in the certification amount?**

9 A. Yes. This is appropriate, particularly given that the Company plans to issue approximately  
10 [REDACTED] million in such debt, according to its response to HPSC-3-6S, and actually will  
11 benefit from the lower interest expense compared to its incremental cost assumed for new  
12 long term debt issuances.  
13

14 **Q. Have you quantified the effect of this recommendation on the certification amount?**

15 A. Yes. This recommendation further reduces the certification amount to \$6,309.954 million, a  
16 reduction of an additional \$30.680 million compared to the Company's request, as already  
17 adjusted to reflect short term debt. This quantification is based on the Company's requested  
18 amount, adjusted only for the use of a prudent amount of short term debt and adjusted for the  
19 lower DOE guaranteed debt interest rate and with no other adjustments to the certification  
20 amount that the Commission may determine to be appropriate. For this quantification, I used  
21 the Company's assumption that the cost of the DOE guaranteed debt would be [REDACTED] less  
22 than the Company's cost of conventional long term debt. I further assumed that one-quarter  
23 of this effect should be reflected in the certification amount because the DOE-guaranteed  
24 debt will grow from nothing to [REDACTED] of the Company's outstanding long-term debt during the  
25 construction period, based on the Company's response to STF-HPSC-3-6S. The  
26 computations are detailed on my Exhibit\_\_\_(LK-7).  
27  
28  
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1 **Q. If the Commission authorizes some percentage of CWIP in rate base other than 0% or**  
2 **100% in this proceeding, should the certification amount be adjusted to reflect this**  
3 **decision?**

4 A. Yes. The Company has quantified the certification amounts under the 100% AFUDC  
5 approach and the 100% CWIP approach. If the Commission decides in this proceeding to  
6 use some combination of the approaches, then it should adjust the certification amount  
7 accordingly.

8  
9 If the Commission decides in this proceeding to use the mirror CWIP approach, then the  
10 certification amount would be at the same amount as if it used the 100% AFUDC approach  
11 because the amount collected from ratepayers will be recorded in a regulatory liability  
12 account, not as a reduction to the plant cost.

13

1           **V. TRUST PREFERRED EQUITY FINANCING IS LOWER COST THAN**  
2           **CONVENTIONAL PREFERRED EQUITY FINANCING**

3  
4 **Q. Please describe the Company's proposal to use conventional preferred equity financing**  
5 **rather than trust preferred financing.**

6 A. The Company proposes to use conventional preferred financing, also referred to as dividends  
7 received deduction ("DRD") preference stock, according to the Company's response to STF-  
8 K&A-2-1. This is a significantly more expensive form of preferred equity financing than the  
9 trust preferred equity financing. With conventional preferred financing, the dividends are not  
10 considered as tax deductible. Consequently, the cost of the conventional preferred equity  
11 financing must be grossed-up for income taxes in the same manner as the cost of common  
12 equity must be grossed-up. With trust preferred equity financing, the dividends are  
13 considered as tax deductible. Consequently, there is no income tax gross-up on the cost of  
14 this form of preferred financing.

15  
16 **Q. Please illustrate the cost differential between the two forms of preferred equity**  
17 **financing.**

18 A. The Company's proposed financing reflects conventional preferred equity financing at  
19 [REDACTED]. The income tax gross-up increases this cost to [REDACTED] for revenue requirement  
20 purposes. The cost of trust preferred equity financing would be simply the [REDACTED] because  
21 there would be no income tax gross-up. Consequently, the Company's proposal will cost  
22 ratepayers [REDACTED] more each year than the trust preferred option for every \$100 million  
23 in preferred equity financing that is issued and outstanding.

24  
25 **Q. Does the Company have a history of issuing trust preferred equity financing?**

26 A. Yes. The Company has a strong history of issuing trust preferred equity financing. The  
27 Company currently has outstanding more than \$200 million in trust preferred equity,  
28 according to its response to STF-K&A-2-1.

29  
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1 **Q. Has the Company justified using the higher cost conventional preferred equity**  
2 **financing?**

3 A. No. The Company has performed no studies or analysis in support of its intention to issue  
4 conventional preferred rather than trust preferred financing, based on its response to STF-  
5 K&A-2-1. The Company was asked to “[p]lease provide a copy of all studies and/or analyses  
6 that address conventional preferred and/or trust preferred financing, including, but not  
7 limited to, comparisons of the two forms of financing.” In response, the Company provided  
8 two studies, neither of which addresses trust preferred financing or a comparison of the two  
9 forms of financing.

10

11 **Q. How should the Commission proceed on this issue?**

12 A. I recommend that the Commission direct the Company to use trust preferred equity financing  
13 unless it can demonstrate that such financing is unavailable or that somehow conventional  
14 preferred equity financing is less expensive. In the event the Company disregards this  
15 direction, then I recommend that the Commission consider disallowing the income tax gross-  
16 up on the conventional preferred equity return in future base rate proceedings.

1                   **VI.    REGULATORY INCENTIVE TO CONTROL THE COST**

2  
3   **Q.    Should the Commission consider a regulatory incentive for the Company to control the**  
4       **costs incurred?**

5   A.    Yes. The Commission should consider providing the Company an incentive to aggressively  
6       manage and control the costs incurred on this project. There is an unfortunate history of  
7       construction cost overruns on nuclear units and the Commission should use all tools at its  
8       disposal to minimize the cost to ratepayers, including the use of effective incentives.

9  
10 **Q.    What types of incentives are available to the Commission for this purpose?**

11 A.    Aside from the Commission's ability to review costs for reasonableness throughout the  
12       construction period and to require the Company to discontinue construction, the Commission  
13       has a great deal of discretion over the return on equity allowed the Company. Consequently,  
14       it can fashion an incentive rate of return for completing the project at a cost less than the  
15       certification cost amount or providing a negative incentive for completing the project at a  
16       cost greater than the certification cost amount.

17  
18 **Q.    How should the Commission implement such a regulatory incentive?**

19 A.    I recommend that the Commission establish a bandwidth of plus and minus \$250 million  
20       around the certification cost. If the completed cost of the project is less than the lower  
21       threshold, then the Company can earn an incentive return of 10 basis points in the return on  
22       common equity for every \$100 million the completed cost is less than the lower threshold of  
23       the bandwidth. If the completed cost of the project is more than the upper threshold, then the  
24       Company can earn an incentive return of negative 10 basis points in the return on common  
25       equity for every \$100 million the completed cost is over the upper threshold of the  
26       bandwidth. The incentive return would apply to the rate base amounts of the units and would  
27       continue for the service lives of the units.

28  
29 **Q.    Has a similar approach been adopted by another Commission?**

30 A.    Yes. The Minnesota Public Service Commission adopted an incentive rate of return

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1 approach in approving a plan involving significant construction costs by Xcel Energy in  
2 Minnesota Docket No. E-002/M-02-633. This plan includes the following provisions:

- 3  
4 8. *Incentive Return on Equity.* Instead of allowing the Company its authorized  
5 rate of return on common equity (“ROE”) of 11.47% from its last rate case,  
6 the ROE to be used when determining the revenue requirements of the Plan  
7 will vary depending on actual incurred costs. The purpose of this sliding-  
8 scale approach is to provide an incentive to the Company to reduce actual  
9 costs relative to the target cost and to manage the implementation of the Plan  
10 as efficiently and effectively as possible.  
11

12 In that proceeding, Xcel was allowed to recover its authorized return on equity only if it  
13 achieved an actual cost of *less than 75%* of the certification amount. If Xcel achieved the  
14 certification amount, its return on common equity was limited to 10.86%, or 0.61% less than  
15 its authorized return. If the cost achieved was over 125% of the certification amount, then  
16 the return on equity was reduced to 9.97%, or 1.50% less than its authorized return.  
17

18 **Q. If the Company cancels the project before it is completed, should the Commission**  
19 **reflect a lower return on equity in the recovery of prudently incurred costs?**

20 A. Yes. I recommend a reduction of 1.0% in the authorized return on equity on such costs given  
21 the lack of construction risk and the certainty of recovery.  
22

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

24 A. Yes.

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**BEFORE THE  
GEORGIA PUBLIC SERVICE COMMISSION**

**IN RE: GEORGIA POWER COMPANY'S )  
APPLICATION FOR THE )  
CERTIFICATION OF UNITS 3 AND 4 ) DOCKET NO. 27800  
AT PLANT VOGTLE AND UPDATED )  
INTEGRATED RESOURCE PLAN )**

**EXHIBITS  
OF  
LANE KOLLEN**

**ON BEHALF OF  
GEORGIA PUBLIC SERVICE COMMISSION  
PUBLIC INTEREST ADVOCACY STAFF**

**DECEMBER 19, 2008**