Docket No. 27800, Georgia Power's Application for the Certification of Units 3 and 4 at Plant Vogtle and Updated Integrated Resource Plan

ORDER ON REMAND

APPEARANCES

Georgia Public Service Commission Public Interest Advocacy Staff*:** Daniel Walsh, Esq. and Jeffrey Stair, Esq.; ***Georgia Power Company: Kevin C. Greene, Esq., Brandon F. Marzo, Esq., Heather S. Smith, Esq. and Todd F. Kimbrough, Esq.; ***Commercial Group***: Alan Jenkins, Esq.; ***City of Dalton, Georgia*** Newton M. Galloway, Esq. and Terri M. Lyndall, Esq.; ***Georgia Industrial Group*:** Randall D. Quintrell; **Georgia Traditional Manufactures Association**: Charles B. Jones, III, Esq.; ***The Municipal Electric Authority of Georgia***: Peter M. Degnan, Esq., Peter K. Floyd, Esq. and Clay Massey, Esq.; ***Oglethorpe Power Corporation***: George B, Taylor; ***Resource Supply Management:*** Jim Clarkson; ***Southern Alliance for Clean Energy*:** Anne Blair and Rita Kilpatrick;

BY THE COMMISSION:

I. STATEMENT OF PROCEEDINGS

On May 5, 2010, Fulton Superior Court issued its Final Order on Petition for Judicial Review, in which it remanded this case back to the Georgia Public Service Commission ("Commission") to make separately stated Findings of Fact and Conclusions of Law in accordance with O.C.G.A. § 50-13-17(b). In compliance with the Court's order, the Commission includes herein such findings of fact and conclusions of law in support of the action taken by the Commission in its March 30, 2009.

In the Amended Certification Order, the Commission considered the application by Georgia Power Company ("Georgia Power" or "Company") for the Certification of Units 3 and 4 at Plant Vogtle and Updated Integrated Resource Plan, filed on August 1, 2008 ("Application"). In its Application, the Company sought Commission approval of its addition of Units 3 and 4 at Plant Vogtle ("Vogtle Units 3 and 4"). Specifically the Company requested that the Commission: (1) certify the proposed Vogtle Units 3 and 4; (2) approve the 2008 Integrated Resource Plan ("IRP") Update; (3) allow Construction Work in Progress ("CWIP") in rate base for Vogtle Units 3 and 4; (4) institute Quarterly Construction Monitoring and Treatment of Indexed Costs; (5) approve the installation of emissions controls at Plants Branch and Yates; and (6) approve the deferral for later cost recovery of the significant expenses incurred in developing and evaluating coal-fired generation, as required by the 2007 IRP Order.

Pursuant to O.C.G.A. § 46-3A-5, the Commission conducted three rounds of hearings on the application and heard numerous witnesses from Georgia Power, the Public Interest Advocacy Staff ("PIAS"), and multiple third-party intervenors. Amended Certification Order, pp. 2-3. In addition to the witnesses appearing on behalf of the parties, the Commission received comments from members of the general public at each round of hearings. *Id.* at p. 3.

After the hearings, Georgia Power and PIAS entered into a partial stipulation of facts on March 4, 2009, which resolved most of the factual issues in the case. Stipulation, ¶¶ 1-4, 8. However, the stipulation did not resolve the question of whether the project's CWIP should be included in Georgia Power's rate base to be determined in July 2010. *Id.* at ¶ 5. In addition,

Georgia Power and PIAS did not reach agreement on the incentive mechanism proposed by Staff. *Id.* at ¶ 7. Finally, Georgia Power and PIAS did not agree upon whether the verification of costs in monitoring reports constitutes a finding of prudence. *Id.* at ¶ 9. Instead, the Stipulation provides that this issue should not be resolved at this time, and that the parties reserve all arguments on this point should it ever become ripe for decision. *Id.* Post-hearing briefs were submitted by PIAS, Georgia Power Company, Southern Alliance for Clean Energy ("SACE") and Resource Supply Management.

In its Amended Certification Order, the Commission adopted and approved the Stipulation entered into by the Company and Staff, and approved Georgia Power's application for the certification of Vogtle Units 3 and 4 as modified by the Stipulation. (Amended Certification Order, p. 12). The Commission also granted Georgia Power's request to place Vogtle Units 3 and 4 Construction Work in Progress into retail rate base in the rate case to be filed in 2010 is granted. *Id.* The Commission rejected the Staff's proposal to utilize "mirror CWIP," but stated that "any party may propose in the 2010 rate case a different or better form of mirror CWIP, or any other accounting method which would benefit customers so long as it does not increase the projected service cost of Vogtle Units 3 and 4." *Id.* With regard to the incentive mechanism, the Commission directed the Company and Staff "to work together to develop a risk sharing mechanism that will provide some level of protection to ratepayers in the event of significant cost overruns, but also not penalize the earnings on Units 3 and 4 if and when overruns are due to mandates from governing agencies." *Id.* at 12-13.

On April 9, 2009, SACE filed a Motion for Reconsideration. SACE raised a number of objections to the Commission's Amended Certification Order. Motion for Reconsideration, pp. 2-5. On May 14, 2009, the Commission issued its Order Denying Motion for Reconsideration of the Southern Alliance for Clean Energy ("Order Denying Reconsideration"). SACE filed a Petition for Judicial Review and Declaratory Judgment on June 15, 2009. After briefs and oral argument, the Court ruled that SACE lacked standing to challenge the constitutionality of Senate Bill 31. In a separate order, the Court remanded the case back to the Commission to make separately stated Findings of Fact and Conclusions of Law.

II. JURISDICTION AND AUTHORITY

Georgia Power is a public electric utility serving retail customers within the State of Georgia. This Commission has jurisdiction over Georgia Power's Application for Certification pursuant to O.C.G.A. §§ 46-2-20 and 46-2-21, generally, and the "Integrated Resource Planning Act", O.C.G.A. § 46-3A-1 through 11, in particular.

III. FINDINGS OF FACT AND CONCLUSIONS OF LAW

To ensure that the competing interests of all parties were properly considered, the Commission has carefully analyzed all evidence of record including the testimony given and the various exhibits entered by all the parties.

A. There Will Be A Need For New Baseload Generation In The 2016-2017 Timeframe.

The Commission finds that there will be a need for new baseload generation in the 2016-2017 timeframe. In Georgia Power's 2007 Integrated Resource Plan, Docket No. 24505, the Commission determined that additional baseload generation was needed for the 2016-2017 time period, and directed the Company to issue a Request for Proposals to solicit competitive bids to meet this demand. (Order Adopting Stipulation, p. 6, July 13, 2007). In the current proceeding, Georgia Power's Updated IRP confirms the continued need for approximately 1,500 megawatts of capacity in 2016 and 2017 and the need for the addition of baseload generation in the 2016 and 2017 timeframe. (Georgia Power Exhibit 1, Tr. 143).

Based on the testimony of Georgia Power witness Jeff Burleson, the Commission finds that the Company's customer base has grown by approximately 50 percent, or more than 700,000 customers, since the last time baseload plant was added to the Company's system. (Tr. 190). The Commission further finds that fuel diversity is necessary to protect ratepayers from fuel cost and environmental cost risks. Georgia Power has relied almost exclusively on new natural gas-fired generation to supply more than 25 years of growth in population and electricity usage in Georgia. (Tr. 191). Natural gas and coal prices have become increasingly volatile over this time period. *Id.* The cost of complying with environmental controls for fossil fuel generation has also increased. *Id.*

The Commission also finds that Demand Side Management programs do not eliminate the need for new baseload generation. The record reflects that the Company plans to spend approximately $500 million on eighteen DSM programs over the next decade to reduce demand. (Georgia Power, Exhibit 1, § 2.1.1.2). However, the demand reduction achieved by DSM programs is primarily concentrated during periods of peak demand. *Id.* The Commission disagrees with SACE's contention that Georgia Power's Updated IRP is infirmed. (SACE Post-Hearing Brief, p. 5). SACE relies upon the testimony of Staff witness, Philip Hayet, for the proposition that the IRP did not contain a complete DSM evaluation. *Id.* However, a further review of Mr. Hayet's testimony shows Mr. Hayet's conclusion to be that a "thorough DSM evaluation would not have changed the results that the nuclear units will provide fuel savings and will generate a significant amount of energy to serve the Company's growing load." (Tr. 942). In fact, Mr. Hayet states that Georgia Power conducted an "aggressive" DSM analysis at Staff's request. *Id.* This analysis determined that delaying the units to implement a substantial amount of DSM would not be cost-effective. *Id.* Therefore, the Company has a need for baseload generation, despite the increased commitment to Demand Side Management programs.

The Commission finds Staff witness Mr. Hayet's expert testimony persuasive that "[b]ased on an analysis of the Company's resource needs as developed through the IRP process, a base load addition is now an appropriate resource addition to meet the Company's requirements." (Tr. 938). The Commission further finds that the addition of baseload nuclear generation will maintain the percentage of energy supplied from nuclear power at approximately the same percentage as is presently supplied by nuclear power. (Tr. 148). The Commission also finds that the addition of baseload generation will preserve the diversity of fuel sources necessary to assure reliable and economical supply of electric power and energy for the Georgia retail consumers of the Company and that the fuel cost savings likely to result from adding nuclear baseload capacity offer substantial assurance of reliable and economical supply of power and energy to the Company's Georgia retail consumers. (Tr. 145, 204).

In sum, the Commission finds that new baseload generation will be needed in the 2016 and 2017 timeframe and that this finding is consistent with the Commission's Order in the Company's 2007 IRP. Furthermore, the Commission finds that the certification of nuclear units to meet this need is in the public interest, convenience and necessity because it maintains the

approximate capacity mix and offers a degree of protection to ratepayers from the volatility in the fuel and environmental compliance costs associated with natural gas and coal resources.

B. Georgia Power Complied With The Request For Proposal Process

The Company commenced the 2016/2017 Request for Proposals ("RFP") in November 2007 seeking baseload capacity for the 2016-2017 timeframe in accordance with the Commission's 2007 IRP Order in Docket No. 24505-U and under the supervision of an Independent Evaluator ("IE"). The Commission finds that the RFP was conducted fairly and equitably and in conformity with Commission rules. The IE issued a report finding that the RFP had been conducted fairly (Staff Exhibit No. 10) and also testified to that effect in this proceeding. (Tr. 829, Tr. 835). Independent evaluator, Harold Judd, stated that the Company did not commit any violations of RFP rules or protocols, that any bidder who wished to participate had an opportunity to do so, that the RFP was conducted fairly and that the Company cooperated with the IE in his review of the reasonableness of the RFP. (Tr. 835).

The Commission finds that the Company did not receive any bids in the RFP aside from the Company's self-build proposal. (Tr. 156). Although no outside bids were received in the RFP, the IE, in conjunction with the Company, performed a self-build economic evaluation, which considered the available baseload power technology options (nuclear, pulverized coal and IGCC), and natural gas-fired combined cycle. (Tr. 157-60; Tr. 835). This evaluation used a matrix approach that evaluated the various technologies across a range of fuel price forecasts and potential costs of future carbon legislation. (Tr. 157-60). As will be discussed in more detail in the Section III.C. herein, this evaluation demonstrated that the proposed Vogtle Units 3 and 4 would provide benefit to customers under the most likely future scenarios. (Staff Exhibit 10, p. 41).

C. Vogtle Units 3 And 4 Are Cost-Effective

The Commission finds that selection of nuclear generation to fill the baseload capacity need is reasonable. In a collaborative effort, the PIAS, Independent Evaluator and the Company reviewed the self-build economic evaluations and created cost-effectiveness studies to explain the impacts of changes in assumptions. (Tr. 160). Georgia Power presented evidence that the Vogtle Units 3 and 4 compared favorably to an IGCC plant, pulverized coal plant and natural gas

alternative in the majority of cases evaluated. *Id.* The Company estimated the savings to ratepayers over the lifetimes of these plants to be within the range of $1 billion to $6.5 billion when compared to a natural gas plant under the most likely fuel price forecasts and potential costs of future carbon legislation. *Id.*

The Independent Evaluator concluded that "the nuclear Self-build proposal was determined to be the lowest life cycle cost option in every plausible scenario tested for fulfilling the 2016 base load requirements." (Staff Exhibit No. 10, p. 41). The IE also concluded that even with certain schedule delays, as compared to the other scenarios that were run, Vogtle Units 3 and 4 were still economically viable in most cases. (Tr. 843). Furthermore, PIAS witness, Mr. Hayet, testified that the addition of Vogtle Units 3 and 4 is economic even if there are delays and higher capital costs than initially planned. (Tr. 940). The basis for Mr. Hayet's conclusion was the potential for high natural gas prices and CO2 costs. *Id.*

The Commission finds that the overall environment for the construction of new nuclear units has improved significantly. (Tr. 396-402). The Energy Policy Act of 1992 improved the efficiency of the Nuclear Regulatory Commission's ("NRC") licensing process. (Tr. 398-99). A streamlined application process prior to the start of construction reduces the risk of delays. *Id.*

The Commission finds that the selection of nuclear generation will result in benefits to ratepayers resulting from a reliable and economical supply of power and energy compared to alternatives. Mr. Hayet thoroughly reviewed the methodology used by the Company in performing its economic evaluation of Vogtle Units 3 and 4. (Tr. 944-47). Mr. Hayet concluded that the gas forecast utilized by the Company was reasonable (Tr. 959-60) and that the CO2 price scenarios utilized were also reasonable. (Tr. 960-61). Mr. Hayet also acknowledged that Vogtle Units 3 and 4 have a greater benefit in terms of net present value revenue requirement in most of the alternative cases that the Company conducted. (Tr. 977). Mr. Hayet conducted additional cases to evaluate the effect of summertime de-ration or reduced availability and, under each such scenario, found that the units would still provide benefit to customers, although under some assumptions the benefits would be delayed. (Tr. 980-81). The Commission finds this assessment to be persuasive.

The Commission finds that Vogtle Units 3 and 4 provide benefits over alternative forms of generation in most plausible scenarios. The Commission further finds that the range of scenarios presented was comprehensive. The Commission finds that even assuming cost delays and increases in capital costs, Vogtle Units 3 and 4 are likely to be cost-effective due to the volatility of natural gas and CO2 costs. Although SACE witness David A Schlissel recommends that the Commission deny Georgia Power's application, and rely upon natural gas and DSM, SACE did not effectively rebut the position that under the majority of scenarios reliance on natural gas will cost ratepayers more than Vogtle Units 3 and 4, and that DSM, while important, is not sufficient to eliminate the need for new generation.

D. The Stipulation By The Public Interest Advocacy Staff And The Company Is In The Public Interest

Georgia Power Company and the PIAS agreed upon the certification of the Vogtle Units 3 and 4, the monitoring reports, the withdrawal of the Company's request for the deferral of costs incurred in developing and evaluating coal-fired generation and the installation of emission controls at Plants Branch and Yates. The Stipulation did not reach agreement on the recovery of CWIP, the appropriateness of an incentive mechanism or whether the verification of costs as part of a semi annual monitoring report constitutes a finding of prudence.

The Commission will first turn to the provisions in the Stipulation in which Staff and the Company reached agreement. Paragraph 1 of the Stipulation states that the certified in service cost of Georgia Power's interest in the proposed Vogtle Units 3 & 4 shall be 6,446,564,927. Company witness, Jeff Burleson, testified that Georgia Power projected the total costs of Vogtle Units 3 and 4 to be $6.4 billion. (Tr. 164). Burleson testified that this projection is reduced to $6.1 billion if the Commission granted the Company's request for construction work in progress. *Id.*

SACE witness, Schlissel, testified that the estimated costs for new power plants are uncertain, and that the estimated costs of nuclear plants have risen in recent years. (Tr. 1481-84). On rebuttal, Georgia Power's witnesses pointed out that SACE did not review the analyses and modeling filed in this proceeding. (Tr. 1651). The Company's witness panel also testified that Mr. Schlissel did not address the site-specific costs of plant development. (Tr. 1652).

The Commission finds as a matter of fact that Georgia Power's projection for the total costs for Vogtle Units 3 and 4 is reasonable. Because SACE did not consider the analyses, modeling or site-specific costs at issue in this case, its criticisms of the Company's projected cost are not persuasive.

The Stipulation also provides that the selection of the AP1000 technology was reasonable and prudent. The Commission finds that the AP1000 technology is reasonable and prudent based on a number of findings of fact. First, the Westinghouse AP1000 was the only new-generation nuclear design certified by the Nuclear Regulatory Commission at the time of the hearings in this case. (Burleson, Rozier, Legg and Huling Pre-filed Direct Testimony, p. 33). As a result, the Westinghouse AP1000 technology is preferable to those designs that were still seeking design certification from the NRC. *Id.*

Second, the Commission finds that the AP1000 technology incorporates the necessary safeguards in the event of a design-basis accident. A design basis accident is a loss of reactor coolant from a pipe rupture coincident with a loss of offsite power. (Tr. 855). The AP1000's passive safety systems are designed to achieve safe shutdown conditions without any operator action and without the need for electrical power or pumps. *Id.* The Company provided expert witness testimony that explained how this technology relies on the forces of gravity, natural circulation and compressed gases to keep the core from overheating. *Id.* In comparison, in the current generation of pressure water reactors, large pumps must actuate to pump emergency coolant into the reactor vessel to ensure that the reactor core remains covered with water and is adequately cooled to prevent core melting. *Id.* This injection of coolant also requires the positioning of large motor operated valves. *Id.* Since the pumps and valves are powered by electric motors, large emergency diesel generators must start and operate to provide the required power if offsite power is lost. These requirements result in a very complicated design with numerous safety-related components and support systems. *Id.*

The AP1000's passive safety systems improve upon the technologies of other pressurized water reactors because their simplified design requires significantly fewer pumps, valves and less cable and piping. (Tr. 856). As a result, the construction costs related to this feature are reduced. *Id.* Furthermore, AP1000 design reduces the requirement for surveillance testing. (Tr. 857). The Institute of Nuclear Power Operations estimates that a mature passive advanced light water

reactor will require one-third less operation and maintenance staff than a currently operating plant. *Id.* Finally, the Commission finds that the passive safety design improves the safety of the plant. A Probabilistic Risk Assessment ("PRA") evaluates the number of years that will elapse before a core damage event. *Id.* The PRA for the AP1000 significantly improves upon the performance of current plants. The frequency of an event is referred to as the Core Damage Frequency ("CDF"). On behalf of the PIAS, Dr. William R. Jacobs testified that current plants have a CDF of once every 20,000 years; whereas the CDF of the AP1000 is once every 2,000,000 years. (Tr. 858). In other words, the inherent level of safety in the AP1000 design is 100 times greater than the safety levels of the current generation of nuclear plants. *Id.*

Southern Alliance for Clean Energy opposed the certification of the nuclear units in part because the AP1000 technology is new. SACE witness, Schlissel, testified that the first AP1000 project to begin construction is not scheduled to be completed until late 2013. (Tr. 1476). Mr. Schlissel stated that there may be unanticipated problems in the construction or initial operation of the project. *Id.* Although it is relevant that the AP1000 technology is new, that fact alone is not sufficient to rebut the extensive record in support of the benefits associated with the technology. The testimony of both PIAS and Company expert witnesses explain that the AP1000 technology represents a significant improvement upon the current generation of nuclear plants. Mr. Schlissel does not offer any specific facts to rebut the detailed analyses set forth by both the Staff and Company witnesses. The Commission finds that Mr. Schlissel's testimony on this point does not have merit.

Mr. Schlissel also stated that the total costs related to the construction of Vogtle Units 3 and 4 may be greater as a result of the concurrent construction of other nuclear plants. *Id.* Again, however, Mr. Schlissel does not provide sufficient details to substantiate his assertions. As discussed herein, expert witnesses for the PIAS presented extensive testimony on the various scenarios under which different types of resources are shown to be cost-effective. That analysis demonstrates that the nuclear units are cost-effective in the majority of those scenarios. Mr. Schlissel does not rebut those analyses. Instead, he raises one factor that may impact the ultimate cost of the Vogtle Units. The Commission finds that this testimony is not sufficient to rebut the substantial evidence in this docket that the nuclear units are the most cost-effective option and that the AP1000 technology is reasonable.

Based on this expert testimony, the Commission finds as a matter of fact and of regulatory policy that approval of the AP1000 is in the public interest. From a regulatory certainty perspective, there is a benefit to the AP1000 being the only new-generation nuclear design certified at the time of the hearings in this case. Based on the testimony of the Company's panel and PIAS witness Jacobs, the Commission finds as a matter of fact that the AP1000's passive safety design is safer than the current generation of nuclear plants. The Commission also finds that the passive safety design results in reduced construction costs and reduced O&M expense related to surveillance.

The Stipulation also provides that the EPC Agreement is reasonable. Dr. Jacobs offers the following summary of the EPC Agreement's components:

> The EPC contract is a contract between the project owners, Georgia Power Company, Oglethorpe Power Corporation, the Municipal Electric Power Authority of Georgia and the City of Dalton, and a consortium consisting of Westinghouse Electric Company LLC and Stone & Webster, Inc. for the design, engineering, procurement, installation, construction and technical support of start-up and testing of Plant Vogtle Units 3 and 4. The EPC contract establishes a schedule for completion of the units in time to meet the Company's generation requirements and provides for liquidated damages if completion of the units is delayed and for an early completion bonus in the event that a unit is substantially complete prior to the guaranteed substantial completion date. The EPC contract provides a contract price for the completion of both units. However, the cost of certain materials and labors are indexed so that the final price of the units will not be known until they are completed. The EPC contract provides for changes to the scope and cost under certain identified conditions. In general, the contract allocates much of the risk for design changes or increases in material quantities or labor hours to the consortium.

(Tr. 861-62). Dr. Jacobs explained that the pricing mechanism of the EPC contract allocated significant risk to the Consortium of Westinghouse and Stone & Webster because they were responsible for any additional costs related to activities requiring more man-hours or material than estimated. (Tr. 862). Georgia Power, and ultimately ratepayers, also bears risk associated with schedule delays, change orders, or changes in the applicable indices. (Tr. 864-65). Dr. Jacobs concluded that the Company has completed reasonable measures to mitigate these risks to ratepayers. (Tr. 876).

The Commission finds as a matter of fact and regulatory policy that the EPC Agreement is reasonable. Although the risk to ratepayers is not eliminated entirely, the contract contains provisions that effectively mitigate the risk. Moreover, ratepayers face some degree of risk for increased costs regardless of the type of power selected to meet the system demands. The question, therefore, is not whether the EPC Agreement has insulated ratepayers from any risk. But rather, the question is how the risks to which ratepayers are exposed under the EPC Agreement compare to the risks inherent in alternative means to meet the projected system demand. The Commission finds that Vogtle Units 3 and 4 are cost-effective as compared to these alternatives. The Commission further finds that by placing the risks for any additional costs related to activities requiring more man-hours or material than estimated upon the Consortium, the EPC Agreement has reasonably balanced the risks between the Company and the Consortium. Finally, the Commission finds that it is reasonable and prudent to require the Company to ensure that the Consortium is performing in accordance with the standards and requirements set forth in the EPC Agreement. This provision of the Stipulation should provide Georgia Power with the incentive to effectively manage the project. The inclusion of this provision appropriately aligns the interests of the Company with its ratepayers.

Paragraph 2 of the Stipulation details the monitoring reports that Georgia Power must file with the Commission. In addition to the specific reports that are provided for by O.C.G.A. § 46-3A-7(b), the Stipulation provides that the Company must file monthly status reports on construction work in progress, and file a records retention program. The Stipulation does not specify the contents of the monthly monitoring reports, other than to state that the contents will be determined by agreement of the Company and Staff, or the Commission. The semiannual monitoring report will include proposed revisions in cost estimates, the construction schedule, or project configuration, and actual costs incurred in the period covered by the report.

The Commission finds the stipulated reporting requirements to be reasonable. It is necessary for the Commission to monitor the progress of the construction. The IRP Act provides the Commission with the authority to take a range of action in the public interest based on information regarding the costs of a certified resource. In addition, the monitoring requirements should assist the Commission in determining whether the project is being managed effectively.

Paragraph 3 of the Stipulation provides that the Commission should approve the Company's 2008 IRP Update as well as its 2009 Budget forecast as filed. The 2008 IRP Update and the 2009 Budget forecast were supported by Company witnesses. Staff witness, John Hutts, testified that the Company's 2009 Budget forecast correctly accounted for the state of the economy. (Tr. 1082). Mr. Hutts concluded that Georgia Power's Budget 2009 Forecast is reasonable based on the information available at the time the forecast was completed. *Id.* Finally, Mr. Hutts recommended that the Commission accept the Budget 2009 forecast as the basis of the Company's projections of total system energy and peak demand requirements. *Id.* Because the evidence supports the finding that the Budget forecast accounted for the state of the economy, the Commission does not find it necessary, as SACE proposed, to re-examine the need for Vogtle Units 3 and 4 in light of the state of the economy. (SACE Post-Hearing Brief, p. 6).

Paragraph 4 provided that the Company would withdraw its request for deferral of costs incurred in the development and evaluation of coal-fired generation. No party opposed this provision. The Commission finds that it is reasonable.

Paragraphs 5 through 7 identify issues upon which the parties were not able to agree. Paragraph 8 states that the Commission will approve the Company's plan to install emission controls at Plants Branch and Yates. These emission controls include flue gas desulfurization systems and selective catalytic reduction systems. (Tr. 141). The Commission finds that this construction is necessary to comply with the Georgia Rule for Multipollutant Control for Electric Utility Steam Generating Units ("Georgia Multipollutant Rule"), National Ambient Air Quality Standards ("Air Quality Standards") for fine particulate matter and ozone, and the Clean Air Visibility Rule ("Visibility Rule"). Therefore, the Commission finds this provision of the Stipulation to be reasonable.

Paragraph 9 simply defers the issue of whether verification of costs as part of a semi annual monitoring report constitutes a finding of prudence. Because there is not an existing dispute over any such costs, the Commission does not need to reach this issue at this time.

E. An Incentive Mechanism That Aligns The Risks Of Cost Overruns Without Sacrificing Safety Is In The Public Interest.

The Amended Certification Order includes the following discussion on the incentive mechanism proposed by Staff:

> Staff asserts that the Commission should provide the Company an incentive to aggressively manage and control the costs incurred in constructing Vogtle Units 3 and 4. To provide the incentive Staff proposed a mechanism that it argues will result in a fair allocation of risks and aligns the interests of the Company and the ratepayer and will also provide the Company with an incentive to more actively manage the costs of the project. Staff argues that the incentive mechanism it proposes establishes a ratemaking incentive through an adjustment to the return on common equity applied to the Vogtle Units 3 and 4 rate base, depending upon the completed cost of the Units as compared to the certification amount.
>
> The mechanism proposed by the Staff establishes a bandwidth of plus and minus $250 million above or below the certification cost. If the in service cost of the project is less than the lower threshold, then the Company can earn an incentive return of 10 basis points in the return on common equity for every $100 million the in-service cost is less than the lower threshold of the bandwidth. If the completed cost of the project is more than the upper threshold, then the return on common equity would be reduced by 10 basis points for every $100 million the completed cost is over the upper threshold of the bandwidth.
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> Under Staff's proposal, the incentive return would apply only to the rate base amounts of the Units and would continue for the service lives of the Units. The proposed risk-sharing mechanism would also provide for complete recovery of all operating cost, depreciation, taxes and debt expense (principle and interest). Staff argues that under its proposal the Company would be allowed a full return of equity, which would guarantee that shareholders would not experience any loss on the project, only the return on equity or profit is subject to a possible upward or downward adjustment.
>
> Staff believes that its incentive mechanism as proposed sets the correct balance between ratepayers and shareholders. Staff's position is that its proposal provides for minor adjustments to the return that the Company is authorized to earn on Vogtle Units 3 and 4, providing the Company with the incentive both to provide its best cost analysis to the Commission when seeking certification and to diligently manage the costs of the units.

Georgia Power Company produced a number of arguments supporting their recommendation that the Commission should reject the incentive mechanism proposed by the Staff. First, the Company argued that the proposed mechanism is contrary to Georgia law as it would ignore any determination of prudence by the and thus, would penalize the Company's exercise of sound project management. The Company states that O.C.G.A. § 46-3A-7 provides the statutory basis for the Commission to make ongoing determinations of what projects costs or investments may be excluded from rate base. Such basis for exclusion requires a Commission finding of "fraud, concealment, failure to disclose a material fact, imprudence or criminal misconduct." (O.C.G.A. 46-3A-7(a)) It is the Company's position that a reduction to the allowed return on common equity results in a disallowance of plant investment without the Commission making the findings required under O.C.G.A. § 46-3A-7.

The Company further argues that the Staff's proposal would automatically disallow costs for the very operation of the EPC contract indices which were found reasonable by Staff in the Stipulation. Once again the statutory provisions of O.C.G.A. § 46-3A-7 provides for a mandatory oversight by the Commission of the construction of a certified plant through periodic reviews, approval and verifications of all costs, and the Stipulation sets out the details of that procedure.

A third argument raised by the Company is that the proposed mechanism violates the U.S. Constitution by depriving the Company of the ability to recover all of the properly incurred costs associated with the addition of Vogtle Units 3 and 4 and would deprive the Company of Due Process. Such deprivation resulting from a reduction of the return the Company could earn on the plant would be contrary of the holdings of *Bluefield Water Works and Improvement Co. v. Public Service Comm'n*., 262 U.S. 679 (1923) and *Federal Power Comm'n. v Hope Natural Gas Co*., 320 U.S. 591 (1944) by reducing the true cost of equity to a level below comparable investments and by reducing the incentive of investors to proved capital knowing that the potential exists that the investment will earn a lower return.

Finally the Company argues that creates perverse incentives to build a less efficient or shoddy plant. Further, the Company argues that the proposed mechanism does not contemplate changes in construction that could be beneficial to customers. The Company also points out that the rigidity of the staff's proposed mechanism does not accommodate increases in cost of the Units that may be required by future governmental and regulatory causes. Also, the mechanism proposed by the Staff is an untested experiment, unlike any other incentive mechanism and could prevent the development of needed base load generation.

There is justifiable concern that the in-service cost of Vogtle Units 3 and 4 will exceed the estimates presented in this case. It is the nature of such large construction projects and the history of nuclear construction programs bears that

> out. While the Commission believes that the Company should be, and will be, held accountable for the final construction costs, there certainly exists the potential that increases to the cost of construction might be stem from events or causes over which the Company has no control. As the incentive mechanism proposed by the Staff would look simply at the in-service cost of the units and not differentiate as to the causes for cost increases over the certified cost the Commission finds that the proposed mechanism is flawed and will not be adopted. However, the question of accountability continues to exist and the Commission believes that a properly constructed incentive mechanism will aligned the risks of project overruns without sacrificing project efficiency and safety. Therefore, the Commission finds that it is in the best interest of the Company and its ratepayers that such properly constructed incentive mechanism be put in place at these early stages of the Plant Vogtle Units 3 and 4 construction project. To that end the Commission directs the Staff and the Company to meet in a collaborative effort to develop a mechanism crafted as such and report to the Commission not later than 180 days after the date of this Order with such a mechanism for the Commission consideration.

(Amended Certification Order, pp. 4-7).

The above-discussion explains the benefits of a properly constructed incentive mechanism along with the drawbacks of an incentive mechanism that provides the Company with inappropriate incentives or penalizes it for occurrences that are outside of its control. A collaborative effort between the Staff and the Company will enable the parties to address their respective concerns, while keeping in mind the direction that this Commission has provided. As a matter of policy, the Commission finds that aligning the risks of the Company with its customers is beneficial to ratepayers. Georgia Power should have an ongoing incentive to manage the costs of the project effectively. However, this incentive should not come at the expense of safety or efficiency. Furthermore, for the mechanism to provide an incentive to Georgia Power, it should address those areas of cost over which the Company maintains some control.

F. The Recovery of Construction Work In Progress In Rate Base Is In The Public Interest.

In its application the Company requested that the Commission enter an order in this proceeding that would allow the Company to recover on-going financing cost attributable to the construction of Vogtle Unites 3 and 4 through retail base rates. The Company proposed the inclusion of the CWIP related to Plant Vogtle Units 3 and 4 in rate base for the setting of new

base rates determined during the Company's next base rate proceeding, to be filed in July 2010. Rates determined in that proceeding would be effective January 1, 2011.

Under the Company's proposal, the amount of CWIP in rate base will be based on calendar year budgeted expenditures and adjusted annually. Differences between actual and forecasted costs, once approved by this Commission, would be trued-up in the subsequent period. Allowance for Funds Used During Construction ("AFUDC") would be applied to under-recovered costs, with any over-recoveries returned to customers with interest. The Company also proposed a new tariff, the Nuclear Construction Cost Recovery ("NCCR") rate. The NCCR tariff would be calculated consistent with the traditional regulatory computation of rate base multiplied by the Company's weighted average cost of capital.

In the Amended Certification Order, the Commission stated as follows:

> Notwithstanding the passage and enactment of SB 31, the Commission finds that the Company's proposed inclusion of CWIP relating to the Vogtle Units 3 and 4 is supported by the evidence before the Commission. Further, while the Commission has some latitude with regard to the regulatory accounting treatment of revenues resultant from CWIP, the Commission is not persuaded that the "mirror CWIP" approach advanced by the Staff in this proceeding holds beneficial for the Company or the Company's ratepayers. Therefore, the Commission rejects the Staff's recommendation to utilize the "mirror CWIP" approach.

(Amended Certification Order, p. 10). At the time of the Amended Certification Order, the General Assembly had passed Senate Bill 31, which relates to the accounting for and recovery of finance costs for nuclear construction. However, the Governor had not yet signed Senate Bill 31 into law. Since that time, Senate Bill 31 has been signed into law.

The record contains ample evidence regarding the benefits of CWIP. First, Georgia Power presented evidence that its proposal for CWIP would reduce the cost of the plant $300 million in nominal dollars. (Tr. 639-40). Granting the Company's request for CWIP also protects the Company's credit quality by minimizing the risk of a downgrade. (Tr. 640). A downgrade to the Company's credit rating would increase Georgia Power's financing costs, and these increased costs would ultimately be passed on to ratepayers. (Tr. 640). Based on this record, the Commission finds that the Company's CWIP proposal will benefit ratepayers.

The Staff proposed a "mirror CWIP" alternative to the Company's proposal.

> Under [mirror CWIP], the Commission would allow some amount of CWIP in rate base. However, instead of reducing the AFUDC and the construction cost of the plant, the Commission would direct the Company to record amounts recovered from ratepayers in a regulatory liability, or contra-AFUDC account, and direct the Company to accrue a carrying charge on this regulatory liability amount at the same return as the AFUDC rate. The Commission then could use this regulatory liability to reduce and levelize the revenue requirements of the units once they enter commercial operation by amortizing the regulatory liability in amounts that will achieve this objective. The amortization commonly is structured so that it occurs over approximately the same number of years as the recoveries from ratepayers during construction, hence the term "mirror" CWIP.

(Tr. 1147). The Company argued that the mirror CWIP approach advocated by Staff would result in rate shock. (Tr. 1807). The Commission finds that the Staff's proposed "mirror CWIP" approach would result in rate shock; therefore the Commission declines to adopt it. However, any party may propose in the 2010 rate case a different or better form of mirror CWIP, or any other accounting method which would benefit customers so long as it does not increase the projected service cost of Vogtle Units 3 and 4.

V. ORDERING PARAGRAPHS

WHEREFORE IT IS ORDERED, that the Commission supplements its Amended Certification Order with the Findings of Fact and Conclusions of Law Contained herein.

ORDERED FURTHER, that all findings of fact and conclusions of law contained within the preceding sections of this Order are hereby adopted as findings and conclusions of this Commission;

ORDERED FURTHER, that a motion for reconsideration, rehearing or oral argument or any other motion shall not stay the effective date of this Order, unless otherwise ordered by the Commission; and

ORDERED FURTHER, that jurisdiction over this matter is expressly retained for the purpose of entering such further Order or Orders as this Commission may deem just and proper.

The above by action of the Commission in Administrative Session on the 17th day of June 2010.

Reece McAlister Executive Secretary	**Lauren "Bubba" McDonald, Jr.** Chairman
Date	Date