

Summary of the Testimony of Peter A. Bradford¹

Having spent much of my 20 years as a NARUC commissioner licensing controversial nuclear power plants and presiding at the state PSC hearings that settled some of the related cost issues, I know how hard a job you are facing. My predecessor in New York was hung in effigy in Buffalo during the Nine Mile Point hearings. Bomb threats forced one set of our Maine hearings on Seabrook to be held in a police barracks when no one else would host them.

No outsider can bring solutions on a platter. I've tried in my testimony to weave what seems relevant from my own experience into the challenges that you face in the hope that some of the ideas will be of use to you. My suggestions will start from two premises:

First that the Commission should make decisions that – to the greatest extent possible - preserve flexibility and rest on combinations of regulatory and market principle with which the Georgia PSC is familiar, and second that the Commission's role is to assure that the expected public benefits are received or at least paid for with the same rigor that private counsel and consultants pursue this end on behalf of investors, large customers and other well represented stakeholders.

These premises can provide enhanced knowledge and confidence for the Commission and the public.

This is an immensely important moment for the Vogtle project, for its customers and for the economy of Georgia. Georgia Power Company, whose witnesses' every important forecast of cost, of schedule and of the cost of alternatives has been wrong by enough to have invalidated the project since its original certification, now seeks the Commission's credulity and permission to spend nearly as much all over again to complete the two nuclear power plants it once said would be operating by now. These forecasts often encountered considerable skepticism from the PSC Staff and from SACE, among others who press their perspectives still.

The scheduling certainty forecasted to flow from one stop NRC licensing and modular AP1000 construction has been a mirage. Meanwhile, natural gas prices have continued

¹ On behalf of the Southern Alliance for Clean Energy (SACE) in Georgia Public Service Commission Docket #29849, December 13, 2017. Find full testimony at http://www.cleanenergy.org/wp-content/uploads/PeterBradfordFinalTestimony_SACE17VCM_stamped_120117.pdf

their downward trend despite repeated warnings of upward volatility from Georgia Power Company. Load has still not reached precertification levels.

The Company finds itself financially further from project completion now than it was when it began. Indeed, the net present value to Georgia Power customers of completing the Vogtle units as compared to cancelling them is, by the Company's own calculations, lower today than it was when the project was certified eight years ago. As the PSC advocacy staff has pointed out, the value of completing a well-conceived project should increase not decline as money is spent, so this is a nearly unbelievable and a deeply undesirable accomplishment.

One might expect that a company bringing this stew of dashed expectations before a Commission charged by law to assure just and reasonable rates and the rejection of imprudently incurred costs would be sufficiently humbled to offer new customer protections, above and beyond those put in place to date. But, in fact, the reverse is the case. The protections for customers in the EPC Agreement between the Owners and Westinghouse were a fundamental basis for the PSC's 2010 finding that "the EPC agreement has reasonably balanced the risks between the Company and the Consortium". Yet those protections now have been eliminated by the Westinghouse bankruptcy. As a result, any continuation of Georgia Power's past cost underestimates will no longer be borne by the project contractors but will flow through to its customers excepting only the reduced profit margin provided by the Vogtle Supplemental Information Review (SIR) stipulation and any costs disallowed for unreasonableness or imprudence. My own experience licensing and regulating two dozen nuclear units (and extricating my home state from two that had become uneconomic through massive cost overruns) tells me that Georgia Power's record to date and the fact that the units have a long way to go suggest a high probability of further cost overruns and delays. The search for what Wall Street calls "the dumb money", that is the investor who takes an inordinate share of the risk in return for a nominal share in whatever returns may be realized, now aims inexorably at Georgia Power's customers.

Against this backdrop, I'll summarize the recommendations from my prefiled testimony before elaborating their background and justification. These recommendations are grounded in the belief that the Georgia PSC will want to protect and lock in customer expectations with the same rigor and quest for certainty that the company exhibits on behalf of its investors.

Each of these recommendations reflect lessons that I learned in managing comparable cost overrun situations at the Seabrook and Shoreham nuclear sites in New England and New York in the 1980s, lessons that are set forth at greater length in my testimony. No one can

tell you that these situations can be resolved without costs. However, they can be approached in ways that assure reliable power, reasonable rates, enhanced economic development, positive net present values and an electric system more open to the technologies of the future than tied to inflexible past commitments.

First, I would not certify the reasonableness of continuing Vogtle construction on the terms requested by Georgia Power Company. To do so would replicate the cost exposure of the original certification without the protections of the EPC contract with Westinghouse. This time, the open-ended risks would be on the customers.

Second, you could require that Georgia Power provide you with proof from a well-run competitive procurement process that completing Vogtle units 3 and 4 is a least cost way to meet its customers' real future needs for electricity. Given other testimony in this proceeding, it seems more likely than not that completing the Vogtle units will not be economically reasonable within normal Georgia Power planning horizons. The evidence suggests that combinations of gas, renewables and energy efficiency and grid enhancement can do the job at less cost while protecting the nonmonetary values provided by Georgia's current system.

Third, you can insist on a market-based demonstration like the one done at Seabrook establishing that the community of sophisticated power purchasers puts a value on completing Vogtle that approximates the costs to which Georgia Power insists on exposing its customers if it is to continue the project. By coincidence (since my testimony was filed) the Jacksonville Electric Authority has apparently concluded that it will be better off renouncing its Vogtle purchase and relying on gas, renewables and efficiency to meet its needs even if it must pay a penalty for doing so. The implications of this decision for the MEAG share are not clear but are something the PSC may want a clearer understanding of before proceeding further.

Fourth, you can use the results of these two market tests to establish an upper reasonable limit on what Georgia Power customers should pay for completing Vogtle. By making that number a cap on the completion cost to be paid by customers so that they have the same level of certainty as to future cost exposure that Georgia Power seeks for itself and its shareholders, the Georgia PSC would be defending the interests of Georgia Power's customers with the same rigor and aversion to uncertainty that the Company urges on behalf of its investors.

Finally, the Commission should make clear that the commitment of Toshiba to pay off its guarantee immediately does not fundamentally change the economics of the Vogtle project.

Toshiba committed to this payment whether the project continues or is cancelled. Therefore, settlement of the guarantee does not favor the completion of Vogtle 3 and 4. The Company has done well to secure this payment. It is a down payment on a better and lower cost electric energy future for Georgia's citizens. It need not be counted toward the completion of a particular power plant. That money reduces the cost of escaping from the Vogtle deficits, but it is not an argument for completing the nuclear power plant.

Fundamental to any conclusion as to the reasonableness of completing the Vogtle reactors is having the most thorough possible analysis as to whether their future cost is likely to be the best and the lowest cost way of meeting the energy needs of Georgia Power Company's customers. No comprehensive analysis of this central question has been done in this docket since the original certification proceeding. However, since that time, every other applicant for a new U.S. nuclear power plant license in the 21st century has concluded that their customers' needs could better be met in nonnuclear ways. Yet, if the Company has its way, the Commission will approve the reasonableness of paying the original cost estimate for the same reactors twice over, even though the absence of the reactors on the dates they were originally alleged to be needed has caused no shortages, and their substitutes have cost far less than the Vogtle reactors would have.

The relative position of new reactors compared to other alternatives continues to worsen. Even nonmonetary factors like climate, fuel diversity, national security, energy security and the overall state economy cannot override the dismal economics of new reactors, in part because some of these costs are already borne by federal taxpayers and in part because other resources provide for them equally well and at lower cost. For all of the many cancellations and closings of nuclear plants in the U.S., the replacement power has not come from a single plant built for replacement purposes but from diverse combinations of alternatives and from revised deployment of the existing system.

The Company has not performed either the market tests or the analyses necessary to make a convincing showing under these extraordinary circumstances that completion of the Vogtle units is justified. In comparing Vogtle solely to a stand-alone gas alternative, it has ignored the very type of combinations of alternatives that have in fact replaced all of our many cancelled plants without causing a single power outage anywhere, any time. Nor is it willing to complete the units if it must assume for its shareholders the risk of many likely events identified in their own testimony as "known risks" – a number of which would more than eliminate the net present value benefit that the Company asserts will flow from completing Vogtle.