

**BEFORE THE GEORGIA PUBLIC SERVICE COMMISSION  
STATE OF GEORGIA**

<b>In Re: Review of Proposed Revisions</b>	)	
<b>and Verification of Expenditures</b>	)	
<b>Pursuant to Georgia Power Company's</b>	)	<b>Docket No. 29849</b>
<b>Certificate of Public Convenience and</b>	)	
<b>Necessity for Plant Vogtle Units 3 and 4,</b>	)	
<b>Sixteenth Semi-annual Construction</b>	)	
<b>Monitoring Report</b>	)	

**DIRECT TESTIMONY AND EXHIBIT OF GLENN CARROLL  
ON BEHALF OF NUCLEAR WATCH SOUTH**

**I. INTRODUCTION**

1 **Q. Please state your name, profession, and business location.**

2 A. My name is Glenn Carroll. I am coordinator of Nuclear Watch South. My business  
3 address is P.O. Box 8574, Atlanta, Georgia 31106.

4  
5 **Q. Ms. Carroll, please summarize your educational and professional experience.**

6 A. I am coordinator of Nuclear Watch South and have 30 years experience with nuclear  
7 issues. My resume is attached as Exhibit #1. Besides experience with multiple *pro se*  
8 legal interventions before the U.S. Nuclear Regulatory Commission's Atomic Safety &  
9 Licensing Board, I provided testimony before the Georgia Pubic Service Commission in  
10 the 12th and 14th VCMRs. I am a veteran eyewitness to the Vogtle I & II prudency  
11 hearings and 1987 and 1988 rate cases. The information I present is publicly available  
12 information which is accessible and understandable to all Georgia citizens. My  
13 experience as a public advocate for the grassroots environmental group Nuclear Watch  
14 South which itself has been serving the public interest for 40 years uniquely qualifies us  
15 to advise the Public Service Commission on the interests of the public which it is sworn  
16 to serve and protect.

1 **Q. On whose behalf are you testifying in the 16th Semi-Annual Vogtle**  
2 **Construction Review?**

3 A. Georgia members of grassroots environmental group Nuclear Watch South.

4  
5 **Q. What are the issues in this case?**

6 A. 1) To examine, in accordance with O.C.G.A. § 46-3A-7(b), the ongoing necessity  
7 and public convenience of expanding Georgia Power's electric generating capacity,  
8 especially with respect to continuing to construct unneeded power supply at Vogtle,  
9 now in light of bankruptcies and lawsuits among the Vogtle construction consortium  
10 partnership. 2) To inform Commission action to decertify Vogtle 3 & 4 construction in  
11 accordance with Georgia Code O.C.G.A. § 46-3A-6 to protect the public from further  
12 exaction of excessive Construction Work in Progress fees for an unneeded project with  
13 an uncertain future. 3) To consider Georgia Power's request to recover \$222 million  
14 expenditures on Vogtle 3 & 4 construction for the period of July 1, 2016-December 31,  
15 2016 in accordance with O.C.G.A. § 46-3A-7 and the stipulation forged in the 8th  
16 VCMR.

17  
18 **Q. What is the purpose of your testimony?**

19 A. To present factual evidence showing that Plant Vogtle expansion fails the necessity  
20 test and to support Commission action to immediately decertify Vogtle 3 & 4  
21 construction in accordance with its legal authority under Georgia Code O.C.G.A. § 46-  
22 3A-6 to provide Georgia electricity customers safe, reliable and reasonably priced  
23 electric services.

24  
25 **Q. What information sources do you rely upon in your testimony?**

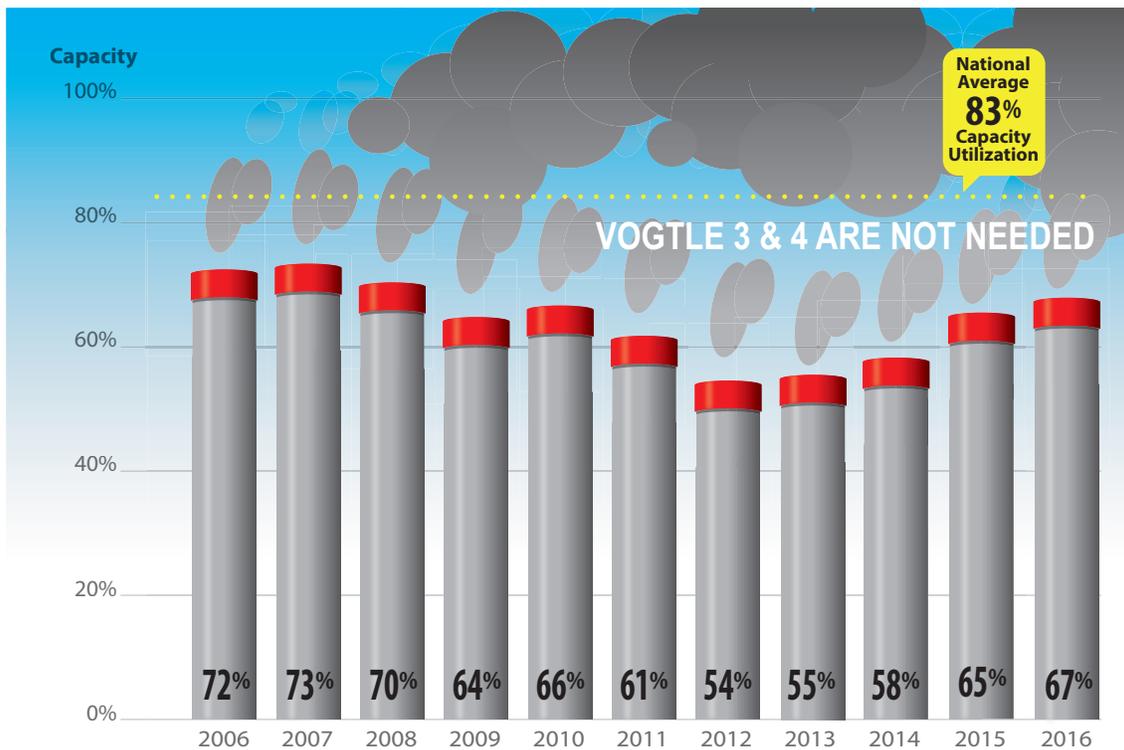
26 A. Georgia Power data obtained from Georgia Power 2006-2016 annual reports,  
27 Official Code of Georgia Annotated and the stipulation adopted with the 8th VCM.

28  
29



1 Line 6 of Exhibit #2 (Figure 2 below) shows Georgia Power's capacity utilization has  
 2 declined from 72% to 67% for the 2006-2016 time period. Georgia Power's capacity  
 3 utilization remains well below the national average of 83% despite its improved annual  
 4 average following the recent closure of 3,000 Mw of coal plants. Although the national  
 5 average for capacity utilization is 83%, Georgia Power's overbuilt situation is typical of  
 6 U.S. shareholder-owned utilities. Robert McCullough of Oregon-based McCullough  
 7 Research, who has studied California's excess electric capacity for both utilities and  
 8 regulators asserts that 90% capacity utilization (10% excess capacity) is sufficient to  
 9 achieve reliability in extreme weather events and unusual acts of God.<sup>1</sup>

## Georgia Power Capacity Utilization 2006-2016



Source: Georgia Power Company annual reports 2006, 2007, 2008, 2009, 2010, 2011, 2012, 2013, 2014, 2015, 2016

Chart: © 2017 Nuclear Watch South, www.nuclearwatchsouth.org

**Figure 2 Georgia Power Capacity Utilization 2006-2016**

<sup>1</sup> *Californians are paying billions for power they don't need*, 2/5/17, **Los Angeles Times**, Ivan Penn and Ryan Menezes, <http://www.latimes.com/projects/la-fi-electricity-capacity/>

1 Vogtle 3 & 4 were certified based on Georgia Power forecasts of 4.1% annual growth  
2 which has not happened, as shown by Georgia Power's own data. Georgia Power's 2009  
3 application for Vogtle 3 & 4 asserted new power generation would be required by 2016  
4 and yet 2016 finds Georgia Power's sales to be essentially the same as in 2009. Indeed,  
5 population growth forecasts made by Georgia Power have proved more accurate than  
6 forecasts about demand, as, according to the U.S. Census, the population of Georgia has  
7 grown by 1,200,000 (12.5%) since 2005. For whatever reason, despite the growth in  
8 Georgia Power's customer base, commensurate growth in electricity demand has been  
9 lacking. Additional electrical power from Vogtle expansion is simply not needed.

10  
11 **Q. Is there independent analysis verifying Nuclear Watch South's conclusions**  
12 **from the Georgia Power data set?**

13 A. Yes, a study was released by Southern Environmental Law Center in May 2017  
14 concludes that Vogtle 3 & 4 are not needed and should not be built. The report "Plant  
15 Vogtle Decision Point: Time to Chart a Different Course" was commissioned by  
16 Southern Environmental Law Center and Vote Solar and produced by Greenlink Group  
17 out of Georgia Tech. It articulates a clear-eyed analysis of multiple significant trends  
18 which have emerged since the decision to build Vogtle was first taken. It concludes that  
19 bankrupt Vogtle partners coupled with the dramatic downward shift in energy  
20 consumption despite a handsome uptick in economic growth, make this a good juncture  
21 at which to cancel the 42% complete, unneeded plants. *"Plant Vogtle Decision Point:*  
22 *Time to Chart a Different Course" is attached to this Motion as Attachment 3.*

23  
24 The report notes the addition of more than 2,000 Mw of solar in Georgia which has  
25 come on-line cheaply and quickly while Vogtle 3 & 4 continue to rack up delays and  
26 cost overruns. It compares the cost of efficiency (1.1¢/kwh), utility-scale solar  
27 (5.6¢/kwh) and new nuclear at Vogtle (8.3-10.3¢/kwh). It says: "while Plant Vogtle has  
28 and will continue to exert significant upward pressure on customer bills, investments in  
29 solar and energy efficiency do the opposite. In fact, Georgia Power's recent solar  
30 investments under the Commission's leadership are projected to save customers several

1 hundred million dollars over the next few decades."<sup>2</sup>

2  
3 The SELC report provides credible new expert analysis to the Commission that will  
4 help in facing the tough decision that must now be made, that is, to cancel a partially  
5 complete, multi-billion project.

6  
7 **III. THE PUBLIC SERVICE COMMISSION HAS THE POWER TO**  
8 **DECERTIFY VOGTLE 3 & 4**

9  
10 **Q. What is the Georgia Public Service Commission's authority with regard to**  
11 **construction of power supply which is no longer needed?**

12 A. Georgia Code O.C.G.A. § 46-3A-6 applies to the situation Georgia and Georgia  
13 Power now find themselves in. It states that "Upon ... its own motion, the commission  
14 may reexamine any certificate ... to determine whether ... future requirements require  
15 the modification of the construction ... or expenditure for a certificated capacity  
16 resource. *If upon such reexamination the commission finds that the certificated capacity*  
17 *resource is no longer needed ... the commission may modify or revoke the certificate."<sup>3</sup>*

18 The statute not only provides the PSC with a tool to prevent unnecessary expense to the  
19 Georgia public, but is protective of Georgia Power as well. If the utility abandons a

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<sup>2</sup> *Georgia Power Company's Application for Certification of the 2015 and 2016 Advanced Solar Initiative Prime Power Purchase Agreements and Request for Approval of the 2015 Advanced Solar Initiative Power Purchase Agreements*, Georgia Public Service Commission Docket No, 38877, Hearing Transcript (Dec. 2, 2014), at 50

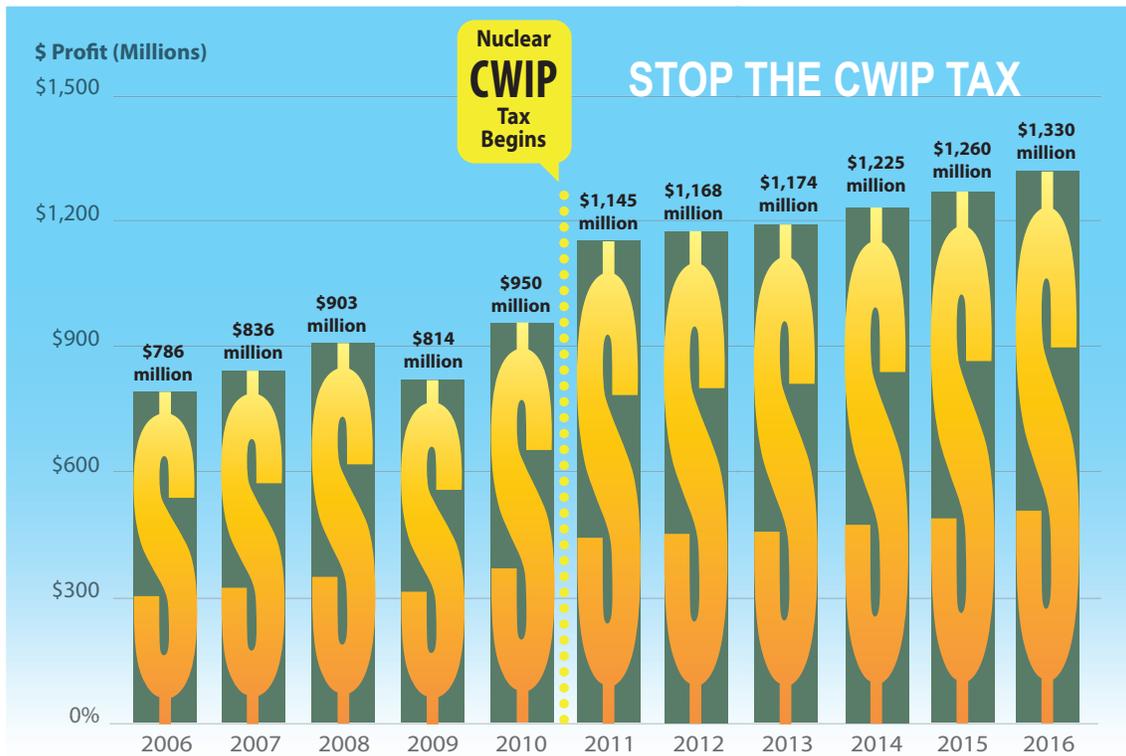
<sup>3</sup> Georgia Code O.C.G.A. § 46-3A-6: Upon application of a utility or *upon its own motion*, the commission may reexamine any certificate granted under this chapter to determine whether *new forecasts of future requirements require the modification of the construction, purchase, sale, or expenditure for a certificated capacity resource. If upon such reexamination the commission finds that the certificated capacity resource is no longer needed* or that any additional certificated capacity resource is needed to assure a reliable supply of electric power and energy for the utility's Georgia retail customers, the commission may modify or revoke the certificate. If the utility cancels, abandons, or increases some or all of the capacity resource as a result of such modification or revocation of the certificate, it may recover through any rate-making vehicle over a reasonable period of time, absent fraud, concealment, failure to disclose a material fact, imprudence, or criminal misconduct, the amount of its investment in such capacity resource, along with the cost of carrying the unamortized portion of that investment, net of actual salvage value, to the extent such investment is verified as made pursuant to the certificate. The commission shall disallow such investment and costs resulting from fraud, concealment, failure to disclose a material fact, imprudence, or criminal misconduct. *[emphasis added]*

1 project because it was decertified by the PSC, it may recover the costs incurred in the  
2 incomplete project as well as costs associated with closing the project (absent fraud,  
3 concealment, failure to disclose a material fact, imprudence, or criminal misconduct).

4

5 Indeed, despite the financial calamity which has befallen its Vogtle construction  
6 partners, Georgia Power is currently enjoying record high profits from Vogtle  
7 construction and posted a profit of 15.9% in 2016. It is not fair for Georgia citizens to  
8 enrich Georgia Power's shareholders for a mismanaged construction project, a project  
9 that is not even needed. The PSC website specifically says that the PSC does not  
10 guarantee profits of regulated companies. Line 2 of Georgia Power Key Financial and  
11 Operating Data 2006-2016 (Exhibit #2) and Figure 3 below illustrate Georgia Power's  
12 recent profit history.

### Georgia Power Profits 2006-2016



13  
14  
15

Source: Georgia Power Company annual reports 2006, 2007, 2008, 2009, 2010, 2011, 2012, 2013, 2014, 2015, 2016  
Chart: © 2017 Nuclear Watch South, www.nuclearwatchsouth.org

**Figure 3 Georgia Power Profits 2006-2016**

1 The \$10 billion cost of the project so far will be painful for Georgians and Georgia  
2 Power to absorb but it is a fraction of the financial pain that finishing an unneeded  
3 nuclear project will exact with an estimated price tag of \$20 billion (which is likely to  
4 increase). Indeed, line #10 of Exhibit #2, shows that Georgia Power's estimates to  
5 complete Vogtle 3 & 4 have already risen by 28% between 2009 and 2016, and that  
6 figure predates the revelations of Toshiba, Westinghouse and CB&I's financial troubles  
7 from new nuclear build.

8

9 The Georgia ratepaying public has transferred more than \$200 million of its hard-earned  
10 money into Georgia Power's coffers while the consortium of companies constructing  
11 Vogtle 3 & 4 are mired in bankruptcy and litigation. Almost six months have passed  
12 and the last action by the PSC remains the December 22, 2016, decision to virtually  
13 extend Georgia Power's blank check to build Vogtle 3 & 4 despite the cost overruns,  
14 delays, and failure of the project to meet the necessity test.

15

16 This situation is by definition NOT CONVENIENT to the public. The PSC alone has  
17 the instant power to stop the unjust burden upon the public to keep paying Georgia  
18 Power for the less-than-half-complete project.

19

20 Neither Georgia Power, the Public Interest Advocacy staff nor the PSC have refuted  
21 Nuclear Watch South's basis for asserting that Vogtle 3&4 are not needed, namely the  
22 picture drawn by Georgia Power's own performance data. In an unregulated market,  
23 Georgia Power's profits would be linked to its performance. It is only through the PSC's  
24 failure to revoke Vogtle 3 & 4 certification that Georgia Power continues to post such  
25 large profits for its shareholders at the expense of the Georgia ratepaying public.

26

27 Nuclear Watch South urgently calls upon the Commission to exercise the responsibility  
28 and authority vested in it by Georgia O.C.G.A. § 46-3A-6 to revoke Vogtle 3 & 4  
29 certification.

30

1       **IV. GEORGIA RATEPAYERS WOULD RECEIVE MORE BENEFIT FROM**  
2               **CANCELLING THAN COMPLETING VOGTLE 3&4 CONSTRUCTION**

3

4       **Q. Would it be more beneficial for Georgia Power customers to finish Plant Vogtle**  
5       **3&4 or to cancel construction?**

6       A. It would be cheaper to cancel, than to complete, construction given that Plant Vogtle  
7       3&4 are not needed. Georgia Power testified in the current 16th VCMR that Vogtle  
8       expansion is still only 42.7% finished. Georgia Power and its partners have spent almost  
9       \$7.75 billion on Vogtle so far (and as has been well publicized, are \$3 billion over  
10      budget and four years behind schedule). The cost of the completed project is roughly  
11      \$18 billion at present. The cost to cancel the construction project would be far less than  
12      the \$10.25 billion left to be spent. It should be noted that the cost to complete Vogtle  
13      figure is expected to increase along with projected increased delays to finishing the  
14      beleaguered project.

15

16      Abundant historical examples of canceled nuclear reactor projects are available for the  
17      PSC and Georgia Power to study. An article which appeared in Reuters in March 2017  
18      states that only 53 of 97 reactors under construction before the 1979 Three Mile Island  
19      meltdown were completed and placed in service.<sup>4</sup>

20

21               **V. GEORGIA POWER SHOULD BE REIMBURSED \$222 MILLION IN**  
22               **ACCORDANCE WITH 8TH VCM STIPULATION**

23

24       **Q. Should the PSC reimburse Georgia Power for \$222 million expenditures in the**  
25       **reporting period?**

26       A. Since the PSC has not yet decertified the unneeded reactors under construction at  
27       Vogtle 3 & 4, it is obligated by its own order adopting the stipulation in the 8th VCM to

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<sup>4</sup> *U.S. nuclear reactors that were canceled after construction began*, March 29, 2017, **Reuters**, Scott DiSavino, <http://www.dailymail.co.uk/wires/reuters/article-4361594/U-S-nuclear-reactors-canceled-construction-began.html>

1 reimburse Georgia Power's construction costs since they have not yet exceeded the \$4.4  
2 billion approved capital cost for Vogtle 3 & 4.

## 4 VI. CONCLUSIONS & RECOMMENDATIONS

### 6 **Q. Please summarize your conclusions & recommendations for the Commission.**

7 **A.** The foregoing information shows clearly that Vogtle 3 & 4 should be decertified. No  
8 blame can be assigned for decisions to certify and fund Vogtle 3 & 4 construction prior  
9 to 2010, but the performance indicators show clearly that Georgia Power's forecast was  
10 wrong and it is incumbent upon the PSC to move rapidly to stem the flow of cash from  
11 Georgia Power's captive rate base to Georgia Power's shareholders.

12  
13 Nuclear Watch South first brought these conclusions to the PSC in 2013, before the first  
14 concrete was poured, and before the parties entered into two years of closed-door  
15 litigation while costs spiraled out of control.

16  
17 Now the whole world knows the situation at Vogtle 3 & 4 is out of control. While the  
18 100-year-old companies hedge their bets and guard their stock value with interminable  
19 delays, the power to protect the Georgia public from further harm lies firmly within the  
20 PSC's grasp.

21  
22 Nuclear Watch South calls urgently upon the Commission to exercise the responsibility  
23 and authority vested in it by Georgia O.C.G.A. § 46-3A-6 to revoke Vogtle  
24 certification.

- 25
- 26 • Georgia Power annual report data reveals that the company is overbuilt in a  
27 shrinking, shifting market and no longer needs the power from Vogtle 3&4.
- 28 • The Georgia Public Service Commission should revoke certification for Vogtle  
29 3 & 4 as authorized by Georgia O.C.G.A. § 46-3A-6 in order to protect Georgia  
30 electricity customers from further investment in an unneeded power source.

- 1       • Georgia citizens are paying an unprecedented nuclear tariff for Vogtle  
2       construction which is resulting in unprecedented profit increases for Georgia  
3       Power.  
4       • The greatest benefit to the Georgia public since Vogtle 3 & 4 no longer meet the  
5       necessity test is for the Commission to immediately revoke certification and stop  
6       billing Georgia electric customers.

7

8       **Q. Ms. Carroll, does this conclude your testimony?**

9       A. Yes.