

STATE OF NORTH CAROLINA  
UTILITIES COMMISSION  
RALEIGH

DOCKET NO. E-7, SUB 1017

BEFORE THE NORTH CAROLINA UTILITIES COMMISSION

In the Matter of	)	
Investigation Regarding the Approval and	)	NC WARN'S
Closing of the Business Combination of	)	ADDITIONAL COMMENTS
Duke Energy corporation and Progress	)	
Energy, Inc.	)	

SUBSEQUENT TO the Commission's initial investigatory hearing on July 10, 2012, now comes the North Carolina Waste Awareness and Reduction Network, Inc. ("NC WARN"), through the undersigned attorney, with additional comments.

1. In light of Mr. Rogers's comments that two of the principal reasons for the Duke Energy Board's request that Mr. Johnson resign was the mismanagement of the repairs at Crystal River Nuclear Plant and the failure of Progress Energy to keep its nuclear fleet operating effectively, NC WARN recommends that the Commission investigate further these two areas because of their direct impacts on North Carolina ratepayers. As a result of Crystal River, bond ratings are in question and may continue to fall, making it more expensive for Duke Energy to borrow money for North Carolina projects, including the repairs and renovations of nuclear plants in the Carolinas thus adding to electric rates.

Crystal River

2. First on June 18, 2012, and again in its initial scoping comments of July 10, 2012, NC WARN recommended that the Commission request the studies Duke Energy prepared on the mismanagement at Crystal River leading to the need for costly repairs

to the containment building and the cost estimates to bring the plant back on line. NC WARN continues to believe those studies are relevant to the investigation as their findings apparently led to the removal of Mr. Johnson and additionally, were not disclosed to the Commission prior to its order approving the merger.

3. At investigatory hearing, Mr. Rogers testified that the mismanagement of repairs and lack of “realistic assessments [of] the best way forward with Crystal River”, i.e., either to replace or repair the plant, were key aspects of the Duke Energy Board’s eventual lack of confidence in Mr. Johnson. Tr. Vol. 1 page 34. Mr. Rogers further testified that there was a lack of transparency and flow of information causing a disconnect between what Duke Energy believed and what was occurring. A significant part of this was what payments the Nuclear Electric Insurance Limited (“NEIL”) would indemnify the utility for power replacement and repairs. This was reflected in Mr. Johnson's misleading testimony at the September 20, 2011, hearing in the merger dockets, "we've also said that we believe the majority or maybe all of that is covered by insurance." Dockets E-7, Sub 986 and E-2, Sub 998, Tr. Vol. 2, pp. 140-141.

4. An overview of the failures of Progress Energy, “Crystal River Concrete Containment Separation,” found on the Nuclear Regulatory Commission (“NRC”) website,<sup>1</sup> reports

In September 2009, Crystal River Unit 3 shut down for a planned refueling outage. One of the major outage work activities was to replace their old Steam Generators with new ones. The steam generators are located in the concrete containment building, which houses the reactor. The Crystal River containment is about 42 inches thick, contains both horizontal and vertical tensioned steel tendons, and is lined with a 3/8 inch steel plate. To take out the old steam generators and to move the new ones in, workers needed to create a 25’x27’ opening in the side of containment.

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<sup>1</sup> [www.nrc.gov/info-finder/reactor/cr3/concrete-containment-separation.html](http://www.nrc.gov/info-finder/reactor/cr3/concrete-containment-separation.html)

Progress Energy performed a “root cause” analysis and the NRC conducted a special investigation demonstrating that a series of mistakes occurred when the building was opened and during initial repair work.

5. Cost-saving shortcuts approved by Mr. Johnson, and others in Progress Energy, led to the plant’s extensive damage, and the two costly alternatives referenced by Mr. Rogers, repair or replace. The most recently reported estimate for repairing the containment wall delaminations at Crystal River is \$1.3 billion, with approximately \$300 million annually for replacement power, placing the entire repair in the \$3 billion range.<sup>2</sup> However, without a full cost study and repair plan, the estimate may be so hypothetical as to be unfounded, and actual costs could be significantly higher.

6. As of March 31, 2012, Progress Energy had spent \$506 million to replace lost generation from the plant and \$279 million in repairs, and has recovered only \$162 million in replacement power cost and \$143 million in repair cost from NEIL. As noted by Mr. Rogers at the hearing, Duke Energy is now in mediation with NEIL. Tr. Vol. 1 p. 34. NEIL stopped paying for replacement power in June 2011 and repairs in December 2010. It remains uncertain whether NEIL will recompense Duke Energy for the repairs, even after the current mediation.

7. In recent filings before the Florida Public Services Commission, the witness for the Florida Office of Public Counsel, Dr. Jacobs, recommended that none of the repairs and continued uprates at the plant should be recovered under Florida’s annual nuclear early cost recovery statute, Fla. Stat. 366.93.<sup>3</sup> His rationale is that the plant would not produce power until 2015, even if repairs were initiated immediately and

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<sup>2</sup> Press Release, “Progress Energy provides update on Crystal River Nuclear Plant outage,” June 27, 2011.

<sup>3</sup> Testimony of William R. Jacobs, Jr. PhD, June 19 2012, in Docket 120009-EI. [www.psc.state.fl.us/library/FILINGS/12/04020-12/04020-12.pdf](http://www.psc.state.fl.us/library/FILINGS/12/04020-12/04020-12.pdf)

stayed on schedule, with the strong possibility that the plant would never produce power.<sup>4</sup>

8. The second alternative, replacement, is a permanent shutdown of the plant, another costly option. In its March 26, 2012, filing to the NRC, Progress Energy reported there was \$608 million in its decommissioning trust fund at the end of the year 2010. NRC Docket No. 50-302, Decommissioning Funding Status Report, RA-12-01. The most recent nuclear plant decommissioned, the smaller Haddam Neck nuclear plant in Connecticut, cost \$1.2 billion in 1996 dollars, nearly double its original decommissioning cost estimate.<sup>5</sup> In addition to the highly uncertain costs of decommissioning itself, it is likely that Duke Energy would be required to spend significant amounts annually at the site for an indefinite period in order to manage and secure the storage of spent reactor fuel.

9. At the insistence of its Board, Duke Energy conducted a confidential analysis of both the causation of problem and the costs of various repair or shut down alternatives. This study was reportedly in the hands of the Duke Energy Board by June 25, 2012, and from Mr. Rogers' testimony, it is clear that Duke began receiving interim feedback from the analysis weeks earlier, and that the findings in the report were a key element in the Board's justification for removing Mr. Johnson. NC WARN strongly recommends that the Commission obtain this report (and all related reports) on Crystal River to determine both the depth of mismanagement and the cost estimates for the alternatives. NC WARN is not aware of an up-to-date cost estimate for decommissioning the Crystal River plant, although presumably Duke Energy has

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<sup>4</sup> It should also be noted that Crystal River initially came on line in 1977 and its operating license, NRC License No. DPR-72, will expire in 2016, so the debate over what option to select may be moot.

<sup>5</sup> Reuters, "Decommissioning a Nuclear Plant Can Cost \$1 Billion and Take Decades," June 13, 2011.

studied that important question, and we urge the Commission to seek that information.

10. At a minimum, the costs of Crystal River will lower Duke Energy's bond ratings and increase the cost of borrowing for all capital projects. This will make projects in North Carolina more expensive to construct and raise rates, especially if Duke Energy carries out its current ambitious construction plans. See for example, Duke Energy Carolina's 2011 Integrated Resource Plan, Docket E-100, Sub 128. The value of Duke Energy shares may also decrease. Another way these costs effect North Carolina rate payers is through payments from the various operating companies to the holding company to meet shareholder expectations of dividends. With Crystal River significantly reducing Progress Energy Florida's contribution to the holding company for an indefinite number of years, rate payers from North Carolina and other Duke Energy states will be pressed to make up the difference.

11. The Commission should request a specific chronology of the Crystal River mismanagement and cost estimates. Of particular relevance to the present investigation is the question of when Duke Energy became aware of the magnitude of the problem and realistic cost estimates for resolution.

### Nuclear Fleet

12. At the investigatory hearing, Mr. Rogers's testified that another reason for Mr. Johnson's removal was "there was a concern about the lack of sufficient improvement in the operating results of Progress' nuclear fleet. Three out of the five are on increased NRC oversight." Tr. Vol.1 p. 33. Subsequently, he said Duke Energy would "pour money and effort into bringing those plants back to excellence." Tr. Vol. 1 p. 38. To make these conclusions, the Duke Energy Board and/or Mr. Rogers had to have some idea of the costs associated with bringing these nuclear plants up to a level of operating effectiveness. As a matter of due diligence, Duke Energy must have conducted an analysis of what was required at those plants, yet did not include this

study in its merger application or supplementary filings with the Commission.

13. NC WARN finds the new revelation that Duke Energy is planning major expenditures at the former Progress Energy nuclear plants, Robinson and Brunswick, troublesome. Although we agree that the plants no doubt need major renovations and upgrades, the costs of these renovations will likely be in the hundreds of millions or even billions of dollars. These unexpected cost of the upgrades to the Progress Energy nuclear fleet in the Carolinas could easily negate the forecasted fuel savings from the merger, especially because the upgrades would surely occur long before the five-year period over which the merger's purported savings would pass to the public.

14. The Commission should request all information known by Duke Energy on the need for these major investments to determine what the impacts would be on ratepayers, and relevant to the current investigation, whether these major investments should have been disclosed as part of the merger docket.

Respectfully submitted, this the 13<sup>th</sup> day of July 2012

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## CERTIFICATE OF SERVICE

I do hereby certify that I have this day served a copy of NC WARN'S COMMENTS upon each of the parties of record in this proceeding or their attorneys of record by emailing them an electronic copy or by causing a paper copy of the same to be hand-delivered or deposited in the United States Mail, postage prepaid, properly addressed to each.

This is the 13<sup>th</sup> day of July 2012.

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Attorney at Law