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July 19, 2007

Ms. Ann Cole, Commission Clerk
Florida Public Service Commission
2540 Shumard Oak Boulevard
Tallahassee, FL 32399-0850

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07 JUL 19 PM 3:43
COMMISSION
CLERK

In re: PEF's Petition to Recover Costs of Crystal River Unit 3 Uprate
through the Fuel Clause
Docket No. 070052

Dear Ms. Cole:

Enclosed for filing on behalf of Progress Energy Florida, Inc. are the original and 15
copies of:

1. Rebuttal Testimony of Daniel L. Roderick; and
2. Rebuttal Testimony of Javier Portuondo.

CMP _____ I have also enclosed a CD of the above testimonies in both word and pdf formats for your
COM 5 convenience.

CTR 1 original
ECR _____ If you or your Staff have any questions regarding this, please contact me at
(813) 229-4917.

GCL 2

OPC _____

RCA _____

SCR _____

SGA _____

SEC _____

OTH _____

Enclosures

** CD forwarded to ECR*

Sincerely,

Dianne M. Triplett

<i>Roderick</i>	<i>Portuondo</i>
DOCUMENT NUMBER-DATE	DOCUMENT NUMBER-DATE
06099 JUL 19 5	06100 JUL 19 5
FPSC-COMMISSION CLERK	FPSC-COMMISSION CLERK

ORIGINAL

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

**In re: Petition to Recover Costs
of Crystal River Unit 3 Uprate
through the Fuel Clause**

**DOCKET NO. 070052
Submitted for filing:
July 19, 2007**

**REBUTTAL TESTIMONY
OF DANIEL L. RODERICK**

**ON BEHALF OF
PROGRESS ENERGY FLORIDA**

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DOCUMENT NUMBER - DATE

06099 JUL 19 2007

FPSC-COMMISSION CLERK

**IN RE: PETITION TO RECOVER THE COSTS OF THE CRYSTAL RIVER
UNIT 3 UPRATE THROUGH THE FUEL CLAUSE**

BY PROGRESS ENERGY FLORIDA

FPSC DOCKET NO. 070052

REBUTTAL TESTIMONY OF DANIEL L. RODERICK

I. INTRODUCTION AND QUALIFICATIONS

1 **Q. Please state your name and business address.**

2 A. My name is Daniel L. Roderick. My business address is Crystal River
3 Energy Complex, Site Administration 2C, 15760 West Power Line Street,
4 Crystal River, Florida 34428.

5
6 **Q. Have you previously submitted testimony in this docket?**

7 A. Yes, I filed both Direct and Amended Direct Testimony in this docket to
8 support the Company's request for cost recovery through the fuel clause
9 for the replacement and modification of equipment at Progress Energy
10 Florida, Inc.'s ("PEF" or the "Company") nuclear unit at Crystal River
11 ("CR3") to increase reactor power from the nuclear plant (the "Uprate
12 Project").

13

14 **Q. Have any of your duties changed since filing your Amended Direct**
15 **Testimony?**

1 A. No.

2
3 **II. PURPOSE OF REBUTTAL TESTIMONY**

4
5 **Q. Have you reviewed the intervener testimony of Daniel J. Lawton and**
6 **Patricia W. Merchant, filed on behalf of the Office of Public Counsel**
7 **(“OPC”), and of Jeffrey Pollock, filed on behalf of the Florida**
8 **Industrial Power Users Group (“FIPUG”)?**

9 A. Yes.

10
11 **Q. What is the purpose of your rebuttal testimony?**

12 A. The purpose of my rebuttal testimony is to respond to their uninformed
13 arguments that the Uprate Project is not an innovative project and that the
14 work necessary to address point of discharge (“POD”) issues and
15 transmission upgrades are not part of the Uprate Project. Simply put, the
16 Uprate Project is innovative for the CR3 unit design and the estimated
17 POD and transmission costs must be incurred as a result of and only
18 because of the Uprate Project. Further, I will address intervener witness’
19 misplaced claims that the Uprate Project cost estimates are too preliminary
20 by explaining that they use accepted engineering estimating methods
21 based on the best available information.

1 importantly, both uprates reflected here were minor (less than 1.3%)
2 uprates. The technical and analytical reviews necessary to perform an
3 extended uprate on these B&W type units have never been performed.
4 The innovations are the solutions sets necessary to modify the B&W plant
5 designs to make an extended uprate.

6 Additionally, of the uprate projects identified in Exhibit JP-2, only
7 one plant, Clinton Power Station (page 6 of 8) qualifies as a power uprate
8 with the same percentage increase in megawatt production (20%) as the
9 CR3 Uprate Project will achieve. Thus, the size of the Uprate Project also
10 sets it apart from all but one of the previous NRC-approved uprate
11 projects.

12 Simply put, then, the Uprate Project is a unique, innovative uprate
13 project because it involves a B&W plant design and an extended and
14 significant power increase that sets the Uprate Project apart from other
15 uprates while providing substantial fuel savings to the customer.

17 **IV. UPRATE PROJECT TRANSMISSION AND POD COSTS**

18
19 **Q. Intervener Witnesses dispute that the Uprate Project should include**
20 **transmission upgrades and POD costs. Do you agree?**

21 **A.** No. Intervener Witness Lawton, for example, refers to my testimony that
22 the transmission costs are required because CR3 with the Uprate Project
23 will be the single largest generation unit on the Florida grid. He claims

1 this means the transmission costs estimated in my direct testimony are
2 needed for transmission reliability and, therefore, should not be included
3 as part of the Uprate Project costs the Company seeks to recover through
4 the Fuel Clause. (Lawton Test., pp. 37-38). Mr. Lawton ignores the direct
5 link between the Uprate Project and the transmission costs. The only
6 reason for PEF to incur these transmission costs is if CR3 becomes the
7 largest, single generation unit on the Florida grid, and that occurs only as a
8 result of the CR3 Uprate. If it were not for the CR3 Uprate, PEF would
9 not incur these transmission costs at all. The estimated transmission costs
10 included in my Amended Direct Testimony are, therefore, directly linked
11 to the CR3 Uprate and properly included as costs eligible for cost recovery
12 through the Fuel Clause along with the other Uprate Project costs.

13 Likewise, the POD cost estimates are directly linked to the CR3
14 Uprate. But for the CR3 Uprate there would be no additional increase in
15 the discharge water temperature that must be addressed. The costs
16 necessary to address this POD issue are therefore also necessarily a part of
17 the CR3 Uprate and should be included with the other costs for which
18 recovery is sought through the Fuel Clause.

19
20 **Q. Intervener Witnesses Merchant and Lawton both argue that the**
21 **transmission and POD cost estimates are too preliminary for fuel**
22 **clause recovery. Can you please explain the basis of these cost**
23 **estimates?**

1 A. Yes. To begin with, the cost estimates for potential transmission
2 upgrades were developed on a reasonable engineering basis, using the best
3 available information to the Company. The transmission cost estimates
4 were derived from a realistic transmission scenario, which was included as
5 a placeholder, based on the installation or upgrade of about 35 miles of
6 230KV lines in northern Florida to gain system flexibility for transporting
7 additional power if CR3 was forced off line. The transmission scenario
8 includes potential upgrades such as additional transformation, additional
9 transmission line capacity, and other associated modifications. The
10 transmission cost estimate was based on PEF's standard per-mile cost
11 estimates, which are regularly updated and adjusted for expected price
12 increases, taking into account the most recent transmission construction
13 project costs of a similar type and location. This estimation method is an
14 accepted engineering practice for transmission cost estimates and it is
15 consistent with utility industry practice.

16 Engineering studies are in fact on-going, however, and these cost
17 estimates may change. But we are comfortable at this point that the
18 transmission cost estimates are reasonable.

19 Likewise, PEF's estimate for the POD cooling solution is
20 reasonable and based on the best available information. The POD cost
21 estimate is based on the cost of the permanent cooling towers installed in
22 1993. This cost was then inflated to 2011 dollars and adjusted based on
23 the expected needed flow rate to offset the uprate impact given the actual

1 flow rate of the original cooling towers. In general, PEF expects to need
2 some form of additional cooling to offset the thermal impact of the CR3
3 Uprate. This will likely include some type of cooling tower or cooling
4 tower upgrade, as well as additional pumping capacity to increase the total
5 flow rate of cooling water. PEF's POD cost estimate has taken these
6 factors into account using PEF's most recent, applicable experience, and
7 updating those costs to account for expected price increases. PEF's
8 estimation of the POD costs is based, then, on reasonable, engineering
9 methods applicable to the POD issue.

10 As the Uprate Project progresses PEF will refine these cost
11 estimates. But, again, we are comfortable based that the cooling solution
12 cost estimate is reasonable.

13
14 **Q. Intervener Witness Merchant, on page 4 of her testimony, states that**
15 **the project costs have increased \$68 million since the filing of the**
16 **amended testimony in this case. Do you agree with her argument?**

17 **A.** No. The estimated costs for the Uprate Project have not increased since
18 the filing of the amended testimony in this proceeding. Ms. Merchant is
19 comparing the cost estimates provided in my amended direct testimony to
20 a number provided by Mr. Portuondo in response to a question about the
21 estimated revenue requirements. I understand the cost figures provided by
22 Mr. Portuondo include Allowance for Funds Used During Construction
23 ("AFDUC"). The cost estimates I provided in my amended direct

1 testimony are estimates for the actual costs the Company will pay for the
2 Uprate Project, excluding AFUDC, and those cost estimates have not
3 increased. Ms. Merchant is comparing apples and oranges by comparing
4 these two figures.

5
6 **Q. On page 17 of her testimony, Intervener Witness Merchant claims**
7 **that PEF's cost estimates are best case scenarios. Do you agree?**

8 **A.** No. The estimated costs for the Uprate Project were developed using a
9 reasonable engineering methodology which estimates a best case, worst
10 case, and base case scenario. PEF did not use the lowest possible cost
11 estimates, or best case, for the project costs. Rather, PEF chose a
12 reasonable, base case scenario, which represented a reasonable estimate
13 within the spectrum of cost estimates. This methodology is routinely used
14 by PEF in estimating project costs.

15
16 **Q. Does this conclude your rebuttal testimony?**

17 **A.** Yes.