

**BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION**

**DOCKET No. 060162-EI**

In re: Amended Petition of Progress Energy Florida, Inc.  
to recover modular cooling tower costs  
through the environmental cost recovery clause.

**REVISED DIRECT TESTIMONY OF  
JAVIER PORTUONDO**

July 13, 2006

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

2 A. My name is Javier J. Portuondo. My business address is Post Office Box  
3 14042, St. Petersburg, Florida 33733.

4  
5 **Q. By whom are you employed and in what capacity?**

6 A. I am employed by Progress Energy Service Company, LLC, as Director of  
7 Regulatory Planning.

8  
9 **Q. What is the scope of your duties?**

10 A. Currently, I am responsible for regulatory planning, cost recovery and pricing  
11 functions for both Progress Energy Florida (PEF or "Company") and Progress  
12 Energy Carolinas.

13

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1 **Q. Please describe your educational background and professional**  
2 **experience.**

3 A. I received a Bachelors of Science degree in Accounting from the University of  
4 South Florida. I began my employment with Florida Power Corporation in  
5 1985. During my 20 years with Florida Power Corporation and PEF, I have  
6 held a number of financial and accounting positions. In 1993, I became  
7 Manager, Regulatory Services, and I recently became Director, Regulatory  
8 Planning.

9  
10 **Q. What is the purpose of your testimony?**

11 A. The purpose of my testimony is to support the Company's request for  
12 recovery of reasonably and prudently incurred costs of modular cooling  
13 towers that PEF plans to install and operate at its Crystal River plant.  
14 Specifically, I will explain why recovery of the cooling tower costs through the  
15 Environmental Cost Recovery Clause is appropriate.

16  
17 **Q. Are you sponsoring any Exhibits with your direct testimony?**

18 A. Yes. I am sponsoring the following exhibits:

- 19
- 20 • Exhibit No. \_\_ (JP-1), which is an excerpt of Schedule C-6 of the  
21 minimum filing requirements (MFRs) that PEF submitted in its recent  
22 ratemaking proceeding in Docket No. 050078-EI;
  - 23 • Exhibit No. \_\_ (JP-2), which is an excerpt of Schedule B-8 of the MFRs  
submitted in Docket No. 050078-EI; and

- 1 • Exhibit No. \_\_ (JP-3), which is a table that provides PEF's projection of  
2 fuel cost savings expected to result from the modular cooling tower  
3 project.  
4

5 **Q. Please briefly describe the Modular Cooling Tower Project.**

6 A. The project involves installation and operation of modular cooling towers in  
7 order to minimize "de-rates" of PEF's Crystal River Units 1 and 2 necessary  
8 to comply with the permit limit on the temperature of cooling water discharged  
9 from the Crystal River plant ("thermal permit limit"). As discussed in more  
10 detail in the pre-filed testimony of Thomas Lawery, the project involves  
11 installation and operation of modular cooling towers in the summer months in  
12 order to reduce the discharge canal temperatures. This will enable PEF to  
13 reduce the number and extent of de-rates necessary to comply with the  
14 thermal permit limit and thereby reduce replacement fuel and purchase power  
15 costs.  
16

17 **Q. What is the basis for PEF's request to recover costs of the Modular**  
18 **Cooling Tower Project through the Environmental Cost Recovery**  
19 **Clause?**

20 A. The ECRC, Section 366.8255, Florida Statutes, authorizes the Commission to  
21 review and approve recovery of environmental compliance costs prudently  
22 incurred by electric utilities. In Order No. PSC-94-0044-FOF-EI, the  
23 Commission established the policy that recovery of such costs associated

1 with environmental compliance activities should be recoverable through  
2 ECRC if:

- 3 1) such costs were prudently incurred after April 13, 1993
- 4 2) the activity is legally required to comply with a governmentally imposed  
5 environmental regulation enacted, became effective, or whose effect  
6 was triggered after the company's last test year upon which rates are  
7 based; and
- 8 3) such costs are not recovered through some other cost recovery  
9 mechanism or through base rates.

10  
11 The need for the modular cooling towers was triggered by the unusually high  
12 inlet water temperatures for extended periods during the summer of 2005.  
13 These high temperatures led to the unprecedented de-ratings of the Crystal  
14 River plants which were necessary to comply with the permit limit for the  
15 temperature of cooling water discharged from the plant.

16  
17 **Q. Were you involved in PEF's last ratemaking proceeding in Docket No.**  
18 **050078-EI?**

19 **A.** Yes. I submitted pre-filed testimony in that docket and I was responsible for  
20 the preparation of the MFRs that PEF submitted on April 29, 2005.

21  
22  
23

1 **Q. What are the projected costs of the modular cooling tower project?**

2 A. As Mr. Lawery explains in his testimony, the project is estimated to cost  
3 approximately \$2 to \$3 million per year beginning in 2006. Annual costs are  
4 expected to include rental fees and other O&M expenditures. Additionally, in  
5 2006, PEF expects to incur one-time capital expenses of approximately \$1.5  
6 million to \$2 million for initial installation.

7  
8 **Q. Are the costs of the modular cooling tower project recovered through**  
9 **the base rates established in Docket No. 050078-EI?**

10 A. No. The modular cooling tower project was not anticipated when PEF's  
11 current base rates were established in Docket No. 050078-EI. The  
12 Company's evaluation of the project was prompted by unusually high inlet  
13 water temperatures and associated de-rates during the summer of 2005.  
14 Thus, the costs of the project were not anticipated when the Company  
15 submitted its rate case MFRs in April 2005. This is demonstrated by Exhibit  
16 Nos. \_\_ (JP-1) and \_\_ (JP-2).

17  
18 Exhibit No. \_\_ (JP-1) is an excerpt (page 3) from MFR Schedule C-6. Among  
19 other things, Schedule C-6 presented the Company's projected operating  
20 budget for the 2006 test year. As shown on line 12 of Exhibit No. \_\_ (JP-1),  
21 the Company projected no rental costs associated with its fossil fuel-fired  
22 steam generating units. Had rental costs associated with the modular cooling

1 towers been anticipated when the MFRs were filed, such costs would have  
2 been reflected on that line.

3  
4 Exhibit No. \_\_ (JP-2) is an excerpt (page 1) from MFR Schedule B-8. That  
5 schedule presented the monthly plant balances for the projected 2006 test  
6 year. Had PEF anticipated capital expenditures associated with the cooling  
7 tower project, the resulting plant addition would have been reflected on line  
8 26 for FERC account 314. See 18 CFR Part 101, p. 382 (4-1-05 edition)  
9 (defining account 314 to include "all costs installed of main turbine-driven  
10 units and all accessory equipment" such as the "Cooling system, including  
11 towers[.]"). However, the monthly balances shown on that line do not include  
12 any increases that would accommodate plant additions for the modular  
13 cooling towers.

14  
15 The costs of the modular cooling towers also were not anticipated when the  
16 Commission approved PEF's current base rates. As noted above, the  
17 Company's evaluation of the project was prompted by record high  
18 temperatures and de-rates in the summer of 2005. The evaluation was not  
19 completed until after the Commission approved PEF's current rates in  
20 September 2005.

1 **Q. Please describe the Company's analysis of fuel cost savings estimated**  
2 **as a result of the cooling tower project.**

3 A. Fuel cost savings were analyzed based on the amount of avoided de-rates  
4 that are expected to result from the project. First, historical de-rate amounts  
5 attributable to the thermal limit were compiled for the years 2003-2005. Each  
6 hourly de-rate amount was distributed throughout the May-September period  
7 being evaluated based on the hourly load forecast for that period. The  
8 highest hourly de-rate amount recorded during the historical period was  
9 assigned to the hour with the highest projected load for the forecast period.  
10 The hour with the second highest de-rate amount was assigned to the hour  
11 with next highest projected load, and so forth. This pattern continued in order  
12 of descending de-rate volumes until each expected hour of de-rate had been  
13 assigned.

14  
15 For modeling purposes, the data was summarized into a "typical" week profile  
16 for each month in the evaluation period. Avoided de-rates were capped at  
17 330 MW based on the physical limitations of the modular cooling towers. The  
18 resulting profiles were then used as inputs to a dispatch simulation model,  
19 which projected total system costs. These costs were compared against a  
20 scenario in which no thermal de-rate parameters were imposed on the  
21 system. The difference in costs was then used to derive the \$/mwh benefit of  
22 avoiding thermal de-rates. This represents gross fuel savings. Because the  
23 modular cooling towers are expected to use approximately 6 MWs of auxiliary

1 power, the cost of this auxiliary power was subtracted from the gross fuel  
2 savings to arrive at net fuel savings.

3  
4 **Q. What are the results of the fuel cost savings analysis?**

5 A. As shown in Exhibit No. \_\_\_ (JP-3), the cooling tower project is projected to  
6 result in cumulative net fuel cost savings of approximately \$45 million over  
7 five years. Additionally, in each of the five years, annual fuel cost savings are  
8 projected to exceed the estimated costs of the project.

9  
10  
11 **Q. How does the Company propose to recover the costs of the project?**

12 A. PEF proposes to recover all capital and O&M costs incurred for the project.  
13 Actual costs incurred for the project would be subject to Commission review  
14 for prudence and reasonableness as they are submitted for recovery through  
15 the Environmental Cost Recovery Clause.

16  
17 **Q. Does this conclude your testimony?**

18 A. Yes, it does.



**BEFORE THE  
FLORIDA PUBLIC SERVICE COMMISSION**

**PROGRESS ENERGY FLORIDA**

**DOCKET NO. 050078-EI**

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**MINIMUM FILING REQUIREMENTS**

**SECTION C - NET OPERATING INCOME SCHEDULES**

**SECTION D - COST OF CAPITAL SCHEDULES**

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DOCUMENT NUMBER DATE

04221 APR 29 08

FPSC-COMMISSION CLERK

Progress Energy Florida  
 Docket No. \_\_\_\_\_  
 Witness: Javier Portuondo  
 Exhibit No. \_\_\_\_ (JP-1)  
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FLORIDA PUBLIC SERVICE COMMISSION

Explanation: If the test year is PROJECTED, provide the budgeted versus actual operating revenues and expenses by primary account for a historical five year period and the forecasted data for the test year and the prior year.

Type of data shown

XX Projected Test Year Ended 12/31/2006  
 XX Prior Year Ended 12/31/2005  
 XX Historical Year Ended 12/31/2004

Witness: Portuondo / DeSouza / Williams / Young / B. Donald / Bazemore

Docket No: 0506-6 E

(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	(I)	(J)	(K)	(L)	(M)	(N)
Line	Account	2000	2000	2001	2001	2002	2002	2003	2003	2004	2004	2005	2006
No.	No.	Actual	Budget	Actual	Budget	Actual	Budget	Actual	Budget	Actual	Budget	Budget	Budget
1	5012090	4,709	7,286	5,748	8,368	7,804	9,057	5,995	6,224	3,978	5,132	3,917	3,955
2	5187350	53	29	1,322	-	1,575	1,652	1,577	1,634	1,590	1,643	1,594	1,618
3	5472000	589	590	618	5,276	702	1,120	2,319	-	2,259	3,203	3,147	3,068
4		<b>5,321</b>	<b>7,905</b>	<b>7,688</b>	<b>13,644</b>	<b>10,082</b>	<b>11,829</b>	<b>9,890</b>	<b>7,858</b>	<b>7,826</b>	<b>9,972</b>	<b>8,659</b>	<b>8,702</b>
5													
6													
7	5000900	20,933	16,776	19,460	17,254	2,173	3,648	1,475	3,990	1,638	2,418	2,352	2,454
8	5020000	3,875	5,723	3,704	6,186	6,792	1,992	7,612	4,765	8,606	8,213	7,177	7,307
9	5040000	(272)	(200)	(236)	(206)	-	-	-	-	-	-	-	-
10	5050000	1,247	2,378	1,431	1,364	(65)	87	0	322	1	263	304	304
11	5060000	18,988	13,556	11,149	13,446	21,626	17,646	21,683	25,068	18,287	20,010	21,243	24,436
12	5070000	508	626	-	-	-	-	-	-	-	-	-	-
13		<b>45,279</b>	<b>38,905</b>	<b>35,507</b>	<b>38,044</b>	<b>30,636</b>	<b>23,375</b>	<b>30,771</b>	<b>35,146</b>	<b>28,533</b>	<b>30,904</b>	<b>31,073</b>	<b>34,803</b>
14	5170000	38,749	40,794	30,071	35,215	211	(126)	136	42	6	(0)	376	366
15	5190000	-	-	-	-	2,941	2,407	2,872	3,157	2,682	3,183	3,020	3,054
16	5200000	225	184	195	189	8,618	11,331	10,832	10,367	9,275	9,865	10,630	10,531
17	5210000	23	-	27	-	-	-	-	-	-	-	-	-
18	5230000	-	-	-	-	-	-	-	-	4	-	13	11
19	5240000	22,908	22,274	19,669	13,597	28,280	28,566	29,549	24,023	29,247	32,388	32,317	34,894
20	5250000	12	16	(0)	-	-	-	-	-	-	-	-	-
21		<b>59,917</b>	<b>63,218</b>	<b>49,962</b>	<b>49,001</b>	<b>40,041</b>	<b>42,178</b>	<b>43,390</b>	<b>37,589</b>	<b>41,214</b>	<b>45,436</b>	<b>46,356</b>	<b>49,037</b>
22	5460000	6,484	7,622	7,213	9,849	2,716	7,102	7,465	9,855	8,387	7,570	6,209	6,753
23	5480000	885	919	858	828	727	-	3,605	782	4,223	311	180	730
24	5490000	5,853	5,744	5,196	7,261	8,556	9,229	5,520	10,020	6,150	8,362	8,946	9,426
25	5500000	165	350	325	676	-	-	-	-	-	-	-	-
26		<b>13,307</b>	<b>14,535</b>	<b>13,592</b>	<b>18,614</b>	<b>12,000</b>	<b>16,331</b>	<b>16,591</b>	<b>20,658</b>	<b>18,760</b>	<b>16,262</b>	<b>15,326</b>	<b>16,408</b>
27	5550000	-	-	-	12	4,532	6,411	4,889	5,247	5,066	6,037	2,684	2,839
28	5570000	-	-	-	-	-	-	-	-	23	-	-	-
29		<b>-</b>	<b>-</b>	<b>-</b>	<b>12</b>	<b>4,532</b>	<b>6,411</b>	<b>4,889</b>	<b>5,247</b>	<b>5,089</b>	<b>6,037</b>	<b>2,684</b>	<b>2,839</b>
30	5600000	2,289	3,047	3,334	4,765	2,617	7,926	2,600	1,350	2,606	208	1,837	1,837
31	5610000	4,418	5,827	5,517	5,511	400	-	339	314	381	(2)	4,026	4,258
32	5620000	297	153	11	-	510	268	159	315	183	272	277	278
33	5630000	-	-	-	-	66	265	53	62	313	65	70	70
34	5650000	5,398	10,435	7,016	10,436	1,178	-	-	-	3	-	-	-
35	5660000	5,147	4,665	6,248	3,583	15,408	21,355	12,831	16,921	12,744	16,724	11,423	11,244
36	5670000	8	8	7	6	-	-	-	-	0	-	-	-
37		<b>17,556</b>	<b>24,335</b>	<b>22,098</b>	<b>24,291</b>	<b>20,170</b>	<b>24,795</b>	<b>15,981</b>	<b>18,966</b>	<b>16,230</b>	<b>17,266</b>	<b>17,633</b>	<b>17,681</b>

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Supporting Schedules

Rerap Schedules

**BEFORE THE  
FLORIDA PUBLIC SERVICE COMMISSION**

**PROGRESS ENERGY FLORIDA**

**DOCKET NO. 050078-EI**

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**MINIMUM FILING REQUIREMENTS**

**SECTION A - SUMMARY SCHEDULES  
SECTION B - RATE BASE SCHEDULES**

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DOCUMENT NUMBER DATE

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### Modular Cooling Tower Project

<b>YEAR</b>	<b>Estimated Fuel Cost Savings</b>
2006	\$11,000,000
2007	\$11,000,000
2008	\$8,500,000
2009	\$8,000,000
2010	\$6,500,000
<b>TOTAL</b>	<b>\$45,000,000</b>