

ORIGINAL



RECEIVED-FPSC

05 AUG 22 PM 1:10

COMMISSION
CLERK

Writer's Direct Dial No.: (727) 820-5184

August 22, 2006

Ms. Blanca S. Bayó, Director
Division of Commission Clerk and
Administrative Services
Florida Public Service Commission
2540 Shumard Oak Boulevard
Tallahassee, FL 32399-0850

Re: *Fuel and purchased power cost recovery clause with generating performance
incentive factor; Docket No. 060001-EI*

Dear Ms. Bayó:

Please find enclosed for filing on behalf of Progress Energy Florida, Inc. the original and fifteen (15) copies of the Direct Testimony of Robert M. Oliver addressing the GPIF modification petition of OPC and testimony of James Ross.

Thank you for your assistance in this matter.

Sincerely,

John T. Burnett lms
John T. Burnett

JTB/lms

cc: Parties of record

Progress Energy Florida, Inc.
106 E. College Avenue
Suite 800
Tallahassee, FL 32301

RECEIVED & FILED

DOCUMENT NUMBER-DATE

07604 AUG 22 06

OMP _____
COM 5
TR org
CB _____
CL 1
PC _____
CA _____
CR _____
SA _____
EC 1
TH _____

PROGRESS ENERGY FLORIDA

DOCKET No. 060001-EI

Rebuttal of James Ross Testimony On Behalf of
Florida Office of Public Counsel Proposal To
Modify Generation Performance Incentive system

DIRECT TESTIMONY OF
ROBERT M. OLIVER

August 22, 2006

1 Q. Please state your name and business address?

2 A. My name is Robert M. Oliver. My business address is P.O. Box 1551,
3 Raleigh, North Carolina 27602.

4

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

6 A. I am employed by Progress Energy Carolinas Inc. as Manager of Portfolio
7 Management for Regulated Commercial Operations.

8

9 Q. What are your duties and responsibilities in that capacity?

10 A. As Manager of Portfolio Management for Regulated Commercial
11 Operations, I oversee the management of energy portfolios for Progress
12 Energy Florida, Inc. ("PEF" or "Company"), as well as Progress Energy
13 Carolinas, Inc. My responsibilities include oversight of planning and
14 coordination associated with economic and reliable system operations,
15 including unit commitment and dispatch, fuel procurement, and power
16 marketing and trading functions.

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23

Q. Please summarize your educational background and employment experience.

A. I have a Bachelor of Science degree in Mechanical Engineering from North Carolina State University (1992) and a Masters of Business Administration from University of North Carolina at Wilmington (1997). I joined Carolina Power & Light (CP&L) in 1992 as an Associate Engineer. I worked in various capacities supporting the Brunswick Nuclear Plant as I progressed to Senior Engineer, including Design Basis Reconstitution Project, Motor Operated Valve Program, Control Rod Drive Hydraulic System Engineer, and Reactor Vessel Integrity Program. In 1998, I took a Senior Engineer position with the System Planning and Operations Department (SPOD). In this capacity I provided support for various operational planning functions including maintenance scheduling, coordination with cogenerators, unit commitment and dispatch planning, and fuel costing for excess generation sales. With the merger of CP&L and Florida Power Corporation (FPC), I participated in the integration of the FPC Portfolio Management and related CP&L SPOD functions. In the newly formed Portfolio Management unit (2001), in addition to maintaining former duties, I worked in a number of capacities, including the near term Portfolio Management desk for PEF, which provides unit commitment and dispatch planning and fuel projections for the 7 day forecast period, maintenance coordination inside the prompt month, and fuel costing for

1 economy purchases and sales. In 2002, I was promoted to manager of
2 Portfolio Management.

3
4 **Q. What is the purpose of your testimony?**

5 A. The purpose of my testimony is to respond to the testimony of James
6 Ross, which was made on behalf of the Florida Office of Public Counsel
7 (OPC) in a petition for changes to the Generation Performance Incentive
8 Factor (GPIF) mechanism.

9
10 **Q. Please summarize your testimony.**

11 A. OPC's petition and Mr. Ross's testimony overlook several key points in
12 the purpose and design of the GPIF mechanism and selectively draw
13 from GPIF statistics that are taken out of context in an attempt to portray
14 GPIF as being in need of modification. The central weakness of Mr.
15 Ross's testimony is that his supporting "evidence" relies on grossly
16 oversimplified comparisons of year-over-year performance without
17 accounting for, as GPIF was designed to, the cyclical nature of
18 maintaining mechanical power systems, as well as factors external to a
19 given unit that can affect how it is operated and in turn, how it performs.
20 This fundamental weakness of the "evidence" and the flawed conclusions
21 drawn therefrom do not support the GPIF modifications that Mr. Ross
22 proposes.

1 First, Mr. Ross fails to recognize that Florida utilities are obligated to
2 balance the costs associated with maintaining operational efficiency and
3 availability with other cost impacts, i.e., fuel, emissions, etc. Generating
4 units are mechanical systems that naturally go through cycles of
5 degradation and refurbishment / replacement over the design life of each
6 component. Generating units are made up of many thousands of
7 individual components with varying wear rates and which are replaced /
8 refurbished at varying intervals. Thus, the condition of a given unit
9 continually evolves, and what constitutes reasonable performance
10 expectations is a complex matter. It would not be cost effective for
11 ratepayers if the utility replaced or refurbished every wear component,
12 every year, to keep the unit in as-new condition. In addition to the cost of
13 replacing components, this would also increase system fuel costs by
14 requiring longer and more frequent outages. The challenge of a prudent
15 utility is to minimize the degradation of ratepayer assets over time in a
16 cost effective manner relative to all other operating expenses. Mr. Ross
17 grossly oversimplifies this challenge in presenting the illogical expectation
18 that the GPIF should result in continuous improvement year over year.

19
20 Second, Mr. Ross fails to recognize that the design of GPIF was directly
21 linked to the setting of annual fuel rates, with the express purpose of
22 encouraging improvement of two key factors which affect predicted fuel
23 costs; availability and heat rate. A review of historical filings related to

1 GPIF makes it clear that the Florida Public Service Commission and the
2 Public Staff, as well as experts who testified on the matter, understood
3 that the conditions that influence heat rates and availability of a given unit
4 are cyclical in nature, depending on and influenced by many factors which
5 vary year to year. In addition to factors related to the unit itself, such as
6 recent or upcoming maintenance, outage schedules, or operational
7 events, performance expectations are also affected by external factors
8 such as fuel price relationships between units, resource additions,
9 economy transactions, and environmental limitations. Again, the problem
10 is that Mr. Ross bases his conclusions on year-over-year comparisons,
11 which are by nature contradictory to the thoughtful design of GPIF which
12 recognized that a myriad of factors affect predicted and actual
13 performance of a given unit in a given year.

14
15 Third, Mr. Ross presents a distorted picture of 2001 and 2002 GPIF
16 results for PEF by, again, focusing only on year-over-year comparisons of
17 performance and disregarding how unit actuals compared to unit targets
18 that were set based on the information available at the time of the fuel
19 filings for the respective years. Mr. Ross omits key information; that PEF
20 units performed substantially better overall than the availability targets,
21 which led to an increased GPIF reward.

22

1 In summary, I disagree with the OPC petition and the testimony of Ross
2 and associated recommendations to modify the GPIF mechanism.

3
4 **Q. Have you prepared exhibits to your testimony?**

5 A. Yes. Exhibit No. ____ (RMO-2T) and Exhibit No. ____ (RMO-3T) illustrate
6 how Mr. Ross has mischaracterized the data in his PEF specific example
7 where he alleges that rewards were given to PEF for declining system
8 performance. In 2001, five of the nine GPIF units performed below target
9 for Equivalent Availability Factor (EAF), significantly offsetting positive
10 weighted points of the remaining units to a total of 1.018 for EAF. In
11 contrast, only one of nine GPIF units performed below target for EAF in
12 2002, yielding a total of 3.717 weighted points for EAF. Heat Rate (HR)
13 performance was roughly equivalent for the two years, with total points of
14 -0.255 and -0.263 for 2001 and 2002, respectively, and thus was a minor
15 factor in net results for each year.

16
17 By attempting to compare year-to-year actuals where factors obviously
18 differ rather than comparing actuals to the targets which shared common
19 bases with the respective fuel filings, Mr. Ross misses the point of what
20 GPIF was designed to achieve; fuel savings relative to forecasted costs in
21 a given year. The 2002 estimated fuel savings for GPIF came to a total of
22 \$17,409,388, primarily due to better than target availability. The 2002
23 GPIF reward associated with the estimated fuel savings was \$2,781,223.

1 The GPIF Target Setting for a given year is directly related to the fuel
2 filing support for the same period. Ratepayers do not benefit from fuel
3 filings being based on unrealistic performance expectations. To ensure a
4 consistent, objective approach, the GPIF Implementation Manual
5 stipulates use of the three most recent years of operating history, with
6 appropriate adjustments to account for events not expected to recur or
7 otherwise significant improvement or degradation of condition, as a
8 means of reflecting expected unit performance in the fuel filings. PEF
9 makes no attempt to "game" the GPIF system in the Target Setting
10 process. Our objective in GPIF Target Setting is simply to follow the
11 guidance and the spirit of the GPIF Implementation Manual.

12
13 **Q. Do you agree with Mr. Ross that a prudent utility should strive to**
14 **maintain and operate generating units as efficiently as possible?**

15 **A.** Yes, with clarification to this statement by adding "given a philosophy of
16 total cost optimization." The utility's regulatory obligation is to minimize
17 total production cost, not only fuel cost. We strive to maintain and
18 operate our fleet of generating units as efficiently as possible in a cost
19 effective manner. As with any mechanical system, degradation of
20 equipment and components is a given during the life of the generating
21 unit. The challenge of a prudent utility is to minimize the degradation
22 across the fleet over time in an effective manner relative to total operating
23 costs.

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22

Q. Is it reasonable to expect continuous improvement of heat rate and unit availability?

A. No. As stated above, degradation is to be expected at varying rates for the various components of a mechanical power system. Some components will, by design, be replaced many times over the life of the unit, while some are designed to last for the operating life with periodic maintenance and refurbishment. Thus, performance expectations must be adjusted to account for the varying state of the thousands of components which require replacement or maintenance on some periodicity. To maintain as-new conditions, the utility would not only have to increase maintenance costs with more frequent component replacement or refurbishment, but also increase fuel cost by taking more frequent and longer outages. It would be inefficient for the utility to increase costs in order to keep GPIF units operating as-new or better-than-new indefinitely. That was not what GPIF was designed to achieve. The Commission understood this when the GPIF system was originally set up and consciously decided on the current method to avoid a situation where a Utility could be penalized for operating/maintaining their plants in the least total cost method for the ratepayer. More importantly, the Commission understood that if calculated on the basis Mr. Ross suggests, it would provide an incentive for Utilities to maintain their plants

1 with too much of a focus on fuel cost and not enough focus on the total
2 cost to the ratepayer.

3
4 **Q. Does Mr. Ross accurately characterize the objective of the GPIF**
5 **mechanism?**

6 A. No. The GPIF mechanism was originally proposed by the Florida Public
7 Service Commission (FPSC) in conjunction with a larger effort to improve
8 the fuel clause by converting to a projected annual levelized fuel rate.
9 The GPIF is directly linked to the process of setting annual fuel rates, with
10 the express purpose of encouraging improvement of two key factors
11 which affect predicted fuel costs; availability and heat rate. Since GPIF
12 targets are based on the same data used in developing the fuel filings,
13 there is a natural linkage between GPIF rewards / penalties and the filed
14 fuel rate. Thus, the utilities are further encouraged (beyond the normal
15 rate structure of a regulated electric utility) to manage risks associated
16 with the utility's exercise of control over these two factors to reduce or
17 mitigate fuel costs relative to expected operations as actual conditions
18 unfold within the respective fuel clause period.

19
20 Mr. Ross incorrectly asserts that the GPIF was intended to prompt
21 continuous "universal improvement in individual unit performance or
22 system-wide performance". A review of historical filings related to GPIF
23 makes it clear that experts who testified on the matter and the

1 Commission Staff understood that the conditions that influence heat rates
2 and availability of a given unit are cyclical in nature, depending on and
3 influenced by many factors which vary year to year, e.g., recent or
4 upcoming maintenance, outage schedules, operational events, fuel price
5 relationships, resource additions, economy transactions, environmental
6 limitations, etc.)

7
8 **Q. Please briefly describe your position on the recommendation to**
9 **implement “dead band” changes to the GPIF process.**

10 A. The GPIF was designed as an even-handed penalty / reward mechanism
11 to encourage additional focus on minimizing the effects of natural
12 degradation of base load generating units on total fuel costs, penalizing or
13 rewarding the utility for failing to meet or exceeding (respectively)
14 performance expectations established by GPIF protocol. While the bases
15 for Mr. Ross’s recommended ranges of the proposed dead band are not
16 completely clear, it is clear that the intent is to bias the system toward
17 penalties. Mr. Ross fails to recognize that this approach contradicts the
18 obligation of the utility to make operational and maintenance decisions on
19 a least total cost philosophy. It would be neither practical nor cost
20 effective to take every GPIF unit out of service every year to refurbish or
21 replace every component to achieve what Mr. Ross portrays as the
22 standard to which utilities should be held. Since the underpinnings of his
23 criticism of GPIF are flawed, this recommendation is, in my view, moot.

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23

Q. Please briefly describe your position on the recommendation to implement “absolute minimum values for heat rates and availability” in the GPIF process.

A. Mr. Ross provides little detail about how such a methodology would be structured to substantiate that there would be a practical method to determine “absolute minimum values” that would provide a meaningful basis for penalty or reward of operational performance and decision making over the life of the generating unit. The fundamental shortcoming of this proposal is that it presumes that consistent performance can be reasonably expected over the life of a generating unit without adverse impact of inefficient maintenance costs to ratepayers. The expectation of consistent performance (without regard to cost) advanced by Mr. Ross with this proposal is not in keeping with least total cost operations, and thus would be an illogical basis for an incentive system. As a matter of practical economics, the condition of generating units will vary through maintenance cycles, and must be accounted for in the levelized fuel projection. Mr. Ross’s proposal would break the linkage that the current system has with the levelized fuel projection, since it contradicts prudent maintenance planning.

Q. Does this conclude your testimony?

A. Yes, it does.

2001 EAF												
	Adj			Weighting	Weighted			Scaled	Scaled & Weighted			Weighted Unit
	Actual	Target	Diff		Actual	Target	Diff		Factor	Actual	Target	
Anclote 1	79.48	78.81	0.67	6.76%	5.37	5.33	0.05	11.07%	8.80	8.73	0.07	0.172
Anclote 2	92.69	92.81	-0.12	4.70%	4.36	4.36	-0.01	7.70%	7.14	7.15	-0.01	-0.008
CR 1	78.52	76.39	2.13	6.09%	4.78	4.65	0.13	9.98%	7.83	7.62	0.21	0.275
CR 2	90.07	84.16	5.91	21.13%	19.03	17.78	1.25	34.61%	31.17	29.13	2.05	1.729
CR 3	84.16	85.48	-1.32	2.22%	1.87	1.90	-0.03	3.64%	3.06	3.11	-0.05	-0.100
CR 4	93.75	95.44	-1.69	6.72%	6.30	6.41	-0.11	11.01%	10.32	10.51	-0.19	-0.257
CR 5	83.93	87.62	-3.69	10.42%	8.75	9.13	-0.38	17.07%	14.33	14.95	-0.63	-1.042
Bartow 3	84.50	93.92	-9.42	0.19%	0.16	0.18	-0.02	0.31%	0.26	0.29	-0.03	-0.019
Tiger Bay	81.34	78.71	2.63	2.82%	2.29	2.22	0.07	4.62%	3.76	3.64	0.12	0.268
Total				61.05%	52.91	51.96	0.95	100.00%	86.67	85.12	1.55	1.018

2002 EAF												
	Adj			Weighting	Weighted			Scaled	Scaled & Weighted			Weighted Unit
	Actual	Target	Diff		Actual	Target	Diff		Factor	Actual	Target	
Anclote 1	96.35	91.71	4.64	8.78%	8.46	8.05	0.41	15.44%	14.88	14.16	0.72	0.878
Anclote 2	84.33	81.68	2.65	3.13%	2.64	2.56	0.08	5.50%	4.64	4.50	0.15	0.313
CR 1	92.92	86.75	6.17	3.51%	3.26	3.04	0.22	6.17%	5.74	5.36	0.38	0.351
CR 2	66.43	65.14	1.29	13.39%	8.89	8.72	0.17	23.55%	15.64	15.34	0.30	0.266
CR 3	98.64	96.21	2.43	7.81%	7.70	7.51	0.19	13.74%	13.55	13.21	0.33	0.781
CR 4	76.25	76.48	-0.23	5.19%	3.96	3.97	-0.01	9.13%	6.96	6.98	-0.02	-0.036
CR 5	98.51	94.52	3.99	5.62%	5.54	5.31	0.22	9.88%	9.74	9.34	0.39	0.562
Bartow 3	82.76	80.12	2.64	2.67%	2.21	2.14	0.07	4.70%	3.89	3.76	0.12	0.181
Tiger Bay	82.12	80.31	1.81	6.76%	5.55	5.43	0.12	11.89%	9.76	9.55	0.22	0.421
Total				56.86%	48.21	46.74	1.47	100.00%	84.79	82.20	2.59	3.717

2002 minus 2001 EAF												
	Adj			Weighting	Weighted			Scaled	Scaled & Weighted			Weighted Unit
	Actual	Target	Diff		Actual	Target	Diff		Factor	Actual	Target	
Anclote 1	16.87	12.90	3.97	2.02%	3.09	2.72	0.36	4.37%	6.08	5.43	0.64	0.71
Anclote 2	-8.36	-11.13	2.77	-1.57%	-1.72	-1.81	0.09	-2.19%	-2.49	-2.65	0.16	0.32
CR 1	14.40	10.36	4.04	-2.58%	-1.52	-1.61	0.09	-3.80%	-2.10	-2.27	0.17	0.08
CR 2	-23.64	-19.02	-4.62	-7.74%	-10.14	-9.06	-1.08	-11.06%	-15.53	-13.79	-1.74	-1.46
CR 3	14.48	10.73	3.75	5.59%	5.84	5.62	0.22	10.10%	10.49	10.11	0.38	0.88
CR 4	-17.50	-18.96	1.46	-1.53%	-2.34	-2.44	0.10	-1.88%	-3.36	-3.52	0.17	0.22
CR 5	14.58	6.90	7.68	-4.80%	-3.21	-3.82	0.61	-7.18%	-4.59	-5.61	1.02	1.60
Bartow 3	-1.74	-13.80	12.06	2.48%	2.05	1.96	0.09	4.38%	3.62	3.47	0.15	0.20
Tiger Bay	0.78	1.60	-0.82	3.94%	3.26	3.21	0.05	7.27%	6.01	5.91	0.09	0.15

2001 ANOHR														
	Adj				Weighted				Scaled		Scaled & Weighted			Weighted
	Actual	Target	Diff	Factor	Actual	Target	Diff	Factor	Actual	Target	Diff	Points		
Anclote 1	10126	10091	35	3.80%	385	383	1	9.76%	988	984	3	0.000		
Anclote 2	10230	10083	147	4.64%	475	468	7	11.91%	1219	1201	18	-0.160		
CR 1	9815	9831	-16	1.51%	148	148	0	3.88%	381	381	-1	0.000		
CR 2	9761	9788	-27	2.42%	236	237	-1	6.21%	606	608	-2	0.000		
CR 3	10268	10247	21	8.03%	825	823	2	20.62%	2117	2113	4	0.000		
CR 4	9396	9389	7	5.02%	472	471	0	12.89%	1211	1210	1	0.000		
CR 5	9324	9360	-36	5.48%	511	513	-2	14.07%	1312	1317	-5	0.000		
Bartow 3	10270	10105	165	2.31%	237	233	4	5.93%	609	599	10	-0.095		
Tiger Bay	7138	7190	-52	5.74%	410	413	-3	14.74%	1052	1060	-8	0.000		
Total				38.95%	3698	3690	8	100.00%	9494	9473	21	-0.255		

2002 ANOHR														
	Adj				Weighted				Scaled		Scaled & Weighted			Weighted
	Actual	Target	Diff	Factor	Actual	Target	Diff	Factor	Actual	Target	Diff	Points		
Anclote 1	10386	10183	203	4.46%	463	454	9	10.34%	1074	1053	21	-0.207		
Anclote 2	10124	10090	34	3.91%	396	395	1	9.07%	918	915	3	0.000		
CR 1	9725	9750	-25	2.71%	264	264	-1	6.28%	611	613	-2	0.000		
CR 2	9656	9619	37	3.51%	339	338	1	8.14%	786	783	3	0.000		
CR 3	10288	10283	5	10.89%	1120	1120	1	25.25%	2598	2596	1	0.000		
CR 4	9441	9413	28	5.36%	506	505	2	12.43%	1173	1170	3	0.000		
CR 5	9463	9376	87	7.28%	689	683	6	16.88%	1597	1583	15	-0.056		
Bartow 3	10008	10053	-45	1.39%	139	140	-1	3.22%	323	324	-1	0.000		
Tiger Bay	8313	8267	46	3.62%	301	299	2	8.39%	698	694	4	0.000		
Total				43.13%	4217	4196	20	100.00%	9777	9730	47	-0.263		

2002 minus 2001 ANOHR														
	Adj				Weighted				Scaled		Scaled & Weighted			Weighted
	Actual	Target	Diff	Factor	Actual	Target	Diff	Factor	Actual	Target	Diff	Points		
Anclote 1	260	92	168	0.66%	78	71	8	0.58%	86	69	18	-0.207		
Anclote 2	-106	7	-113	-0.73%	-79	-73	-5	-2.85%	-301	-286	-14	0.160		
CR 1	-90	-81	-9	1.20%	115	116	0	2.41%	231	231	-1	0.000		
CR 2	-105	-169	64	1.09%	103	101	2	1.93%	179	175	5	0.000		
CR 3	20	36	-16	2.86%	296	297	-1	4.63%	481	484	-3	0.000		
CR 4	45	24	21	0.34%	34	33	1	-0.46%	-38	-40	3	0.000		
CR 5	139	16	123	1.80%	178	170	8	2.81%	285	266	20	-0.056		
Bartow 3	-262	-52	-210	-0.92%	-98	-94	-4	-2.71%	-287	-275	-11	0.095		
Tiger Bay	1175	1077	98	-2.12%	-109	-113	5	-6.34%	-354	-366	12	0.000		
Total				4.18%	519	507	12	0.00%	283	257	26	-0.008		