Progress Energy

March 16, 2009

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

Re: Review of coal costs for Progress Energy Florida's Crystal River Units 4 and 5 for 2006 and 2007; Docket No. 070703-EI

Dear Ms. Cole:

Enclosed for filing in the above referenced docket on behalf of Progress Energy Florida, Inc. ("PEF") are the original and fifteen (15) copies of the following.

- Rebuttal Testimony of James N. Heller with Exhibit No. ___ (JNH-8), Exhibit No. ___ (JNH-9), Exhibit No. ___ (JNH-10), and Exhibit No. ___ (JNH-11). 02249-09
- Rebuttal Testimony of Sasha Weintraub with Exhibit No. ___ (SAW-5). 02250-09
- Rebuttal Testimony of Jennifer Stenger with Exhibit No. ___ (JS-1), Exhibit No. ___ (JS-2), Exhibit No. ___ (JS-3), Exhibit No. ___ (JS-4), Exhibit No. ___ (JS-5), Exhibit No. ___ (JS-6), Exhibit No. ___ (JS-7), Exhibit No. ___ (JS-8), Exhibit No. ___ (JS-9), Exhibit No. ___ (JS-10), Exhibit No. ___ (JS-11), Exhibit No. ___ (JS-12), Exhibit No. ___ (JS-13), and Exhibit No. ___ (JS-14). 02251-09

Thank you for your assistance in this matter and please let me know if you have any questions.

Sincerely,

John T. Burnett

John T. Burnett

JTB/at
Attachments

COM 5
ECR
GCL 1
OPC
RCP
SSC
SGA 1
ADM
CLK CJ reporter

CERTIFICATE OF SERVICE

I HEREBY CERTIFY that a true and correct copy of Progress Energy Florida, Inc.'s rebuttal testimony in Docket No. 070703-EI has been furnished by regular U.S. mail to the following this 16th day of March, 2009.

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BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In re: Review of coal costs for Progress Energy Florida's Crystal River Units 4 and 5 for 2006 and 2007

Docket No. 070703-EI

Submitted for Filing: March 16, 2009

REBUTTAL TESTIMONY OF JAMES N. HELLER ON BEHALF OF PROGRESS ENERGY FLORIDA

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IN RE: REVIEW OF COAL COSTS FOR PROGRESS ENERGY FLORIDA'S CRYSTAL RIVER UNITS 4 AND 5 FOR 2006 AND 2007

FPSC DOCKET NO. 070703-EI

REBUTTAL TESTIMONY

JAMES N. HELLER

I. INTRODUCTION AND QUALIFICATIONS

Q. Please state your name and business address.

A. My name is James N. Heller. My address is 4803 Falstone Avenue, Chevy Chase, Maryland.

Q. Are you the same Mr. Heller who filed direct testimony in this case?

A. Yes.

Q. Have you been retained by Progress Energy Florida ("PEF") in this proceeding?

A. Yes.

Q. What were you asked to do?

A. I was asked to review Mr. Putman's testimony and identify any errors that relate to the "Cost Effectiveness Test" performed by Staff in their Primary Recommendation in Docket 060658 as used in Order 07-0816-FOF-EI, pages 37-39 and Attachment A.[1,2] My testimony supports the testimony of PEF witness Weintraub who addresses other errors, mistakes, and omissions that Mr. Putman has made.

Q. Are you sponsoring any exhibits to your testimony?

A. Yes. I am sponsoring the following exhibits that I have prepared or that were prepared under my supervision and control:

- Exhibit No. __ (JNH-8), Correction of Mr. Putman's Btu Displacement Errors
- Exhibit No. __ (JNH-9), Correction of Mr. Putman's Failure to Include the Capital Costs Required to Burn PRB Coal
- Exhibit No.__ (JNH-10), Calculation of Rail Delivery Constraint for 2006 Shipments of PRB Coal
- Exhibit No. __ (JNH-11), Calculation of Vessel Delivery Constraint for 2007 Shipments of Indonesian Coal

All of these exhibits are true and correct to the best of my knowledge.

[1] July 19, 2007 Staff Recommendation in Docket 060658 pages 90-92 and PSC Order No. PSC-07-0816-FOF-EI, October 10, 2007 pages 37-39.
[2] PSC Order No. PSC-07-0816-FOF-E1, October 10, 2007, pages 41-42.

II. PURPOSE AND APPROACH TO TESTIMONY

Q. Are you rebutting the assumptions used by Mr. Putman in determining the coals that he claims PEF should have purchased in 2006 and 2007?

A. Not directly. PEF Witnesses Weintraub and Stenger address those assumptions. Where Mr. Putman has made mistakes in calculating the costs that PEF would pay for coal under his own scenarios, I have corrected those errors consistent with the "Cost Effectiveness Test" Staff performed in their Primary Staff Recommendation in Docket 060658 and as the Commission implemented it in Order 07-0816-FOF-EI, pages 37-39 and Attachment A.

Q. On what materials did you rely?

A. I relied on the same materials used in filing my initial testimony plus the testimony and materials provided by Mr. Putman with his testimony. I have also reviewed the bids for coal from Kennecott's Spring Creek mine "Spring Creek", and the bids for Indonesian coal referenced in Mr. Putman's testimony. I also performed research related to constraints on coal transportation for Spring Creek coal in 2006 and Indonesian coal in 2007.

Q. What is the first error in Mr. Putman's calculations that you are addressing?

A. The first error is that Mr. Putman has not used the proper Btu displacement methodology defined in the PSC's refund methodology for his 2006 and 2007 coal. More specifically, Mr. Putman both: a) overstates the quantity of coal that

would be subject to the Commission's 20% PRB coal blending assumption; and b) overstates the quantity of bituminous coal that would have been displaced by the Commission's assumed tonnage of PRB coal.

The Commission's methodology assumes that the blending of PRB coal for CR4 and CR5 would not be done at the Crystal River plant site. The Commission's methodology also acknowledges that the total waterborne coal delivery capacity available for CR4 and CR5 is limited. Furthermore, a significant portion of the waterborne coal supply for CR4 and CR5 is delivered via the Alabama State Docks near Mobile, AL, where Progress Energy does not have a contract that allows for coal blending. Therefore, only the portion of CR4 and CR5's coal supply delivered via International Marine Terminal ("IMT") or United Bulk Terminal ("UBT"), where Progress Energy can blend coal, should be subject to the Commission's 20% PRB blending assumption. Progress Energy's federal FERC Form 423 data shows that the total coal tonnage delivered to CR4 and CR5 via either IMT or UBT was approximately 2,203,000 tons in 2006 and 2,311,000 tons in 2007. Therefore, the assumed PRB coal purchases according to the Commission's methodology would have been 440,600 tons in 2006 and 462,200 tons in 2007, respectively.

The Commission's methodology also assumes that Progress Energy would have used Wyoming PRB coal with a heat content of 8,800 Btu/lb., or 17.6 million Btu ("MMBtu") per ton. When combined with the PRB coal tonnage assumptions calculated above, this equates to total fuel requirements of about 7,754,560 MMBtu of PRB coal during 2006 and 8,134,720 MMBtu of PRB coal

during 2007 (see Exhibit JNH-8). Mr. Putman's calculations, by contrast, do not account for the substantial difference in heat content between PRB and bituminous coals. In other words, Mr. Putman's calculations erroneously assume that one ton of Spring Creek coal or Indonesian coal (with heat contents ranging from 8,700 to 9,350 Btu/lb) can replace one ton of bituminous coal, which has a substantially higher heat content. In fact, as reflected in my October 2008 testimony in this proceeding, the bituminous coal that would have been displaced by PRB coal under the Commission's methodology had a heat content of approximately 12,400 Btu/lb, so one ton of Spring Creek or Indonesian coal could in fact replace only 0.70 and 0.75 tons of bituminous coal respectively. Thus, Mr. Putman's calculations substantially overstate the quantity of bituminous coal that would have been subject to replacement under the Commission's methodology. As shown in Exhibit JNH-8, correcting Mr. Putman's Btu displacement errors (without correcting any of the other errors in his calculations) reduces his alleged damages by about $14.0 million in 2006 and an additional $15.2 million in 2007, or a total of $29.2 million over the two-year period.

Q. What is the second error in Mr. Putman's calculations that you are addressing?

A. Mr. Putman has failed to account for the capital costs associated with burning a 20% blend of PRB coal at CR4 and CR5, which also violates the PSC's refund methodology. Mr. Putman assumes that the PSC did not intend to utilize this capital cost in comparing the cost of burning PRB coal with that of using

bituminous coals. This is not the case. The PSC recognized that but for the need to modify the plant to burn a blend of PRB coal, PEF would have avoided those costs. As shown in Exhibit JNH-9, including the Commission's assumed capital requirement of $0.03/MMBtu reduces Mr. Putman's alleged damages by about $233,000 in 2006 and an additional $244,000 in 2007, for a total of about $477,000 over the two-year period. As explained in detail in my October 2008 testimony in this proceeding, correcting a mathematical error in this part of the Commission's methodology raises the annual revenue required to cover the capital expenses associated with a 20% blend of PRB coal to approximately $1,000,000/year, which would reduce Mr. Putman's alleged damages by a total of about $2,000,000 over the 2006-2007 period.

Q. What is the third error in Mr. Putman's calculations that you are addressing?

A. Mr. Putman has also failed to consider transportation delivery constraints for the coals he selects, which violates the PSC's refund methodology.

In regard to 2005, the PSC accepted my testimony that PRB rail rate disruptions precluded delivery of 7.5% of the PRB tonnage for that year. As part of the process of recovering from the major disruptions to rail service out of the PRB that occurred during 2005, the Union Pacific Railroad ("UP") declared an embargo on new contracts for PRB coal shipments as of July 18, 2005, which remained in effect through March 27, 2007. On both Burlington Northern Santa Fe Railway ("BNSF") and UP, the rate at which PRB coal was delivered

improved significantly during 2006. However, during the first half of 2006, shippers were still struggling to meet burn requirements and to rebuild coal inventories that had been depleted by the missed shipments during 2005. Despite the improvement in rail deliveries of PRB coal that occurred during 2006, the 2006 deliveries remained below the National Coal Transportation Association ("NCTA") forecast levels. As shown on Exhibit JNH-10, during the first quarter of 2006, the NCTA forecast of coal demand on the PRB Joint Line was, on average, approximately 10.2% higher than actual coal shipments on this line. While the 2006 NCTA forecast of PRB coal demand may have been somewhat overstated as shippers ordered more trains to offset the fact that carriers were not filling their orders, there were clearly shortfalls at least during the first quarter of the year. In estimating the impact of rail delivery constraints on Progress Energy's 2006 deliveries of PRB coal, I have assumed that a shortfall percentage of 7.5% would apply only during the first quarter of 2006. Based on these very conservative assumptions, the constraint on rail delivery of PRB coal would have reduced Progress Energy's 2006 deliveries of PRB coal by about 1.9%. As shown in Exhibit JNH-10, this reduces Mr. Putman's alleged damages for 2006 by approximately $200,000.

There also would have been significant transportation constraint issues with regard to delivery of Indonesian coal in 2007 as proposed by Mr. Putman. Specifically, both of the bids Progress Energy received for 2007 delivery of Indonesian coal assumed an ocean vessel unloading rate of 20,000 metric tonnes per day at IMT. See Exhibit No. __ (JNH-11). However, Progress Energy has

indicated that IMT will only guarantee an unloading rate of 12,000 metric tonnes per day for gearless Panamax vessels (which are the type of vessel that would have been used to transport the Indonesian coal). As shown in Exhibit JNH-11, this limitation on receiving capability would have resulted in Progress Energy being liable for about 2.2 to 2.5 days of ocean vessel demurrage on each shipload of Indonesian coal. Progress Energy has indicated that the demurrage on these vessels likely would have been charged based on the daily time charter rates for similar vessels at the time that the coal was delivered. Progress Energy estimates that the daily time charter rate for Panamax vessels would have averaged approximately $56,815/day during calendar year 2007. Assuming a vessel size of approximately 75,000 metric tonnes for PT Adaro and 65,000 metric tonnes for PT Kideco, these expected ocean vessel demurrage costs would have increased the cost of the Indonesian coal by approximately $1.72 per short ton, or about $783,000, and reduced Mr. Putman's alleged 2007 damages by a corresponding amount (see Exhibit JNH-11).

Q. What is the fourth error in Mr. Putman's calculations that you are addressing?

A. Mr. Putman has failed to account for the fact that Progress Energy's bid evaluation process takes into account the difference in SO2 emission allowance costs between the "base" coal specifications for CR4 and CR5, which include specifications of 12,000 Btu/lb. and 0.7% sulfur or 1.17 lbs. SO2/MMBtu and the SO2 content of the coal being evaluated. This fact can be seen on documents that

the Commission considered earlier in this proceeding, specifically Progress Energy's bid evaluation sheet for May 2004 (which Mr. Putman includes as his Exhibit DJP-6), and Progress Energy's bid evaluation sheet for February 2006 (which Mr. Putman includes as his Exhibit DJP-8, and which I also referenced in my October 2008 testimony in this proceeding). In other words, the difference in SO2 emission allowance costs between bituminous and Spring Creek or Indonesian coals is already accounted for in the "evaluated cost" numbers Mr. Putman presents in his Exhibit DJP-7. Therefore, the entire amount of the "excess SO2 allowance costs" shown in Mr. Putman's Exhibit DJP-13 ($2,915,308 in 2006 and $7,348,060 in 2007) represents a "double counting" of the SO2 emission allowance cost savings associated with PRB or Indonesian coal, and should not be considered in the Commission's 2006-2007 cost comparison.

In addition and as a separate point, the emission allowance prices utilized in the evaluation process are forecasted prices and do not reflect the actual value of emission allowances at the time they are used. The comparison is not "apples to apples" and does not reflect the actual impact to PEF's emission expense. Utilizing an analysis such as DJP-11with the actual tonnages and actual emission allowances is the correct way to calculate any benefit one coal would have compared to another for PEF's emission expenses.

Q. Does this conclude your testimony?

A. Yes.

Exhibit JNH-8
Correction of Mr. Putman's Btu Displacement Errors

	20% of Tonnage Delivered via IMT or UBT (1)	Commission's Heat Content Assumption for PRB Coal (MMBtu/ton) (2)	Total MMBtu of PRB Coal Required According to Commission's Methodology (3)	Putman's Calculated Cost of Bituminous Coal ($/MMBtu) (4)	Putman's Calculated Cost of Subbituminous Coal ($/MMBtu) (5)	Putman's Calculated Cost Differential ($/MMBtu) (6)	Revised Estimate of Excess Coal Costs (with Btu Displacement Errors Corrected) (7)	Putman's Original Estimate of Excess Coal Costs (8)	Change in Alleged Excess Coal Costs (with Btu Displacement Errors Corrected) (9)
2006	440,600	17.6	7,754,560	$3.29	$1.85	$1.44	**$11,166,566**	$25,149,462	($13,982,896)
2007	462,200	17.6	8,134,720	$3.47	$2.16	$1.31	**$10,656,483**	$25,866,364	($15,209,881)
Total (without interest)							**$21,823,049**	**$51,015,826**	**($29,192,777)**

Notes:

(1) Based on federal FERC Form 423 data which shows 2.203 million tons of coal delivered to CR4-5 via IMT during 2006, and 2.311 million tons delivered via IMT or UBT in 2007.

(2) Commission assumption in calculations for 1996-2005, based on 8,800 Btu/lb. Wyoming PRB coal.

(3) Column (1) times column (2).

Note also that, since the heat content of the PRB coal (assumed by the Commission to be 8,800 Btu/lb.) is much lower than the heat content of the Central Appalachian coal that would have been displaced during 2006 and 2007 (assumed in my October 2008 testimony to be approximately 12,400 Btu/lb. or 24.8 MMBtu/ton), shipping 440,600 tons of PRB coal to Crystal River 4-5 during 2006 would have replaced only 7,754,560 MMBtu / 24.8 = 312,684 tons of Central Appalachian coal. A similar calculation for 2007 indicates that the PRB coal would have replaced only 8,134,720 MMBtu / 24.8 = 328,013 tons of Central Appalachian coal.

Thus, using PRB coal in the quantities assumed by the Commission would have increased the total coal tonnage that had to be transported to Crystal River 4-5 by 440,600 - 312,684 = 127,916 tons in 2006, and by 462,200 - 328,013 = 134,187 tons in 2007.

As discussed in Mr. Weintraub's testimony, since the transportation capacity at the Crystal River plant is limited, there would likely be higher transportation costs associated with this additional coal tonnage, which are not included in this Exhibit JNH-8.

(4) and (5) from Putman's Exhibit DJP-7

(6) Column (4) minus column (5)

(7) Column (3) times column (6)

(8) From Exhibit DJP-7

(9) Column (8) minus column (7)

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Exhibit JNH-9
Correction of Mr. Putman's Failure to Include Capital Costs

	Commission's Estimate of Capital Requirement for 20% PRB Coal Blend ($/MMBtu, uncorrected) (1)	Total MMBtu of PRB Coal Required According to Commission's Methodology (uncorrected) (2)	Commission's Estimate of Annual Revenue Requirement to Cover Capital Costs Required to Burn 20% Blend of PRB Coal (total $, uncorrected) (3)	Progress Energy's Estimate of Annual Revenue Requirement to Cover Capital Costs Required to Burn 20% Blend of PRB Coal (correction of Commission methodology, total $) (4)	Progress Energy's Estimate of Annual Revenue Requirement to Cover Capital Costs Required to Burn 20% Blend of PRB Coal (correction of Commission methodology, $/MMBtu) (5)
2006	$0.03	7,754,560	$232,637	$1,000,000	$0.13
2007	$0.03	8,134,720	$244,042	$1,000,000	$0.12
Total (without interest)			**$476,679**	**$2,000,000**	

Notes:

(1) Commission assumption
(2) Exhibit JNH-8, column 3
(3) Column (1) times column (2).
(4) From Exhibit JNH-7 in Jamie Heller's October 2008 testimony.
(5) Column (4) divided by column (2).

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Exhibit JNH-10
Calculation of Rail Delivery Constraint for 2006 Shipments of Coal

A. NCTA Forecast of Coal Demand vs. Actual Shipments on PRB Joint Line

Date	NCTA Forecast of Coal Demand on PRB Joint Line (annualized tons) (1)	Actual Coal Shipments on PRB Joint Line (annualized tons) (2)	Percentage Shortfall (3)	Adjusted Shortfall which Allows for Possible Overstatement in 2006 NCTA Forecast (4)	Impact on Full-Year 2006 Damages Calculation Assuming Shortfall Only Applies During 1Q2006 (5)
Jan-06	372	352	5.7%		
Feb-06	398	340	17.1%		
Mar-06	372	345	7.8%		
Average Shortfall			**10.2%**	**7.5%**	**1.9%**

Notes:

(1) and (2) estimated based on data published by Burlington Northern Santa Fe Railway.
(3) [Column (1) minus column (2)] divided by column (2).
(4) Estimated.
(5) Estimated based on column (4) divided by 4.

B. Impact on 2006 Damages Calculation

	Putman's Original Estimate of Excess Coal Costs (1)	Change Resulting from Correction of Btu Displacement Errors (2)	Change Resulting from Inclusion of Capital Costs (3)	Alleged Excess Coal Costs After Correction of Putman's Btu Displacement and Capital Cost Errors (4)	Reduction in 2006 Damages Due to Rail Delivery Constraint (5)
Using Commission's Capital Costs	$25,149,462	($13,982,896)	($232,637)	$10,933,929	**$207,745**
Correcting Commission Error Related to Capital Costs	$25,149,462	($13,982,896)	($1,000,000)	$10,166,566	**$193,165**

Notes:

(1) and (2) from Exhibit JNH-8.
(3) from Exhibit JNH-9.
(4) Sum of columns (1) through (3)
(5) Column (4) times 1.9%.

Exhibit JNH-11
Calculation of Vessel Delivery Constraint for 2007 Shipments of Indonesian Coal

	Estimated Vessel Size (metric tonnes) (1)	Daily Unloading Rate for IMT Assumed in Bids (metric tonnes/day) (2)	Daily Unloading Rate for IMT Guaranteed in Progress Energy Contract (metric tonnes/day) (3)	IMT Unloading Time Assumed in Bids (days) (4)	Unloading Time Guaranteed by IMT (days) (5)	Expected Ocean Vessel Demurrage Chargeable to Progress Energy (days per Ocean Vessel) (6)	Estimated Ocean Vessel Demurrage Cost ($ per Ocean Vessel per day) (7)	Estimated Ocean Vessel Demurrage Cost ($ per short ton) (8)	Estimated Ocean Vessel Demurrage Cost ($ per MMBtu) (9)	Estimated Fuel Requirement under Commission's Methodology (MMBtu) (10)	Reduction in 2007 Damages Due to Ocean Vessel Demurrage (total $, without interest) (11)
PT Adaro	75,000	20,000	12,000	3.75	6.25	2.50	$56,815	$1.72	$0.09	3,075,975	$284,075
PT Kideco	65,000	20,000	12,000	3.25	5.42	2.17	$56,815	$1.72	$0.10	5,058,745	$499,409
Total										8,134,720	$783,484

Notes:

(1) Based on PT Adaro and PT Kideco bids.
(2) As quoted in PT Adaro and PT Kideco bids.
(3) From Progress Energy contract with IMT.
(4) Column (1) divided by column (2)
(5) Column (1) divided by column (3)
(6) Column (5) minus column (4)
(7) Progress Energy's estimated average time charter rate of $56,815/day for Panamax vessels during calendar year 2007.
(8) Column (7) multiplied by column (6), divided by column (1), divided by 1.1025 to convert from metric tonnes to short tons.
(9) Column (8) divided by 9,300 Btu/lb. (18.6 MMBtu per short ton) for PT Adaro coal, or 8,700 Btu/lb. (17.4 MMBtu per short ton) for PT Kideco coal.
(10) For PT Adaro coal: offered quantity of 150,000 metric tonnes x 1.1025 conversion from metric tonnes to short tons x 18.6 MMBtu per short ton. For PT Kideco coal, total 2007 coal requirement from JNH-1 less total MMBtu's of PT Adaro coal.
(11) Column (9) times column (10).

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Exhibit No.: _____ (JNH-11)
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