

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

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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

Docket No. 070703-EI

Submitted for Filing: March 16, 2009

REBUTTAL TESTIMONY OF
SASHA WEINTRAUB
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 OF
SASHA WEINTRAUB**

1 **I. INTRODUCTION AND QUALIFICATIONS**

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

3 **A.** My name is Sasha A. J. Weintraub. My business address is 410 South Wilmington
4 Street, Raleigh, North Carolina, 27601.

5

6 **Q. Have you previously filed Direct Testimony in this proceeding?**

7 **A.** I have.

8

9 **II. PURPOSE AND SUMMARY OF REBUTTAL TESTIMONY**

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

11 **A.** The purpose of my rebuttal testimony is to address the Direct Testimony of David J.
12 Putman, filed in this matter on February 2, 2009.

13

14 **Q. Are you sponsoring any exhibits with your testimony?**

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

1 • Exhibit No. ____ (SAW-5), Composite exhibit of workpapers supporting rebuttal
2 testimony;

3 All of these exhibits are true and correct to the best of my knowledge.
4

5 **Q. Please summarize your rebuttal testimony.**

6 **A.** Progress Energy Florida's ("PEF") pre-filed direct testimony in this matter takes the
7 Florida Public Service Commission's ("PSC" or "Commission") order in Docket
8 060658 and strictly applies the PSC's analysis in that order. In its direct testimony,
9 PEF uses real coal purchases that actually happened, with real costs, real pricing, and
10 real information that is based on actual experience in the market that can be
11 objectively verified by cold, hard facts. PEF uses this real information to arrive at a
12 relatively simple and straight forward result that is the product of applying the PSC's
13 ordered methodology. That result is that during 2006 and 2007, the real purchases
14 that PEF actually made in the market were cheaper than the Powder River Basin
15 ("PRB") coal that was available for those same periods, and PEF saved its customers
16 almost \$4 million in fuel costs based on the purchases that PEF made.

17 In witness Putman's testimony, he appears to start with a desired result, a
18 determination of excess fuel costs, and then backs into that result with fictional
19 purchases, incorrect or outdated costs, speculative and incomplete information, and
20 other "cherry picked" data inputs that will support the predetermined result that he
21 desires.

22 First, Witness Putman's results are simply incredible on their face. Compared
23 to an alleged \$134 million overcharge that spanned over ten years in Docket 060658,

1 Witness Putman contends that in a mere two years, PEF has paid over \$61 million in
2 excess coal costs, a fact that even OPC's prior witness Sansom did not agree with.

3 Second, witness Putman uses two types of coals in his testimony that the PSC
4 never considered, analyzed, or heard testimony on in Docket 060658. As explained
5 in detail in Witness Stenger's Rebuttal Testimony, the Spring Creek and Indonesian
6 coal that Mr. Putman advances in his testimony are very different than the PRB coal
7 that the Commission considered in Docket 060658, and for that reason alone, the
8 Commission should not consider that coal here.

9 Third, even if the PSC looks past the patent lack of credibility in Mr.
10 Putman's testimony, and then looks further past the fact that Mr. Putman's testimony
11 has used improper coal that was not at issue in Docket 060658, the Commission
12 should reject the conclusions in his testimony nonetheless because they are based on a
13 selective, hindsight look back that cherry picks data, applies incomplete, outdated, or
14 incorrect information, and that ignores the real life implications of the actions that he
15 suggests PEF should have taken.

16
17 **III. REBUTTAL TESTIMONY**

18 **Q. Please explain your comments regarding the credibility of Mr. Putman's**
19 **findings.**

20 **A.** Mr. Putman's alleged \$61 million in excess coal costs for 2006 and 2007 is so out of
21 the pale of reason that it simply lacks facial credibility. To explain, in Docket
22 060658, the Office of the Public Counsel ("OPC") took the position that over ten
23 years, PEF had caused excess fuel costs based on a 50% blend of PRB coal, delivered
24 by rail and barge, and that the all in damages, without interest, was \$134.5 million.

1 Following that testimony in Docket 070001, OPC took the position that based on a
2 20% blend of Spring Creek coal delivered by rail and barge, an all in refund, without
3 interest, of \$14.2 million was due and owing based on just 2006 deliveries. Now in
4 this docket, Witness Putman asserts that a refund of \$61 million is due for just two
5 years, based on the same Spring Creek Coal that their prior witness said \$14.2 million
6 for, and based on Indonesian coal at a 20% blend, delivered by barge only.

7 So as blend percentages get smaller, years at issue get smaller, and delivery
8 methods get smaller, OPC's alleged damages get exponentially larger, a fact that
9 defies logic on its face.

10
11 **Q. You also stated in your summary that the Commission did not consider the types**
12 **of coal that Witness Putman has advanced in this case, please explain.**

13 **A.** As reflected in the record of Docket 060658 and in Order 07-0816-FOF-EI, the PSC
14 analyzed Wyoming coal from the Powder River Basin and heard extensive testimony
15 on the operational characteristics of this coal, as well as testimony on what would
16 need to be done from an operational perspective to burn that coal. While others in
17 that case attempted to assert claims that other types of coals from Colorado and non-
18 domestic sources would have been more cost effective, both Commission Staff and
19 the Commission itself properly found that it could not make reasonable and proper
20 decisions on the prudence of PEF's actions with regard to such coals without having a
21 full set of facts regarding those coals before it. The Commission makes this fact
22 abundantly clear in multiple instances throughout Order 07-0816, and in its ultimate
23 finding, the PSC specifically limits its consideration to the coal that it did actually
24 hear complete and competent evidence on, the Wyoming PRB coal that PEF tested in

1 2004 and 2006. The PSC concludes that analysis on page 36 of that order by stating
2 that “[i]n 2003-2005, PEF paid excessive fuel costs due to its failure to earnestly
3 pursue the ability to burn PRB coal at CR4 and CR5 beginning in 2001.... The
4 prudence of PEF’s coal purchases of 2006 and 2007 was not considered in this
5 proceeding, accordingly, we direct PEF to . . .address whether the Company was
6 prudent in its 2006 and 2007 coal purchases for CR4 and CR5.”

7 As discussed in detail in witness Stenger’s Rebuttal Testimony, the two types
8 of coals that witness Putman uses in his testimony are very different than the coal that
9 the Commission considered in Docket 060658, and just like the Colorado and foreign
10 coal that the PSC rejected in Docket 060658, the PSC should similarly and summarily
11 reject OPC’s attempt to apply the PSC’s methodology in Order 07-0816 (a
12 methodology that resulted solely from days of testimony and evidence on Wyoming
13 PRB coal) to Spring Creek coal and coals from Indonesia that the PSC has not heard
14 such evidence on.

15 Even if the Commission chose to overlook this fatal flaw in Mr. Putman’s
16 analysis, witness Stenger explains in her testimony that the earliest time that PEF
17 would have reasonably completed its testing of Spring Creek coal was between early
18 to late 2007, and both of these times are beyond the 2006 time frame that Mr. Putman
19 uses for these coals in his testimony.

20 Witness Stenger also explains that the earliest time that PEF would have
21 reasonably completed its testing of Indonesian coal was between November, 2008
22 and October, 2009, and both of these times are beyond the 2007 time frame that Mr.
23 Putman uses for these coals in his testimony. Finally, as can be further seen from
24 witness Stenger’s testimony, to effectively and safely burn Spring Creek and

1 Indonesian coal, PEF may have had to spend up to an additional \$176 million in
2 capital upgrades to burn these coals in addition to the PRB upgrades that the
3 Commission considered and ruled on in the 060658 Docket, and that amount of
4 capital investment dwarfs the alleged savings that Mr. Putman advances in his
5 testimony.

6
7 **Q. You further stated in your summary that Mr. Putman's methodology and data**
8 **were erroneous, can you explain?**

9 **A.** Yes, to illustrate this point, I have taken a step-by-step approach that analyzes each
10 phase of witness Putman's testimony and have singled out each one of his errors,
11 omissions, and mistakes. In each phase of his testimony, I have also identified where
12 his mistakes, errors, and omissions present "fatal flaws" to his theory that should end
13 the consideration of his argument and have quantified the monetary impacts of other
14 mistakes, errors, and omissions that reduce his proposed refund amount.

15
16 **Q. Will you please walk the Commission through this analysis for the Spring Creek**
17 **coal that Mr. Putman contends PEF should have burned in 2006?**

18 **A.** Certainly. For the year 2006, Witness Putman starts with the assumption that PEF
19 has just received and ranked the results of PEF's 2004 RFP. He further assumes that
20 PEF would have identified the Kennecott bids for Spring Creek Coal as the most
21 favorable. He then assumes that PEF would have entered into a one-year contract
22 with Kennecott for 537,890 tons of Spring Creek coal for delivery in 2006. He
23 further compares the bid price of Spring Creek coal that includes forecasted prices for
24 transportation costs and emission allowances and compares this 2004 forecast price to

1 the actual costs incurred for coal in 2006, costs that include the actual transportation
2 costs, actual fuel surcharges for transportation, and actual other charges that occur
3 when procuring and transporting fuel in actuality.

4
5 **Q. Have you identified any errors or omissions with these assumptions?**

6 **A.** I have. I will continue my analysis by using Mr. Heller's exhibit JNH-8 that corrects
7 the tonnage Mr. Putman assumed shipped from IMT in 2006 and 2007 and corrects
8 the error that Mr. Putman made by not taking into account the displacement of Btus in
9 his calculation.

10 The Kennecott bid that Mr. Putman uses was for three years (2005, 2006,
11 2007) and not just one year. If PEF had wanted just a one-year contract for 2006 as
12 Mr. Putman assumes, the price of that coal would have increased by an estimated 5%
13 based on the price spread between multiple years for sub-bituminous Western coals
14 identified from independent broker price sheets from April 2004. The 5% price
15 increase is applied to 35% of the Kennecott Spring Creek bid, as this portion of the
16 bid was represented as the commodity price in the bid. This would have resulted in a
17 price increase of \$0.40/ton to Mr. Putman's assumed coal price, and the impact of this
18 error is reflected in my exhibit SAW-5.

19
20 **Q. Was that the only error in Mr. Putman's initial assumptions for 2006 coal?**

21 **A.** No. Mr. Putman overlooks the fact that PEF would not have entered into a contract
22 for Spring Creek coal for any significant quantity or duration until 2007 so that PEF
23 could have conducted test burns and made capital upgrades if such upgrades were
24 needed. As Mrs. Stenger discusses in her rebuttal testimony, Spring Creek coal is not

1 the same kind of coal that the PSC considered in Docket 060658. For example, it has
2 much higher sodium and much different ashing and slagging properties. There is a
3 potential for issues to arise while burning this fuel, even in a blend, with respect to
4 operations, fuel handling, safety, or environmental performance.

5 Beginning in 2004 when PEF first received the bid for Spring Creek Coal, the
6 earliest PEF would have been able to reasonably enter into a contract for this coal
7 would have been between early to late 2007. By this time, the Kennecott bid for a
8 three-year deal would not have been valid. Even if PEF had asked Kennecott to hold
9 the bid open for almost three-years, the price of sub-bituminous Western coals
10 increased 39%. This 39% increase would have resulted in a price increase of
11 \$3.12/ton to Mr. Putman's assumed coal price.

12 Witness Stenger provides a low, medium, and high fuel case timeline
13 associated with the various testing and evaluation scenarios that would be employed
14 when researching whether to move forward with burning Spring Creek coal. All of
15 the processes to evaluate coals and implement upgrades, install equipment, amend
16 permits, and train employees involve a substantial amount of time and money. In the
17 low fuel case scenario, following a 3-day test burn, PEF could potentially be ready to
18 burn a new blend of fuel between May and August, 2005. However, if a longer test
19 burn were necessary as shown in the medium fuel case scenario, PEF would not be
20 ready to burn a new blend of fuel until sometime after January 2007. If yet a long-
21 term test burn were necessary to safely and effectively burn this coal, PEF would not
22 be ready to burn a new blend of fuel until October 2007.

23 For purposes of evaluating the Spring Creek coal for this analysis, I have
24 conservatively utilized the unlikely low case scenario from Witness Stenger's

1 testimony and Exhibit JS-11 that indicates PEF could have possibly been ready to
2 burn Spring Creek coal sometime after August 2005 if test burns went perfectly and
3 no capital upgrades were required. From August 2005 until December 2005, the
4 average price of sub-bituminous Western coal for delivery in 2006 had increased 97%
5 above prices in April 2004. I have again been conservative and assume that PEF
6 “locked up” the pricing for Spring Creek in September 2005 immediately after the
7 timeframe Witness Stenger identified as the earliest the plant would be ready. Prices
8 in September 2005 for sub-bituminous Western coal delivered in 2006 increased 65%
9 from prices in April 2004. This 65% increase would have resulted in a price increase
10 of \$5.21/ton to Mr. Putman’s assumed coal price. The combined increases of entering
11 into a one year contract and delaying the contract for the earliest testing possible
12 would result in Mr. Putman’s alleged damages for 2006 being reduced by \$2,326,000.
13

14 **Q. Aside from the errors in his initial 2006 assumptions, has Mr. Putman made any**
15 **other errors in his analysis for 2006?**

16 **A.** He has. As explained in Mr. Heller’s Rebuttal Testimony in this proceeding, Mr.
17 Putman has not used proper BTU displacement in his analysis per the PSC’s refund
18 methodology for his 2006 coal. This reduces the impact of his alleged damages for
19 2006 by \$14 million. Mr. Heller also explains in his rebuttal that Mr. Putman has
20 failed to use the \$.03/mmbtu capital cost adder for the 2006 coal he selects, which
21 violates the PSC’s refund methodology. This further reduces the impact of his
22 alleged damages by \$233,000. Additionally, Mr. Heller’s rebuttal testimony
23 demonstrates that Mr. Putman has further failed to apply a transportation delivery

1 constraint factor for the 2006 coal he selects, which further violates the PSC’s refund
2 methodology and reduces Mr. Putman’s damages by \$208,000.

3 Finally, Mr. Heller also explains that Mr. Putman has “doubled dipped” in
4 evaluating SO2 allowance costs that he alleges PEF would have incurred under his
5 theory.

6
7 **Q. Beyond what you have discussed so far, have you identified any other errors or**
8 **omissions in Mr. Putman’s 2006 analysis?**

9 **A.** Yes. Mr. Putman has not used the total amount of actual costs that would have been
10 incurred with the 2006 coal that he has selected. Specifically, for the Kennecott bid
11 of approximately 500,000 tons, purchased in 2004 for delivery in 2006, the following
12 transportation charges would have applied:

13	\$5.13/ton	RCAF-U/BNSF fuel surcharge per bid
14	\$7.71/ton	barging costs to IMT
15	\$2.10/ton	transloading costs at IMT
16	\$9.73/ton	gulf barge costs to Crystal River
17	<u>\$1.43/ton</u>	<u>other costs for transporting fuel</u>
18	\$26.10/ton	total costs

19
20 In his analysis, Mr. Putman uses \$12.07/ton as his transportation cost, which
21 understates the true total transportation costs by \$14.03/ton. This omission reduces
22 Mr. Putman’s alleged 2006 damages by \$5,816,000.

23 In addition to these transportation cost errors, and as introduced by Mr. Heller,
24 Mr. Putman is also “double dipping” SO2 allowances. Specifically, he is using a
25 forecasted emission allowance in an evaluated RFP bid and comparing that cost to
26 actual costs that have transpired. In order to avoid “double dipping” the SO2
27 allowances and to compare the Spring Creek coal to the actual coals that OPC alleges
28 were not prudently purchased on an “apples to apples” comparison, I have removed

1 the SO2 costs from the evaluated costs. Any change in SO2 tonnage emissions and
2 corresponding expenses should be calculated in a similar manner to OPC's exhibit
3 DJP-11 with the correct tonnages and allowance prices. For the 2006 Spring Creek
4 coal, \$1.87/ton is added back to the evaluated costs. Had Mr. Putman not "double
5 dipped" for SO2, his alleged 2006 damages would be reduced by another \$775,000.

6
7 **Q. With respect to the errors he has made in his 2006 analysis that you have**
8 **discussed, has Mr. Putman made those same errors in his analysis for 2007**
9 **coals?**

10 **A.** Yes, along with other additional errors and omissions that are specific to his
11 assertions for 2007.

12
13 **Q. Will you please walk the Commission through your analysis for the Indonesian**
14 **coal that Mr. Putman contends PEF should have burned in 2007?**

15 **A.** Yes. For the year 2007, Witness Putman starts with the assumption that PEF has just
16 received and ranked the results of PEF's 2006 RFP. He further assumes that PEF
17 would have identified the PT Adaro Bids for Indonesian coal as the most favorable.
18 He then assumes that PEF would have entered into a one-year contract with PT Adaro
19 for 525,386 tons of Indonesian coal for delivery in 2007.

20
21 **Q. As an initial matter, could PEF have made the purchases that Mr. Putman**
22 **assumed without adverse consequences?**

23 **A.** No, if PEF would have made the Indonesian purchases that Mr. Putman suggests,
24 PEF would then have had limited need for the Memco barges that it had previously

1 contracted for in 2004 for services in 2007. In other words, if PEF were buying this
2 Indonesian coal, PEF would have had to have foregone most of its domestic water
3 movement supply diversity, defaulted on the terms of its Memco barge contract, and
4 made itself captive to having over 95% of all its water deliveries originating from
5 foreign ports. This default alone would have cost PEF at least \$2,935,000, a figure
6 that must be further deducted from Mr. Putman's alleged overcharges. This figure
7 does not include any other damages that may occur due to the default of this
8 transportation contract.

9
10 **Q. Have you identified any other errors or omissions with these assumptions?**

11 **A.** I have. As with the Kennecott bid that Mr. Putman used for 2006, the PT Adaro bid
12 he uses for 2007 was for three years (2007, 2008, and 2009) and not just one year. If
13 PEF had wanted just a one-year contract for 2007 as Mr. Putman assumes, PEF would
14 have had to have speculated that it would be able to get that coal at the same price
15 that was bid under the full, three-year deal. While prices for this Indonesian coal did
16 remain relatively flat during 2006, Mr. Putman has to rely on speculation that PT
17 Adaro would not have increased their bid price for a shorter, one-year contract.

18
19 **Q. Was that the only error in Mr. Putman's initial assumptions for 2007 coal?**

20 **A.** No. Mr. Putman overlooks the fact that PEF would not have entered into a contract
21 for Indonesian coal for any significant quantity or duration until November 2008 to
22 October, 2009 so that PEF could have conducted test burns and made capital
23 upgrades if such upgrades were needed. As Mrs. Stenger discusses in her rebuttal
24 testimony, Indonesian coal is not the same kind of coal that the PSC considered in

1 Docket 060658. Apart from being from an entirely different part of the world, it is
2 extremely low in sulfur and has much different opacity and PM discharge properties
3 as compared to the PRB coal that the Commission previously considered. Thus, as
4 Mrs. Stenger explains, PEF would not have even been able to use Indonesian coal by
5 2007 as Mr. Putman suggests.

6

7 **Q. Aside from the errors in his initial 2007 assumptions, has Mr. Putman made any**
8 **other errors in his analysis for 2007?**

9 **A.** He has. Just like his analysis for 2006, Mr. Putman has not used proper BTU
10 displacement in his analysis per the PSC's refund methodology for his 2007 coal; has
11 failed to use the \$.03/mmbtu capital cost adder for the 2007 coal he selects; and has
12 failed to apply a transportation delivery constraint factor for the 2007 coal he selects,
13 which further violates the PSC's refund methodology. These errors reduce the impact
14 of his alleged damages for 2007 by \$15.2 million, \$244,000, and \$783,484,
15 respectively.

16

17 **Q. Beyond what you have discussed so far, have you identified any other errors or**
18 **omissions in Mr. Putman's 2007 analysis?**

19 **A.** Yes. Mr. Putman has not used the total amount of actual costs that would have been
20 incurred with the 2007 coal that he has selected. Specifically, for the PT-Adaro bid
21 for approximately 150,000 tons, purchased in 2006 for delivery in 2007, the
22 following transportation charges would have applied:

23	\$14.97/ton	freight from port in Indonesia to New Orleans (short ton)
24	\$1.22/ton	bunker oil fuel surcharge for ocean vessel
25	\$4.07/ton	gearless vessel rate at IMT
26	\$7.22/ton	gulf barge rate from IMT to Crystal River

1 \$1.90/ton other charges for transporting fuel
2 \$29.38/ton total costs

3
4 In his analysis, Mr. Putman uses \$11.52/ton as his transportation cost, which
5 understates the true total transportation costs by \$17.86/ton. This omission reduces
6 Mr. Putman's alleged 2007 damages by \$2,360,000.

7 For the PT Kideco Jaya Agung bid for approximately 500,000 tons,
8 purchased in 2006 for delivery in 2007, the following transportation charges would
9 have applied:

10 \$1.22/ton bunker oil fuel surcharge for ocean vessel
11 \$4.07/ton gearless vessel rate at IMT
12 \$7.22/ton gulf barge rate from IMT to Crystal River
13 \$1.90/ton other charges for transporting fuel
14 \$14.41/ton total costs

15
16
17 In his analysis, Mr. Putman uses \$11.52/ton as his transportation cost, which
18 understates the true total transportation costs by \$2.89/ton. This omission reduces
19 Mr. Putman's alleged 2007 damages by \$895,000.

20 In addition to these transportation costs errors, Mr. Putman is again "double
21 dipping" SO2 allowances. In order to avoid "double dipping" the SO2 allowances and
22 to compare the Indonesian coals to the actual coals that OPC alleges were not
23 prudently purchased on an "apples to apples" comparison, I have again removed the
24 SO2 costs from the evaluated costs. For the PT Adaro coal, \$19.72/ton is added back
25 to the evaluated costs. For the PT Kideco Jaya Agung coal, \$19.35/ton is added back
26 to the evaluated costs. If the correct "apples to apples" analysis is applied to the
27 correct amount of tons of coal that PEF would have actually burned in 2007 (to
28 account for Mr. Putman's aforementioned errors with BTU displacement), his alleged
29 2007 damages would be further reduced by \$9,192,000.

1 **Q. Beyond what you have discussed so far, have you identified any other errors or**
2 **omissions in Mr. Putman's analysis?**

3 Yes. As Mr. Heller identifies in his exhibit JNH-8, since the heat content of the sub-
4 bituminous coal assumed by OPC is much lower heat content than the heat content of
5 Central Appalachian coal that it would have displaced during 2006 and 2007,
6 shipping 440,600 tons of sub-bituminous coal to Crystal River in 2006 would have
7 replaced only 312,684 tons of Central Appalachian coal. A similar calculation for
8 2007 indicates that shipping 462,200 tons of sub-bituminous coal would only have
9 replaced 328,013 tons of Central Appalachian coal. Thus, additional coal tonnage
10 equaling 127,916 tons in 2006 and 134,187 tons in 2007 would have been required to
11 be transported to Crystal River 4-5. Since the transportation capacity was fully
12 utilized during this time frame, incremental transportation costs need to be accounted
13 for to account for this tonnage that fails to be shipped to Crystal River when sub-
14 bituminous coal replaces Central Appalachian coal on the barges. Utilizing the
15 Jonathan barge for additional barge capacity would have been required in 2006 and
16 2007. The incremental costs of utilizing the Jonathan in 2006 would have been
17 \$6.96/ton (\$16.69/ton for the Jonathan minus \$9.73/ton for the existing barge fleet) to
18 haul the 127,916 tons required in 2006. The incremental costs of utilizing the
19 Jonathan in 2007 would have been \$9.47/ton (\$16.69 for the Jonathan minus
20 \$7.22/ton for the existing barge fleet) to haul the 134,187 tons in 2007. This
21 incremental cost is not accounted for in OPC's analysis and would reduce the damage
22 calculation by \$2,161,000.

23 **Q. Beyond what you have discussed so far, have you identified any other errors or**
24 **omissions in Mr. Putman's analysis?**

1 **A.** Yes. In Mr. Putman’s analysis for Excess 2006-2007 Costs Related to SO2
2 allowances for CR4 and CR5 (DJP-11), Mr. Putman is utilizing forecasted SO2
3 emission allowances from an April 4th, 2006 spreadsheet to calculate damages, as
4 provided in DJP-12. The emission allowance price utilized in DJP-11 is \$977/ton
5 SO2 for 2006 and \$1,091/ton SO2 for 2007. These emission allowance values for
6 2006 and 2007 are forecasted prices from the spreadsheet in DJP-12. The actual value
7 of emission allowances for 2006 is \$731/ton SO2. The actual value of emission
8 allowances for 2007 is \$524/ton SO2. I have corrected for these errors and utilized
9 the correct tonnages for 2006 and 2007, as shown in my exhibit SAW-5. Correcting
10 for these errors would further reduce OPC’s damages by \$5,676,000.

11

12 **VI. CONCLUSION**

13 **Q. Can you summarize the impacts of all the issues you discuss with respect to Mr.**
14 **Putman’s analysis for 2006 and 2007 coals?**

15 **A.** Yes. As I mentioned at the beginning of my testimony, however, the most important
16 fact for the Commission to consider is that in PEF’s direct testimony, PEF has already
17 analyzed and quantified what the impacts of PEF’s coal purchasing decisions for
18 2006 and 2007 are based on real transactions that took place in real life instead of
19 relying on a hypothetical, hindsight review based on coals that the Commission did
20 not even consider in Docket 060658. Also, I should make clear that several of the
21 issues I discuss above show that it may not have even been possible for PEF to
22 purchase and burn the coal that Mr. Putman suggests in 2006 and 2007 (such as
23 testing times, the potential for \$176 million in incremental capital upgrade costs, and
24 operational and safety problems that may have precluded the use of Spring Creek and

1 Indonesian coals altogether), and those “fatal flaws” should put an end to any serious
 2 consideration of Mr. Putman’s theories. With that said, though, the following
 3 summarizes the impacts that all of Mr. Putman’s errors and omissions have on his
 4 alleged damages for 2006 and 2007:

5	Total OPC alleged damages, without interest:	\$ 61,279,193
6	Less 2006 increased costs for Spring Creek contract changes	\$ 2,326,000
7	Less 2006 BTU displacement error	\$ 14,000,000
8	Less 2006 capital cost adder of \$0.03/mmbtu	\$ 233,000
9	Less 2006 rail delivery constraints for 2006	\$ 208,000
10	Less 2006 omitted transportation charges for Spring Creek coal	\$ 5,816,000
11	Less 2006 SO2 “double dip” for Spring Creek coal	\$ 775,000
12	Less 2007 Memco barge contract default	\$ 2,935,000
13	Less 2007 BTU displacement error	\$ 15,200,000
14	Less 2007 capital cost adder of \$0.03/mmbtu	\$ 244,000
15	Less 2007 vessel delivery constraints for Indonesian coal	\$ 783,000
16	Less 2007 omitted transportation costs for PT Adaro	\$ 2,360,000
17	Less 2007 omitted transportation costs for PT Kideco	\$ 895,000
18	Less 2007 SO2 “double dip” for Indonesian coals	\$ 9,192,000
19	Less incremental gulf barge transportation costs	\$ 2,161,000
20	<u>Less correct SO2 tonnage and correct EA values</u>	<u>\$ 5,676,000</u>
21	Total	\$ (1,525,000)
22		
23		
24	Less potential capital cost (worst case)	\$176,000,000
25		
26		(\$177,525,000)
27		
28		

29 **Q. Does this conclude your testimony?**

30 **A. Yes.**

Exhibit SAW-5
Correction of Mr. Putman's Btu Displacement Errors (same as JNH-8)

	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 $7,754,560 \text{ MMBtu} / 24.8 = 312,684$ tons of Central Appalachian coal. A similar calculation for 2007 indicates that the PRB coal would have replaced only $8,134,720 \text{ MMBtu} / 24.8 = 328,013$ 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.

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)

**Exhibit SAW-5
Correction of Mr. Putman's Coal Costs due to Contract Changes**

	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	\$2.15	\$1.14	\$6,840,198	\$25,149,462	(\$16,309,264)
2007	462,200	17.6	8,134,720	\$3.47	\$2.16	\$1.31	\$10,856,483	\$25,866,364	(\$15,209,881)
Total (without interest)							\$19,496,681	\$51,015,826	(\$31,519,145)
Decrease in damages from adding \$5.61/ton to Mr. Putman's Spring Creek coal price to account for contract changes							\$2,326,368		

**Exhibit SAW-5
Correction of Mr. Putman's 2006 Understated Transportation Costs**

	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	\$2.90	\$0.39	\$3,024,278	\$25,149,462	(\$22,125,184)
2007	462,200	17.6	8,134,720	\$3.47	\$2.16	\$1.31	\$10,856,483	\$25,866,364	(\$15,209,881)
Total (without interest)							\$13,880,761	\$51,015,826	(\$37,335,065)
							Decrease in damages from adding \$12.07/ton to Mr. Putman's Spring Creek coal price to account for understated transportation costs		\$5,815,920

Exhibit SAW-5
Correction of Mr. Putman's Errors for SO2 "Double Dip" using Spring Creek Coal in 2006

	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	\$3.00	\$0.29	\$2,248,822	\$25,149,462	(\$22,900,640)
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)							\$12,905,305	\$51,015,826	(\$38,110,521)
Decrease in damages from adding \$1.87/ton to Mr. Putman's Spring Creek coal costs to account for SO2 "double dipping"							\$775,456		

Exhibit SAW-5
Correction of Mr. Putman's 2007 Understated Transportation Costs for PT Kideco Indonesian Coal

	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	\$3.00	\$0.29	\$2,248,822	\$25,149,462	(\$22,900,640)
2007	462,200	17.6	8,134,720	\$3.47	\$2.56	\$0.91	\$7,402,595	\$25,866,364	(\$18,463,769)
Total (without interest)							\$9,651,417	\$51,015,826	(\$41,364,409)
							Decrease in damages from adding \$2.89/ton to Mr. Putman's PT Kideco coal costs to account for understated transportation costs		\$694,819

Exhibit SAW-5
Correction of Mr. Putman's Errors for SO2 "Double Dip" using Indonesian Coal in 2007

	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	\$3.00	\$0.29	\$2,248,822	\$25,149,462	(\$22,900,640)
2007	462,200	17.6	8,134,720	\$3.47	\$3.69	(\$0.22)	(\$1,789,638)	\$25,866,364	(\$27,656,002)
Total (without interest)							\$459,184	\$51,015,826	(\$50,556,642)
							Decrease in damages from adding \$19.72/ton and \$19.35/ton to Mr Putman's PT Adaro and PT Kideco coal costs to account for SO2 "double dipping"		\$9,192,233

Correction of Mr. Putman's Errors for SO2 Tonnage and Actual Emission Allowance Values

	Purchased Coal SO2 Tons	Btu/lb	Total MMBtu	SO2 Content (lbs SO2/mmBtu)	Tons SO2	Actual Allowance Price (Average)	Total Cost (Actual Annual Average Price)
Formulas			(A*B)*2000/500		(C*D)/2000		(E*H)
	A	B	C	D	E	H	I
2006	186,430	12402	4624209.72	1.04	2404.59	\$731	\$1,757,754.60
2006	216,350	12399	5365047.3	1.09	2923.95	\$731	\$2,137,408.02
2006	0	12377	0	1.15	0.00	\$731	\$0.00
							\$3,895,162.62
2006	402,780	9350	7531986	0.8	3012.79	\$731	\$2,202,352.71
2006	-	9963	0	1.18	0.00	\$731	\$0.00
							\$2,202,352.71
2006 Totals							\$1,692,809.91

	Purchased Coal SO2 Tons	Btu/lb	Total MMBtu	SO2 Content (lbs SO2/mmBtu)	Tons SO2	Actual Allowance Price (Average)	Total Cost (Actual Annual Average Price)
Formulas			(A*B)*2000/500		(C*D)/2000		(E*H)
	A	B	C	D	E	H	I
2007	295,880	12394	7334273.44	1.13	4143.86	\$524	\$2,171,384.99
2007	136,581	12420	3392672.04	1.12	1899.90	\$524	\$995,545.68
							\$3,166,930.68
2007	165,375	9300	3075975	0.1	153.80	\$524	\$80,590.55
2007	296,825	8200	4867930	0.15	365.09	\$524	\$191,309.65
							\$271,900.19
2007 Totals							\$2,895,030.48

Total

\$4,587,840.40