# **BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION**

In Re: Petition on behalf of Citizens of the State of Florida to require Progress Energy Florida, Inc. to refund to customers \$143 million

DOCKET NO. 060658-EI

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## PROGRESS ENERGY FLORIDA, INC.'S POST-HEARING STATEMENT AND BRIEF IN SUPPORT OF THE DENIAL OF OPC'S PETITION FOR REFUND

Progress Energy Florida, Inc. ("PEF" or the "Company"), submits its Post-Hearing Statement of Issues and Positions, Findings of Fact and Conclusions of Law, and Brief in Support of the Denial of OPC's Petition for Refund and for the Commission to affirm and find reasonable and prudent PEF's coal purchases for Crystal River Units 4 and 5 ("CR4" and "CR5") from 1996 to 2005.

# I. PEF's Brief in Support of Its Request that the Commission Deny OPC's Petition for Refund and Approve PEF's Coal Purchases as Reasonable and Prudent.

PEF's coal purchases for CR4 and CR5 were reasonable and prudent. In fact, PEF's

decision not to burn a 50/50 blend of Powder River Basin ("PRB") sub-bituminous and

bituminous coals, as OPC alleges PEF should have burned, has saved customers nearly a billion

dollars. These savings are summarized below:

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## **Customer Savings in Nominal Dollars**

COM <u>Description</u>		Savings	
CTR       Capital changes, per R         ECR       I       which must be made to and the units prior to u         GCL       \$60 million expenditure	od Hatt's testimony, o the Crystal River site using PRB coal (one-time re)	\$60 million (Tr. P. 686	, L. 5-8)
OPC Ongoing operation and RCA expense for using PRE SCR the entire 10-year peri	d maintenance ("O&M") 3 coal, yearly expense for od (\$2 million a year)	\$20 million (Tr. P. 685	5, L. 17-18)
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Additional expense needed to purchase and transport the PRB/CAPP coal blend into Crystal River, as compared to the coal PEF did use over the ten year period	\$21 million (Tr. P. 1023, L. 5-6)
Cost to replace 124 MW of lost power over the 10 year time period	\$817.45 million <sup>1</sup> (stipulated Ben Crisp testimony, Exhibit No. 149, JBC-6)
Total bottom-line savings to PEF customers	\$918.45 million

As noted above and described in more detail below, each of the savings are supported by substantial evidence and no party has provided any meaningful or competent evidence to the contrary. There are many other reasons why PEF has not burned a PRB coal blend at CR4 and CR5 (e.g., in many years no PRB coal was offered, safety and operational issues with using large amounts of highly combustible PRB coal at a nuclear plant). The foregoing savings realized by PEF's decision, standing alone, show that even judged with the benefit of hindsight, PEF acted reasonably and prudently.

Apart from the overwhelming evidence that OPC's suggestion of burning a 50/50 blend of PRB and bituminous coal would have been imprudent and costly, the evidence in this case is equally clear that Progress Fuels Corporation ("PFC") and PEF's assessment of the potential use of PRB coal at CR4 and CR5 was reasonable and prudent. Among other things, the evidence shows:

> In each coal RFP issued during the period in question, PFC included on its bidder list PRB coal suppliers who represented <u>at least 70-80%</u> of the PRB market. (Tr. P. 102, L. 15 to P. 103, L. 2).

<sup>&</sup>lt;sup>1</sup> As explained in Exhibit No. 149, JBC-6, Mr. Crisp estimated a range of replacement costs for the lost megawatts, from \$696.9 million to \$817.45 million to \$966 million. The \$817.45 million represents the cost using a medium heat rate based on the average of all units on PEF's system to replace the lost megawatts. Exhibit No. 148, JBC-5.

- Despite seeking proposals from PRB suppliers, PFC received no proposals from PRB suppliers before 2001. (Tr. P. 303, L. 5-6; P. 977, L. 15-19).
- The PRB offers actually received were uneconomic until 2004, when the PRB offers began to appear at least potentially competitive with other coal. (Tr. P. 411, L. 10-13, P. 977, L. 15 to P. 978, L. 5).
- When PRB offers were received, PFC fully and completely evaluated them. (Tr. P. 516, L. 19-20; P. 300, L. 24). Further, at the point that PRB offers began to appear potentially economic, PFC and PEF took the reasonable and prudent steps necessary to assess the potential switch to PRB, including:
  - conducting an evaluated or busbar cost analysis, which takes into account a prediction of the cost of using the coal in the units. (Tr. P. 410, L. 1-7);
  - performing a short-term test burn of a small blend of less than 20% PRB coal. (Tr. P. 411, L. 11-21); and
  - evaluating the handling and operational problems, including de-rates, to ensure safe and efficient use of the coal. (Tr. P. 99, L. 10-13; 649, L. 23 to P. 650, L. 1; P. 1430, L. 24 to P. 1431, L. 1-2).
- PEF's analysis of PRB coal was ongoing when OPC filed the instant proceeding. (Tr. 519, L. 1-3).

The results of PEF's analysis has confirmed its assessment that using PRB coal would result in extraordinary costs to ratepayers:

 All witnesses agreed that there would be additional cost to safely and efficiently handle and operate the units with this 50/50 blend. (Tr. P. 1333, L. 18-21; P. 651, L. 19-21).
 The bottom line is that capital expenditures of about \$60 million and annual O&M expenses of \$2 million are necessary for a 50/50 blend. (Tr. P. 651, L. 19-21).

- CR4 and CR5 have consistently produced 750 to 770 gross MW, well above the 665 MW original nameplate design, by burning high quality, high Btu bituminous coals (Tr. P. 724, L. 9-24).
- Specifically, test burns using a modest percentage (about 22%) of low Btu PRB coal resulted in a de-rate of 30 MW. (Exhibit No. 28, RH-26; Tr. P. 641, L. 6-9).
- Furthermore, the only witness in the proceeding who actually operated the plants over the past decade, PEF's CR4 and CR5 shift manager, testified that he has seen pulverizer flooding and MW loss with just less than 11,000 Btu coal. (Tr. P. 739, L. 21 to P. 740, L. 7).
- Burning the 50/50 blend suggested by OPC will result in a 124 MW loss of energy output (Tr. P. 751, L. 15 to P. 752, L. 7). These lost megawatts are worth from \$696.9 million to \$966 million over the ten-year period. (Exhibit No. 149, JBC-6).

Finally, the evidence presented dispels any suggestion that the affiliate relationship between PFC and PEF was anything other than appropriate. Despite dwelling on this issue at length during the hearing, neither OPC nor any other party presented any competent evidence to the contrary. Moreover, the corporate relationship between PEF and PFC has been well-known and fully vetted during past proceedings before the Commission. To raise unsupported insinuations regarding that relationship at this point is neither appropriate nor probative of any issue in this proceeding.

For these reasons, as more fully explained below, the Commission must deny OPC's Petition for Refund.

A. PEF's Coal Purchases for CR4 and CR5 Were Reasonable and Prudent and Saved its Customers Nearly a Billion Dollars in Fuel and Other Costs

PFC's and PEF's coal procurement decisions for CR4 and CR5 from 1996 to 2005 were reasonable and prudent. Those decisions fell within a range of reasonable business judgment, as demonstrated by the evidence, based on the information known to or reasonably available to PFC and PEF at the time those decisions were made. That is the standard. (Tr. P. 163, L. 16-19; <u>Florida Power Corp. v. Cresse</u>, 413 So. 2d 1187, 1189 (Fla. 1982)). The fact that OPC's witnesses would have made different, albeit imprudent, decisions looking back over the last decade with the benefit of knowing how events unfolded is irrelevant and improper. (<u>Id.</u>). Even knowing how events actually transpired, however, PFC's and PEF's coal procurement decisions are demonstrably reasonable and prudent because they saved customers nearly a billion dollars.

## 1. <u>Coal Procurement Practices</u>: PFC's RFP Process Was Adequate to Obtain PRB Coal Bids and, therefore, Was Reasonable and Prudent.

PFC reasonably sought to procure coal for PEF for CR4 and CR5 after determining future needs, inventory, and existing contractual commitments. (Tr. P. 368, L. 15 to P. 370, L. 14; Tr. P. 493, L. 7-11; Tr. P. 261, L. 18 to P. 262, L. 22). These factors and market conditions determined whether PFC sought short-term, spot purchases or long-term purchases through formal RFPs. (Tr. P. 300, L. 13-14). PFC maintained a bidder list of over 100 potential coal suppliers who received the RFPs. (Tr. P. 300, L. 14-15). PFC did not exclude anyone from its bidder list; anyone could get on the list simply by making that request. (Tr. P. 552, L. 16 to P. 553, L. 2). The RFPs and PFC's active participation in the spot market were published in coal publications. (Tr. P. 300, L. 17-18). PFC maintained a balance of term and spot contract purchases by dual methods of transport, water and rail, to Crystal River. (Tr. P. 363, L. 14 to P. 364, L. 14; TR. P. 204, L. 17-20 and P. 270, L. 4-16). These coal procurement practices were

consistent with PFC's policy and Commission guidelines. (Tr. P. 300, L. 10-12).<sup>2</sup>

The RFPs always included specifications for both bituminous and sub-bituminous coals. (Tr. P. 300, L. 20-21; Tr. P. 496, L. 19-24). Accordingly, PFC's bidder list always included coal suppliers and coal brokers, with domestic, foreign, and sub-bituminous coals, including PRB. (Tr. P. 300, L. 15-17; Tr. P. 497, L. 10-17). OPC witness Mr. Sansom agreed that the three PRB coal producers included on PFC's bidder list since the late 1990's comprised 70-80% of the PRB coal market. (Tr. P. 102, L. 15 to P. 103, L. 2). PFC treated PRB coal suppliers the same way it treated bituminous coal suppliers in the RFP process. (Tr. P. 301, L. 20-21; P. 410, L. 24-25). PFC did not afford special treatment to <u>any</u> coal suppliers, whether they were supplying foreign bituminous, domestic bituminous, or PRB coals. (Tr. P. 301, L. 20-21; P. 410, L. 24-25).

The results of PFC's RFPs from 1996 to early 2006 confirm that PFC's RFP process was sufficient to attract PRB offers when PRB suppliers wanted to make offers to PFC. During this time period, PFC issued seven RFPs and received PRB coal bids in response to four of them. (Tr. P. 301, L. 4-5; P. 410, L. 15-16; Tr. P. 517, L. 1-3). PFC followed the same process for all seven RFPs. (Tr. P. 301, L. 3; Tr. P. 409, L. 15-17; Tr. P. 493, L. 4-7). This was the same process Mr. Sansom agreed was a "thorough RFP solicitation in 2004." (Tr. P. 101, L. 22-25; Tr. P. 976, L. 25 to P. 977, L. 3). If PFC's RFPs were able to generate PRB bids to four out of seven RFPs, PFC's RFPs obviously did not discourage PRB coal suppliers from responding to the RFPs when they wanted to do so.

Despite this, OPC still contends that (1) PFC actively discouraged PRB suppliers from making offers to PFC and (2) PFC should have done more to solicit PRB bids. OPC, however,

<sup>&</sup>lt;sup>2</sup> PEF's witness testimony that PFC's coal procurement policy and practices were consistent with Commission guidelines was undisputed. In fact, when Commissioner McMurrian pointedly asked Mr. Sansom whether PFC's coal procurement process complied with Commission guidelines, he dodged the question. (Tr. P. 1246, L. 24 to P. 1247, L. 1-4).

provided no legitimate evidence to support these speculative contentions.

Mr. Sansom claims that PRB suppliers were told not to make offers to PFC. Tellingly, he has no evidence to support this claim.<sup>3</sup> His rank speculation about what he says PRB coal suppliers were thinking in the 90's, when they did not respond to PFC's RFPs, is not credible evidence of the reasons why they did not respond. Indeed, Mr. Sansom's speculation that PRB suppliers were told not to bid is directly contradicted by the actual evidence that PRB suppliers did submit bids to four out of seven RFPs. (Tr. P. 301, L. 4-5; P. 410, L. 15-16; Tr. P. 517, L. 1-3).<sup>4</sup> Even OPC witness Mr. Putman admitted that sometimes the Southern Company, with its "significant market power," did not receive PRB bids from every PRB supplier that it sent its RFPs. (Tr. P. 1437, L. 17-19; Tr. P. 1439, L. 12-17). The evidence, then, is that PRB suppliers do not respond to every RFP, and that PFC's RFPs were in fact adequate to encourage PRB suppliers to submit PRB coal offers.

Mr. Sansom next claims PFC could have done more, namely that PFC should have visited the PRB region, called PRB suppliers, and received the "royal treatment," to get PRB

<sup>&</sup>lt;sup>3</sup> Mr. Sansom points to a notation by PFC to a supplier that submitted <u>both</u> a PRB and a bituminous coal bid in response to the 2001 RFP that says nothing more than "CAPP only," indicating that the CAPP bituminous coal bid made the short list while the PRB coal bid did not. Mr. Sansom ignores the fact that the supplier had in fact submitted a PRB coal bid, along with other suppliers to the 2001 RFP. (Exhibit No. 41, DMD-8). He further asserts that an October 15, 1998 letter from a PRB supplier in response to PEF's 1998 RFP was an "offer" that PFC rejected when it clearly was not. (Tr. P. 320, L. 12 to P. 324, L. 15). As Ms. Davis testified, that letter was not an offer or bid -- it contained no "offer" language, no quantity, no price, and no specific specifications (Btu content, ash content, moisture content, etc.) for the coal -- but rather a request to remain on the bidder list, which request PFC honored. (Tr. 323, L. 5-19; 324, L. 5-15). Indeed, this PRB supplier submitted bids in response to later PFC RFPs. (Exhibit No. 55, AWP-2, page 7 of 52).

<sup>&</sup>lt;sup>4</sup> Ironically, Mr. Sansom asserts that all PFC had to do to get a PRB bid was send a direct letter to a PRB coal producer. (Tr. P. 1247, L. 5-14). PFC did --- it sent seven such "letters," i.e. "RFPs" to PRB coal producers representing at least 70-80% of the PRB market and PFC received PRB bids in response to four of them. (Tr. P. 301, L. 4-5; P. 410, L. 15-16; P. 517, L. 1-3). So, PFC did exactly what Mr. Sansom asserts PFC should have done, and PFC still did not receive bids to all of its "letters" (RFPs).

bids. (Tr. P. 1234, L. 14-22). Earlier, however, Mr. Sansom conceded that a coal purchaser does not have to call on every supplier who does not respond to an RFP. (Tr. P. 100, L. 23 to P. 101, L. 2). Moreover, as Commissioner McMurrian noted, Mr. Sansom's suggestions would have afforded special treatment to certain coal producers over others. (Tr. P. 1245, L. 19-21). Such a practice is unreasonable and inconsistent with PFC's policy and practices. (Tr. P. 301, L. 20-21; P. 410, L. 24-25).

PFC's RFP process was reasonable, prudent, and more than adequate to secure coal bids from all coal suppliers, when they wanted to bid. PFC cannot force coal suppliers to bid coal they do not want to sell, do not have, or cannot deliver, and PFC cannot buy coal that is not offered to it.

## 2. <u>Coal Availability and Costs</u>: Using the PRB Coal Bids PFC Actually Received, PRB Coal Was Not Potentially Economical Based on Delivered and Evaluated Prices Until 2004.

PFC evaluated all coals, including foreign and PRB coals, in the same manner and consistent with industry practice. (Tr. P. 372, L. 9 to P. 12, L. 22; Tr. P. 269, L. 3-19). First PFC compared the coals on a delivered price basis, accounting for the cost to purchase the coal and transport it to CR4 and CR5. (Tr. P. 269, L. 3 to P. 276, L. 8; Tr. P. 373, L. 3-5). If the offered coal differed in quality from the specifications for the bituminous coal burned at CR4 and CR5, PFC performed an evaluated or busbar analysis on that coal. (Tr. P. 410, L. 1-7; Tr. P. 495, L. 6-14; Tr. P. 276, L. 11 to p. P. 278, L. 2). The busbar evaluation estimated the impacts of variations in the Btu, moisture, ash, sulfur, and volatility content of the coal on unit performance. (Tr. P. 374, L. 1-21). All witnesses agreed the impact of such coal quality characteristics on unit operations and handling must be taken into account. (Tr. P. 1058, L. 1-5; P. 98, L. 12-14). No witness testified that a prudent utility simply buys the lowest delivered cost

coal. (Tr. P. 977, L. 4-5; P. 98, L. 9-14; Tr. P. 1057, L. 16-25). Both Mr. Sansom and Mr. Putnam agreed the busbar was appropriate (the Southern Company used both an evaluated and busbar analysis, Tr. P. 1441, L. 10 to P. 1442, L. 1-3), and PFC used a standard industry model. (Tr. P. 495, L. 6-14; Tr. P. 276, L. 11 to p. P. 278, L. 2). The busbar cost analysis was therefore reasonable and prudent.<sup>5</sup>

PFC ranked the bids on a delivered and busbar cost basis. Other factors were considered, however, before a final selection was made. These included transportation and supply reliability, safety, whether any capital and O&M costs would be incurred to handle and burn the coal, and whether any de-rate from current production would occur. (Tr. P. 410, L. 13-19; Tr. P. 518, L. 18-23; Tr. P. 301, L. 14-17). CR4 and CR5 are base load units, making a reliable coal supply and consistent energy production from the coal supplied essential. (Tr. P. 724, L. 9-13). No one disputed that these are reasonable and prudent considerations for coal procurements for CR4 and CR5.<sup>6</sup>

All of these considerations had a bearing on the evaluation of PRB coals. PFC was aware of PRB coals during the period in question, as demonstrated by the inclusion of PRB suppliers in all RFPs. (Tr. P. 301, L. 14-17; P. 300, L. 15-17; Tr. P. 497, L. 10-17). The distance of the PRB

<sup>&</sup>lt;sup>5</sup> OPC apparently argues that the busbar analysis unfairly penalized PRB coals because the model was run assuming that the units used 100% PRB coal (as it did for all coals evaluated in the model), rather than a 50/50 blend. (Tr. P. 434, L. 8-11). OPC's attorney said this, not PEF's witnesses (compare Tr. 435, L. 1-17 and Tr. 432, L. 12-25), and in any event OPC is incorrect. As Mr. Pitcher explained in his direct testimony, the model outputs in the evaluation assigned an adjustment in cents per million Btu for each characteristic (Btu, moisture, ash, etc.) of the offered coal regardless of the amount of coal in the boiler. (Tr. P. 374, L. 16-20). For example, there was a cents per million Btu adjustment for each 100 Btu difference of the offered coal from the baseline specification. (Id.). This adjustment was applied based on the Btu content of the offered coal, e.g. a "8,800 Btu coal," so the busbar impact was the same whether 100%, 50%, or any other percentage was ultimately used in the units.

<sup>&</sup>lt;sup>6</sup> In fact, Mr. Putman testified that the Southern Company undertook these same considerations in its evaluation of PRB coal conversions and some units were converted and some were not. (Tr. P. 1439, L. 18-25).

from Crystal River and repeated, reported rail delivery problems out of the PRB were also well known. (Tr. P. 426, L. 22 to P. 427, L. 9; Tr. P. 280, L. 20 to P. 281, L. 2). PFC was further aware throughout this time period of PRB coal's characteristics and that cost impacts were likely if and when a switch from bituminous coals to a PRB blend was undertaken. (Tr. P. 382, L. 7-16; Tr. P. 518, L. 6-14; P. 301, L. 14-17). In particular, this included potential megawatt derates because the PRB coals had lower Btu values and higher moisture levels. (Id.).

#### PFC's Specific Evaluation of All Coals, Including PRB Coal, from 1996-2005

PFC reasonably and prudently evaluated all coals it was offered from 1996 to 2005 and always bought the best value coal for PEF's customers. PRB coals, however, were not offered to PFC before 2001 and did not appear to even be a potential economic source for blends until PEF reasonably and prudently began evaluating them. (Tr. P. 301, L. 5-6; Tr. P. 977, L. 15 to P. 978, L.5). In response to the 2001 RFP, PFC received PRB coal bids that were simply not economical on a busbar basis when compared to the foreign bituminous coal that PFC purchased, for a single year contract. (Tr. P. 977, L. 15-19). In fact, all experts agreed the 2001 RFP hit the highest price spikes for PRB and other coals in more than a decade. (Tr. P. 977, L. 15-23; Exhibit No. 9, RS-7). Given the volatility of the coal market at the time, had PFC entered into a contract for PRB coals at the prices offered, PFC would have paid three to four times more than the commodity price for PRB coals for the prior ten years <u>and</u> the very next year (2002). (Tr. P. 977, L. 20-23). PFC's conservative decision in that volatile coal market saved customers money.

By the time of the next RFP, in July 2003, market conditions had changed significantly. As a result, PFC had decided to evaluate PRB coals for a potential test burn, if the bids indicated such an evaluation was merited. (Tr. P. 382, L. 17-20, Tr. P. 411, L. 10-21). The PRB coal bids ranked second after foreign bituminous coals in the evaluation and PFC purchased the foreign

bituminous coals.<sup>7</sup> PRB coals were, however, still considered for a test burn. (Tr. P. 383, L. 1-10). When the April 2004 RFP bid responses were received, and the PRB coal bids were potentially viable on a busbar analysis, PFC and PEF were already evaluating the use of PRB coals at CR4 and CR5. (Tr. P. 411, L. 10-21). PEF conducted a test burn of 18 to 22 percent PRB coals blended off-site for one unit in April 2004. (Tr. P. 393, L. 6 to P. 394, L. 20). During that test burn, the unit suffered a de-rate. (Exhibit No. 28, RH-26; Tr. P. 641, L. 6-9). PFC, nevertheless, continued evaluating PRB coal blends in 2005, after the 2004 hurricane season, which disrupted the evaluation of other coals. (Tr. P. 517, L. 21-24).

PFC and PEF acted reasonably and prudently in evaluating PRB coal blends at CR4 and CR5. There was no reason to start this evaluation any earlier than PFC and PEF did, because based on the actual PRB coal offers PFC received, PRB coals were not an economically viable selection. (Tr. P. 280, L. 20-22; P. 977, L. 15 to P. 978, L. 5). It makes no sense to evaluate new coals, beyond the busbar analysis, when the new coal is clearly uneconomic. Mr. Heller, an expert in coal procurement evaluations, including potential PRB conversions from an economic perspective (Tr. P. 977, L. 4 to P. 978, L. 12), independently reached the same conclusion. (Tr. P. 947, L. 18 to P. 948, L. 20).<sup>8</sup>

Once the busbar economics suggested that PRB coal might be a viable source of coal in

<sup>&</sup>lt;sup>7</sup> OPC made much of the fact that a western coal from Spring Creek was the lowest evaluated coal but this was not a PRB coal despite what OPC said in its questions. (Tr. P. 426, L. 8-11; P. 477, L. 2-23). Mr. Pitcher testified this coal was not considered because it was an unknown mine source and there were reported rail delivery problems at the time. (Tr. P. 426, L. 22 to P. 427, L. 9). Mr. Pitcher's concerns over rail deliveries were not just reasonable; they proved to be true, given the delays he experienced obtaining a PRB coal shipment for the test burn conducted in April 2004. (Tr. P. 393, L. 5-23).

<sup>&</sup>lt;sup>8</sup> Only Mr. Heller independently reviewed PFC's actual RFP responses and other offers during the period 1996 to 2005 and determined that PFC's decisions were reasonable and prudent. (Tr. P. 947, L. 18 to P. 948, L. 20). No one else did this analysis. Rather, Mr. Sansom and Mr. Windham relied on after-the-fact, reported delivered prices in the FERC Form 423s for utilities other than PEF. (Tr. P. 104, L. 18 to P. 105, L. 13; Tr. P. 1055, L. 22-24).

the future, PEF took all reasonable and necessary steps to assess a potential switch from bituminous coal to a sub-bituminous/bituminous blend. (Tr. P. 518, L. 2-5). In undertaking that analysis, the Company sought to ensure that the time, effort, and expense of further evaluation was warranted. (Tr. P. 518, L. 14-18). Even Mr. Putman agrees this analysis takes time and that, during such an analysis, a utility should re-check the economics to make sure the PRB coal is still in the money. (Tr. P. 1435, L. 21 to P. 1436, L. 1). PEF, accordingly, proceeded with a preliminary internal review by its strategic engineering department from May to August 2005. (Tr. P. 518, L. 18-20; P. 504, L. 7 to P. 505, L. 18). The Company next hired Sargent & Lundy, an independent engineering firm, to do a "high level" report, completed on October 14, 2005, on any necessary changes to Crystal River to accommodate PRB blends. (Tr. P. 518, L. 20-23; P. 506, L. 5-7). PEF conducted another short-term test burn of a 22% PRB coal blend in April, 2006, after making some recommended changes to accommodate the blends. (Tr. P. 508, L. 6-12). During this entire period, the Company continually monitored PRB coal prices and revised its fuel savings projections accordingly. (Tr. P. 518, L. 23 to P. 519, L. 1). By the time of the April 2006 test burn, any projected fuel savings had evaporated with changing market conditions and, in fact, the test burn blend was more expensive than coals burned at CR4 and CR5 at that time. (Tr. P. 509, L. 7-23).9

PEF's evaluation process of a potential fuel switch was reasonable, prudent, and in line with industry norms. Mr. Hatt testified that the Company's step-by-step approach was reasonable and prudent. (Tr. P. 639, L. 8-24). Mr. Hatt is frequently retained by utilities evaluating switches to PRB coals and PRB coal blends. (Tr. P. 649, L. 8-11). He explained that prudent utilities start with a busbar analysis and then move into more high-level evaluations, like

<sup>&</sup>lt;sup>9</sup> PEF was in the midst of this evaluation when OPC commenced this proceeding. (Tr. P. 519, L. 1-3).

PEF's Sargent & Lundy study, before proceeding with test burns, if warranted. (Tr. P. 636, L. 12; Tr. P. 637, L. 24). Mr. Hatt recommended both a short term and long term test burn to fully evaluate the handling and operational issues associated with using PRB coals or coal blends. (Tr. P. 638, L. 2 to P. 639, L. 7). Even OPC's witnesses Mr. Barsin and Mr. Putman agreed that a test burn should be conducted prior to a fuel switch at a unit. (Tr. P. 1342, L. 10-13; Tr. P. 1435, L. 21 to P. 1436, L. 1). This is what the Southern Company did before switching to PRB coal at its units. (Tr. P. 1409, L. 7-17). Clearly, then, PEF's evaluation process was reasonable and prudent.<sup>10</sup>

#### OPC's Expert Analysis by Mr. Sansom is Simply Wrong

Mr. Sansom's analysis is demonstrably incorrect. Mr. Sansom ignores (1) actual bids and offers received by PFC and instead uses FERC form data for other utilities; (2) contractual and physical constraints on the delivery of PRB coals to Crystal River; (3) capital and O&M costs necessary to operate the units with an equal blend of PRB and bituminous coals blended on site; (4) impacts of the equal blend of PRB and bituminous coals on the MW output of these base load units; and (5) the cost impacts of his own mistakes in his analysis. These flaws yield an analysis of alleged fuel savings that does not reflect the real cost to PEF and its customers of burning an equal blend of PRB and bituminous coals at CR4 and CR5 from 1996 to 2005.

<sup>&</sup>lt;sup>10</sup> OPC questioned in its opening statement why PEF's internal engineers and Sargent & Lundy did not testify. (Tr. 19, l. 8-13). The answer is that, in this proceeding, OPC alleged that PEF should have been burning a 50/50 PRB/bituminous coal blend with 100% PRB brought on site. (Tr. P. 91, L. 1-11). This blend was rejected by Sargent & Lundy and it was a much higher blend than the smaller, off-site blends PEF's strategic engineering department considered reasonable to evaluate for use at CR4 and CR5, precisely because of the coal handling, blending, safety, operational, and de-rate issues associated with PRB coals. (Tr. P. 507, L. 14 to P. 508, L. 4; Exhibit No. 69, SAW-9). In fact, OPC's witness Mr. Barsin agrees that almost no other utility uses a 50/50 blend of PRB coal and bituminous coal like OPC recommends here. (Tr. P. 1336, L. 2-5). PEF's internal engineers and Sargent & Lundy, therefore, did not consider what OPC proposes but OPC, of course, could have deposed them and chose not to do so.

Mr. Sansom relies on FERC Form 423 information for Tampa Electric Company (TECO) and other utilities to derive his delivered price of PRB coal from 1996 to 2005. (Tr. P. 104, L. 18 to P. 105, L. 13). As a result, his fuel savings analysis does not reflect the actual coals available to PFC and the actual costs of delivering those coals to and using them in CR4 and CR5.

First, a comparison of other utilities' delivered PRB prices to PEF's delivered bituminous coal prices, based on the FERC Form 423 data, is not an "apples to apples" comparison because (1) the prices are not from the <u>same</u> time period and thus are not the <u>same market</u> prices, (2) TECO's FERC Form 423 data does <u>not</u> include Gulf terminal transloading charges (but PEF's does), and (3) TECO's FERC Form 423 data uses TECO's benchmark proxy waterborne transportation costs <u>not</u> the waterborne proxy costs in PEF's delivered prices. Because of these differences Mr. Sansom's fuel savings analysis does not reflect the reality of the actual costs PEF would have incurred procuring PRB coals for delivery to Crystal River.

Mr. Sansom compares average PEF spot and contract bituminous coal prices to TECO's average spot PRB prices. (Tr. P. 297, L. 9-14). Mr. Sansom admits, however, that the FERC Form 423 data represent contract and spot prices from bids and offers and resulting purchases made at different times before the delivered prices are reported on the Forms. (Tr. P. 105, L. 3-13). As a result, Mr. Sansom includes in his comparison PEF contract prices years or months before the reported TECO spot PRB prices he is using and, therefore, he is not comparing prices that reflect the <u>same</u> market price. (Tr. P. 955. L. 8-14). From 1996 to 2001, for example, PEF's FERC Form 423's include several long-term contracts that reflect earlier market prices. (<u>Id</u>.). Because PEF was obligated to pay those prices under prior contracts, Mr. Sansom unfairly compares them against spot PRB prices against which they would have never competed, skewing his results and making PRB look relatively cheaper than it in fact was. (Id.).

Mr. Sansom's use of TECO's FERC Form 423 data in his analysis further means he is <u>not</u> using the actual costs PFC and PEF would have incurred. To begin with, it was undisputed that TECO does not report a transloading charge at its ECT Gulf terminal in its FERC Form 423. (Tr. P. 112, L. 5-11; Tr. P. 302, L. 2-7; Tr. P. 519, L. 4-16). This is the cost to offload the coal from the river barge at the terminal, store it, and transfer it to an ocean vessel for delivery to the plant. (Tr. P. 519, L. 6-9). Mr. Sansom admitted this is a real cost, he did not include it in his analysis at all, and had he done so even at the rate he first identified in his rebuttal testimony, his alleged damages would have been lower. (Tr. P. 112, L. 5-11; Tr. P. 126, L. 9-18).

Mr. Sansom's justification for failing to include this transloading cost in his analysis is the remarkable assertion that the TECO costs in the FERC Form 423s he uses are wrong too. Mr. Sansom claims TECO's actual river barge costs reported in its FERC Form 423s from 1996 to 2002 and collected from customers are too high (and, according to him, make up for his failure to include transloading costs in his analysis). (Tr. P. 1195, L. 20-24; P. 138, L. 19 to P. 139, L. 12). Mr. Sansom relies on the 2004 Commission order that reviewed TECO's benchmark proxy rates for waterborne transportation and TECO's RFP for coal waterborne transportation services beginning in 2004. (Id.). In that order, the Commission determined that TECO's prior river barge costs recovered under the benchmark proxy were above market in deciding to eliminate the benchmark and find TECO's RFP imprudent. (See Order No. PSC-04-0999-FOF-EI (Oct. 12, 2004)). The Commission did not, however, retroactively deny TECO's river barge costs in prior years even though they were later found to be above market, yet that is exactly what Mr. Sansom does by refusing to accept them without his "adjustment" in his analysis. In other words, Mr. Sansom engages in hindsight review by applying an after-the-fact Commission determination of above market costs to an earlier time period.

It bears emphasis too that, by using TECO FERC Form 423 data for his PRB coal prices, Mr. Sansom is using TECO's costs under its benchmark proxy rather than actual market rates. (Tr. P. 106, L. 23 to P.107, L. 10). He also uses the Gulf transportation portion of PEF's waterborne proxy to account for the cost of delivering PRB coals from the IMT terminal near New Orleans to Crystal River. (Tr. P. 110, L. 4-13). Yet, he fails to include other components of the PEF waterborne market proxy in effect until 2003 in his analysis. This failure refuses to acknowledge the transportation costs PFC and PEF actually used to evaluate the PRB coal option and that PFC actually passed through to customers for coals delivered by water to Crystal River during this time period.

Mr. Sansom claims he did not use all of the applicable PEF waterborne market proxy because there was no Commission-approved order applying applicable portions of the proxy to PRB coal purchases. (Tr. P. 1225, L. 20-24). But that is simply because there were no PRB coal purchases while the waterborne market proxy was in effect. Moreover, the question is not whether the Commission would have approved application of the proxy for PRB coal, rather, it is whether PFC was reasonable in evaluating PRB coals for CR4 and CR5 using the applicable waterborne proxy rate for domestic coals shipped by water to Crystal River. It is undisputed that PFC did in fact use the waterborne market proxy rates to evaluate the PRB coal bids during this period. (Tr. P. 1225, L. 19-24; Tr. P. 301, L. 22 to P. 302, L. 1).

The Commission established in 1993 a waterborne market proxy for the cost of delivering all domestic coals to Crystal River by water at that time. (Tr. P. 273, L. 9-11; Order No. 93-1331-FOF-EI (Sept. 13, 1993)). The proxy was designed to eliminate the need to calculate PFC's "actual" waterborne transportation charges each year. (Tr. P. 273, L. 5-7). The result was the market proxy might deviate from actual costs and PFC and PEF took the risk that

actual costs might exceed the market proxy. (Tr. P. 273, L. 13-16; Order No. PSC-03-1461-FOF-EI (Dec. 22, 2003)).

When PFC included import bituminous coals in water deliveries to Crystal River the Commission approved a modification of the waterborne proxy that applied applicable portions of the existing proxy to import coal deliveries. (Tr. P. 274, L. 7-21; Order No. PSC 44-0390-FOF-EI (Apr. 4, 1994)). Applicable portions of the waterborne market proxy were approved in other situations too, when domestic or foreign coals were delivered, and only portions of the existing proxy applied. (Tr. P. 273, L. 20 to P. 31, L. 5; Order No. PSC-04-1276-FOF-EI, at \*11-12 (Dec. 23, 2004)). As a result, PFC logically used the waterborne market proxy in evaluating all domestic coals, including PRB coals, and foreign coals for purchase while the waterborne market proxy was in effect. (Id.). This decision certainly falls within a reasonable range of business judgment. (Tr. P. 163, L. 16-19; Tr. P. 979, L. 9-18).

By not using all applicable portions of the PEF waterborne market proxy, Mr. Sansom underestimated PEF's actual costs to transport PRB coals to Crystal River during the time period the proxy was in effect. If, for example, the missing transloading charge at the News Orleans terminal is included at the applicable PEF market proxy rate in his calculation of damages, Mr. Sansom admitted that his damages mathematically decrease dramatically. (Tr. P. 116, L. 7-14, Exhibit No. 211).

Next, Mr. Sansom's damages calculations incorrectly fail to account for the contractual and physical constraints on the delivery of PRB coals to Crystal River during this period. Mr. Sansom assumes that all of his PRB coals will be brought into Crystal River by barge and that all bituminous coals will be brought in by rail. (<u>Id</u>). PFC, however, was obligated to accept certain minimum tons of bituminous coal under PFC's long-term contracts delivered by water each year.

(Tr. P. 952, L. 18-21). Similarly, there was a physical limitation on the delivery of coal by water to Crystal River. (Tr. P. 953, L. 7-16). Nowhere in his testimony does Mr. Sansom adjust his assumptions to account for these contractual or physical constraints. He simply assumes they do not exist, despite the evidence to the contrary. (Tr. P. 952, L. 17 to P. 953, L. 16).<sup>11</sup>

Mr. Sansom nowhere in his damages calculations accounts for the additional costs PEF would have incurred to burn a 50/50 blend, including: (1) the capital and O&M costs necessary to operate the units with an equal blend of PRB and bituminous coals and (2) the impact of the de-rate from the MW production at CR4 and CR5 from burning such a blend. This is addressed in detail later, however, OPC's own witnesses agreed that certain O&M and capital costs were necessary to safely and efficiently burn the equal blend of PRB and bituminous coals at CR4 and CR5. (Tr. P. 1333, L. 18-21). Mr. Sansom does not include the capital and O&M costs of <u>OPC's own experts</u> in his damages calculations.

Mr. Sansom's alleged damages analysis further includes mistakes that he failed to correct. First, in his direct testimony, Mr. Sansom assumed that the PRB and bituminous coals would be blended at Crystal River and that it would cost 70 cents per ton (4 cents per million Btu) to blend them. (Tr. P. 115, L. 8-11). He admitted that the 70 cents per ton charge applied to <u>all</u> tons – both the PRB and bituminous coal tons – blended. (Tr. P. 117, L. 6-18). But this is <u>not</u> what he did in his damages calculation. He applied the charge <u>only</u> to the PRB coal tons, which means he drastically understated the actual blending costs. (Tr. P. 117, L. 19-24).

<sup>&</sup>lt;sup>11</sup> Mr. Sansom argues all bituminous coals delivered by water and affected by the contractual constraints can simply be moved to rail delivery, along with all other bituminous coals for his equal blend at CR4 and CR5 and the bituminous coals for CR1 and CR2. (Tr. P. 1205, L. 12 to P. 1206, L. 15). Mr. Sansom, however, does not account for any additional costs incurred for the extra tons shipped by rail, nor does he determine whether the rail system for Crystal River is sufficient to handle the additional tons. (Tr. P. 123, L. 14-18). As Mr. Heller testified, there are contractual and physical limits to rail deliveries that must be addressed in Mr. Sansom's analysis that he simply did not do. (Tr. P. 953, L. 7-8).

Properly accounting for the blending charges (using his rate) applied to <u>all</u> tons blended (with the IMT transloading charge), dramatically reduces Mr. Sansom's damages. (Tr. P. 121, L. 23 to P. 12, L. 4, Exhibit No. 212).

Faced with this mistake, Mr. Sansom completely abandons the blending charge. (Tr. P. 115, L. 8-20). He makes the claim in his rebuttal and at the hearing that there is <u>no cost at all</u> to blend about 4 million tons of PRB and bituminous coals at Crystal River each year. (Tr. P. 116, L. 24; Tr. P. 118, L. 3-5). This new-found, "no cost" blending theory simply lacks credibility.

Mr. Sansom also made mistakes in his calculation of SO<sub>2</sub> allowance damages.<sup>12</sup> PEF witness Mr. Dean pointed out mathematical errors in Mr. Sansom's calculations, the most important being that Mr. Sansom did not reduce the tons of PRB coal for 2005 by 7.5% for admitted transportation delay impacts, as he claimed to have done in his direct testimony. (Tr. P. 575, L.14 to P. 576, L. 17). In rebuttal, Mr. Sansom admits that he neglected to adjust the 2005 PRB tons. (Tr. P. 1216, L. 1-4). He further conceded that he overstated the SO<sub>2</sub> allowance damages by \$989,009. (Tr. P. 1215, L. 20-24). However, neither Mr. Sansom nor OPC revised their alleged damages to account for this mistake.<sup>13</sup>

One final point about the credibility of Mr. Sansom's testimony is worth mentioning. Mr. Sansom habitually talked about delivery routes he did not use in his damages calculations

<sup>&</sup>lt;sup>12</sup> If PRB coal is burned, due to its lower sulfur content, less SO<sub>2</sub> will be emitted through the stack. (TR. P. 564, L. 3-5). Because SO<sub>2</sub> allowances are required for each ton of SO<sub>2</sub> emitted, the decreased SO<sub>2</sub> has a value on the market. (Tr. P. 560, L. 7-18).

<sup>&</sup>lt;sup>13</sup> When he first calculated the SO<sub>2</sub> allowance damages, Mr. Sansom also included additional damages for extra SO<sub>2</sub> which remains in the ash of the boiler. (Tr. P. 566, L. 10-19). Mr. Dean challenged this methodology for calculating this additional "ash savings" because the data used was not sufficiently reliable. (Tr. P. 568, L. 14 to P. 572, L. 3). Rather than defend his methodology in his rebuttal testimony Mr. Sansom changed it. (Tr. P. 1215, L. 3-11). He chooses actual data for one year from four units <u>other</u> than CR4 and CR5 for comparison to CR4 and CR5. (Id.). By changing his methodology, Mr. Sansom was able to mitigate the effect of his other admitted mistake, the reduced 2005 PRB tons.

and other calculations he did not make to support what he did do under the rubric that he was being "conservative." (Tr. P. 1226, L. 24-25: Tr. P. 1195, L. 20-24; Tr. P. 1197, L. 19-24). This is actually no support at all; references to analyses and calculations he did not do are incapable of review and testing to see if they are in fact accurate. We know, by his own admission, that the allegedly cheaper route for delivery of PRB coals by rail to Mobile and by ocean barge to Crystal River is factually unsupportable. Mr. Sansom ultimately <u>did not</u> calculate any damages based on the Mobile route, because there was <u>not</u> "good data" available to support such a calculation. (Tr. P. 1248, L. 20-23; Tr. P. 78, L. 14).<sup>14</sup> If the data is not good enough to support an actual calculation of damages through Mobile, the data is not good enough to backstop the damages calculations that he actually did.<sup>15</sup>

Nevertheless, when summarizing his rebuttal testimony at the hearing, Mr. Sansom claimed for the first time that use of the Mobile route would have resulted in additional damages of \$33.5 million. (Tr. P. 1226, L. 24 to P. 1227, L. 3). Mr. Sansom <u>did not make this calculation</u> in his pre-filed direct or rebuttal testimony. (Tr. P. 1232, L. 9-16).<sup>16</sup> Despite the fact this off-

<sup>&</sup>lt;sup>14</sup> Mr. Putman makes similar references to the low cost to deliver PRB coal to Crystal River through Mobile, yet he admitted that he also did not perform any economic analysis to support this statement. (Tr. P. 1445, L. 9-17).

<sup>&</sup>lt;sup>15</sup> Absent "good data" Mr. Sansom resorts to speculation. He relies on rail bids PFC received for small PRB coal shipments through Mobile for potential test burns and speculates these would have resulted in longer-term, substantial tonnage contracts. (Tr. P. 77, L. 4-16). However, Mr. Pitcher, the actual person who dealt with the rail companies regarding such bids, testified they were nothing more than a "Blue Light Special" to encourage PEF to look at PRB coals and did not serve as the basis for a term contract, rather the costs of such a contract would have been higher. (Tr. P. 406, L. 17 to P. 407, L. 15). Mr. Sansom next claimed the BN railroad would have upgraded its rail line (conceding the accuracy of Mr. Heller's testimony that the line was inadequate for substantial PRB deliveries), if PEF had entered into a long-term contract to move PRB coal. (Tr. P. 1228, L. 16-18; P. 925, L. 17 to P. 926, L. 5). There is no evidence from BN that BN would have upgraded the line or what it would have cost PEF in rail rates to do so. This is nothing more than guess work by Mr. Sansom.

<sup>&</sup>lt;sup>16</sup> Because Mr. Sansom failed to include this calculation in either his direct or rebuttal pre-filed testimony he prevented anyone from reviewing this calculation and challenging its accuracy.

the-cuff calculation must have been done without "good data," (Tr. P. 1248, L. 20-23; Tr. P. 78, L. 14), it was outside the scope of the rebuttal testimony he was summarizing and should not be considered by the Commission in this proceeding. It does, however, speak volumes about Mr. Sansom's credibility.

### Jamie Heller's Analysis of Actual Savings to PEF's Customers by Not Purchasing PRB Coal

PEF's expert, Mr. Heller, disagrees with Mr. Sansom's damages analysis, as explained above, because it is does not consider the reality of PFC's coal procurement process and the bids and offers PFC actually received and evaluated. In rebuttal to his testimony, Mr. Heller determined what the impact would have been on PEF's customers had PEF done what OPC alleges they should have done and procured and burned an equal blend of PRB and bituminous coals blended on-site from 1996 to 2005. Mr. Heller adjusted Mr. Sansom's analysis to correct his mistakes and omissions, (Tr. P. 978, L. 22 to P. 979, L. 6; Tr. P. 951, L. 1 to P. 956, L. 2), with the result that PEF's customers would have paid - not saved -- an additional \$51 million over this ten year time period, as shown on the table below excerpted from Exhibit No. 85, JNH-7. (Tr. P. 947, L. 17-20).

# DELIVERED COST CALCULATION FOR CAPP OR IMPORTED COAL, AND COMPARISON WITH PRB

(nominal \$/million BTU unless otherwise labeled)

Year	Delivered Price for CAPP Coal	Evaluated Price for PRB Coal	Differential	PRB Tons (millions)	DAMAGES (\$000)
1996	\$2.16	\$3.36	(\$1.20)	0.50	(\$10,504)
1997	\$2.14	\$2.68	(\$0.54)	1.33	(\$12,714)

The reason parties file testimony in advance of the hearing is to provide notice and an opportunity to evaluate the pre-filed materials. Mr. Sansom's attempt to supplement his pre-filed testimony with an unsupported calculation is unfair to PEF and denies PEF due process.

1998	\$2.17	\$2.66	(\$0.49)	1.33	(\$11,494)
1999	\$2.14	\$2.54	(\$0.40)	1.74	(\$12,150)
2000	\$2.17	\$2.50	(\$0.33)	1.74	(\$10,164)
2001	\$2.71	\$2.69	\$0.02	1.74	\$707
2002	\$2.80	\$3.04	\$0.25	1.82	(\$7,914)
2003	\$2.73	\$2.88	(\$0.15)	1.82	(\$4,745)
2004	\$2.63	\$2.51	\$0.12	2.10	4,389
2005	\$3.07	\$2.69	\$0.38	1.96	\$13,213
Total With	nout Interest				(\$51,376)

The additional \$51 million accounts for both the additional transportation and commodity charges for the PRB and bituminous coals in the equal blend, as well as the additional capital and O&M costs to safely and efficiently handle the coals and operate the units with this blend. (Tr. P. 947, L. 17 to P. 948, L. 16). Over the ten-year period of time, these costs were not fully recovered.<sup>17</sup> The \$51 million in extra customer costs does not even include the admitted additional cost of the de-rate that would have resulted from the use of the blends. Nevertheless, Mr. Heller's calculations show that even OPC's expert's theory, when corrected for patent errors, demonstrate that PFC and PEF's decisions were reasonable, prudent, and saved ratepayers money.

# Mr. Windham's Testimony Regarding PEF's Import Coal Purchases is Incomplete and Should be Afforded no Weight

Mr. Windham testified that, based solely on FERC Form 423 data, it was "possible" that PEF did not purchase the lowest cost coal from 1996 to 2005 compared to <u>other</u> utilities that purchased foreign bituminous coal. (Tr. P. 1039, L. 17-18; P. 1037, L. 19-21).<sup>18</sup> Mr. Windham

<sup>17</sup> In nominal dollars, the additional transportation and commodity costs that make up the fuel costs of a 50/50 PRB/bituminous coal blend is \$21 million. (Tr. P. 1023, L. 5-6).

<sup>&</sup>lt;sup>18</sup> PEF filed a motion to strike Mr. Windham's testimony on February 20, 2007. Oral argument was heard on this motion by the Prehearing Officer at the Prehearing Conference on March 21, 2007. An order denying PEF's motion was issued on March 30, 2007. For the reasons asserted

admitted, however, that he was <u>not</u> giving any opinion regarding the prudence of PEF's coal purchases from 1996 to 2005. (Tr. P. 1051, L. 12-22; P. 1052, L. 3-13). He admitted that – despite the analysis he had done – he could not identify any actual foreign bituminous coal purchase that PFC and PEF should have made that they did not make during this time period. (Tr. P. 1069, L. 11 to P. 1071, L. 12). He further admitted he had not calculated what the customer would have paid had PFC and PEF done something differently. (<u>Id</u>.). He had not made any such calculation with respect to the foreign bituminous coals in his analysis at the time of the hearing. (Tr. P. 1079, L. 20 to P. 1080, L. 15).

Besides being unhelpful to the Commission's determination of whether PEF's coal purchases were reasonable and prudent, Mr. Windham's analysis is flawed. Mr. Windham begins and ends his analysis with a comparison of FERC Form 423 data. He did not include in his analysis any PFC RFPs and responses, or spot offers and purchases, with respect to any coals, including foreign bituminous coals. (Tr. P. 1055, 1. 7-15). He did not obtain and review the RFPs and RFP responses, or spot offers and purchases, of any of the other utilities he compared PEF to in his analysis. (Tr. P. 1055, L. 16-21). Mr. Windham agreed, however, that his data does not indicate when RFPs are issued and responses received, evaluated, and contracts entered into, or when spot offers or made and accepted. (Tr. P. 1056-57). He further agreed those events could have been years or months before the reported delivered price in the FERC forms he uses. (Tr. P. 1057, L. 5-15). Reliance on FERC Form 423 data alone, then, provides no assurance that the reported delivered prices of any two utilities being compared represent available coal offers at the same time and under the same market conditions. At best, the FERC Form 423 data he used may be helpful to raise questions but the data alone cannot answer those questions.

in PEF's written motion, at oral argument, and in this brief, PEF renews it objections to Mr. Windham's testimony.

As with PRB suppliers, PFC's coal procurement practices from 1996 to 2005 show that PFC solicited foreign bituminous coal suppliers for CR4 and CR5, evaluated those bids or offers when made, and purchased them when economic to do so. (Tr. P. 300, L. 15-17; P. 301, L. 18-22; P. 410, L. 20-21; P. 517, L. 4-12). PFC never excluded import bituminous coal bidders or bids based on preferences for Btu content or delivery methods in its RFPs. (Tr. P. 300, L. 15-17; P. 516, L. 16-18). PFC and PEF had a waterborne proxy rate for import coal deliveries to Crystal River as early as 1994. (Order No. PSC-94-0390-FOF-EI (Apr. 4, 1994)). Further, in response to both the 2001 and 2003 PFC RFP's, import bituminous coals were purchased under term contracts and from that point forward import bituminous coals have constituted a significant portion of the coals burned at CR4 and CR5. (Tr. P. 410, L. 20-21; Tr. P. 517, L. 10-12). It is remarkable, based on this evidence, to even suggest that PFC was not interested in and discouraged foreign bituminous coals suppliers from making offers for CR4 and CR5.

Mr. Windham's analysis contains other flaws. He admitted that (1) his comparison of southeastern coastal utility foreign bituminous coal prices included utilities that were not southeastern coastal utilities; (2) he did not separately calculate the transportation component of delivered prices for the utilities in his analysis despite obvious differences between the utilities in this regard; and (3) he did not remove non-compliance foreign bituminous coals from his analysis even though CR4 and CR5 can only burn compliance coal (he claimed only to have performed a "macro level filter"). (Tr. P. 1064, L. 1-8; P. 1065, L. 11-18; P. 1068, L. 22 to P. 1069, L. 10). Perhaps Mr. Windham summed up his analysis best when he admitted it was "a ballpark type comparison." (Tr. P. 1072, L. 9-11). It is hardly sufficient, then, to determine prudence.

3. <u>Affiliates</u>: PEF, Like Southern Company, Prudently and Reasonably Used Affiliates for Coal Procurement and Purchased Synfuel When Economical

#### and Beneficial to its Ratepayers.

Much of OPC's and the interveners' hearing time focused on their apparent position that PEF's mere use of affiliates to procure coal somehow equates to imprudence. This is simply wrong. The Commission has stated that the use of affiliates is not improper; the only requirement is that affiliates be treated just like non-affiliates. (In re: Investigation of Fuel Adjustment Clauses of Electric Utilities, Order No. 12645, at \*13 (Nov. 3, 1983)). The evidence in this proceeding from PEF witnesses Ms. Davis, Mr. Pitcher, and Mr. Weintraub was that affiliates were not given preferential treatment at all in the coal procurement process. (Tr. P. 301, L. 20-22; p. 410, L. 24-25; P. 517, L. 17-20).<sup>19</sup> Further, PEF and PFC affiliate relationships and any affiliate transactions have been subject to a high level of scrutiny by this Commission and Staff, both in formal proceedings, continuing audits, and informal meetings over the entire course of the time period at issue. (Tr. P. 302, L. 19 to P. 307, L. 4).<sup>20</sup> No evidence was adduced during those proceedings of any preferential treatment either.

Importantly, OPC failed to produce any evidence in this case that any affiliate relationship or affiliated transaction had any impact on any evaluation of PRB coals by PEF or PFC. Indeed, OPC's allegation is that PEF should have been buying PRB coal over every other

<sup>&</sup>lt;sup>19</sup> PEF's witnesses were questioned ad nauseum about organizational charts, office locations, and various jobs they and others held over time without any connection to some alleged preferential treatment. (Tr. P. 526, L. 12 to P. 549, L. 23; P. 437, L. 20 to P. 445, L. 10; P. 304, L. 21 to P. 319, L. 11; P. 338, L. 4 to P. 344, L. 22). Also, the mere fact that PEF witnesses Mr. Pitcher and Mr. Weintraub both worked on the unregulated sales side of PFC before moving to the coal procurement side, (Tr. P. 363, L. 2-9; Tr. P. 487, L. 12- to P. 488, L. 1-4), is not evidence of preferential treatment. Rather, it reflects that PFC prudently chose to fill its vacant coal procurement positions with persons PFC knew were experienced in the coal business.
<sup>20</sup> This affiliate relationship is certainly one the Commission was well-aware of for decades. Indeed, the contract between PEF and PFC was approved by the Commission. (Tr. P. 340, L. 4-11). It is also a common industry practice. (Tr. P. 998, L. 1-13). As Mr. Heller pointed out, TECO, Houston Power & Light, and Southwestern Public Service all have used or use affiliates to procure coal. (Id.). OPC's witness Mr. Putman admitted that the Southern Company used affiliates to purchase and transport coals as well. (Tr. P. 1436, L. 25 to P. 1437, L. 7).

coal it bought, regardless of who offered the coal to PFC. (Tr. P. 1207, L. 1-4). The existence of PFC affiliates, their officers and office locations, among other similar, stimulating facts developed by OPC and interveners at the hearing are, therefore, irrelevant to this proceeding.<sup>21</sup>

The same is true for OPC's repeated questions about PEF's use of synfuels at CR4 and CR5. OPC's witnesses argue PFC should have purchased PRB coals over synfuels and bituminous coals alike. (Tr. P. 41, L. 13-16). There simply is no evidence to support OPC's allegations that synfuel tax credits drove the coal procurement decisions for CR4 and CR5.<sup>22</sup> To the contrary, the evidence is clear that PFC bought synfuels only when they were the economical choice, and synfuels were not selected when other coals became the more economical choice for CR4 and CR5. (Tr. P. 517, L. 17-20; P. 302, L. 8-18).

Synfuel production and sales were not only <u>proper</u> under federal law, they were <u>encouraged</u> by it. Progress Energy was one of many utilities purchasing synfuels. For example, Mr. Putman testified that Southern Company also bought synfuels, beginning in 2000. (Tr. P. 1442, L. 6-13). None of the evidence related to synfuels, then, demonstrates that PEF acted

<sup>&</sup>lt;sup>21</sup> Staff questioned Mr. Pitcher regarding alleged percentages of affiliate coal and synfuel purchases for CR4 and CR5 for the years 2003 to 2005 that Mr. Pitcher testified were inaccurate, "subject to check." (Tr. P. 475, L. 12-25). Having checked, Mr. Pitcher was correct, the percentages of affiliate purchases used by Staff in its questions are inaccurate.

<sup>&</sup>lt;sup>22</sup> The undisputed evidence was that PEF was among the smallest synfuel customers for PFC, that synfuel sales to PEF amounted to a very small percentage of the overall synfuels sold to other utilities by PFC affiliates, that synfuel tax credits earned on synfuel sales to Crystal River were a miniscule percentage of the total tax credits to Progress Energy from synfuel sales and were proper under federal tax laws, and that millions of tons of synfuel were produced and sold by PFC affiliates to other utilities after PFC synfuel sales to Crystal River were replaced by more economical import and other coals. (Tr. P. 511, L. 14 to P. 513, L. 6; Tr. P. 405, L. 20 to P. 406, L. 3; Tr. P. 292, L. 13-19). There further was nothing improper about the synfuel pricing itself. Coal feedstock for synfuels was sold at cost no matter how many hands it went through, (Tr. P. 545, L. 17 to P. 546, L. 2), thus there simply was no mark-up for synfuel sales. (Tr. P. 546, L. 19 to P. 547, L. 6). It was possible to sell synfuel in this manner, even at a loss when production and other costs of sale were considered, because the synfuel tax credits received by synfuel producers covered those losses and provided a benefit to the producer. (Tr. P. 405, L. 11-15).

imprudently.

4. <u>CR4 and CR5 Operational Matters</u>: PEF Would Have Needed to Make About \$60 Million in Capital Changes to CR4 and CR5 and the Crystal River Site to Safely and Efficiently Blend, Handle, and Burn a PRB Coal Blend.

OPC alleges that PEF should have used a 50/50 PRB coal blend at CR4 and CR5 beginning in 1996 by bringing 100 percent PRB to Crystal River for blending on site. (Tr. P. 77, L. 18-22; Tr. P. 73, L. 14-17). OPC made this assertion before any of its experts actually set foot on site. (Tr. P. 1210, L. 7-8; Tr. P. 1368, L. 4-12; Tr. P. 1446, L. 11-23). To evaluate the feasibility of doing what OPC proposed, PEF retained Mr. Hatt, a recognized expert in the industry on the physical and chemical characteristics of coal, in particular PRB coals, and their impacts on unit operations. (Tr. P. 649, L. 7-17). Mr. Hatt made multiple visits to the site, reviewed design and construction documents, and talked with PEF's employees who actually handle the coals at Crystal River and operate the units. (Tr. P. 651, L. 8-14). Mr. Hatt concluded that, to do what OPC suggested at Crystal River given the physical and chemical properties of PRB coals, PEF would have to make capital improvements conservatively estimated at about \$60 million and incur additional annual O&M expenses of \$2 million. (Tr. P. 651, L. 19-21).

PRB coal is different from the bituminous coals PEF historically burned at CR4 and CR5. (Tr. P. 518, L. 6-12). PRB coal is dustier and can spontaneously combust. (Tr. Tr. P. 1430, L. 24 to P. 1431, L. 2; P. 1433, L. 22-25). PRB coal has more moisture in it than bituminous coal. (Tr. P. 1430, L. 24 to P. 1431, L. 2; P. 1339, L. 2-4). PRB coal also has a lower Btu content, requiring more PRB tons to be procured and burned to maintain the Btu value of bituminous coals. (Tr. P. 1338, L. 17-20; Tr. P. 1433, L. 10-15). OPC and PEF witnesses agreed on these characteristics. Mr. Putnam, in fact, wholly accepted Mr. Hatt's assessment of PRB coal and its dangers. (Tr. P. 1430, L. 24 to P. 1431, L. 2).

Mr. Hatt testified extra care must be taken to safely handle PRB coals on site when transporting the coal and maintaining the coal piles. (Tr. P. 612, L. 20 to P. 613, L. 24; Tr. P. 615; L. 5 to P. 617, L. 13). OPC's experts, Mr. Barsin and Mr. Putnam agreed, indeed, Mr. Barsin discussed "PRB catastrophes" that have occurred when handling and burning PRB coals. (Tr. P. 1354, L. 1-5). Mr. Hatt testified that additional capital equipment and O&M items were needed to safely handle the coals on site. (Tr. P. 651, 1. 19-21). OPC's experts agreed. (Tr. P. 1333, L. 18-21). The dispute between Mr. Hatt and Mr. Barsin and Mr. Putnam, then, is <u>how</u> <u>much</u> additional capital and O&M is needed to safely and effectively handle 100 percent PRB coals on site for use in an equal blend with bituminous coals.

For example, Mr. Barsin and Mr. Putnam agreed with Mr. Hatt that many of the capital changes and increased O&M he recommended were needed, including:

- additional attention to housekeeping (Tr. P. 1338, L. 21-23);
- extra maintenance personnel (Tr. P. 1338, L. 24 to P. 1339, L. 1);
- additional personnel for fire watch (Tr. P. 1340, L. 22-25);
- additional personnel to accomplish washdowns (Tr. P. 1341, L. 1-3);
- washdown system (Tr. P. 1339, L. 21-23);
- dust collection system (Tr. P. 1339, L. 24 to P. 1340, L. 1);
- fire protection system (Tr. P. 1340, L. 2-4);
- dust suppression chemicals (Tr. P. 1341, L. 20 to P. 1342, L. 1);
- painting tripper floor white and cleaning to white each night (Tr. P. 1342, L. 2-9); and
- rubber-tired equipment to work on PRB coal piles (Tr. P. 1339, L. 11-13).

Mr. Barsin "guessed" that the capital changes would cost \$2.4 million and the annual O&M

expenses would be \$1.5 million. (Tr. P. 1333, L. 18-21).<sup>23</sup>,

<sup>&</sup>lt;sup>23</sup> Mr. Hatt reasonably developed his cost estimates after numerous conversations with knowledgeable people in the industry, including PEF's own plant employees. (Tr. P. 65, L. 8-14). Mr. Barsin admitted that Mr. Hatt's \$2 million per year O&M expense estimate "looked reasonable." (Tr. P. 1324, L. 22). Mr. Barsin relied only on the notes inside his head for his cost estimates. (Tr. P. 1345, L. 14-24). Mr. Barsin did not use any manuals or have any conversations with anyone to develop them. (Tr. P. 1345, L. 25 to P. 1346, L. 6). He repeatedly admitted that his cost estimates amounted to nothing more than "guesses." (Tr. P. 1346, L. 21 to

OPC's witnesses also agreed that other capital improvements recommended by Mr. Hatt to accommodate the safe and efficient handling and operation of the units using PRB coals would be "nice" or "preferable" yet inexplicably unnecessary, including:

- water cannons or water injectors (Tr. P. 1340, L. 5-7);
- soot blowers (Tr. P. 1340, L. 8-11);
- acoustic pyrometry (Tr. P. 1340, L. 12-18); and
- round housing cover on tripper floor (Tr. P. 1339, L. 14-17).<sup>24</sup>

The fact is, OPC's experts agreed with Mr. Hatt's assessment of PRB coals and its dangers and they agreed with many of the precautions and changes he recommended before bringing 100 percent PRB coals to Crystal River and burning them in CR4 and CR5. Based on this evidence, Mr. Hatt's testimony should be accepted as a reasonable and prudent course of action.

OPC's witnesses remarkably testified initially that no changes were necessary because

CR4 and CR5 were designed to accommodate the use of an equal blend of PRB and bituminous

coals based on a complete, state-of-the-art knowledge of PRB coals and their handling and

operational impacts over 30 years ago. (Tr. P. 91, L. 7-10).<sup>25</sup> By the conclusion of the hearing,

P. 1347, L. 18). Similarly, while Mr. Putman criticizes Mr. Hatt's estimates, (Tr. P. 1421, L. 20-22), he came up with none of his own and cannot even provide estimates of what Southern Company actually paid to convert any of its plants to use PRB coals. (Tr. P. 1442, L. 19 to P. 1443, L. 2). And, while he repeatedly makes sweeping comments about the fuel savings outweighing the costs Southern Company incurred, he also cannot recall what those fuel savings actually were, despite claiming to have been intimately involved in the conversions if not actually heading them up. (Tr. P. 1443, L. 3 to P. 1444, L. 18). His convenient amnesia hardly puts him in a position to criticize Mr. Hatt's actual estimates of the capital and O&M costs based on industry sources.

<sup>24</sup> Mr. Barsin agreed a round dust collector on the tripper floor was preferable to the square one that was <u>designed</u> and built there (an apparent concession that there have been design improvements to deal with PRB coals over the last 30 years), but simply proposed to hammer some flanges up in the corner of the current dust collector. (Tr. P. 1318, L. 19-22). Mr. Barsin cites no industry standard or practice that suggests such a fix is safe and appropriate.
<sup>25</sup> OPC's experts toured the plant for all of three hours and drafted testimony in less than two weeks. (Tr. P. 1352, L. 6-11; P. 1367, L. 25 to P. 1368, L. 1-12; P. 1446, L. 11-23). Based on this limited site visit, termed a "superficial voyage" by Mr. Barsin, and review, OPC's experts

as demonstrated above however, they conceded certain changes were necessary and others were "preferable." (Tr. P. 1338 to P. 1342). OPC must acknowledge, then, that some items necessary to use an equal blend of PRB and bituminous coals at CR4 and CR5 might have been designed but they were never actually built. (Tr. P. 653, L. 22 to P. 654, L. 9). For example, although CR4 and CR5 were designed to each have an additional silo, feeder, and pulverizer, these structures were never built. (Tr. P. 654, L. 6-7). Similarly, there is space for an additional conveyor belt to carry coal from the barge to the north coal yard. Though it appears to have been designed, this additional conveyor belt was never built. (Tr. P. 620, L. 14-24). At a minimum, to burn, handle, and blend the 50/50 design basis blend at CR4 and CR5, these designed but never built structures would have to be constructed.

OPC's witnesses also conceded the industry knowledge 30 years ago about PRB coals was not as complete as they initially contended. OPC witness Mr. Barsin conceded that several things have changed or become available since the late 70's when the units were designed, including housekeeping to control "PRB catastrophes," dust chemical sprays, CO2 monitors for PRB coal, and acoustic pyrometry devices. (Tr. P. 1353, L. 18 to P. 1354, L. 18). Both Mr. Putman and Mr. Barsin admitted that the state of the art in PRB safety and housekeeping is continually evolving. (Tr. P. 1354, L. 19-21; Tr. P. 1433, L. 10-15). In fact, everyone agrees that some of the PRB coal in use today was not even mined in the late 1970s when CR4 and CR5 were being designed. (Tr. P. 1354, L. 22-25; P. 630, L. 23 to P. 631, L. 8). So, even if some of the characteristics of PRB coal were known when the units were designed and built, the knowledge has changed so much that different equipment and practices are necessary today.

OPC and the interveners also suggested that PEF's ratepayers paid for plant and

challenge Mr. Hatt and PEF's witnesses who have been on the ground running these units. (Tr. P. 1351, L. 17 to P. 1352, L. 3).

equipment to burn a 50/50 blend that PEF did not use. (Tr. P. 207, L. 3-7). PEF's customers, however, benefited from what was built and paid for at CR4 and CR5. PEF's customers, according even to Mr. Putnam, received a plant that is able to burn a wide range of coal specifications. (Tr. P. 725, L. 2-6, Tr. P. 1434, L. 15-21). Mr. Putman also admitted that the equipment and boilers at CR4 and CR5 <u>as built</u> are useful regardless of the type of coal used. (Tr. P. 1434, L. 22 to P. 1435, L. 2). Because of this, customers received consistently high levels of megawatt output, operating at overpressure, from the units <u>as built</u>. (Tr. P. 725, L. 2-6). These megawatts were worth hundreds of millions of dollars to PEF's customers over the past decade.<sup>26</sup>

# 5. <u>Megawatt Capacity</u>: CR4 and CR5 Would Have Suffered a 124 MW De-Rate, Costing the Ratepayers up to \$966 Million to Replace the Lost Base Load Generation, if PEF had Burned a 50/50 PRB Coal Blend.

The original design rating for CR4 and CR5 was 665MW, in fact, the initial unit was called a "600MW" coal unit in the site certification filings. (Tr. P. 1348, L. 13 to P. 1351, L. 8; Exhibit No. 186, JAB-2, page 4; Exhibit No. 187, JAB-3, pages 12 and 41). From 1995 to 2006, PEF has, however, consistently produced 750 to 770 gross MWs of base load energy from CR4 and CR5 by regularly operating the units on overpressure. (Tr. P. 724, L. 9-13).<sup>27</sup> PEF was able to achieve overpressure regularly during this time period because PEF burned high-quality, high-Btu, low moisture bituminous coal in the bigger boilers at CR4 and CR5. (Tr. P. 724, L. 20-24).

<sup>&</sup>lt;sup>26</sup> Mr. Putman summarized his rebuttal testimony in part by contending that one capital change recommended by Mr. Hatt, the underground reclaim system for blending, should not be done because of the allegedly high water table at Crystal River. (Tr. P. 1425, L. 5-11). He further (erroneously) claimed that the hopper would be under water most of the time. (Id.). Mr. Putman admitted this "was an add" to his pre-filed rebuttal testimony. (Tr. P. 1430, L. 6-23). For the reasons noted above regarding Mr. Sansom's additional testimony, the Commission should not consider this unsupported argument asserted by Mr. Putman for the first time at hearing. <sup>27</sup> The difference between the gross and net energy production of the units is the amount of energy needed to operate the units and for the site itself. (Tr. P. 707, L. 8-15).

Customers benefited from burning these bituminous coals in the bigger boilers by receiving more low cost, base load energy production out of the units than they otherwise would have received. (Tr. P. 724, L. 25 to P. 725, L. 6). Indeed, the undisputed value of the megawatts between the original design rating of 665MW and the net megawatts PEF planned to receive each year from the units is between \$696 million and \$966 million. (Tr. 885, L. 4, Exhibit No. 149, JBC-6).

If PEF had used a 50/50 PRB and bituminous coal blend at CR4 and CR5 from 1996 to 2005, the units would have suffered a significant de-rate (loss of load) from their regular production of 750MW to 770MW. At best, the units would only have been able to operate at their original nameplate design load of 665MW. (Tr. P. 727, L. 24 to P. 728, L. 4; P. 653, L. 12-21). This de-rate occurs because a 50/50 coal blend would have a lower Btu value (the original design blend had a Btu value of 10,285 Btu) and would have higher moisture and higher dust levels. Given these characteristics, the units cannot maintain sufficient volumes of this lower quality, lower Btu coal blend in the boilers to sustain regular overpressure operations. (Tr. P. 727, L. 6 to P. 728, L. 4). As a result, the steam pressure drops and there is insufficient steam to turn the turbine at a higher rate than, at best, the 665MW design. (Id., P. 653, L. 12-21).

This de-rate effect from burning a 50/50 blend of PRB and bituminous coals at CR4 and CR5 is backed up by real experience at the plant. Mr. Toms, the shift manager at CR4 and CR5, testified that, from his <u>real-life experience</u>, the units are maxed-out at between 11,000 Btu and 11,300 Btu coal, and below 11,000 Btus the units shed megawatts. (Tr. P. 752, L. 1-7). Mr. Toms explained that in the past, when coal from a barge containing patches of bituminous coals below 11,000 Btus went into the boilers, the unit instantly shed megawatts. (Tr. 739, L. 21 to P. 740, L. 7). Likewise, when PEF tested a small blend of only 22% PRB coal in CR4 during the 2004 test burn, the unit lost 30 megawatts. (Exhibit No. 124, RH-26). As the percentage of PRB

coal increases to 50 percent in the coal blends, the Btu level decreases even further and, based on PEF's experience, de-rates will occur.

The de-rate from burning an equal blend of PRB and bituminous coals cannot be overcome, as OPC's witnesses argue, by simply adjusting the feeder belt speeds to increase the amount of coal going into the pulverizers. (Tr. P. 729, L. 18 to P. 730, L. 4).<sup>28</sup> OPC's witnesses argued that conveyor speeds can be increased to send more of the lower Btu, lower quality 50/50 coal blend to the pulverizers and then the boilers to maintain overpressure and the resulting load. (Tr. P. 1308, L. 21 to P. 1310, L. 14). The real "choke point," however, as even OPC witness Mr. Barsin admitted, is not the conveyor speeds but the capacity of the pulverizers to handle the increased tons from the 50/50 coal blend. (Tr. P. 1343, L. 24 to P. 1344, L. 4). Based on actual, operational experience, the pulverizers cannot handle the tons required to maintain overpressure with the 50/50 PRB and bituminous coal blend no matter how fast the conveyor belt speeds are.

Mr. Toms testified that, with the high Btu, high quality bituminous coal PEF typically used during this time period, the feeder belt speed is set at about 65% to provide the pulverizers an adequate amount of coal to crush without getting flooded and maintain overpressure load. (Tr. P. 742, L. 25 to P. 743, L. 4). When the units have received lower Btu bituminous coals, the speeder speeds have been increased to 70% to maintain overpressure load, but at these feeder speeds plant operators have observed they are pushing the pulverizers to their limits. (Tr. P. 743, L. 8-11, Tr. P. 744, L. 3-9). As a result, 70% feeder speeds is equivalent to 100% pulverizer capacity.

Increasing the feeder speeds above 70%, as OPC's witnesses argue should be done,

<sup>&</sup>lt;sup>28</sup> The pulverizers finely crush the coal before blowing it into the boilers where it is burned to produce heat which boils water in tubes that line the boiler, turning the water to steam. The steam turns a turbine in a steam turbine to produce energy. (Tr. P. 602, L. 13-22).

floods the pulverizers with coal that cannot be crushed, and the plant will lose the pulverizers. (Tr. P. 743, L. 21-25). Losing a single pulverizer causes an immediate 100 MW de-rate of the unit. (<u>Id.</u>). Based on experience, Mr. Toms testified that, with an 11,000 Btu bituminous coal, even with increased feeder belt speeds, the units are barely able to make the overpressure load of 750 MW gross output. (Tr. P. 739, L. 2-20).

There are other limitations on the pulverizers that will prevent them from crushing enough of the 50/50 blend coals to maintain overpressure load. Mr. Hatt explained that the pulverizers have to work more slowly with such a blend because the PRB and bituminous coals have to be ground differently, slowing the fueling process. (Tr. P. 626, L. 1-11). Also, because PRB coal is more volatile and reactive than bituminous coal, the outlet temperatures in the pulverizer mills must be lowered. (Tr. P. 625, L. 10-23). But the pulverizers use these mills to dry the coal before grinding it. Because PRB coal has a higher moisture content than bituminous coal, the pulverizers will have to work even harder to dry the blended coal before grinding it, but at lower outlet temperatures due to the volatility of the PRB coals. (Tr. P. 625, L. 10 to P. 626, L. 11). These two factors greatly reduce the capacity of the pulverizers to crush and blow into the boilers an adequate, constant level of the PRB and bituminous coal blend to maintain overpressure with resulting de-rates.

OPC's witnesses claim CR4 and CR5 will not suffer de-rates based on their misinterpretation of selected thirty-year-old documents that pre-date the completion of the design and construction of the units. (Tr. P. 1348, L. 1-12). OPC claims these documents "guarantee" that the units can achieve overpressure with the 50/50 PRB and bituminous design coal blend and, therefore, the units will not suffer a de-rate from the overpressure production actually achieved. (Tr. P. 1327, L. 22 to P. 1328, L. 14). In fact, however, there was no such "guarantee"

in these documents. Moreover, references in these documents are hardly evidence of how the units as constructed really work.<sup>29</sup> Based on the evidence regarding how the units actually work, the units cannot be expected to maintain overpressure load with the 50/50 PRB and bituminous coal blend and there will be de-rates.

Despite OPC's contentions, there is no guarantee that the units can achieve overpressure load with the 50/50 design coal blend. Mr. Barsin infers such a guarantee from select, outdated documents. Tellingly, his inferences are not based on his own personal knowledge but what he believes he recalls a lawyer for Babcock & Wilcox told him thirty years ago. (Tr. P. 1358, L. 11-12). Not only is this not credible evidence, it is hardly even speculation, given its ambiguity.

In any event, the <u>only guarantee</u> that was provided by Babcock & Wilcox for CR4 and CR5 was for <u>boiler efficiency</u>. (Tr. P. 652, L. 25 to P. 653, L. 5). This is clear from the face of the Crystal River Unit 4 Steam Generator Acceptance Test Summary Report, a document included by Mr. Barsin in his exhibits. (Exhibit No. 191, JAB-10). <u>This acceptance test was intended to verify the boiler manufacturer's guarantees</u>. (Tr. P. 1362, L. 20-25; p. 2 of 4, Exhibit No. 191, JAB-10). Mr. Barsin admits that the <u>only</u> design guarantee tested was for boiler efficiency. (<u>Id</u>. at p. 3 of 4, Tr. P. 1363, L. 6-22). There were no guarantees for overpressure, steam flow, steam temperature, or megawatts in the Acceptance Test. (Tr. P. 1363, L. 23 to P. 1364, L. 5). The Commission need not look beyond the Acceptance Test for what was guaranteed. PEF accepted the units based on boiler efficiency, the only guarantee made by Babcock & Wilcox. (Tr. 191, JAB-10).

Mr. Barsin contends, however, that there are two additional guarantees contained in a

<sup>&</sup>lt;sup>29</sup> Indeed, as OPC's witness Mr. Smallwood pointed out, he would not accept the design of the ESP as evidence that opacity and particulate matter emissions limits had been met because "it was not uncommon" that equipment does not work as designed. (Tr. P. 1485, L. 17-85).

document in his Exhibit No. 190 (JAB-9). These alleged guarantees using the 50/50 PRB and bituminous design coal are that: (1) the units will consistently produce the steam output necessary for a maximum continuous rating ("MCR"), or overpressure; and (2) the pulverizers can accommodate continuous MCR or overpressure. (Tr. P. 1327, L. 22 to P. 1328, L. 14; Tr. P. 1330, L. 18 to P. 1331, L. 10). Mr. Barsin argued these alleged overpressure "guarantees" mean the units could produce 750MW to 770MW on the 50/50 PRB and bituminous coal blend. He agreed, however, that it is unusual and atypical for a utility to ask for and an engineer to provide a continuous overpressure guarantee. (Tr. P. 1361, L. 15-21). In this case, the evidence is what typically can be expected – no such guarantees were in fact provided.

The document Mr. Barsin relies on for the alleged guarantee of continuous steam output does not support such a guarantee (see p. 7 of 7 of his Exhibit No. 190, JAB-9). It is undisputed that, for CR4 and CR5, a steam output of 2500 psig equals the nameplate capacity, 665 MW. (Tr. P. 1361, L. 1-4; P. 748, L. 1-4). Overpressure, or MCR, is achieved with 2640 psig. (Tr. P. 747, L. 3-8). As both Mr. Toms and Mr. Barsin testified, the only column where "GUAR" (guarantee) appears with respect to the 50/50 PRB and bituminous coal blend is where the steam output is 2500 psig, i.e. the <u>nameplate 665 MW</u>. (Tr. P. 747, L. 23 to P. 748, L. 18; P. 1360, L. 14 to P. 1361, L. 11). The column containing the 2640 psig, which is associated with overpressure production, <u>does not</u> have the word "GUAR" (guarantee) on it. (<u>Id.</u>). The logical conclusion, therefore, is that if there is a guarantee in this document, it only applies to the steam pressure necessary to achieve the nameplate capacity of 665 MW. Babcock & Wilcox <u>did not</u> guarantee that the units would achieve overpressure with the 50/50 PRB and bituminous coal blend.

There also was no "guarantee" that the pulverizers could handle the tons necessary to

achieve overpressure with the 50/50 PRB and bituminous coal blend (see p. 5 of 7 of Exhibit No. 190, JAB-9). (Tr. P. 1364, L. 6-22). At the bottom of the document that Mr. Barsin relies on, Babcock & Wilcox states that the performance indicated "shall not be offered by the company or construed by the purchaser as a proposal or contract obligation." (Exhibit No. 190, JAB-9, p. 5 of 7). Babcock & Wilcox clearly said that PEF <u>could not</u> rely on the pulverizer performance calculations contained in the pre-construction design document. Mr. Barsin attempts to read into the document a guarantee that is contrary to the plain language of the document he relies on.

In sum, the documents that OPC attempts to use to support its case instead show that Babcock & Wilcox did not guarantee that CR4 and CR5 could achieve continuous overpressure operation on the 50/50 PRB and bituminous coal blend. The result, then, from operation of the units with such a blend from 1996 to 2005, would have been a de-rate of an estimated 124MW. No one disputed that the cost to replace this 124MW loss of base load capacity from 1996 to 2005 was from \$696 million to \$966 million. (Tr. P. 885, Exhibit No. 149, JBC-6). PEF's customers therefore benefited from the Company's coal procurement decisions because they saved them nearly a billion dollars.

#### 6. <u>Environmental Permitting</u>: PEF Acted Prudently in Obtaining Environmental Permits for CR4 and CR5.

OPC apparently contends PEF imprudently failed to include PRB coals in its Title V environmental permit application, regardless whether such coals were economic at the time. OPC argues PEF "abandoned" its "authority" to burn PRB coals in this permit application, thus harming ratepayers. (Tr. P. 41, L. 6-9, Tr. P. 57, L. 15-17).<sup>30</sup> Even OPC's own environmental

<sup>&</sup>lt;sup>30</sup> OPC apparently argues in its opening statement that PEF somehow concealed the fact that it did not include sub-bituminous coal on its Title V permit application because OPC claims this only "came to light much later." (Tr. P. 15, L. 21 to P. 16, L. 1). Nothing can be further from the truth. The Title V permit application process is a matter of public record, it is well noticed,

expert witness, however, disagreed with OPC's arguments. In any event, there was "no harm, no foul" to the ratepayers, even if one accepts OPC's arguments, because the time required to obtain a Title V permit modification is less than the time required to complete the changes required at CR4 and CR5 to actually burn PRB coals at the units. (Tr. 787, L. 17-18).<sup>31</sup> PEF's actions with respect to its environmental permits for these units were therefore reasonable and prudent.

PEF did not have the "authority" that OPC suggests it had to burn PRB coals under the CR4 and CR5 site certification conditions. PEF and OPC witnesses agreed that burning subbituminous coals can cause higher particulate matter and opacity levels than burning bituminous coals. (Tr. P. 1491, L. 23 to P. 1492, L. 2). They further agreed that PEF had to comply with emissions limitations for opacity and particulate matter, and PEF did not know what the particulate matter emissions and opacity levels would be from burning PRB unless and until it was tested. (Tr. P. 1483, L. 21 to P. 1484, L. 5; P. 1485, L. 11-16). As a result, PEF could not burn the coal without testing it to ensure compliance with the emission limits. (Tr. P. 1483, L. 21 to P. 1484, L. 5; P. 1485, L. 2-7). PEF, then, did not have the "authority" to burn PRB under its certification conditions and PEF therefore could not abandon something it did not have when PEF did not include sub-bituminous coal on the Title V permit application. (Tr. P. 786, L. 18-24).<sup>32</sup>

and it is open to the public. (Tr. P. 1496, L. 6-9; Tr. 772, L. 14-22, Tr. P. 1496, P. 10-13; Tr. 772, L. 22 to P. 773, L. 3). PEF's Title V application and subsequent modification, therefore, were not concealed from the Commission, OPC, or the public. (Tr. P. 1496, L. 14-18). <sup>31</sup> A Title V permit modification takes approximately 12 to 14 months. (Tr. 787, L. 10-11). Before PRB coal can be burned on a long-term basis at CR4 and CR5, however, changes requiring 18 to 24 months to complete them must be done. (Tr. 787, L. 12-14). <sup>32</sup> To include a coal on the Title V permit application, PEF had to provide reasonable assurance to the Florida Department of Environmental Protection ("DEP") that the fuel type met emissions limits. (Tr. P. 787, L. 1-7). Without actual data from burning PRB coal PEF could not provide this assurance. (Id.). OPC's argument that the ESP was designed to accommodate an equal blend of PRB and bituminous coals and, therefore, provided the necessary "reasonable

OPC's argument that PEF should have tested the equal PRB and bituminous coal blend when the units came online to get the necessary emissions data to include PRB on the Title V permit, (Tr. P. 1482, L. 13-21), was, again, disputed by OPC's own witness. Mr. Smallwood admitted that, even if PEF had done a stack test when the units came online, by the time of the 1996 Title V permit application, another stack test was required. (Tr. P. 1489, L. 24 to P. 1490, L. 13). As a result, PEF reasonably and prudently tested only the bituminous coals that all agreed PEF prudently burned in the units when they came online at that time. (Tr. P. 768, l. 16 to P. 769, L. 7).

#### 7. <u>CR3</u>: If PEF Burns the Volatile PRB Coal at CR4 and CR5, PEF Will Have to Evaluate the Additional Risk to CR3 Pursuant to NRC Regulations, Especially Because It Would Be the Only Nuclear Plant Co-Sited with a PRB-Burning Coal Facility in the World.

If PEF had procured and burned an equal blend of PRB and bituminous coals at CR4 and CR5, as OPC asserts, CR3 would be the only nuclear unit in the United States and possibly the world co-located with a PRB coal-burning facility. (Tr. 837, L. 6-10).<sup>33</sup> PRB coal use admittedly carries with it risk. PRB coals can spontaneously combust and PRB coal dust is flammable. (Tr. P. 836, L. 15-20). The bituminous coal typically procured and burned at CR4 and CR5, by comparison, is more inert and acts more like dirt. (Tr. P. 860, L. 1-4). Under OPC's proposal, 100 percent PRB coal would be offloaded, temporarily stored to the southwest of CR3, then moved by conveyor belt east and north to the north coal yard for blending with bituminous coal, before going west for use at CR4 and CR5, nearly encircling CR3. (Tr. P. 860, L. 1-4, Tr. P. 837, L. 2-3, 16-18, Tr. P. 838, L. 3-7). If this PRB coal were to catch on fire, or

assurance" was rejected by OPC's own expert, Mr. Smallwood. (Tr. P. 57, L. 13-22, Tr. P. 1485, L. 17-25). As Mr. Smallwood pointed out, test burns are required because the as-built structure often does not work as designed. (Tr. P. 1486, L. 1-5).

<sup>33</sup> Even Mr. Putman knew of no other nuclear unit in the world co-sited with a PRB coal-burning unit. (Tr. P. 1454, L. 18 to P. 1455, L. 8).

explode, CR3 operations could be severely affected. (Tr. P. 836, L. 15-22). Before any decision to use PRB coals on site in such a manner is made, PEF must consider the impact of any increased risk on CR3 nuclear unit operations under NRC safety regulations. (Tr. P. 838, L. 8-21).<sup>34</sup>

OPC and interveners do not dispute that this risk evaluation must be done. They question why it was not done when CR4 and CR5 went online, because CR3 was already in operation, and when the 2004 test burn was done. (Tr. P. 842, L. 18 to P. 844, L. 22, Tr. P. 861, L. 20 to P. 862, L. 21). Such an evaluation at the time of commercial operation, merely on the speculation that PRB coal might be used at some uncertain future time, was not necessary. (Tr. P. 835, L. 1-11, Tr. P. 842, L. 24 to P. 843, L. 5). Both the industry's understanding of the risks posed by PRB coals and the nuclear safety standards, given 9/11 and other incidents, have changed since the units went online. (Tr. P. 843, L. 6-25). As a result, any such nuclear analysis at the time of commercial operation would have to be repeated under the changed conditions. (Tr. P. 835, L. 5-6).

Likewise, the brief 2004 (and the later 2006) test burn involved a small PRB blend (from 18% to 22%), blended off-site, loaded straight into the units, that never involved PRB coal storage. (Tr. P. 833, L. 21 to P. 834, L. 8).<sup>35</sup> Given these circumstances, a nuclear evaluation was not needed. (Id.). OPC's proposal that PEF use a 50/50 PRB and bituminous coal blend long-term with 100 percent PRB coals brought on site for blending represents different

<sup>&</sup>lt;sup>34</sup> The NRC requires the Company to evaluate whether such changes increase the risk to nuclear operations through a rigorous process likely taking months of engineering analysis to complete that may require a formal license amendment application to the NRC. (Tr. P. 838, L. 13-18, L. 22 to P. 839, L. 1). The NRC will certainly be involved with PEF's evaluation. (Tr. P. 839, L. 4-16; Tr. P. 881, L. 13 to P. 882, L. 2).

<sup>&</sup>lt;sup>35</sup> During both the 2004 and 2006 short-term test burns, nuclear personnel were notified that the trials were taking place and were involved. (Tr. P. 420, L. 13 to P. 471, L. 12, Tr. P. 860, L. 19 to P. 861, L. 8).

circumstances from the test burns with dramatically different risks, thus, requiring a nuclear evaluation. (Id.) This is consistent with the fuel switch evaluation process, there are a series of steps in the decision making process that must be done, and PEF will not move to the next step in the process until circumstances warrant it to avoid wasting time and resources. (Tr. P. 518, L. 14 to P. 519, L. 1, Tr., P. 835, L. 9-11, Tr. P. 839, L. 12-23, Tr. P. 861, L. 1-8). This is a reasonable and prudent course of action.

#### B. A Refund of Fuel Costs Collected Over the Past Decade is Not Supported by the Evidence, by Commission Administration of the Fuel Clause Proceedings, by Commission Policy, nor by the Law and Constitutions.

The undisputed evidence presented to the Commission established:

- (1) PEF must and does submit in the fuel docket proceedings the very information, according to even OPC witness Mr. Lawton, that is needed to allow the Commission to determine prudence (Tr. P. 115, L. 8 to P. 1156, L. 22);
- (2) The Commission Staff, according to former and current Staff members with responsibility for the fuel docket proceedings, reviews all of this information, confidential or otherwise, and engages in discovery for additional information, when necessary, to determine the prudence of the utility's fuel costs (Tr. P. 1513, L. 3-19; P. 1046, L. 16 to P. 1047, L. 21);
- (3) There is nothing more the Commission can or should do beyond what it currently does in the fuel docket proceedings to determine prudence (Tr. P. 1523, L. 20 to P. 1525, L. 17; P. 1531, L. 9-15; P. 1534, L. 1-7); and
- (4) There is no further Commission process or proceeding <u>after</u> the Commission has determined the true-up of utility fuel costs during the fuel clause proceedings to <u>later</u> determine prudence. (Tr. P. 1519, L. 7-15).

The only logical conclusion to draw from this evidence is the Commission did determine the

prudence of PEF's fuel costs at the final true-up stages in prior fuel clause proceedings and that

no prudence issue was raised as to the CR4 and CR5 coal costs.

It bears emphasis that all fuel costs, including PEF's CR4 and CR5 coal costs, are reviewed in the fuel docket over the course of three (3) years from when the costs are first

projected to be part of the fuel cost recovery factor until they are finally trued-up as part of setting the fuel factor. OPC and interveners focused on the first part of the fuel clause proceeding, when they have sixty (60) days to review the <u>projections</u> of fuel costs before the hearing determining the adjustment to the fuel cost recovery factor for initial recovery. (Tr. P. 1537, L. 24 to P. 1538, L. 3). But this is an incomplete and misleading picture of the entire process of reviewing fuel costs in the fuel docket.

After the hearing including certain fuel costs for the first time in the fuel cost recovery factor, those same costs will be reviewed in the hearing the next year for a true-up of the actual fuel costs for the six to eight month period prior to the hearing and any other necessary adjustments to the cost recovery factor. Following the second hearing, there is yet a third fully litigated hearing where, with a full year of actual costs, the fuel cost recovery factor is trued-up against all prior projections.<sup>36</sup> There is, therefore, a three-year period in which OPC, Staff, or any other party can raise an issue as to the prudence of any fuel cost. See, e.g. Order No. PSC-06-1057-FOF-EI.<sup>37</sup> If there is insufficient time to address the issue in the hearing a spin-off docket can be requested. See, e.g., In re: Investigation into extended outage of Florida Power & Light Company's St. Lucie Unit No. 1, Order No. 15486, Docket No. 840001-EI-A, 1985 Fla. PUC Lexis 25 (Dec. 23, 1985).

During prior fuel dockets for the last decade, PEF (and the other investor-owned utilities) submitted monthly reports on their delivered fuel costs for review by Staff and OPC. This information, for example the information contained in the 423 Forms, Schedule A reports, and GPIF reports, is the very same type of information that OPC witness Mr. Lawton agreed was

<sup>&</sup>lt;sup>36</sup> The issues decided in all three fully litigated hearings can also be appealed by any party. <sup>37</sup> For example, in the 2006 fuel clause proceeding, the hedging activities of PEF and FPL were specifically raised and addressed by the Commission. (Id.).

necessary for the Commission to determine prudence. (Tr. P. 115, L. 8 to P. 1156, L. 22). Staff witness Mr. Windham likewise explained that he collected these monthly fuel cost reports and reviewed the information in them to determine prudence. (Tr. P. 1047, L. 22 to P. 1048, L. 7). Mr. Bohrmann (OPC's witness and a former member of Staff) also admitted that issues of prudence can be identified from these 423 Forms and Schedule A reports. (Tr. P. 1511, L. 18 to P. 1512, L. 12). Mr. Bohrmann characterized this information as "voluminous." (Tr. P. 1531, L. 21-23).

No one disputed that during the fuel dockets regular meetings occurred between the utility and Staff to discuss the utility's procurement practices. The Staff also conducted several, regular audits of utility fuel costs. The audit information is available to the Commission, OPC, and other interveners. (Tr. P. 1512, L. 13 to P. 1513, L. 2). PEF's witnesses explained that PFC and the Company regularly met with the Commission Staff, OPC, and other interested parties. These meetings concerned the coal procurement practices and decisions for CR4 and CR5, along with the Company's other coal plants. In each meeting, PFC and PEF told those in attendance what coal procurement decisions were being made and why, and Staff, OPC, and other parties in attendance were invited to ask questions. (Tr. P. 302, L. 19 to P. 303, L. 4). PEF was an open book, and OPC's assertion that it somehow had no knowledge of PEF's procurement practices is contrary to the evidence and is not credible.

Both Mr. Windham and Mr. Bohrmann further testified that it was their job to review the information submitted by the utilities and raise issues of prudence if they saw them in reports or recommendations to the Commission in the fuel dockets. (Tr. P. 1514, L. 12 to P. 1515, L. 8; Tr. P. 1046, L. 16 to P. 1047, L. 21). Mr. Windham and Mr. Bohrmann agreed that Staff and interveners can take discovery in the fuel docket -- obtaining coal procurement documents and

contracts and other information through interrogatories and document requests -- to determine the prudence of utility fuel costs. (Tr. P. 1513, L. 3-19; P. 1046, L. 16 to P. 1047, L. 21). They agreed it was Staff's job to take such discovery and to determine the prudence of utility fuel costs. (<u>Id.</u>). No witness identified any information that was requested from PEF that was not provided in any of the prior fuel dockets.

Mr. Bohrmann also testified that he believed it was staff's job to look at information on fuel costs at a level of detail commensurate with their role as a regulator to ensure that those costs are fair, just, and reasonable. (Tr. P. 1515, L. 15-18). He agreed that it was a "reasonable expectation" for the Commission to expect Staff "to ask the necessary questions to get to the necessary answers to determine whether or not in a fuel docket" the fuel costs "were reasonable." (Tr. P. 1536, L. 1-8). In fact, Mr. Bohrmann conceded that there was nothing more the Commission should do beyond what it was doing and had been doing for the past decade in fuel dockets to determine prudence. (Tr. P. 1523, L. 20 to P. 1525, L. 17; Tr. P. 1531, L. 9-15; Tr. P. 1534, L. 1-7).<sup>38</sup>

Certainly, as PEF witness and former Michigan commissioner Mr. Steve Fetter pointed

<sup>&</sup>lt;sup>38</sup> When he was asked how the Commission Staff missed the alleged overpayment of coal costs over ten years, OPC witness Mr. Sansom similarly referred to no defect in either the information provided or available in the fuel dockets or the fuel docket proceedings. Rather, he claimed (1) that the Staff and interveners did not have access to confidential information provided by the utility and necessary for prudence review, and (2) that the Commission should hire an outside consultant like himself. (Tr. 1239, L. 11 to P. 1240, L. 24). Mr. Sansom is simply wrong when he claims the Staff and interveners do not have access to confidential information. Adequate mechanisms exist under Florida Statutes and Commission Rule for the Staff and interveners to access confidential information. (§366.093, Fla. Stats.; Rule 25-22.006, F.A.C.). Indeed, Mr. Bohrmann admitted that confidential information in the fuel dockets is available to Staff and all parties involved. (Tr. P. 1520, L. 4 through P. 1521, L. 1-2). Second, Mr. Sansom's claim that Staff is not competent to conduct the prudence review of utility coal costs without the aid of someone like himself is nothing more than shameless self-promotion when Mr. Sansom identified no evidence of alleged imprudence that Staff was incapable of understanding. (Tr. 1239, L. 11 to P. 1240, L. 24).

out, there is no other, subsequent process or procedure in place beyond the final true-up in the fuel docket proceedings to determine the prudence of utility fuel costs. (Tr. P. 190, L. 13-16). Mr. Bohrmann agreed, admitting that the Commission has no subsequent process beyond the one currently in place to ever determine whether or not one dollar of the billions of dollars in fuel costs passed on to ratepayers each year is reasonable and prudent. (Tr. P. 1519, L. 7-15). Absent such a subsequent procedure or process the determination of prudence must occur in the course of the fuel docket proceedings. (Tr. P. 190, L. 17-23).

Any other conclusion is contrary to the evidence of what Staff and the parties actually do in the fuel dockets, denies the utility the very "quid pro quo" OPC claims the fuel clause recovery provides, and is detrimental to the utility and its customers. The testimony of Staff's witness and OPC's own witnesses is that the Commission receives sufficient information and has access to additional information, as necessary, through discovery to determine prudence. (Tr. P. 115, L. 8 to P. 1156, L. 22; Tr. P. 1523, L. 20 to P. 1525, L. 17; Tr. P. 1531, L. 9-15; Tr. P. 1534, L. 1-7). This evidence demonstrates the effort that utilities undertake preparing and submitting fuel cost data, responding to discovery and audits, that Staff spends requesting and reviewing that data, and that the parties spend preparing for and participating in the hearings is not a meaningless exercise. But if there is no prudence review of fuel costs, as OPC alleges, the fuel docket hearings are hollow proceedings devoid of any real substance. This is illogical, indeed, it means the Commission has made customers pay billions of dollars in fuel costs without ever deciding or putting in place a process or procedure to decide that those costs were prudently incurred. (Tr. P. 1517, L. 20 to P. 1518, L. 11).

OPC's argument that there is no prudence review also undermines its argument that the utility obtains the benefit of immediate cost recovery under the fuel clause. If fuel costs are

always subject to refund because, according to OPC, they have never been determined reasonable and prudent, then the utility has not finally recovered anything. Under this scenario, the perception of Florida's regulatory environment in the capital markets will change from a positive to a negative one. (Tr. P. 182, L. 16 to P. 187, L. 9). This impact is reflected most pointedly in Fitch's December 2006 report, explaining its understanding that the prudence of the fuel costs at issue in *this very proceeding* had been determined previously, and that any other result "would indicate a more challenging regulatory environment in Florida." (Tr. P. 219, L. 6-18). Negative impacts like this lead to higher costs of capital, and ultimately higher costs to customers. (Tr. P. 189, L. 14-19).

OPC and its witnesses rely on nothing more than circular arguments that credit reporting agencies and investors know utilities cannot recover imprudent costs. (Tr. P. 1152, L. 24 to P. 1153, L. 10). They fail to acknowledge, however, the real impact that the lack of finality with respect to fuel costs already recovered by utilities creates in the financial community. This lack of finality creates real uncertainty, and it has a detrimental impact on the utility's cost of debt and capital to the detriment of the utility's customer. (Tr. P. 185, L.16 to P. 187, L. 9).

The evidence in this hearing that the Commission actually does consider the prudence of fuel costs by the time of the final true-up of such costs to projections in the third year of hearings is consistent with Order No. 12645. <u>In re Investigation of Fuel Adjustment Clauses of Electric</u> <u>Utilities</u>, Order No. 12645, Docket No. 830001-EU, 1983 Fla. PUC Lexis 163 (Nov. 3, 1983). There, the Commission recognized that it was fairly required to determine prudence when the relevant facts were before it.<sup>39</sup> It is undisputed here that the Commission receives or has

<sup>&</sup>lt;sup>39</sup> The Commission further recognized that, inherent in the Commission's ability to review the prudence of fuel costs, are the limitations on the Commission's jurisdiction such as the appropriate statute of limitations and other jurisdictional constraints. (<u>Id.</u>). The Commission has

available to it all information that it needs to determine prudence and that there is nothing more that the Commission can do to determine prudence that it does not already do. (Tr. P. 1523, L. 20 to P. 1525, L. 17; P. 1531, L. 9-15; P. 1534, L. 1-7). The reality, then, is that the Commission and Commission Staff have acted in a reasonable and responsible manner. No other conclusion is consistent with the evidence, the Commission's administration of the fuel docket, Commission policy or the law.

There simply was no issue of imprudent coal costs from 1996 to 2005 because the evidence before the Commission in each of the fuel docket proceedings over the past decade demonstrates that PEF's coal procurement decisions were in fact reasonable and prudent. The Commission and Commission Staff, therefore, did not "miss" something over the past decade because there was nothing to miss.

#### C. The Commission Does not Have Authority to Impose a Penalty on PEF in this Matter, Because There is No Basis for a Refund at all and No Order, Statute, or Rule that PEF has Willfully Violated has been Identified.

Only AARP Witness Mr. Stewart testified that this Commission should impose a 10% penalty on the amount of any refund.<sup>40</sup> Mr. Stewart claims that this penalty is appropriate if the

operated within these constraints in its prior prudence review of coal costs, choosing to only review the prudence of costs of coal still in inventory and at issue prior to final true-up when the investigation of the prudence of the utility's coal costs commenced. The Commission's refund order was consistent with this principle, ordering a refund for costs in 1980, 1981, and 1982 even though the imprudence extended to an earlier time period. In re Investigation of Fuel Cost Recovery Clauses of Electric Utilities (Gulf Power Company – Maxine Mine), Order No. 13452, Docket No. 820001-EU-A, 1984 Fla. PUC Lexis 461, \*48-49 (June 22, 1984). In the decision affirming the Commission order, the Florida Supreme Court ruled that the Commission's order was not improper retroactive ratemaking, noting specifically that the refund was only for the three-year period from 1980 to 1982. Gulf Power Co. v. Florida Public Service Comm'n, 487 So. 2d 1036 (Fla. 1986). Applying the same "jurisdictional constraint" against retroactive ratemaking here, any alleged imprudence cannot extend beyond those coal costs that had not been finally trued-up at the time OPC's investigation commenced in 2005.

Commission finds that PEF acted intentionally against the interests of its ratepayers and is necessary to discourage utilities from engaging in mismanagement in the future. (Tr. P. 1111, L. 22 to P. 1112, L. 2, Tr. P. 1112, L. 16-22). Mr. Stewart has the wrong standard. All parties – including AARP -- agreed that a penalty can only be imposed for willful violations of any lawful Commission order, Commission rule, or statute. (See Issue 5 of Order No. PSC-07-0266-PHO-EI). There is no legal basis for the Commission to penalize a utility under any other grounds.

Mr. Stewart's testimony falls far short of the statutory requirements that are necessary for this Commission to impose a penalty. When specifically asked for the order, rule, or statute that PEF allegedly violated, Mr. Stewart could not identify any such order, rule, or statute. (Tr. P. 1119, L. 9 to P. 1121, L. 21). His generic claim that PEF violated something in Chapter 366 is insufficient. (Tr. P. 1121, L. 10-17). Because the standard is a willful violation, the utility and the Commission must be made aware of the specific provision that was allegedly violated. Mr. Stewart fails to provide that reference.

Mr. Stewart's reliance on the Commission's order in Gulf Power Company's rate case is misplaced. Mr. Stewart cites no ruling in this order that he claims PEF willfully violated. (Tr. P. 1120, L. 13-17). Rather, he attempts to use the order as an example of what he believes is the Commission's discretion to impose a penalty on a utility for any alleged mismanagement. In other words, Mr. Stewart comes up with his own authority for a penalty, one which is not found in the express statute authorizing a penalty that all parties agreed was the controlling authority in this case. § 366.095, <u>Fla. Stat.</u> Clearly, Mr. Stewart cannot use the Gulf order in this way.

Indeed, neither the Commission nor the Florida Supreme Court believed a penalty was being imposed on Gulf in this order. <u>In Re Gulf Power Co.</u>, 120 P.U.R. 4<sup>th</sup> 1, Order No. 25373, Docket No. 891345-EI (Oct. 3, 1990). The Court rejected Gulf's argument on appeal that the

Commission had imposed a penalty, expressly finding that the reduction in bases points was <u>not</u> a penalty, because Gulf was still able to earn a reasonable rate of return. <u>See Gulf Power Co. v.</u> <u>Wilson</u>, 597 So. 2d 270 (Fla. 1992). The Commission, of course, has some discretion in deciding the reasonable rate of return, based on the evidence presented, as the Court recognized. No such discretion exists under the Commission's statutory authority to impose penalties on utilities.<sup>41</sup> There must be a willful violation of a specific Commission order, rule, or statute. No one identifies one here. There is, therefore, no statutory authority for the imposition of a penalty on PEF in this proceeding.

#### II. Post-Hearing Statement of Issues and Positions.

### **<u>ISSUE 1</u>**: Did PEF act prudently in purchasing coal for Crystal River Units 4 and 5 beginning in 1996 and continuing to 2005?

\*Yes. PEF's coal purchases for CR4 and CR5 over the past decade, as reflected in PEF's direct and rebuttal testimony and exhibits, were reasonable and prudent. PFC regularly issued Requests for Proposals ("RFPs") for bituminous and sub-bituminous coals for CR4 and CR5 and participated in spot market purchases in response to offers when reasonable to do so. Coals offered in response to PFC's RFPs and in the spot offers were selected when most cost-effective to purchase them, considering the delivered and evaluated cost. No prudent utility looks only at the delivered price to determine what coal to buy. A prudent coal procurement decision-making process involves the analysis of myriad other factors that can affect the delivery, transportation, handling, and operation of the unit to reasonably and prudently determine the best coal for a particular unit. When considering these factors, it is clear that PEF acted prudently.\*

### In determining Issue 1, the Commission may consider including, but not limited to, the following:

#### **Environmental Permitting**

\*PEF acted reasonably and prudently in obtaining environmental permits for CR4 and CR5. From when the units came online until the mid-90's, no one disputes that PEF was burning and should have burned bituminous coal. PEF did not have unconditional authority to burn a blend

<sup>&</sup>lt;sup>41</sup> See <u>City of Cape Coral v. GAC Utilities, Inc. of Florida</u>, 281 So.2d 493, 495-496 (Fla. 1973) (PSC is a creature of statute and its powers, duties, and authority are only those conferred expressly or implied by statute); <u>United Telephone Co. of Florida v. Public Service Comm.</u>, 496 So.2d 116, 118 (Fla. 1986) (PSC jurisdiction is derived solely from grant of legislative authority).

of sub-bituminous coal, because it could not be assured that the units would remain in compliance with emissions limitations. Furthermore, given the time needed to obtain a permit modification, compared to the time needed to make operational changes, there would be no detriment to PEF or the ratepayer caused by waiting to change these permits.\*

#### **Coal Procurement Practices**

\*PFC regularly issued RFPs for bituminous and sub-bituminous coals for CR4 and CR5 and participated in spot market purchases in response to offers when reasonable to do so. PFC sent the RFPs to a large list of coal suppliers, and the RFPs were provided to coal trade publications. Coals offered in response to PFC's RFPs and in the spot offers were selected when most cost-effective to purchase them, considering the delivered and evaluated cost, and their availability for delivery under given market conditions or other constraints. When PRB coal producers submitted bids, PEF evaluated them along with all other bids.\*

#### <u>CR-3</u>

\*Part of the evaluation to switch to a PRB blend must include the impact on the operation of the Company's nuclear unit CR3, given the proximity of the PRB coals to the unit and the undisputed characteristics of PRB coals. Were PEF to use PRB blends, as OPC suggests, CR3 would be the only nuclear unit in the United States, and quite possibly the world, that is co-located with a PRB coal plant. Nuclear regulations require evaluation of this additional risk to assess whether CR3 can be safely operated with PRB coal on-site, adding time and expense to the analysis.\*

#### **CR-4 & CR-5 Operational Matters**

\*Despite the fact that the boilers were designed to accommodate an equal blend of PRB and bituminous coals in the late 70's, the design and construction of the units lack the necessary equipment to safely, efficiently, and effectively handle and operate the units on an equal blend of PRB coals and bituminous coals. State of the art technology for dealing with PRB coal as it evolved through the mid-1980s to today is different from what was known when the units were designed. In addition, many of the additional components which were designed were not actually built. Tens of millions of dollars in capital and maintenance upgrades must therefore be made for the units to burn this blend safely and effectively. Furthermore, to the extent that any components, like the larger boiler, were built into the plant, the ratepayer has received the benefit because the units have produced additional megawatts.\*

#### Megawatt Capacity

\*CR4 and CR5 have consistently produced 750 to 770 gross megawatts, because of the bituminous coal burned in the units. This production will not be possible with the lower Btu content of a 50/50 PRB and bituminous blend. The Black & Veatch and Babcox and Wilcox documents for these units do not provide a guaranteed megawatt output when burning the design sub-bituminous and bituminous coal blend. The only arguable guarantee beyond unit efficiency

is for a steam output which produces 665 megawatts, the nameplate ratings for the units. It would cost millions of dollars to replace these lost megawatts.\*

#### **Coal Availability and Costs**

\*PEF cannot purchase what it is not offered. Although PEF's RFPs included specifications for sub-bituminous coal, and these RFPs were sufficiently available to the market, in some years no PRB bids were received. Even when PEF received PRB bids, prior to 2004, PRB coal, on a delivered and evaluated price basis, did not compete with the bituminous coal PEF purchased. PEF reasonably and prudently evaluated PRB coal using the existing market proxy for waterborne transportation costs in place for water deliveries of coal for all Crystal River coal plants. When PRB coal appeared economical, PEF began a more thorough evaluation.\*

#### <u>Affiliates</u>

\*PEF did not favor affiliates, but treated them equally with other potential coal suppliers, as demonstrated by PEF's purchases of coals from non-affiliates and foreign suppliers when cost effective to do so. PEF also evaluated synfuel on the same basis, choosing synfuel when it was the lowest total cost coal offered, rather than to benefit any affiliate. Indeed, PEF purchased synfuel from suppliers other than its affiliates.\*

#### **Other Factors**

\*With respect to the issues above and identified in the evidence in this case, as long as PEF acted *reasonably* in its fuel procurement decisions, it does not matter whether others would have acted differently. OPC's Petition requires the Commission to second-guess the Company and make management decisions that should be made by the Company. Given all the considerations involved with making fuel purchases, and considering what the Company knew at the time it was making its coal procurement decisions, the evidence shows that PEF acted prudently and reasonably in procuring coal for CR4 and CR5 from 1996 to 2005.\*

## **ISSUE 2:** If the Commission determines that PEF acted imprudently in its coal purchases, should PEF be required to refund customers for coal purchased to run Crystal River Units 4 and 5 during the time period of 1996 – 2005?

\*No. Over the past decade, the Commission reviewed and approved for collection billions of dollars in fuel costs, including the costs of coal for CR4 and CR5, from PEF's customers. No one can reasonably suggest that there was no prudence determination before PEF was allowed to collect them from customers. Any decision by the Commission to re-visit its prior orders on the allegations in this proceeding will undermine regulatory certainty, and will unnecessarily bog down current and future fuel proceedings with more information as utilities speculate on what will be considered important to ensure that decisions are not later questioned.\*

## **<u>ISSUE 3</u>**: Under the circumstances of this case, does the Commission have the authority to grant the relief requested by OPC?

\*No. It is fundamentally unfair to the Company under principles of retroactive ratemaking, administrative finality, and due process to allow the Commission to re-visit its past orders absent some material concealment, which is not present here. Further, OPC's testimony is replete with examples of impermissible hindsight review. If a refund is required, as OPC alleges, it would place an impossible burden on PEF's management – the ability to foresee the future. The purpose of not allowing hindsight review is to relieve this burden. The Commission cannot second guess management decisions and that is what OPC asks this Commission to do.\*

# **<u>ISSUE 4</u>**: If the Commission determines that PEF should be required to refund customers for coal purchased to run Crystal River Units 4 and 5, what amount should be refunded, and how and when should such refund be accomplished?

\*The issue as to the amount of any refund is dependent on legal, factual, and policy determinations which have not yet been determined. If the Commission determines that PEF should be required to make a refund to customers, the amount should be refunded to customers through the fuel cost recovery clause over the same period of time for which the excess charges are alleged to have occurred. The balance of the refund not paid to customers should accrue interest at the 30 day commercial paper rate.\*

# **<u>ISSUE 5</u>**: If the Commission determines that PEF willfully violated any lawful rule or order of the Commission or any provision of Chapter 366, Florida Statutes, should the Commission impose a penalty on PEF, and what should be the amount of such penalty?

\*No. PEF's coal purchases for CR4 and CR5 have been reasonable and prudent. Thus there is no basis for any refund of any fuel charges recovered through the fuel clause, and accordingly there is no basis for any penalty. Furthermore, the Commission can only impose a penalty upon a showing that a utility willfully violated a statute or a Commission order or rule. There has been *no* showing that PEF has violated any such statute, order, or rule. Indeed, no party has even identified the statute, order, or rule which it claims that PEF violated.\*

#### **ISSUE 6:** Should this docket be closed?

\*Yes.\*

#### III. Proposed Findings of Fact and Conclusions of Law.

Based on the stipulations of the parties, the undisputed or greater weight of the evidence

at the hearing, and the Commission's Rules, Orders, and other applicable law, the Commission

finds that:

<u>Fact:</u>

1) PEF acted prudently in its coal purchases for Crystal River Units 4 and 5 beginning in 1996 and continuing to 2005.

#### <u>Law:</u>

- 1) The Commission has reviewed and approved for collection the costs of coal for CR4 and CR5 in its fuel cost recovery clause proceedings in each of the last ten years, and having determined those costs to be reasonable and prudent, the Commission will not require a refund.
- 2) PEF renews its arguments in its Motion to Dismiss, filed August 30, 2006, for purposes of preservation of the record, as follows: It is fundamentally unfair under principles of retroactive ratemaking, administrative finality, and due process to allow the Commission to revisit its past orders absent material concealment, which does not exist on the evidence presented here, and therefore no refund should be awarded based on the allegations asserted in OPC's Petition and the testimony filed in this proceeding.

Respectfully submitted this <u>3</u> day of April, 2007.

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#### **CERTIFICATE OF SERVICE**

I HEREBY CERTIFY that a true and correct copy of the foregoing has been furnished via U.S. Mail this  $30^{+}$  day of April, 2007 to all parties of record as indicated below.

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