Progress Energy

October 31, 2008

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

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

Dear Mr. Cole:

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

- Direct Testimony of James N. Heller with Exhibit No. ___ (JNH-1), Exhibit No. ___ (JNH-2), Exhibit No. ___ (JNH-3), Exhibit No. ___ (JNH-4), Exhibit No. ___ (JNH-5), Exhibit No. ___ (JNH-6), and Exhibit No. ___ (JNH-7).
- Direct Testimony of Sasha Weintraub with Exhibit No. ___ (SAW-1), Exhibit No. ___ (SAW-2), Exhibit No. ___ (SAW-3), and Exhibit No. ___ (SAW-4).
- PEF's First Request for Confidential Classification for portions of Sasha Weintraub's direct testimony and portions of Exhibit No. __ SAW-4), along with the supporting affidavit of Sasha Weintraub, a separate CONFIDENTIAL envelope labeled Exhibit "A" containing one unredacted copy of portions of Sasha Weintraub's direct testimony and portions of Exhibit No. __ SAW-4) with the confidential information highlighted in yellow; a package labeled Exhibit "B" containing two redacted copies of portions of Sasha Weintraub's direct testimony and portions of Exhibit No. __ (SAW-4), and a confidentiality justification matrix labeled as Exhibit "C."

COM 5+1
ECR
GCL 2
OPC
RCP
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SGA
ADM
CLK

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

Sincerely,

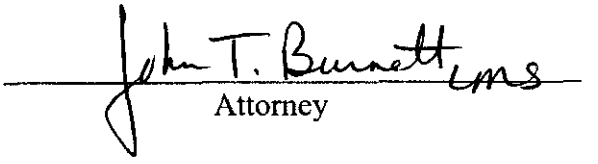
John T. Burnett LMS

John T. Burnett

JTB/at
Attachments

CERTIFICATE OF SERVICE

I HEREBY CERTIFY that a true and correct copy of Progress Energy Florida, Inc.'s pre-filed direct testimony in Docket No. 070703-EI has been furnished by regular U.S. mail to the following this 31st day of October, 2008.



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BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

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

DOCKET NO. 070703-EI

Submitted for filing: October 31, 2008

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

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

FPSC DOCKET NO. 070703-EI

DIRECT TESTIMONY OF

JAMES N. HELLER

I. INTRODUCTION AND QUALIFICATIONS

Q. Please state your name and business address.

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

Q. How are you employed?

A. I am the President of Hellerworx, Inc.

Q. What do you do?

A. I provide consulting services to assist power generators, transportation companies and energy producers in solving economic and technical problems related to energy and transportation markets and environmental compliance issues.

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

A. Yes.

Q. What were you asked to do?

A. I was asked to compare the delivered coal costs PEF actually incurred by using Central Appalachian and imported coal at Crystal River units 4 and 5 ("CR4 and CR5") during 2006 and 2007 with the evaluated coal costs that would have been incurred if a 20% blend of Powder River Basin ("PRB") coal had been used at CR4-5 during the same time period. These comparisons are consistent with and follow the "Cost Effectiveness Test" performed by Staff in their Primary Recommendation in Docket 060658 as used in Order 07-0816-FOF-EI, pages 37-39 and Attachment A.[1] My testimony supports the testimony of PEF witness Sasha Weintraub which has been filed pursuant to a Florida Public Service Commission ("PSC" or "Commission") requirement that PEF "address whether [PEF] was prudent in its 2006 and 2007 coal purchases for CR4 and CR5."[2] I have performed two versions of this coal cost comparison. The first version uses the comparison methodology developed by the Commission in its October 10th, 2007 order in this matter (Order 07-0816-FOF-EI, or the "October 10th order.") without any adjustments or modifications. The second version starts with the

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

Commission methodology, but corrects a mathematical error in that methodology while still being consistent with Order PSC-07-0816-FOF-EI in Docket 060658.

Q. What is your educational background?

A. I have a Bachelor of Science degree in Electrical Engineering from Northwestern University (1970) and a Master of Business Administration from Harvard Business School (1972).

Q. What has been your professional experience that assists you in providing this testimony?

A. During my career, I have performed numerous studies and provided information and consulting services for electric utilities, energy companies, developers and transportation companies related to coal and coal transportation markets. I have worked for many electric utilities in Florida on matters related to coal and transportation procurement including new plant siting.

I have analyzed Central Appalachian and Powder River Basin coal markets on numerous occasions. I have assisted clients in the negotiation of coal and transportation contracts, in the analysis of coal supply and transportation alternatives, and in strategic planning matters related to environmental compliance and fuel procurement.

Aside from my work with electric generators and coal suppliers, I have also worked for the Electric Power Research Institute and various federal agencies on coal supply and transportation related studies. I have provided expert

testimony on coal market matters before various state commissions, federal courts, the Federal Energy Regulatory Commission, the US Surface Transportation Board and various domestic and foreign arbitration panels.

I have done work previously for Florida Power Corporation, Progress Energy and Electric Fuels. Some of this previous work has dealt with coal supply and transportation matters related to the Crystal River units. I also submitted testimony[3] and testified[4] on behalf of PEF in the prior Crystal River Coal Procurement Proceeding.

II. PURPOSE, SUMMARY AND APPROACH TO TESTIMONY

Q. What is the purpose of your testimony?

A. The purpose of my testimony is to compare the delivered coal costs PEF actually incurred by using Central Appalachian and imported coal at CR4 and CR5 during 2006 and 2007 with the evaluated costs that would have been incurred if a 20% blend of Powder River Basin ("PRB") coal had been used at CR4-5 during the same time period. My analysis is consistent with the "Cost Effectiveness Test" Staff performed in their Primary Staff Recommendation in Docket 060658 and as the Commission implemented it in Order 07-0816-FOF-EI, pages 37-39 and Attachment A.

[3] PSC Docket No. 060658-EI, Document No. 00436-07 filed January 16, 2007 and Document No. 02042-07 filed March 6, 2007.
[4] PSC Docket No. 060658-EI, Hearing Transcript, Document No. 03174-07 dated April 13, 2007, pages 914-1025.

Q. On what materials did you rely?

A. I relied on PEF's historical delivered coal price data for CR4 and CR5, as reported to the Federal Energy Regulatory Commission ("FERC") for the 2006-2007 time period. I also requested and reviewed selected information regarding PEF's cost of transporting Central Appalachian and imported coals to CR4 and CR5 during 2006 and 2007 that I believe is relevant to estimating the transportation costs for PRB coal. I also requested and reviewed information with regard to PRB coal bids received by PEF during this period, and PEF's analysis of those bids. I also requested and reviewed PEF's as received coal quality analysis for a test shipment of PRB coal to Crystal River during May 2006. In addition to the materials received from PEF, I gathered information from coal publications and data bases about PRB coal market prices and transportation rates during the 2006-2007 time frame. This is the type of information upon which I regularly rely.

Q. What analysis did you perform with the materials that you collected?

A. I compared the incremental costs of coal actually purchased and delivered to CR4 and CR5 with the cost of PRB coal on an "as-burned" basis. In other words, if PEF had purchased PRB coals for CR4 and CR5, the PRB shipments would have displaced other coals. Presumably, the coals displaced would have been those that were the highest priced coals delivered to the units. I then calculated the difference in the incremental costs of the delivered coals and the PRB coals on an "as-burned" basis.

Q. How did you perform the analysis?

A. I reviewed the delivered prices of coal to CR4 and CR5 during the 2006-2007 period and identified the mix of coals burned at the plant. I reviewed information as to whether the coals were delivered by rail or water. I also considered the price of the coals actually delivered. These coals were either from Central Appalachia (CAPP) or were imports from South America. Central Appalachia refers to a coal supply region including eastern Kentucky, West Virginia, Virginia and Tennessee which is the primary eastern US low sulfur bituminous coal producing region. I ranked these coal deliveries over time in terms of their delivered costs. I also examined the PRB coal bids received by PEF during 2006 and 2007 to determine how the evaluated cost of PRB coals would have compared with the evaluated cost of the most expensive coals that were actually delivered.

Q. Did you perform the analysis on a delivered price or "evaluated" price basis?

A. I performed the comparisons on an "as-burned" or "evaluated" price basis. This is because in comparing coals of very different characteristics, it is important to understand how they affect boiler operations and unit output (October 10th Order pages 29-30, 37). A relatively low Btu, high moisture coal like a PRB coal generally has a negative impact on boiler performance and plant operating costs, while its lower sulfur content has a positive impact on emissions. PEF analyzed these differences in coal quality characteristics and calculated adjustments to evaluate these differences and express them on a cents per million Btu basis. I understand that PEF uses the Vista model, which was developed by Black and

Veatch for the Electric Power Research Institute (EPRI), to estimate the impact of variations in coal quality upon generation costs. The Vista model is an updated, Windows-enabled version of the Coal Quality Impact Model (CQIM) that PEF previously used to perform these analyses. The Vista models (or similar models) are widely used for performing such analyses.

Q. Please provide a summary of your testimony.

A. Using the coal price comparison methodology in the Commission's October 10th order, the all-in cost of burning a 20% blend of PRB coal at Crystal River 4-5 during the 2006-2007 period is estimated to be about $3.1 million more expensive than the cost of burning the Central Appalachian and imported coals that were actually used at Crystal River 4-5 during this period. When PEF's proposed mathematical corrections are included, the comparison shows that the PRB coal blend would have been about $4.6 million more expensive than the Central Appalachian and imported coals during 2006-2007.

Q. Are you sponsoring any exhibits to your testimony?

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

- Exhibit No. __ (JNH-1), Resume of James N. Heller;
- Exhibit No. __ (JNH-2), which is a summary of PRB delivered and evaluated prices, using the methodology in the Commission's October 10th order;

- Exhibit No. __ (JNH-3), which is an economic analysis of the impact of substituting a 20% blend of PRB coal for the coal actually delivered to CR4 and CR5 during 2006 and 2007, using the methodology in the Commission's October 10th order;
- Exhibit No. __ (JNH-4), which is a summary of PRB delivered and evaluated prices, including PEF's proposed corrections;
- Exhibit No. __ (JNH-5), which is an economic analysis of the impact of substituting a 20% blend of PRB coal for the coal actually delivered to CR4 and CR5 during 2006 and 2007, including PEF's proposed corrections;
- Exhibit No. __ (JNH-6), which shows the Commission's original and PEF's adjusted capital recovery requirements associated with using a 20% blend of PRB coal at CR4 and CR5 during 2005;
- Exhibit No. __ (JNH-7), which shows PEF's adjusted capital recovery requirements associated with using a 20% blend of PRB coal at CR4 and CR5 during 2006 and 2007.

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

III. RESULTS USING THE METHODOLOGY IN THE COMMISSION'S OCTOBER 10TH ORDER

Q. What analysis did you conduct of actual coal deliveries?

A. I reviewed the FERC Form 423 data for 2006 and 2007 coal deliveries to Crystal River. This provided information about the coal quantities, sources, quality parameters, and prices for the various coal shipments. My review focused on waterborne deliveries of compliance coals, since these are the coals that could potentially have been displaced by PRB coal. My analysis assumed that, if PRB coal had been used at Crystal River 4-5 during 2006 and 2007, the PRB coal deliveries would have displaced the most expensive deliveries of waterborne compliance coal that actually occurred during each year. The cost effectiveness analysis I performed for PRB coal deliveries to Crystal River 4-5 during 2006 and 2007 used the same methodology I performed in the previous Crystal River Coal Procurement proceeding, which was accepted by the Commission (October 10th Order page 39).

Q. How did you analyze PRB coal prices F.O.B. mine?

A. I based my analysis for 2006 on the test PRB coal delivery received by PEF in May 2006. I based my analysis for 2007 on the bids for 2007-2009 delivery of PRB coal that were submitted to PEF by Louis Dreyfus on February 14, 2006.

PEF's FERC Form 423 data shows that the May 2006 test coal shipment was delivered to IMT at a price of $47.34/ton. On an as-received basis, this coal contained 8,585 Btu/lb., 0.415% sulfur (or 0.97 lbs. SO_2/MMBtu), 6.65% ash, 27.83% moisture, and 31.33% volatile matter. This was the coal price and quality information I used in my analysis for 2006.

My analysis for 2007 was based on three Louis Dreyfus bids for 2007-2009 delivery of PRB coal that were submitted to PEF on February 14, 2006. Louis Dreyfus offered three options: 1) a three-year, fixed price contract for 150,000 tons/year of coal during 2007-2009, priced at $11.75/ton; 2) a three-year contract with volumes similar to option 1, but prices indexed to changes in OTC prices for 8,400 Btu/lb. PRB coal; and 3) a two-year contract for 150,000 tons/year, with 2007 pricing at $10.75/ton and 2008 pricing indexed to changes in OTC prices for 8,400 Btu/lb. PRB coal. The coal quality specifications for all three of these bids were 8,200 Btu/lb., 1.2 lbs. SO_2/MMBtu, 6.5% ash, and 30% moisture. In my analysis for 2007, I have used the 2007 price of $10.75/ton that Louis Dreyfus offered under option 3, without attempting to estimate the 2008 price that would have applied under this agreement. Since the 2007 price under the option 3 agreement represented a discount of approximately $1.00/ton relative to the 2007 index price, my analysis probably understates the average cost PEF would have incurred over the life of this proposed agreement.

Q. How did you analyze the rail transportation rate to move coal from the PRB to the river?

A. Since PEF's 2006 FERC Form 423 data reported the cost of the 2006 PRB coal shipment delivered to IMT, a rail rate estimate was not needed for 2006. For 2007, I assumed that PEF's rail rate would have been similar to the rates applicable to other shipments of PRB coal to competitively-served destinations during the same period. Although the details of particular rail contracts are

almost always confidential, I estimate that a typical or "market" rail rate for PRB coal movements to the St. Louis area during 2007, with railcars supplied by the railroad, would have been about 19 mills per ton-mile, including railcar costs and the fuel surcharge. Over a typical rail routing for this movement (Union Pacific to Cora Dock, a distance of approximately 1,124 miles), this would have been a rail rate of approximately $21.36/ton.

Q. How did you analyze the rail-to-barge transfer cost?

A. Since PEF's 2006 FERC Form 423 data reported the cost of the 2006 PRB coal shipment delivered to IMT, an estimate of rail-to-barge transfer costs was not needed for 2006. For 2007, I assumed the rail-to-barge transfer costs would be similar to the rates used at the Kanawha River Terminals (KRT) which is also a rail-to-barge terminal, and was owned by Progress Energy until late 2007. The rail-to-barge transfer costs were estimated at approximately $1.16/ton in 2007.

Q. What did you use for the barge rate?

A. The barge rates for the St. Louis area – Davant, Louisiana movement during 2007 were based on PEF data which showed that PEF's rates for this movement averaged about $7.62/ton during 2007. Since PEF's 2006 FERC Form 423 data reported the cost of the 2006 PRB coal shipment delivered to IMT, an estimate of the St. Louis area – Davant barge rate was not needed for 2006.

Q. How did you calculate the rates for the inland barge to Gulf barge transfer at Davant?

A. These costs were based on the actual average transloading costs incurred by PEF at the terminals owned by IMT and TECO (now United Bulk Terminal). These costs averaged $1.72/ton during 2007. Since these costs are included in PEF's FERC Form 423 data for 2006, an estimate of transloading costs was not needed for 2006.

Q. How did you estimate the fees for blending PRB coal at IMT or United Bulk Terminal?

A. PEF incurs no additional costs for coal blending at IMT. At United Bulk Terminal, PEF's current blending costs are $0.25/ton for a two-coal blend and $0.35/ton for a three-coal blend. Since the 2006 PRB coal shipment was routed via IMT, I have assumed a zero blending cost for both 2006 and 2007.

Q. What items are included in "other costs," and how did you calculate those items?

A. These costs include Gulf barge demurrage and other miscellaneous costs which primarily relate to Gulf barge transportation. These costs are calculated based on the actual costs incurred by PEF during 2006 and 2007. These costs totaled $1.43/ton during 2006 and $1.90/ton during 2007.

Q. How did you calculate the rates for the cross-Gulf barging?

A. These rates were based on PEF's actual average cross-Gulf barge rates for movements from the IMT or United Bulk terminals to Crystal River during 2006 and 2007, adjusted as needed to account for the fact that the lower heat content (i.e., lower Btu/lb.) of the PRB coal requires an increase in the total waterborne coal tonnage delivered in order to deliver the same total fuel requirement (total Btu's). The estimated cross-Gulf barge rates for PRB coal deliveries are $10.30/ton in 2006 and $7.22/ton in 2007.

Q. What other adjustments did you make to the PRB delivered prices?

A. As I indicated previously, to properly compare the PRB coals with the other coals it is important to do this on an "evaluated" basis using the Vista results. This accounts for the expected negative impact of the relatively low-Btu, high moisture coal on boiler performance and plant operating costs.

Since the PRB coal offered by Louis Dreyfus for 2007-2009 delivery was a relatively low-Btu, high moisture, and high sulfur product, it incurred a relatively high operating cost penalty. Specifically, PEF's evaluation sheet for this bid shows that, excluding SO_2 costs, the evaluated cost of the Louis Dreyfus coal was about $4.99/ton or $0.30/MMBtu higher than the delivered cost.

Furthermore, since the sulfur specification for the Louis Dreyfus coal (1.2 lbs. SO_2/MMBtu, was actually higher than PEF's "baseline" SO_2 specification for the Crystal River 4-5 units (which is 0.70% sulfur at 12,000 Btu/lb., or 1.17 lbs. SO_2/MMBtu), I have assigned an additional penalty related to SO_2 allowance costs to the Louis Dreyfus coal. Based on the SO_2 allowance price included in

PEF's evaluation of the Louis Dreyfus bids ($1,514/ton SO_2 for 2007), I have estimated the SO_2 penalty for the Louis Dreyfus coal at $0.37 per ton of coal. Thus, in total, the evaluated cost for the Louis Dreyfus coal is $5.36 per ton, or $0.33 per MMBtu, higher than the delivered cost.

Since the 2006 test shipment of PRB coal involved a very small quantity of coal (3,300 tons) purchased on the spot market, PEF did not perform a Vista analysis for this coal. However, since the quality characteristics of PRB coal are very different from the quality characteristics of the Central Appalachian and imported coal PEF has burned at Crystal River 4-5 in the past, my analysis assumes that PEF would have run a Vista analysis for its 2006 PRB coal deliveries if it had purchased PRB coal in the quantity assumed by the Commission (480,000 tons) (October 10th Order pages 37-38). Therefore, I have estimated the evaluated cost for the 2006 PRB coal deliveries (excluding SO_2 costs) by entering the as-delivered specifications for the 2006 test shipment of PRB coal into the bid evaluation sheet PEF used to evaluate the Louis Dreyfus bids in February 2006.

SO_2 allowance prices declined substantially between the time the Louis Dreyfus bids were evaluated in mid-February 2006 and the submission of the Peabody Coaltrade bid in early May 2006. PEF evaluates the SO_2 emissions costs associated with its coal bids using the latest forecast of annual average SO_2 allowance prices available from JD Energy, Inc. For the Peabody Coaltrade bid dated May 2, 2006, PEF's evaluation would have been based on the March 2006 forecast from JD Energy, which forecast an average SO_2 allowance price of

$977/ton SO_2 for the full year 2006. This was the SO_2 allowance price assumption I used in my analysis for 2006.

Since the PRB coal delivered in May 2006 had a higher heat content (8,585 Btu/lb.) and lower SO_2 content (0.97 lbs. SO_2/MMBtu) than the Louis Dreyfus coal, it incurs a lower operating cost penalty (October 10th Order page 40). Inclusive of SO_2 costs, the evaluated cost for the 2006 PRB coal is estimated to be $0.16/MMBtu higher than the delivered cost.

Q. What were the results of your PRB delivered price analysis?

A. Exhibit No. __ (JNH-2) shows the results of this analysis on a delivered price and an evaluated price basis. As the Commission acknowledged on page 37 of the October 10th order, the evaluated price basis is the proper one for comparison with CAPP and imported coals.

Q. How did you treat the capital costs associated with a conversion to PRB coal?

A. The Commission estimated in its October 10th order that the incremental capital costs associated with burning PRB coal were approximately $0.03/MMBtu. In Exhibits JNH-2 and JNH-3, which were prepared using the Commission's methodology, I have used this estimate (October 10th Order page 38). However, as discussed in more detail in the next section of my testimony, PEF believes this estimate is too low.

Q. When the Commission's methodology is used, what do the results show?

A. Based on the results of the Commission's "Cost Effectiveness Test", PEF would not have elected to burn PRB coal in 2006 or 2007. The results in Exhibit No. __ (JNH-3) show that, when the Commission's methodology for delivered coal price comparison is used, and the Commission's estimate of the expected capital costs associated with burning a 20% blend of PRB coal is taken into account, the all-in cost of burning a 20% blend of PRB coal at Crystal River 4-5 would have been about $0.33/MMBtu more expensive than the cost of Central Appalachian and imported coal during 2006. Using these same assumptions, the PRB coal would have been about $0.04/MMBtu more expensive than the Central Appalachian and imported coal during 2007. Thus, for the 2006-2007 period as a whole, the Commission's methodology shows that the all-in cost of burning a 20% blend of PRB coal would have been approximately $3.1 million higher than the cost of burning Central Appalachian and imported coal at Crystal River 4-5 .

IV. RESULTS INCORPORATING PEF'S PROPOSED ADJUSTMENTS

Q. What adjustments to the Commission's October 10th order is PEF proposing?

A. PEF believes that there should be adjustments to revise the Commission's estimate of the capital costs associated with burning a 20% blend of PRB coal at Crystal River 4-5 ($0.03/MMBtu) to a level of capital costs that would actually be incurred to burn such a blend, while still being consistent with Order PSC-07-0816-FOF-EI. Specifically, PEF believes Staff made a mathematical error when

calculating their return requirements that should be fixed for the purposes of this Docket.

Q. Can you explain the error PEF believes Staff made in their Capital Revenue Requirements calculation?

A. Yes. In Docket 060658, PEF presented capital revenue requirements associated with burning a 50% blend of PRB coal. I then put forth revenue requirements associated with capital changes needed to be able to burn a 50% blend based on the mid-point of the PEF presented data which included a low cost estimate of $48.6M and a high cost estimate of $73.7 million. Therefore, my calculation of the revenue requirements for capital additions needed to burn a 50% blend of PRB coal were based on a cost of $61.2 million. On page 38 of Order No. PSC-07-0816-FOF-EI, there is discussion of what adjustments should be made to my calculations to represent capital additions necessary to use only a 20% PRB blend. The Order indicates that 10% of the capital costs needed for a 50% PRB blend will be needed for a 20% PRB blend. The Order then goes on to site the Sargent & Lundy report which indicated that $10.6 million in capital costs would need to be incurred to burn blends of less than 30% PRB coal. This discussion leads me to believe that the intent of the order was to calculate the revenue requirements based on 10% of the capital cost additions that I presented, or approximately $6.12 million dollars. This would make sense when checked against the Sargent & Lundy estimate for a 30% blend, in fact, two thirds of the Sargent & Lundy estimate is $7.1 million. What was missed is that even though the capital

investment may be ten percent of that required for a 50% blend, it will be spread over less tons and therefore, the capital revenue requirements per MMBtu will not be ten percent of the 50% blend.

Q. If you follow the language of Order PSC-07-0816 what should the capital revenue requirements be per MMBtu?

A. I have attached Exhibit JNH-6 which shows the original revenue requirements calculation for 2005 as presented in Docket 060658 in Column A, and the adjustments as they should have been made to represent the capital revenue requirements as discussed in the Order in Column B. I also illustrated what the Order did that lead to the incorrect capital revenue requirements used in the Order's Attachment A in Column C. I have also attached Exhibit JNH-7 which shows the Capital Recovery Requirements for a 20% PRB coal blend in $/MMBtu for 2006 and 2007 based on the tons of PRB coal that PEF could have taken as I presented it in Exhibit JNH-5. The capital recovery requirement is $0.12/MMBtu in both 2006 and 2007.

Q. Did you make any other adjustments to come up with the above mentioned capital revenue requirements?

A. Yes, as can be seen if you compare JNH-6 and JNH-7 there are two additional adjustments. First, I adjusted the accumulated depreciation to be consistent with an in-service date of 2003 consistent with Order PSC-07-0816 in Docket 060658. This assumes three and a half years of accumulated depreciation consistent with

what would have been included in PEF's 2005 Rate Case in Docket 050078. The other adjustment is to make the rate of return consistent with the rate of return approved in the Settlement in this Docket.

Q. When PEF's proposed adjustment is included, what do the results of the coal price comparison show?

A. The results in Exhibit No. __ (JNH-4) and Exhibit No. ___ (JNH-5) show that, when PEF's proposed adjustments to the coal price comparison methodology used in the Commission's October 10th order are included, the all-in cost of burning a 20% blend of PRB coal at Crystal River 4-5 would have been about $0.42/MMBtu more expensive than the cost of Central Appalachian and imported coal during 2006. Using these same assumptions, the PRB coal would have been about $0.13/MMBtu more expensive than the Central Appalachian and imported coal during 2007. Thus, for the 2006-2007 period as a whole, PEF's adjusted methodology shows that the all-in cost of burning a 20% blend of PRB coal would have been about $4.6 million higher than the cost of burning Central Appalachian and imported coal at Crystal River 4-5.

Q. Does this conclude your testimony?

A. Yes.

RESUME OF JAMES N. HELLER

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Current Position

Jamie Heller is the founder and president of Hellerworx, Inc. Hellerworx was developed to provide strategic and economic consulting services to electric generators, coal and energy producers and transportation companies. Mr. Heller is an expert in coal, energy, environmental and transportation issues. His specialties include coal market analysis, transportation market analysis, electric utility planning, electric power market analysis, analysis of environmental compliance options, utility fuel procurement, energy property valuation, and litigation support. Mr. Heller has served as an arbitrator, and as an expert witness before various state commissions, federal district and state courts, arbitration panels in the U.S. and overseas, the Surface Transportation Board and the Federal Energy Regulatory Commission. He has made numerous speeches and presentations before various conferences and seminars in the U.S. and abroad. His comments have appeared in various trade publications.

Consulting Specialties

Strategic planning. Negotiating fuel and transportation agreements. Estimating fuel production and transportation costs. Fuel price and transportation rate forecasting. Transportation procurement planning. Transportation management studies. Providing litigation and regulatory support. Conducting market assessments and forecasts. Evaluating alternative Clean Air Act compliance strategies. Siting new energy facilities. Performing reserve acquisition analyses. Evaluating equipment purchases. Energy supply planning.

Prior Professional Experience

- **PA Consulting (October 2000-July 2002). Senior Partner.** As Senior Partner within the PA Management Group worked on launching the Environmental and Resource Analytics practice within PA. The practice provided strategic and analytical services to clients in the electric generation, coal and transportation markets; performed various studies and modeling activities related to compliance with environmental regulations; and conducted environmental risk assessments. The principal areas of focus were environmental compliance with Clean Air Act standards, providing fuel and environmental analyses in support of electric generating unit asset acquisition and financing activities, and a major effort to support Firestone Tire in its dispute with Ford Motor Company and NHTSA.

- **Hagler Bailly (October 1998-October 2000). Senior Vice President.** Served as head of Hagler Bailly's fuels and environment practice area and an expert in coal, energy, and transportation issues. His activities supported the firms forecasting and analysis of electric power, fuel and transportation markets and various clean air compliance issues. In October 2000, PA Consulting purchased Hagler Bailly.
- **Fieldston Company, Inc. and Fieldston Publications, Inc. (1981-1998). Founder and President.** Founded The Fieldston Companies in 1981 to provide energy and transportation consulting services to the energy supply, transportation and electric utility sectors. The 60+ person staff provided expert assistance to the fuels supply, transportation and electric generation industries in hundreds of commercial matters. The publication staff developed and published leading business periodicals in the coal, rail transportation and environmental fields. A joint venture company, Fieldston Transportation Services, provided rail transportation and railcar maintenance services to various shippers and short line rail carriers. In 1998, Mr. Heller sold the consulting and publishing companies to Hagler Bailly, and the transportation services company to DTE.
- **Teknekron, Inc. of Berkeley, Calif. (1979–1980). Senior Analyst.** Strategic planning, market analyses, rail merger studies, transportation market analysis and rate estimation, plant siting, and public policy development.
- **Energy and Environmental Analysis, Inc. (1975-1979). Director of Management Studies.** Directed coal market and transportation studies for railroads and coal producers. Conducted economic evaluation of air and water regulations. Developed energy efficiency plans. Clients included U.S. Department of Energy, Executive Office of the President, U.S. Presidential Commission on Coal, U.S. Congress Office of Technology Assessment, and various coal producers.
- **Office of Water Quality Planning and Standards (U.S. Environmental Protection Agency) (1972–1975). Section Chief.** Developed and promulgated industrial water pollution control guidelines.

Books

James N. Heller and Charles A. Mann. *Coal and Profitability: An Investor's Guide.* McGraw-Hill, 1979.

James N. Heller. *Coal Transportation and Deregulation: An Impact Analysis of the Staggers Act.* Serif Press and the Energy Bureau, 1984.

Education

Harvard Business School — Master of Business Administration, 1972
Northwestern University — Bachelor of Science, Electrical Engineering, 1970

Honors

Member, Eta Kappa Nu and Tau Beta Pi Engineering Honorary Societies

Evaluated Cost Calculation for PRB Coal
(Using the Methodology in the Commission's October 10th Order)

(nominal $/ton unless otherwise labeled)

Exhibit No. __(JNH-2)

Year	Spot Coal Price for PRB Coal (1)	Rail Rate (PRB to St. Louis, railroad cars) (2)	Rail to Barge Transloading (3)	Barge to Davant (4)	Transloading, Blending, and Other Costs (5)	Gulf Barge Transport Rate (6)	Delivered Price for PRB Coal ($/ton) (7)	Delivered Price for PRB Coal ($/MMBtu) (8)	Net Operating Cost Penalty for PRB Coal ($/MMBtu) (9)	Evaluated Price for PRB Coal (Operating Costs Only, $/MMBtu) (10)	Commission's Estimated Capital Recovery Requirement for 20% PRB Coal Blend ($/MMBtu) (11)	Evaluated Price for PRB Coal (Including Capital Recovery Requirement, $/MMBtu) (12)
2006	$47.34				$1.43	$10.30	$59.07	$3.44	$0.16	$3.60	$0.03	$3.63
2007	$10.75	$21.36	$1.16	$7.62	$3.62	$7.22	$51.73	$3.15	$0.33	$3.48	$0.03	$3.51

Notes regarding the values in column (5).

For 2006, transloading at IMT is included in the price reported in column (1), so only $1.43/ton in ancillary charges is included in column (5).
For 2007, the amount in column (5) includes $1.72/ton in transloading costs, plus ancillary charges of $1.90/ton.
In both 2006 and 2007, blending costs are assumed to be zero based on PEF's current contract with IMT.

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Delivered Cost Calculation for CAPP or Imported Coal, and Comparison with PRB (Using the Methodology in the Commission's October 10th Order)

Exhibit No. __(JNH-3)

(nominal $/million Btu unless otherwise labeled)

Year	Price of CAPP or Imported Coal Delivered to Davant (1)	Other Costs (2)	Gulf Barge Transport Rate (3)	Delivered Price for CAPP Coal (4)	Evaluated Price for PRB Coal (Including Commission's Estimated Capital Recovery Requirement) (5)	Differential (Including Commission's Estimated Capital Recovery Requirement) (6)	Commission's Estimated Capital Recovery Requirement for 20% PRB Coal Blend (7)	PRB TBtu (8)	PRB Tons (millions) (9)	Damages (Excluding Commission's Estimated Capital Recovery Requirement) ($000) (10)	Damages (Including Commission's Estimated Capital Recovery Requirement) ($000) (11)
2006	$2.94	$0.06	$0.30	**$3.30**	**$3.63**	**($0.33)**	$0.03	8.448	0.49	($2,534)	($2,788)
2007	$3.10	$0.08	$0.29	**$3.47**	**$3.51**	**($0.04)**	$0.03	8.448	0.52	($84)	($338)
Total Without Interest										**($2,619)**	**($3,126)**

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Evaluated Cost Calculation for PRB Coal

Exhibit No. __(JNH-4)

(Including PEF's Proposed Adjustments to the Methodology in the Commission's October 10th Order)

(nominal $/ton unless otherwise labeled)

Year	Spot Coal Price for PRB Coal (1)	Rail Rate (PRB to St. Louis, railroad cars) (2)	Rail to Barge Transloading (3)	Barge to Davant (4)	Transloading, Blending, and Other Costs (5)	Gulf Barge Transport Rate (6)	Delivered Price for PRB Coal ($/ton) (7)	Delivered Price for PRB Coal ($/MMBtu) (8)	Net Operating Cost Penalty for PRB Coal ($/MMBtu) (9)	Evaluated Price for PRB Coal (Operating Costs Only, $/MMBtu) (10)	PEF's Estimated Capital Recovery Requirement for 20% PRB Coal Blend ($/MMBtu) (11)	Evaluated Price for PRB Coal (Including Capital Recovery Requirement, $/MMBtu) (12)
2006	$47.34				$1.43	$10.30	$59.07	$3.44	$0.16	$3.60	$0.12	$3.72
2007	$10.75	$21.36	$1.16	$7.62	$3.62	$7.22	$51.73	$3.15	$0.33	$3.48	$0.12	$3.60

Notes regarding the values in column (5):

For 2006, transloading at IMT is included in the price reported in column (1), so only $1.43/ton in ancillary charges is included in column (5).
For 2007, the amount in column (5) includes $1.72/ton in transloading costs, plus ancillary charges of $1.90/ton.
In both 2006 and 2007, blending costs are assumed to be zero based on PEF's current contract with IMT.

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Delivered Cost Calculation for CAPP or Imported Coal, and Comparison with PRB (Including PEF's Proposed Adjustments to the Methodology in the Commission's October 10th Order)

Exhibit No. __(JNH-5)

(nominal $/million Btu unless otherwise labeled)

Year	Price of CAPP or Imported Coal Delivered to Davant (1)	Other Costs (2)	Gulf Barge Transport Rate (3)	Delivered Price for CAPP Coal (4)	Evaluated Price for PRB Coal (Including PEF's Estimated Capital Recovery Requirement) (5)	Differential (Including PEF's Estimated Capital Recovery Requirement) (6)	PEF's Estimated Capital Recovery Requirement for 20% PRB Coal Blend (7)	PRB TBtu (8)	PRB Tons (millions) (9)	Damages (Excluding PEF's Estimated Capital Recovery Requirement) ($000) (10)	Damages (Including PEF's Estimated Capital Recovery Requirement) ($000) (11)
2006	$2.94	$0.06	$0.30	$3.30	$3.72	($0.42)	$0.12	8.448	0.49	($2,534)	($3,548)
2007	$3.10	$0.08	$0.29	$3.47	$3.60	($0.13)	$0.12	8.448	0.52	($84)	($1,098)
Total Without Interest										($2,619)	($4,646)

Capital Driven Revenue Requirements Associated with Burning PRB at Crystal River Units 4 & 5		(A) 2005 Capital Recovery Requirements for PRB as Presented in Exhibit JNH-6 of Docket 060658	(B) 2005 Revenue Requirements Based on 10% of Total Capital Costs Presented in Exhibit JNH-6 of Docket 060658	(C) 2005 Revenue Requirements Based on 10% of Total Capital Costs Without Correction for Reduced Tons of PRB
1. Plant		$61.20	$6.12	$6.12
2. Accumulated Depreciation		1.07	0.11	0.11
3. Net Plant		60.13	6.01	6.01
4. Multiply by Rate of Return		11.45%	11.45%	11.45%
5. Return on Net Plant		6.88	0.69	0.69
6. Depreciation Expense	3.50%	2.14	0.21	0.21
7. Property Tax	1.5%	0.90	0.09	0.09
8. Total Expenses		3.04	0.30	0.30
9. Total Revenue Require (line 5 + line 8)		9.93	0.99	0.99
10. PRB Coal Tonnage (millions)		1.96	0.44	1.96
11. Capital Recovery Requirement for PRB Coal ($/ton)		$5.07	$2.24	$0.51
12. Capital Recovery Requirement for PRB Coal ($/MMBtu)		**$0.29**	**$0.13**	$0.03

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Capital Driven Revenue Requirements Associated with Burning PRB at Crystal River Units 4 & 5		(A) 2006 Estimated Capital Recovery Requirements	(B) 2007 Estimated Capital Recovery Requirements
1. Plant		$6.12	$6.12
2. Accumulated Depreciation		0.75	0.75
3. Net Plant		5.37	5.37
4. Multiply by Rate of Return		13.20%	13.20%
5. Return on Net Plant		0.71	0.71
6. Depreciation Expense	3.50%	0.21	0.21
7. Property Tax	1.5%	0.08	0.08
8. Total Expenses		0.29	0.29
9. Total Revenue Require (line 5 + line 8)		1.00	1.00
10. PRB Coal Tonnage (millions)		0.49	0.52
11. Capital Recovery Requirement for PRB Coal ($/ton)		$2.05	$1.93
12. Capital Recovery Requirement for PRB Coal ($/MMBtu)		**$0.12**	**$0.12**