

September 14, 2009

VIA HAND DELIVERY

Ms. Ann Cole, Commission Clerk Florida Public Service Commission 2540 Shumard Oak Boulevard Tallahassee, Florida 32399-0850 RECEIVED-FPSC 09 SEP 14 PH 2: 04 COMMISSION

Re: Fuel and purchase power cost recovery clause and generating performance incentive factor; Docket No. 090001-EI

Dear Ms. Cole:

Pursuant to Staff's Recommendation in Docket No. 070703-EI, enclosed for filing on behalf of Progress Energy Florida, Inc. ("PEF") is the original and fifteen (15) copies of PEF's report of Crystal River Units 4 and 5.

Thank you for your assistance in this matter. Please feel free to contact me at (727) 820-5184 should you have any questions.

Sincerely, ohn T. Burnett ins

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CERTIFICATE OF SERVICE

I HEREBY CERTIFY that a true and correct copy of the foregoing has been furnished via electronic mail to the following this 4^{12} day of September, 2009.

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Status Report of Crystal River Units 4 and 5

Introduction

On July 18, 2009, Commission Staff ("Staff") filed a Recommendation with the Florida Public Service Commission ("FPSC") in Docket 070703-EI. Staff recommended that PEF file a report as part of its projection testimony due on September 1, 2009 in Docket 090001-EI. The purpose of the report is to discuss several issues that Staff raised in its recommendation regarding Crystal River Units 4 and 5. The Commission has voted to approve the Staff's recommendation, but to date the Commission has not issued an order on that vote. In an abundance of caution, therefore, Progress Energy Florida, Inc. ("PEF") files this report that addresses the following as outlined in Staff's June 18, 2009 recommendation:

- The current status of plant modifications and any remaining issues that were recognized in the Refund Order.
- PEF's efforts, including test burns of new coals at Crystal River Units 4 and 5 ("CR4 and CR5") that create opportunities to achieve the lowest fuel costs.
- Future enhancements and plant modifications.
- A demonstration that PEF's coal procurement activities continually look for short-term and long-term opportunities in the coal markets that include exploration of coal markets and new coal supply worldwide.

As mentioned above, this report is filed to comply with the Staff's recommendation, in anticipation that the Commission's order on that recommendation will contain substantially similar requirements. Once the Commission issues its final order, however, PEF will comply with any additional reporting requirements stated in that order, and in future filings, PEF will provide additional and/or updated material and information to the Commission as may be applicable and appropriate.

Crystal River Units 4 and 5

Plant Modifications Recommended from 2006 PRB Test Burn

During the hearing on April 14, 2009, the PSC Staff went through the list of recommendations that were included in test report from the May 2006 PRB Test Burn which was introduced into evidence in Docket 060658. This section provides additional information on each of the items

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included in the Staff's Recommendation.

• Modifying PEF's Air Permit --

PEF submitted the request to incorporate subbituminous coal into its Title V permit following the 2006 PRB test burn. Due to the timing of the Clear Air Project, this request was incorporated with the Title V construction permit application for installation of low-NOx burners and the scrubber equipment modifications to the units.¹ The final permit from FDEP was issued on 5/18/2007 which authorized Crystal River units 4 and 5 to burn up to a 20% blend of subbituminous coal.

• Making the sootblowers operational -

Repairing sootblowers is an on-going maintenance item at the plant, and since the time of the 2006 PRB test burn, additional sootblowers have been returned to operational status. However, each unit has 52 sootblowers and 56 wallblowers installed, all of which are the original design type. As the sootblowers and wallblowers age, they can be placed into an out-of-service (OOS) mode for numerous reasons such as having a bad gear box, failed limit switch, or getting stuck in the boiler. While the percentage of in-service sootblowers becomes more important when burning higher slagging coals, it is more essential to consistently maintain the sootblowers that are located in critical slagging and fouling areas. With this in mind, the sootblower maintenance program will continue to be enhanced as needed to account for boiler cleanliness changes expected as part of introducing higher slagging fuels such as Illinois Basin coal. Additionally, as mentioned below, PEF is evaluating the addition of six new sootblowers per unit to account for additional operational demands from the new Clean Air Project equipment that is being installed on the units.

- <u>Mill Inerting System –</u> The mill inerting systems on both Unit 4 and 5 are operational.
- Installation of fogging system in the cascade room -

The cascade room is for distributing coal to the different silos in the plant. There are many open conveyors and various coal handling equipment in these rooms. The coal silo feed system in the cascade room consists of a central surge bin, four vibratory feeders, seven coal conveyor belts, and a cascading coal silo feed system. The equipment has many coal transfer points, each with the potential of generating a considerable amount of dust depending on the type of coal burned. As the coal silos are filled with coal, coal dust laden air is displaced into the cascade room.

This project entails installing 5 dry fog systems in the cascade room to control dust from the discharge of 36 A&B conveyors to the silos. Four of the dry fog systems will replace the existing 4 bag house systems (2 from each unit) and the fifth dry fog system will be installed to control dust from the in-plant surge bin. This project is currently underway and should be completed during the 4^{th} quarter 2009.

¹ A subsequent modification to include a SCR was submitted at a later date.

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• Refurbishment of the Conveyor -

A Chute Redesign project was performed in 2006-2007 with objectives to resolve chute capacity issues, minimize chute maintenance due to wear, improve access to chutes for maintenance, improve system reliability, significantly improve dust control utilizing passive technologies, and eliminate spillage at the transfer points.

• Dust Suppression in Coal Yard -

Increased housekeeping will be employed, as needed, to contain fugitive dust concentrations based on the fuels burned. The redesign of chute work mentioned above also minimizes dust generation in the coal handling areas. In addition, an evaluation is underway for a possible installation of a fogging system, similar to the one slated for the cascade room, on the transfer station immediately upstream of the conveyor leading up to the plant (TP28). This transfer point includes the coal crusher tower, feeders and weigh hopper.

In addition to the items listed above, these modifications have or will be implemented:

→ <u>Stacker / Reclaimer Refurbishment & Reliability Upgrades</u>

Stacker/ Reclaimers (SR) 2 and 3 feed coal from live storage piles to Crystal River North Units 4 & 5. This project entails performing a comprehensive inspection and assessment of the numerous components that make up this system to include electrical, mechanical, structural, hydraulic, and controls evaluation. Based on the assessment, refurbishment activities will be performed to increase the reliability of this equipment. This assessment was completed on both SR 2 and SR 3 in the summer of 2008. The necessary repairs and upgrades were completed on SR 3 in 2008 and are planned for SR 2 in 2010.

→ <u>Increased alarm setpoint for mill speed</u> – The alarm setpoint for mill speed on Units 4 and 5 was increased from 70% up to 75%.

→ Coal Yard Fire Protection System Replacement & Upgrade -

This is a comprehensive 3-year phased project which:

- Replaces the Fire Alarm Systems at Crystal River North Units 4 & 5
- o Replaces the North and South Coal Yard fire detection and suppression equipment
- o Replaces and relocates the Central Alarm Station to the Crystal River North Control Room

The equipment replacements will begin in late 2009 and will continue through 2011. The general scope of this project includes replacement of the main fire control system panel, smoke detectors, audible and visual devices, manual pull stations, and associated wiring. This new system will also be compatible with the new fire detection systems associated with the Clean Air Project equipment.

Current Status of Test Burns

The most recent PRB test burn was performed in May 2006. Subsequent to that test burn, an application for a permit modification was submitted and the revised Title V air permit was

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received in May of 2007 to burn up to a 20% blend of subbituminous coal. This modification was incorporated into the construction permit for the installation of the Clean Air Interstate Rule (CAIR) pollution control equipment. The project encompassing the installations of the pollution control equipment is referred to as the Clean Air Project.

The Clean Air Project is a \$1.4 billion multi-year comprehensive project which began its preliminary evaluations back in 2004. An Integrated Clean Air Compliance Plan was submitted to the FPSC on March 31, 2006 which discussed the compliance options available for both units and listed the most cost-effective selection (Option "D") from among five alternative plans.

The Clean Air Project includes installation on each unit of:

- Low-NOx burners (LNBs),
- A selective catalytic reduction (SCR) system, and
- A flue gas desulfurization (FGD or scrubber) system

Due to the complex nature of these systems and the interactions and impacts with the combustion process, additional upgrades and refurbishments are also being undertaken within the Clean Air Project to maintain the units' operational performance and reliability. Examples include:

- Replacement of the air heater baskets to handle cold-side backend corrosion and minimize ammonia bisulfate buildup,
- Installation of an ammonia-based acid mist mitigation system which converts the SO₃ generated to SO₂ to minimize the amount of sulfuric acid mist (H₂SO₄) that is created²,
- Refurbishment of the electrostatic precipitators (ESPs) to meet the reduced opacity and particulate limits imposed in the Title V Clean Air Project construction permit,
- Replacement of the induced draft (ID) fan to account for the additional flow resistance from the additional equipment, and
- Replacing the steam turbine rotors to increase cycle efficiency and regain some of the capacity lost from the auxiliary power needed to operate the pollution control equipment.

In addition to the years of up-front design and construction work, tie-in to the various pollution control devices and upgrades to other equipment is scheduled during four unit outages beginning

 $^{^{2}}$ SO₃ is generated from the SCR catalysts and from burning higher sulfur coals. H₂SO₄ is created when the excess SO₃ comes in contact with ambient air and condenses at the stack exit.

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in the fall of 2008 through the spring of 2010, two outages for each unit. Once the units return to service following each of these outages, numerous activities need to be performed with successful results before the control devices are deemed fully operational. These commissioning activities include equipment setup and tuning, performance guarantee testing and environmental compliance testing.

With all of the complex and interrelated components included in the Clean Air Project, PEF determined that it would not be advisable to pursue additional test burns during this construction and modification process based on the knowledge that significant modifications to the plant are underway and the fundamental operation of the plant is changing. While PRB and other new coal testing subsequent to the May 2006 PRB Test Burn could possibly provide some basic operational and fuel handling information, determination of long-term unit stability and how new coals would respond and interact with the new pollution control equipment cannot be determined with any certainty until such time as the new equipment is fully operational and tested. Therefore, PEF has determined that the usefulness of test burn data at this time would be questionable and the results would be inconclusive. Given that any test burns done during this period would need to be done again, at additional expense to PEF's customers, once the pollution control equipment is installed and fully commissioned, PEF does not plan to resume coal test burns until after commissioning activities, equipment setup and tuning, performance guarantee testing, and environmental compliance testing on the new environmental equipment are completed.

During the period when the units commenced the installation outages (fall of 2008) until complete commissioning of all of the environmental pollution control equipment (mid 2010), additional difficulties arise which also impede the practicality of performing test burns.

1. Normally scheduled outages occur during shoulder periods to minimize the impact to peak run seasons. The outages associated with the Clean Air Project are no exception and have been scheduled for the fall of 2008 and spring of 2010 for Unit 4 and in the spring and fall of 2009 for Unit 5, with one of these outages for each unit lasting almost 3 months. Identifying an opportunity to perform even a short test burn when the units are not in a peak run season would

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be difficult.³

- 2. As mentioned earlier, once the units return to service following each of the outages, there are numerous activities that need to be performed to meet contractual and regulatory requirements. Test burns would not be permitted during this time.
- 3. Additionally, following the scrubber tie-in outages, the vendor for this equipment needs several weeks (18 24 weeks) of steady-state fuel in order to complete the commissioning of the scrubber and perform the guarantee testing. This means that each unit will need to burn a specific coal or coal blend throughout the duration of this commissioning period.

These considerations have been taken into account with regards to gaining operational experience with high-sulfur Illinois Basin coal. The comprehensive package of pollution control equipment was designed with the expectation that higher sulfur coals would be available to the units as low cost fuels. While the upper-end fuel specification used for the engineering design were based on 5 lb/mmBtu sulfur Illinois Basin coal, this does not preclude the units from testing other coals and coal blends should they become economical choices in the future.

In anticipation of burning higher sulfur/lower costs fuels, a team was established to help identify operational and maintenance issues the units expect to encounter and to recommend mitigation strategies. This team is called the *Fuel Optimization & Comprehensive Utilization Strategy* or *FOCUS Team*. For testing the Illinois Basin coal, the FOCUS Team has recommended a plan to ramp up the sulfur content and blend amounts⁴ in a controlled manner to evaluate the impacts to the boiler, combustion processes, fuel handling and interaction with the new pollution control equipment to optimize the overall processes involved.

Prior to testing the Illinois Basin coal, the units will run on their current eastern bituminous coal through the initial startup, including the majority of the performance guarantee and environmental compliance testing, but not including the FGD testing. This is needed to meet the contractual requirements and so that the new fuel is not an interfering variable to the startup phase. Once this has been completed, the units will begin a test of a 2.5 lb/mmBtu sulfur blend

³ Except under unusual circumstances, test burns for new coals that are significantly different from ones it has burned in the past would be scheduled during non-peak seasons to minimize any system instability as a result of derates, unit trips, or offline maintenance time that might arise from the testing.

⁴ Initial blends will consist of a percentage of Illinois Basin coal with the balance as eastern bituminous coal. All blending will occur offsite at the terminal and the blended product will be shipped to the plant.

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for 3 - 4 months.

This process will allow the FGD contractor the time needed to complete commissioning of the scrubber and the plant engineers time to effectively evaluate the impacts from the new coal at this blend level. Once this evaluation period is complete, then the unit will ramp up to the next sulfur level of 3.5 lb/mmBtu for several weeks of evaluation and then up to the 4.5 lb/mmBtu sulfur level. Finally, if no significant issues have been encountered along this path, the unit will then ramp up to burning coals or blends up to their permitted sulfur level of 3.13%, which equates to approximately 5 lb/mmBtu sulfur coal. This extensive preliminary evaluation of the Illinois Basin coal and a measured ramp-up plan will account for and equate to a short-term (3-day) test burn.

Also, since Unit 5 will complete its outages first, it will be the first to start testing the Illinois Basin coal blends around March 2010. It is anticipated that information gathered from this unit will enable Unit 4 to engage in a quicker ramp-up schedule. However, this fact will need to be determined at a later time depending on the relative success of Unit 5's transition.

Future Enhancements & Plant Modifications

As mentioned in the previous section, in anticipation of burning higher sulfur fuels, a FOCUS team was established to help identify operational and maintenance issues the units expect to encounter and to recommend mitigation strategies. This team is investigating several operational areas including:

✓ Fuel Handling

✓ Combustion

- ✓ Erosion & Corrosion
 ✓ Ammonia Bisulfate Formation
- ✓ SO₃ Formation
 ✓ Minimum Load with SCR
- ✓ Slagging & Fouling
- ✓ Byproducts

Based on the increased slagging and fouling expected with higher sulfur coals, the following items are under evaluation or are in the process of being made:

→ Installation of six new sootblowers in the superheater/reheater sections: The 6 new sootblowers recommended for each unit will provide additional cleaning coverage in a

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critical area that is expected to see the greatest increase in slagging. These sootblowers are in addition to the sootblowers already in service and will be installed in ports that are already available. The new sootblowers will also be upgrade models that are more rugged and include enhanced properties to minimize maintenance downtime.

Diamond Power's IK-700 retractable sootblower is designed specifically for lower maintenance, higher reliability, and maximum cleaning performance. The increased rugged design should be better equipped to stand up to the severe environment expected with higher slagging fuels. These sootblowers can be used in the pendant superheater of the boiler, in the convection section platens and in the economizer.

\rightarrow Upgrade 36 sootblowers from IK-545 to a ruggedized model IK-700:

For each unit, 36 individual sootblowers in critical areas were identified to be upgraded to the more robust model type. The upgrade kits are available to change out the major components at a reduced price as compared to a full replacement with new sootblowers.

→ *Installation of furnace cameras:*

These cameras provide a visual check on the extent of the slagging and fouling as indicated by the controls system, allowing plant operators to take mitigating action as necessary.

→ Installation of an Intelligent Sootblowing System:

An Intelligent Sootblowing System uses an advanced combustion model designed specifically for our units to determine where and how much slagging and fouling is occurring. It can then automatically initiate a Sootblowing sequence as needed in specific boiler regions to maintain a certain level of cleanliness. From benchmarking, these systems have proven to be beneficial to optimize the sootblowers' operation to level out maintenance, ensure efficient use of sootblowing media (steam), minimize boiler tube erosion from over cleaning, and provide an increased level of unit efficiency through better thermal management.

→ *Replacement of sootblower controls:*

The current system would be replaced to take advantage of the aforementioned Intelligent Sootblowing System.

→ *Fly Ash Handling System Upgrades:*

Numerous modifications have recently been completed on Unit 5 and will be completed on Unit 4 during their outage in the spring of 2010. These modifications were needed to handle the increase the fly ash capacity that is expected from both burning fuels with higher ash content and from the upgraded ESP, which will have a higher ash collection rate to meet the more stringent particulate and opacity limits.

Some of the improvements include:

o Increased sizing of piping, valves and lines

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- o Replacement of numerous components valves, adapters, intakes, expansion joints, etc.
- o Installation of new current technology microprocessor for controls
- o New filter/separator bag cleaning equipment replaced old bag house technology
- o New mixer/unloaders to reduce ash dusting and equipment maintenance requirements
- New Distributed Control system provides real time system status to the plant main control room

→ Bottom Ash Improvements:

The bottom ash crushers on both Units 4 and 5 were replaced with ones with a new seal design to reduce maintenance and also include an automatic lube system. The bottom ash sluice gates were also replaced with a new design that has better sealing capabilities. These improvements were completed in 2008 and 2009.

→ Adding Coal Crusher Bypass/Screen:

A bypass chute diverts properly sized coal around the crusher and sends it directly to the silo to be pulverized with the remaining larger sized coal going to the crusher to be converted to an acceptable size for the pulverizer. This leads to upgraded crusher performance since 60 - 80% of the acceptable material bypasses the crusher, reduced dust formation, reduced wear and associated maintenance and increased pulverizer efficiency.

→ North Coal Yard Conveyor Scale Replacement:

New scales in the cascade room and on conveyors 36A and 36B, for a total of six to optimize bunkering, provide information on cascade room feeders, and to prevent surges and overloading belts which leads to chute plugs, excessive coal build up on the stackers, and spillage onto conveyor walkways.

→ Replace & Upgrade Conveyor Metal Detectors & Magnetic Separators:

This project would upgrade the metal detectors and magnetic separators to prevent tramp metal and debris from reaching the crushers and pulverizers which can come from train and barge deliveries. This would provide an increased level of bunkering efficiency and reliability.

Fuel Procurement

Competition Between Coal Supply Basins, Both Foreign and Domestic

PEF solicits broadly and comprehensively for coal in order to maximize competition. RFPs are sent out unconditionally to each coal supply region. This can be seen in recent RFPs where PEF received bids from multiple regions such as PRB, Colorado, CAPP (Central Appalachian), NAPP (Northern Appalachian), and international coal suppliers.

PEF's policies and procedures to purchase the most economic, safe, and reliable coal for CR units 4 and 5 has not changed. PEF remains committed to employing the lowest cost option

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when purchasing fuels for units 4 and 5, including PRB coal and any other coal that PEF can burn in a safe and reliable manner. PEF continues to evaluate its future coal requirements on a daily, weekly, and monthly basis by either competitively soliciting coal through a formal RFP process or by contacting coal brokers and bidders on the spot market. We may also receive unsolicited offers from coal producers and brokers. To compare market prices, PEF uses various trade materials and broker sheets. We then enter into discussions with coal producers to achieve the best price for coal under market conditions. These discussions pit suppliers against each other to stay competitive. We have been following these competing practices for many years to determine the coal supply that offers the best value to the Company.

Our evaluations take into consideration the following factors: (1) conformity to the technical and commercial aspects of the specifications (e.g. coal specifications, delivery schedules, warranties, etc.); (2) coal quality and quantity assurances (or guarantees) by the bidder; (3) unit prices and conditions of pricing; (4) any exceptions to the specifications and resulting penalties; (5) perceived or demonstrated supplier reliability and/or capability; (6) supplier operations and/or shipping capabilities; (7) previous performance; and (8) any other considerations applicable under the circumstances. PEF's goal is to review coals bids submitted in an RFP and compare them on an "apples to apples" basis and rank them accordingly. The same type of review, although abbreviated, is performed for spot bid proposals.

Also as part of this evaluation process, we employ a model that determines the optimal economic distribution of coal to each plant given constraints in coal quality, delivered price, burn requirements, inventory plan, unloading outages and constraints, and other factors. Thereafter, an economic analysis summary is prepared including a quality baseline that evaluates the coals submitted on the basis of the differential between the bid quality and baseline specification for BTU, sulfur, ash, moisture, and grind. This results in an evaluated delivered cost per mmBtu for each coal. We then select the appropriate coals on the basis of this complete evaluation to determine the coal supply that offers the best value to the Company.

At the inception of the September 2007 formal RFP, PEF sent the solicitation to 148 suppliers which included 4 trade publications to ensure that the entire industry was aware of the solicitation. In response, PEF received 36 responses yielding 86 unique bids. PEF requested in its solicitation that "Those offering coal are invited to submit multiple offers for this proposal. PEF encourages bidders to make all offers regardless of quality, origin or whether it is outside of

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a typical specification. PEF also encourages offers for truck coals, potential partnering, and/or strategic opportunities." As a result of this request, many of the unique bids received were from new suppliers and mining operations that had not replied to RFPs in the past. From this PEF employed the evaluation process described previously to rank and procure the lowest overall cost coals.

It is also noteworthy to mention that many coal producers who simply do not have available coal supplies will not bid. Others, who do not wish to compete in the current market conditions, will simply withhold bidding. Those bidders who are responsive to PEF's RFPs and spot market solicitations are given equal consideration and PEF actively discusses market prices with these bidders to achieve the lowest cost.

Competition Between Transportation Providers & Modes of Transportation

Crystal River's ability to accept coal via CSX rail and water allows it to create a competitive transportation environment while expanding the regions coals can be considered. All coal regions, both foreign and domestic, have access to one or both modes of transportation that Crystal River provides. Historically Crystal River has exploited this advantage in the Central Appalachian "CAPP" region, but as a result of installing scrubbers, Crystal River will be able to expand to other regions. For example, the Illinois Basin and Northern Appalachian "NAPP" regions have access to both CSX rail and water transportation. Not only will Crystal River have competition among modes of transportation, but this increased flexibility will afford it competition among coal regions as well. As a result, this will significantly improve PEF's negotiation leverage for transportation rates between water and rail while providing alternative delivery methods during weather or force majeure events resulting in increased reliability. In addition, please see PEF's discussion below regarding the potential for new transportation options.

Comprehensive Short- and Long-Term Coal Procurement Plan and Activities

PEF continues to follow a disciplined approach to its coal procurement planning, strategies and activities. PEF follows defined hedging guidelines to determine short and long term requirements. PEF closely monitors market conditions and drivers to establish current and future trends and communicates them internally. PEF has established success in this area and as

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a testament this success can be illustrated for both short and long term activities.

First, PEF began purchasing lower Btu "CAPP" spot coals in 2007 to be blended with other coals in the Gulf as noted in Docket 070703-EI. Through its experiences and planning activities it was observed that these coals could be purchased and blended yielding an overall cheaper delivered coal cost for Crystal River. The Coal Procurement team began negotiations with Massey Energy for spot transactions while introducing the concept to operations in parallel. As a result of this activity, PEF made spot purchases and was able to make a longer term commitment for this type of coals from the September 2007 RFP.

Second, due to PEF's planning and activities, it aggressively and proactively entered into long term contracts to purchase cheaper Illinois Basin coals during the September 2007 RFP. PEF's Coal Procurement team successfully secured language addressing testing requirements and providing security of supply to Crystal River. This security was achieved by negotiating with suppliers that have coals that can be sourced from multiple regions enabling a switch to occur if PEF witnessed an unfavorable outcome to its test burns. This structure enabled PEF to make a commitment for this new type of coal. In conjunction with this procurement activity and as noted previously, PEF has been proactively transforming its transportation portfolio and preparing for an increase in water deliveries well in advance of any upgrades being made to Crystal River. These are just a couple of examples to illustrate how PEF continuously monitors market drivers, develops strategies, and executes plans that result in favorable transactions for Crystal River and our customers.

Coal Evaluator Model Revamp to Account for Increased Fuel Flexibility

In a collaborative effort, PEF's FPO-Coal, Strategic Engineering, and IT groups are currently updating the coal RFP evaluator model. The current model requires manual entries for data. The collection and entry of input data requires multiple iterations and documentation. The objectives of the model revamp process are to: (1) Maintain an efficient evaluation process; (2) Enhance automation and added flexibility for changes; (3) Assess current roles and responsibilities for data collection, entry and documentation; and (4) Communicate project status. The scope of the project will start with receipt of bids and continue through the collection, entry, and documentation of data inputs including coal bid and quality information, transportation costs, byproduct & reagent costs, and engineering and operational information.

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The process scope will continue through the initial ranking of the coal bids.

During the initial meetings held on August 18th through August 20th, the groups identified action items and developed a tentative timeline for completion. It is estimated that the model and VISTA will be updated by spring 2010. This update will include new performance and specification data once modifications to the plant have been made. Benchmarking conversations surrounding evaluation software have already begun with other eastern utilities and a meeting with a software company has taken place. The development of this new model and the process surrounding it will provide enhanced accuracy and timeliness of RFP decisions. The new model will closely integrate operational and permit constraint documentation into the RFP modeling.

Broad, Open, and Comprehensive RFP Programs

On September 5, 2007, PEF submitted an industry wide RFP for coal for 2008 and beyond. PEF modified its solicitation letter to exclude any specific volume, quality, or location requirements in order to entice all bidders to participate. As the <u>"Coal and Energy Price Report"</u> September 6th edition headline read "Door open: Take your best shot to get Crystal River coal supply business". The article informed the coal industry that, "This is one of those Burger King "Have it Your Way" kinda deals." And continued by saying "...Crystal River coal take CSX rail coal, Illinois Basin coal, South American coal, even Powder River Basin coal." PEF expects to follow in the same manner for future solicitations and will continuously look for opportunities to improve the process.

Clear and Objective Specifications for Coal Quality

As noted previously, PEF does not solicit for a specific quality of coal. Instead, we request all bids regardless of quality. PEF then evaluates these coals to adhere to Crystal River's operational requirements. For instance, coal running through the pulverizers must be sufficient to yield the required MW. Anything below an 11,300 Btu threshold can cause derates. Environmental limits, coal grindability, and ash content are other important factors to consider. High ash content can also result in opacity problems. With this in mind, PEF is in the process of evaluating all its operational requirements for units 4 and 5 in conjunction with the Coal Evaluator Model revamp discussed above, and in conjunction with the installation and testing of the new environmental equipment being installed on the plants. As new or modified operational

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requirements are determined/validated, PEF will update its electronic model as well as its operational procedures to account for this information.

Plan for Site Visits to New Foreign and Domestic Supply Basins

Since November 2006, PEF has been active in site visits that include:

November 13 - 15, $2006 \rightarrow$ ALRP Gibson Co. and Cline Resources Pond Creek (Illinois Basin);

September 25-26, 2007 → Armstrong Coal, Allied Resources, Ingram and Mt. Vernon Dock (Illinois Basin);

June 6, 2007 → Peabody Energy (Gateway Illinois Basin mine & North Antelope Rochelle PRB mine (PRB and Illinois Basin);

October 31, 2007 \rightarrow 1st Annual Illinois Basin Symposium sponsored by Cline Resources created at the request of PEF;

August 25, 2007 \rightarrow ALRP Riverview Mine (New operation opening as a result of PEF's commitment) (Illinois Basin);

January 15, 2008 → PEF Fuel Summit at Crystal River with plant personnel, Williamson Energy (Illinois Basin Operator), Hatt Consulting Services and Storm Industries;

June 12, 2009 \rightarrow Knight Hawk Coal, Allied Resources and Patriot Coal (Dodge Hill) (Illinois Basin);

Currently PEF is discussing mine visits to the PRB region with Arch Coal and Peabody Energy. We are also contemplating an international mine tour of an Indonesian mine, such as PT Adaro, during calendar year 2010. Regardless whether PEF visits the PT Adaro mine, it plans on visiting their U.S. office headquartered in Florida to share strategies, obtain a greater understanding of their operations and advance the existing business relationship. PEF will to continue this activity in the future to stay abreast of production and industry trends that could afford PEF market advantages.

New or Potential Options for Rail and Barge

In the latter half of 2007, PEF purchased a new E-crane unloader to replace the bucket unloader that has been in place. Since that time a review of the coal unloading requirements at Crystal River has suggested that due to the competitiveness of water delivered coals from the

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Illinois Basin, an additional crane unloading capacity could be warranted. A RFP for a new, additional crane is anticipated to be issued in October 2009 with bids due back in December 2009. In the meantime, PEF plans to refurbish the old barge unloader to provide additional unloading capability until a final decision has been made for a new crane.

In 2009, PEF entered into an agreement for mid-streaming operations to diversify shipment options in the Gulf. In addition, PEF has committed to a new gulf barge tow which will be constructed with enhanced options, and scheduled to start in the latter part of calendar year 2010. PEF has also recently completed a barge RFP which will allow it to consider increased shipments via water. Together, these factors will give PEF the option to consider additional coals, help minimize weather disruptions, and allow PEF to improve reliability for shipments delivered by water.

Currently PEF is negotiating with CSX to renew its rail contract. Crystal River's CSX contract expires at the end of December 2009. PEF is attempting to use its flexible transportation infrastructure to negotiate a favorable outcome. PEF hopes to secure a rail option into Crystal River in order to maintain the existing competitiveness and reliability for future years while allowing PEF to respond to future market dynamics. The new contract will expand into new regions currently not in the existing contract allowing for continued transportation flexibility.

Summary

PEF has purchased and continues to purchase the most economical coal available under market conditions for CR4 and CR5. PEF also continues to explore new coals that create opportunities to achieve the lowest fuel costs at CR4 and CR5. PEF's Coal Procurement Plan contains standards, practices, policies, and procedures that address active monitoring and management of fuel costs that seek the best price for fuel needed to run our plants. We also employ a successful fuel-hedging program in which we work to get the most economical price for fuel by locking in long-term contracts when prices are low.

As shown above, PEF continues to complete recommended plant modifications. Equipment replacements as well as test burns must be strategically considered and scheduled with PEF's comprehensive Clean Air Project that is already underway at these units. Scheduled outages must also be weighed in this process.

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As stated previously, this report is filed as a preliminary report to comply with Staff's recommendation in Docket 070703, and PEF will supplement this report as may be appropriate based on the Commission's Final Order in that docket.