

**BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION**

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In re: Petition for increase in rates by  
Progress Energy Florida, Inc.

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DOCKET NO. 090079-EI

Submitted for filing: August 31, 2009

**REBUTTAL TESTIMONY**

**OF**

**DAVID SORRICK**

**On behalf of Progress Energy Florida**

**IN RE: PETITION FOR INCREASE IN RATES BY  
PROGRESS ENERGY FLORIDA, INC.**

**FPSC DOCKET NO. 090079-EI**

**REBUTTAL TESTIMONY OF  
DAVID SORRICK**

1 **I. INTRODUCTION AND SUMMARY**

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

3 **A.** My name is David Sorrick. My business address is 299 First Avenue North, St.  
4 Petersburg, Florida, 33701.

5  
6 **Q. Have you previously filed Direct Testimony in this proceeding?**

7 **A.** Yes. I have provided testimony to the Florida Public Service Commission ("FPSC"  
8 or the "Commission") on behalf of Progress Energy Florida, Inc. ("PEF" or "Progress  
9 Energy").

10

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

12 **A.** The purpose of my rebuttal testimony is to address the Direct Testimony of Helmuth  
13 Schultz III and Martin J. Marz filed August 10, 2009 in this docket who challenge:

- 14 ● PEF's compensation goals;  
15 ● Power Operations O&M expenses;  
16 ● CR4 combined outage and maintenance costs;

- 1 ● PGF's environmental goals
- 2 ● PGF's emerging equipment expense
- 3

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

5 **A.** No.

6

7 **II. REBUTTAL TESTIMONY**

8 **Incentive goal compensation**

9 **Q. On page 27 of Mr. Schultz's testimony, he asserts that PEF is using operational**  
10 **goals which may not be real goals, do you agree with this contention?**

11 **A.** Absolutely not. PEF's goals are realistic and performance-based. They provide  
12 employees incentives to perform well while meeting the expectations of our  
13 customers and shareholders. PEF's goals are designed to measure company and  
14 business unit performance by emphasizing strategic corporate and organizational  
15 objectives measuring performance in ten specific recordable areas. PEF's goals strive  
16 for operational excellence and they are specifically designed to meet the SMART  
17 objective (specific, measurable, achievable, realistic, and timely). Each specific goal  
18 requires an action, an end result, a measurement, and a time frame.

19 Mr. Schultz challenges two goals, safety and environmental compliance. His  
20 basic assertion is that our safety goal should be no accidents ever and an  
21 environmental goal of absolute perfection. As I explained in my direct testimony,  
22 PEF is committed to maintaining the existing generation fleet by making investments

1 in these plants to ensure they run efficiently while meeting the highest standards of  
2 safety and environmental stewardship. Safety is the highest priority at PEF and a  
3 great deal of effort goes into maintaining a safe work environment and mitigating  
4 safety issues when they occur. PGF also takes its environmental responsibilities very  
5 seriously by closely measuring performance standards. However, to set either of  
6 these goals at levels that are beyond achievable is unrealistic.

7  
8 **Q. What is your response to Mr. Schultz's statement on page 28 of his testimony**  
9 **that PEF's incentive goal compensation concerning accidents actually allows for**  
10 **accidents?**

11 **A.** Safety is the primary concern of any activity we undertake in Power Generation  
12 Florida (PGF). The ultimate objective of our safety programs and focus is to drive  
13 OSHA recordable accidents to zero. This should be the ultimate objective of any  
14 organization truly committed to providing a safe workplace for its employees. That  
15 being said, our Employee Compensation Incentive Plant/Management Incentive  
16 Compensation Plan (ECIP/MICP) safety goals are set at levels to drive the actual  
17 safety performance of the work crews to top decile performance when compared to  
18 peer utilities. PGF's goals are developed in such a way to drive performance  
19 downward toward the ultimate objective of zero injuries, while still providing  
20 employees with realistic and attainable goals based on continually improving  
21 performance. The PGF goals are set in this manner to provide a glide path of  
22 improvement from year to year. Despite anyone's best efforts, however, accidents  
23 will happen, and an incentive goal of zero, as compared to top decile performance in

1 safety, is not realistic, nor is it a typical way of advancing a safe workplace despite  
2 the fact that a “zero accident workplace” is our ultimate objective.

3  
4 **Q. What is the objective of the safety goal in the employee bonus compensation  
5 program?**

6 **A.** The ultimate objective of the safety goal in the ECIP/MICP program is to drive safer  
7 behaviors from all employees. Every utility strives to reduce the number of accidents  
8 incurred by employees and all company departments have included safety as part of  
9 the employee incentive program as just one of the tools to accomplish that objective.  
10 As I mentioned previously, the goal for PGF is set at the top decile level as compared  
11 to our peers in the Southeast.

12  
13 **Q. Please explain the components that make up PGF’s safety goals.**

14 **A.** PGF’s safety goal is made up of the OSHA Injury and Illness (OSHA I&I) rate. This  
15 is an index measurement that measures the number of employee injuries for every  
16 200,000 work-hours of labor and is a standard key performance indicator used in the  
17 industry to measure safety performance. The OSHA I&I goal for PGF has 3 distinct  
18 components. There is a POG business unit goal, a PGF fleet goal, and regional goals  
19 for the Nature Coast region, Suncoast region, and the Support Services Department.

20  
21 **Q. Does PGF’s safety goal have any impacts on labor costs?**

22 **A.** Yes. The costs of PGF’s safety programs are primarily included in the base budgets  
23 in the form of payroll and are manifested as collateral duties of employees. Aside

1 from the primary focus of returning employees safely to their family at the end of the  
2 day, benefits of a safer workplace include: reducing the workman compensation costs  
3 incurred when employees are injured, as well as the amount of non-productive time  
4 an employee will incur if injured.

5  
6 **Q. On page 28 of Mr. Schultz's testimony, he alleges that there is no incentive in**  
7 **PGF's environmental goal since it has been accomplished in previous years and**  
8 **remains the same for 2009. Do you agree with his assertion?**

9 **A.** I disagree with Mr. Schultz's assertion. He seems to want to punish PEF for excellent  
10 environmental performance. PGF strives for excellence in our environmental  
11 stewardship and performance. The Environmental Index (EI) is the Company's proxy  
12 measurement for environmental performance. Compliance in environmental  
13 performance is the minimum acceptable standard for all employees within PGF. The  
14 achievement of a 4.0 on the Environmental Index (on a scale of 0-5) marks a level of  
15 performance that is much better than nominal compliance, drives continual  
16 improvement, and addresses the major environmental aspects, impacts, and risks of  
17 power plant operations. Thus, a sustained goal of 4.0 on the EI index demonstrates  
18 top-tier performance that is worthy of incentives. Mr. Shultz's assertion can be  
19 likened to criticizing a student for continuing to get grades of "A" on their report card  
20 rather than "A+".

21  
22 **Q. Please explain the components that make up the EI target and the importance of**  
23 **achieving this target.**

1 A. The PGF Environmental Index is a compilation of key plant operations performance  
2 metrics in the areas of air emissions (SO<sub>2</sub>, NO<sub>x</sub>, opacity and monitoring), surface  
3 water quality (pollutant discharges), spills or chemical releases, hazardous waste  
4 generation, and ground water usage. Our plants' operations, impacts and risks are  
5 reviewed annually along with the parameters and the values that make up the  
6 Environmental Index goals to improve performance improvement over time. Each  
7 plant has a site-specific EI that consists of components that are particular to each  
8 plant. These components are selected on a plant by plant basis in order to influence  
9 the behavior of employees to accomplish the given environment objectives.

10 PGF strives for the highest level of achievement in the area of environmental  
11 performance; however, there is a point where cost to the customer would be increased  
12 dramatically with no discernable benefit to the environment. For example, one  
13 component of the index measures each plant's performance with respect to  
14 continuous emissions monitoring (CEMS). The EPA and Florida DEP expect an  
15 availability of 95% or better for CEMS systems. If we were inclined to over comply  
16 and achieve an availability of 100%, as Mr. Schultz apparently suggests, this would  
17 require the installation of redundant systems and the addition of maintenance  
18 requirements for this equipment which would add unnecessary cost to the customer.

19  
20 Q. **Mr. Schultz further states on page 28 of his testimony that "The term incentive**  
21 **means to stimulate. There is no stimulation if goals are not increased." Do you**  
22 **agree with his belief?**

1 A. I disagree. The term incentive also means something that incites or tends to incite to  
2 action or greater effort. Mr. Schultz fails to consider PEF's efforts to meet ongoing  
3 changes and challenges in environmental compliance standards. The incentive must  
4 be realistic and achievable. To set the bar beyond the realm of achievability is  
5 unrealistic and would be very costly to the customer. Again, Mr. Schultz uses faulty  
6 logic in his implicit assertion that incenting continuous top-tier performance is not  
7 worthy of doing unless one is able to achieve ultimate perfection.

8  
9 **Power Operations O&M Expense**

10 **Q. Witness Schultz states on page 39 of his testimony that PEF's power operations**  
11 **O&M expense request appears excessive. Are you in agreement with this**  
12 **contention?**

13 A. Mr. Schultz's assertion is inaccurate and demonstrates his fundamental lack of  
14 understanding of our O&M cost requirements. While I do agree with Mr. Schultz's  
15 assertion that costs do fluctuate from year to year, major maintenance requirements  
16 are driven by actual unit operations. The maintenance requirements included in the  
17 2010 budget are driven by actual unit operations over the past few years and the  
18 projected operations for 2009 and 2010. Therefore, I do not agree with Mr. Schultz's  
19 assertion that the rate request set forth for 2010 is based upon a "high" year. By the  
20 very nature of the size of PGF's generation fleet and the various major maintenance  
21 requirements associated with a fleet of this size (see PEF's response to OPC's Sixth  
22 Set of Interrogatories, Question #246), the major maintenance costs do fluctuate from  
23 year to year. PGF tries to levelize the maintenance requirements within reason,



1 however, this is not always possible due to the number of units within the fleet, the  
2 operational characteristics of each unit, and each units' position in its given  
3 maintenance cycle. Thus, Mr. Schultz's unsupported assertion that our 2010 request  
4 is based on a "high year" shows that Mr. Schultz has not studied how PEF's  
5 generation fleet is maintained and operated. Further, I can say with certainty that Mr.  
6 Schultz has never operated or maintained any of PEF's generating plants, nor would  
7 he be qualified to do so based on his education and background. Therefore, his  
8 attempt to simply look at numbers without any understanding or background of how  
9 generation plants are maintained and operated is uninformed.

10  
11 **Q. On page 40 of his testimony, Mr. Schultz asserts that your testimony does not**  
12 **provide an adequate explanation to justify power operation's increased O&M**  
13 **expense. Do you agree with his allegation?**

14 **A.** I do not agree with Mr. Schultz. I have shown in my direct testimony, as well as in  
15 responses to interrogatories and document requests, why these expenses are necessary  
16 to optimize the fleet's performance going forward. I have also linked maintenance  
17 requirements with actual unit operations which are what the physics of these units  
18 dictate. By that I mean that as the units operate, they accumulate major maintenance  
19 requirements which are the primary driver of the expenditures. At a point in time,  
20 the material condition of the equipment will degrade until it breaks and is forced out  
21 of service. Preventive action in the form of major maintenance outages is the tool  
22 used to address the physics of the equipment before it degrades to the point at which  
23 it breaks.

1           To understand the maintenance requirements of high-temperature, high-  
2 energy, generating equipment one must understand the environment in which the  
3 parts of equipment must run in. Especially for equipment like the modern-day  
4 combustion turbines, parts of the turbine run in environments so severe that loss of  
5 features like cooling or protective coatings will result in total failure of the part in  
6 very short periods of time, as short as seconds, and the resulting damage often results  
7 in total destruction of downstream parts. Consideration must be given to the  
8 requirements of the materials the hot gas parts are made from. For the hot section  
9 parts, ordinary steel and alloy steel materials (like stainless steel) are generally  
10 inadequate as they lose their strength at or before reaching 1100 °F. Instead, parts in  
11 the combustion and turbine section of the engine are made from nickel and cobalt  
12 based super alloys. These alloys retain their strength almost to their melting points  
13 which is typically around 2450 °F. Also, normal machining and welding processes  
14 cannot be used in the fabrication of these parts. Many are made by processes like  
15 investment casting and must be machined by grinding, EDM (electro discharge  
16 machining), laser welding/drilling, and similar processes as these materials are too  
17 hard and strong to machine using conventional methods. Therefore, these parts are  
18 very expensive to manufacture.

19           An example of one of these parts that sees a severe environment is the first-  
20 stage turbine nozzle assembly. This part takes the output of the combustion system  
21 and directs the hot gases at the first stage rotating turbine blade assembly to create the  
22 gas velocity and energy to rotate the turbine. In a typical "F-class" gas turbine this  
23 gas temperature is in the range of 2550 °F and therefore well above the melting point

1 of the super alloy the part is made from. A part such as this survives because of very  
2 sophisticated internal air cooling and external coatings. Nonetheless, the operating  
3 temperature of the material consumes coating life and degrades material properties  
4 over time. Such conditions also cause cracking and oxidation of the alloy and, in fact,  
5 this is expected. To a degree, this distress can be tolerated and criteria have been  
6 established by the OEMs for determining when maintenance and repair is required.

7 The situation is the similar with each part of the turbine including the  
8 compressor section and rotor body with variations in the maintenance interval and  
9 repair requirements being dictated by the design, materials of construction, and  
10 operating environment. The OEM specifies the maintenance and repair guidelines for  
11 each part based on maximizing part life and preventing catastrophic failure.  
12 Following prudent maintenance and repair practices is necessary not only to prevent  
13 failure, but also to minimize operational cost as repairs for many parts are much less  
14 expensive than cost of new. When a part does reach end of life it must be replaced as  
15 continued use will lead to failure.

16 There are numerous examples that are similar to the one detailed above that  
17 pertain to the combustion turbine and steam turbine fleets that illustrate the  
18 consequences if the physics are ignored.

19  
20 **Q. On pages 17 through 20 of his testimony, Mr. Marz seems to suggest that PEF's**  
21 **planned outages increase overall O&M costs in the 2010 test year for the**  
22 **purpose of driving up costs rather than addressing maintenance issues. Is that**  
23 **true?**

1 A. No, this is not true. The requirements outlined in PGF's budget submittal are intended  
2 to address the actual and needed maintenance requirements that are due to be  
3 performed on our generation fleet. While the costs in 2010 have increased, the  
4 increase is driven by maintenance requirements on the fleet as they exist now.  
5 Additionally, PGF has added several combined cycle units to our fleet over the past  
6 several years, including the new Bartow CC facility added this June. These units are a  
7 key driver of our major maintenance requirements.

8 As I explained in my direct testimony, in responses to discovery, and in this  
9 rebuttal testimony, actual unit operation will dictate what maintenance needs to be  
10 done on what cycles, and Mr. Marz, would appreciate this fact had he taken the time  
11 to understand how our generation fleet actually operates. However, just like Mr.  
12 Schultz, Mr. Marz has not operated our generation units and he has not and cannot  
13 provide meaningful analysis in this regard because he is a lawyer and not an engineer.  
14

15 **Q. What is your response to Witness Schultz's statement on page 41 of his**  
16 **testimony concerning the cost of the maintenance at Crystal River Unit 4, where**  
17 **he alleges that this type of work is typically performed every nine years and is**  
18 **not typical maintenance, thus the cost should be spread over at least five years?**

19 A. This is the nature of major maintenance and again, Mr. Schultz's background as an  
20 accountant who has never operated or maintained a generation plant prevents him  
21 from credibly assessing the physical maintenance requirements of the fleet's  
22 equipment. Maintenance is done on an interval basis for the fossil steam fleet, the  
23 combined cycle fleet, and the simple cycle combustion turbine fleet. The maintenance

1 intervals were addressed in my original testimony and as a response to OPC's Sixth  
2 Set of Interrogatories, Question #246. With a fleet as large as PGF's, there will be  
3 multiple units that require maintenance in any given year. PGF tries to levelize the  
4 maintenance requirements within reason, however, this is not always possible due to  
5 the number of units, the operational characteristics of each unit and each units'  
6 position in its given maintenance cycle.

7 As an example, if a business had only one delivery truck that required tire  
8 replacement every three years, they should not recover the full cost of tire  
9 replacements every year. Suppose the business had a fleet of 250 trucks, each one  
10 requiring tire changes every three years. Each year, many of the 250 trucks would  
11 require new tires, but not every truck would be on the same three year cycle. The  
12 place in the cycle would be dependent upon when the truck was bought, actual miles  
13 driven in that particular truck, along with other various factors. While the owner may  
14 want to divide the fleet into thirds in order to do the same portion every year, the  
15 actual maintenance interval may dictate an uneven distribution, hence requiring the  
16 owner to perform tire changes on 75 in year one, 50 in year two and 125 in year three.  
17 This is obviously a simplistic example to illustrate that the more trucks, in our case  
18 more units, involved the more complicated it becomes. Again, when considering a  
19 fleet the size of PEF's and the maintenance required for the fleet as outlined in PEF's  
20 response to OPC's Sixth Set of Interrogatories, Question #246, it is too simplistic to  
21 look at one unit in isolation.  
22

1 **Q. Mr. Marz, on the other hand, alleges that the Commission should recognize at**  
2 **most only 11.1% of the CR4 outage costs for ratemaking purposes (page 18 of**  
3 **his testimony). What is your response to Mr. Marz's suggestion?**

4 **A.** The logic of dividing the cost of this major maintenance requirement by 9 due to its  
5 required maintenance interval may seem sound on the surface when applied to one  
6 unit. However, this approach does not account for the major maintenance  
7 requirements for the entire fleet. As previously stated, in a fleet as large as PEF's,  
8 every year will include costs for different major maintenance requirements dependent  
9 on many factors. To arbitrarily remove one of the higher cost outages from the stack  
10 of requirements in 2010 for different treatment will not account for the overall and  
11 on-going maintenance cost requirements for the fleet.

12  
13 **Q. Can you explain PGF's reasoning to combine the CR4 major boiler and turbine**  
14 **maintenance project with the clean air project construction outages?**

15 **A.** The idea was to combine all of the planned maintenance work into the clean air  
16 outage to take advantage of the amount of outage time required to tie the clean air  
17 equipment into the existing plant equipment. The boiler and turbine maintenance also  
18 requires significant outage time of the unit, therefore, combining this scope of work  
19 into one outage eliminates the need to take a base loaded coal unit off-line for a  
20 significant period of time during 2011.

21  
22 **Q. Will PEF's customers benefit from the CR4 combined outage in Spring 2010?**

1 A. Absolutely. By combining the work and increasing availability, PEF customers will  
2 benefit by reducing one major outage on a base loaded coal unit in 2011. They will  
3 benefit with respect to two areas. First, the customer will benefit from fuel savings by  
4 having CR4 available more of the time and secondly, the customer will benefit by the  
5 improved performance expected out of CR4 after this major maintenance is  
6 performed.

7  
8 **Q. You mentioned in your direct testimony the “tiering” strategy of PEF’s**  
9 **generation assets. Where does CR4 fit into that tiering strategy and why is it so**  
10 **important to minimize outages at this first-in-line baseload generation unit?**

11 A. CR4 is a tier 1 unit. It is classified that way due to its high position in the dispatch  
12 order based upon fuel costs. It is important to minimize outages on base loaded units  
13 in order to minimize fuel costs to the customer. If less expensive (e.g. - base loaded)  
14 units are off-line, then more expensive units are required to operate in their place. In  
15 other words, the ability to optimize outage times (scheduled and forced) will also  
16 optimize the customers’ fuel costs.

17  
18 **Q. Could PEF defer the major clean air equipment additions, the flue gas**  
19 **desulfurization systems, and selective catalytic reduction at CR4 to combine**  
20 **these projects at a later date?**

21 A. No. This project is well underway and PGN has several commitments related to this  
22 project. First, PGN is committed to complete the clean air projects per agreement  
23 with the Florida DEP (Air Permit No. PSD-FL-383-A, Project No. 0170004-019-AC).

1 Secondly, PGN has contractual commitments with several contractors that are  
2 currently performing the work at Crystal River. CR5's clean air equipment will  
3 complete installation during the fall of 2009. Delaying the CR4 installation will  
4 increase contractor costs and would not be practical.

5  
6 **Q. On page 42 of his testimony, Mr. Schultz proposes that power operations**  
7 **existing fleet maintenance expense should be reduced by \$7.35 million to**  
8 **“smooth out the costs for maintenance being charged to ratepayers.” What**  
9 **impact would this have on the PEF generation fleet?**

10 **A.** Again, this would require the deferral or cancellation of required scope into future  
11 years. The result will be lower fleet reliability and a building backlog of major  
12 maintenance into future years. This will also result in reactive maintenance programs  
13 that will be less effective than being proactive. Mr. Schultz's suggestion of reducing  
14 \$7.35 million to “smooth out the costs for maintenance being charged to ratepayers”  
15 is arbitrary and misinformed. To suggest a reduction of this nature and to ignore the  
16 physical requirements of the equipment does not make good engineering sense, nor  
17 does it adhere to sound maintenance practices of performing the work needed on  
18 critical equipment prior to failure.

19  
20 **Q. Is it reasonable to apply good maintenance practices to a generation fleet just as**  
21 **it is reasonable to maintain one's automobile for safety, reliability and**  
22 **efficiency?**



1 A. Maintenance of an automobile provides a good analogy. The more you operate your  
2 automobile, the more maintenance you will have to perform in the way of oil  
3 changes, tune-ups, tire changes, etc. If these maintenance activities are ignored or  
4 deferred, the automobile will not run reliably, it will not be safe, it will not last as  
5 long, and it will not be as efficient. It will also cost more to repair the car once the  
6 damage is done. For example, if you ignore oil changes, you will ultimately have to  
7 replace the engine. The same is true of power generation equipment. Without a good,  
8 proactive maintenance program, generation units will not operate reliably, safely,  
9 efficiently, or with the expected longevity. They will require more expenditures to  
10 maintain the ability to operate them.

11  
12 **Q. Do you agree with Witness Schultz's and Marz's conclusory suggestions that the**  
13 **company's power operations maintenance expense should be reduced?**

14 A. No I do not. For the reasons that I discuss in my direct testimony and in this rebuttal  
15 testimony, the maintenance expenditures at issue are necessary to continue a  
16 proactive major maintenance program. If these funds are not allowed, scheduled  
17 maintenance will be delayed and PGF will be forced to become more reactive in our  
18 approach to major maintenance activities. This will result in more forced outages and  
19 lower overall reliability, which, in turn, mean more costs to our customers

20  
21 **Q. On page 19 of his testimony, Witness Marz expresses a generic concern that PEF**  
22 **has included \$5.3 million expense for emerging equipment costs and other items.**

1           **What are some of the emerging equipment issues and other repairs that make up**  
2           **this expense?**

3    A.    Some of the examples include repair of equipment damaged during forced outages,  
4           engineering studies, site infrastructure repairs, minor equipment repairs, execution of  
5           opportunity projects, parts repairs from previous outages, and major maintenance  
6           activities. This funding allows PGF to fund the highest priority emergent and  
7           opportunity work that develops across the fleet.

8  
9    **Q.    Are those emerging equipment issues and other repairs reasonable and**  
10           **necessary?**

11   A.    Yes. As I stated on page 23 of my direct testimony, “unplanned outages are bound to  
12           happen because of the number, type and vintage of the generation fleet that PGF  
13           operates.” If PGF set out to plan and execute a preventive maintenance program that  
14           would eliminate all unplanned work, it would prove to be cost prohibitive and would  
15           almost certainly cost more than the \$5.3 million budgeted herein. As equipment  
16           breaks, it is necessary to repair it in order to restore the generation to service. If this  
17           budgeted amount is not allowed, then unplanned issues would defer or cancel other  
18           budgeted line items that are just as critical to plant operations and create a situation  
19           where known equipment needs would not be addressed at the expense of emerging  
20           issues.

21  
22   **Q.    Would you consider this \$5.3 million a “contingency expense” as Mr. Marz**  
23           **suggests on page 19 of his testimony?**

1 A. No, not at all. Again, the purpose of this funding is to address both emergent issues  
2 that most certainly will occur as well as opportunity projects with the goal of allowing  
3 budgeted funding to be used where it was originally intended. Therefore, it is not fair  
4 to call this a "contingency expense." Experience with fleet operation has shown that  
5 this funding has been used most efficiently on the smaller projects and emergent  
6 projects.

7  
8 **Q. On page 41 of his testimony, Witness Schultz expresses concern that the cost**  
9 **increase for clean air equipment at CR4 appears to include \$5.3 million for a**  
10 **precipitator and if so, this is a capital cost, not an expense. Can you respond to**  
11 **this?**

12 A. Yes. PGF's approach to the precipitator work that was originally planned has changed  
13 somewhat based upon the latest condition assessment information. Of the \$5.3M total  
14 work to be performed on the precipitator, the latest estimate is that only \$1.1M will  
15 be expensed. The balance will indeed be a capital item. The \$1.1M in expense is for  
16 curtain repairs, box beam repairs and other miscellaneous repairs that do not qualify  
17 for capitalization under the existing policy. The remainder of the work in the  
18 precipitator will qualify as a capital expenditure under the capitalization policy as  
19 PGF will replace units of property in lieu of repairs as originally planned.

20  
21 **Q. What is your response to Witness Schultz's statement on page 40 of his**  
22 **testimony regarding increased EFOR at CR1, CR4, and CR5 while EFOR at**  
23 **CR2 improved?**

1 A. The improvement to CR2's EFOR noted on page 15 of my original testimony was  
2 used to illustrate how investments in the generating equipment can, and will, improve  
3 performance of those assets, thus benefitting the customer. As scheduled major  
4 maintenance is performed on the equipment around the fleet, one would expect the  
5 performance of those units to improve as well. For example, as Mr. Schultz points out  
6 on page 40 of his testimony, "A review of the response to OPC Interrogatory No. 248  
7 indicates that in 2008 CR1, CR4 and CR5 EFOR increased." This is true of the EFOR  
8 results for 2008. However, major maintenance activities were performed at CR1  
9 during the last half of 2008 and the YTD EFOR (through July) for CR1 is 1.21%.  
10 CR5 is very similar as the YTD EFOR has improved to 1.37% after the spring outage  
11 occurred on that unit. CR4 is scheduled for major maintenance in 2010 and its YTD  
12 EFOR is 5.26%. These results are indicative of what one would expect as the cause  
13 and effect of performing significant maintenance work on the equipment. This  
14 example further makes my original point that unit performance will improve, thus  
15 benefitting the rate payer, when maintenance investments are made in the equipment.

16  
17 **Q. On page 40 of his testimony, Mr. Schultz asserts that unit availability declined**  
18 **for a majority of the units in 2008. What is your reaction to this statement?**

19 A. On an aggregate basis, the decline for the fossil fleet was < 1% and the combined  
20 cycle fleet was < 1.5%. However, Mr. Schultz does not take into consideration that  
21 there are certain system conditions which would actually encourage removing a unit  
22 from service (at little or no impact to the customer) in order to address an equipment  
23 issue that might make the unit more dependable in the longer term which may

1 ultimately reduce the overall costs to the customer. The nature of the Equipment  
2 Availability calculation does not account for such situations. Again, this shows that  
3 Mr. Schultz simply does not understand how generation fleets are maintained and  
4 operated.

5  
6 **Supporting Documentation**

7 **Q. Do you agree with Witness Schultz's allegation on page 42 of his testimony that**  
8 **power operations maintenance costs are not supported by the Company's MFRs,**  
9 **testimony, or discovery responses?**

10 **A.** No I do not agree. PGF has described the nature of the planned expenditures and has  
11 shown that the needs for these expenditures are driven by actual unit operations. Unit  
12 operations are driven by demand for our product. Unit operations over several years  
13 accumulate to trigger major maintenance requirements. PGF has clearly supported  
14 the maintenance costs through this process.

15  
16 **Q. On page 42 of his testimony, Mr. Schultz suggests that the \$4.6 million cost**  
17 **estimate for the Bartow long term service agreement should be disallowed**  
18 **because the Company failed to provide supporting documentation. Do you**  
19 **agree with this contention?**

20 **A.** No I do not. PGF has provided the requested documentation in multiple forums as I  
21 note below. The cost estimates for the \$4.6 million worth of maintenance at Bartow is  
22 based upon a contract with Siemens Power Corporation. Typically, terms and  
23 conditions of these contracts are not provided to the public due to the nature of the

1 agreement. However, PGF's responses to OPC's interrogatories and production of  
2 documents have been forthright and have provided the information requested. For  
3 example, the cost savings of the LTSA is explained on page 26 of my original  
4 testimony. The LTSA is further explained in PEF's Response to OPC's Sixth Set of  
5 Interrogatories, Questions #260 and #261. Supporting documentation was produced  
6 in MFR Schedule C-41, page 3 of 18; PEF's Response to OPC's 1<sup>st</sup> Request for  
7 Production, Question #1; and outage costs were produced in PEF's Response to  
8 OPC's 13<sup>th</sup> Request for Production, Questions #263 and #268. To disallow the costs  
9 of required maintenance because of Mr. Schultz's unfounded allegations is both  
10 unfair and irresponsible.

11  
12 **Q. Mr. Schultz then recommends on page 42 of his testimony that although the \$4.6**  
13 **million LTSA expense should be disallowed, it is also an infrequent cost and**  
14 **therefore, half of the cost should be allowed in rates. What is your reaction to**  
15 **this recommendation?**

16 **A.** Mr. Schultz's assertion that this is infrequently performed work is simply not true.  
17 Mr. Schultz estimates that it would take 6 years of running around the clock to trigger  
18 this maintenance on a 12,500 hour maintenance interval. If the unit ran around the  
19 clock, the maintenance interval would trigger every 1.4 years (12,500 hr  
20 interval/8,760 hr/yr = 1.4 years). These units are anticipated to run an average of  
21 5,900 hours over the next 3 years. This would equate to a maintenance frequency of  
22 every 2.1 years, not every 6 years as Mr. Schultz stated in his testimony. Again, to

1 reduce required maintenance due to a misinformed opinion is unwise, does not square  
2 with the physics of the situation, and is inappropriate.

3  
4 **Q. Witness Schultz states on page 42 of his testimony that PEF has not provided**  
5 **sufficient documentation to support the \$14.7 million increase for existing fleet**  
6 **maintenance. Do you agree with his assertion?**

7 **A.** I do not agree with Mr. Schultz's assertion that PGF has not provided the appropriate  
8 information requested. On pages 27 and 28 of my original testimony I provide details  
9 concerning the various maintenance projects and on pages 9 through 11, I explain the  
10 fluctuations on our CT fleet maintenance spending. I provided additional information  
11 in response to OPC's Third Set of Interrogatories, Question #139; OPC's Sixth Set of  
12 Interrogatories, Question #246, #260, and #264 including 3 attachments; OPC's Ninth  
13 Set of Interrogatories, Question #353; OPC's 1<sup>st</sup> Production of Documents Request  
14 #1; OPC's 3<sup>rd</sup> Request to Produce, Question #120; OPC's 13<sup>th</sup> Request for  
15 Production, Questions #261-269; Staff's 13<sup>th</sup> Set of Interrogatories, Question #149;  
16 and MFR Schedule C-41, page 3 of 18.

17 I have explained the concept repeatedly that the budget request is directly tied  
18 to the amount of maintenance required within the fleet. In many cases, PGF's cost  
19 estimates are based on years of experience in maintaining our fleet of generation  
20 equipment. We have learned over the years that we are able to self perform much of  
21 the required maintenance at a lower cost than third parties so we do not always have  
22 an invoice or a quotation. However, we utilize our experience with the equipment

1 and engineering judgment to develop cost estimates. These are the estimates included  
2 in my original testimony and in PGF's MFRs.

3  
4 **IV. SUMMARY**

5 **Q. Can you summarize the key take aways from your rebuttal testimony?**

6 **A.** Yes. The Commission, for all the reasons stated in my testimony, should approve  
7 PEF's capital (\$134 million) and O&M (\$175 million) expenditures for power plant  
8 generation. PEF's generation capital and O&M expenditures are reasonable and  
9 prudent. Our long term generation strategy is designed to deliver reliable, affordable  
10 power with less dependence on foreign fuel from cleaner power sources. PEF's  
11 expenditures represent the best way to adequately reflect the costs and benefits to  
12 provide safe, environmentally responsible, reliable, and competitively priced power to  
13 our customers. PEF must have necessary capital and O&M resources to ensure that  
14 our power plants are reliable, efficient, safe, and meet environmental requirements.

15 PGF intends to continue to execute maintenance in a proactive manner.  
16 Prudent cost management is a top priority for PGF. PGF has a demonstrated track  
17 record of solid operational performance and budget management and we will  
18 continue this performance in order to provide safe, environmentally responsible, and  
19 competitively priced power to our customers.

20 PGF is charged with providing the bulk of the electrical energy used on the  
21 PEF system. In order to meet this responsibility effectively, PGF must have  
22 necessary capital and O&M resources to ensure that our power plants are reliable,  
23 efficient, safe, and meet environmental commitments. To diminish the requirements



1 for these resources and to ignore the physics of the equipment is not in the best  
2 interest of the PEF ratepayer as it will lead to lower equipment reliability and higher  
3 costs, both in replacement fuel and equipment repairs.

4 PGF intends to continue to execute maintenance in a proactive manner.  
5 Prudent cost management is a top priority for PGF. Not allowing for proactive  
6 maintenance will have a negative impact on reliability and increase the long term cost  
7 of the generation fleet maintenance.

8 The maintenance expenditures requested are primarily driven by the physical  
9 requirements of the equipment. Mr. Schultz and Mr. Marz have testified that PGF  
10 should reduce the amount requested substantially, yet they do not provide any basis to  
11 support these reductions that are grounded in the physical realities of the equipment.  
12 As shown in the example above, a disregard for the physical realities can be  
13 catastrophic to the equipment and extremely expensive from which to recover.  
14 Therefore, the physical considerations are extremely important and should not be  
15 dismissed carelessly.

16 In summary, our expenditures will benefit both PEF customers and the long-  
17 term operation of PEF's generation fleet by performing maintenance in a timely,  
18 proactive manner that optimizes fleet reliability and fuel costs. PEF's generation  
19 capital and O&M revenue requirements are fair and equitable and should be  
20 approved.

21  
22 **Q. Does this conclude your testimony?**

23 **A. Yes.**