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Progress' Responses to Staff's First Set of Interrogatories (Nos. 1-7)

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In re: Environmental cost recovery clause.	DOCKET NO. 110007-EI DATED: MAY 2, 2011

PROGRESS ENERGY FLORIDA'S RESPONSE TO STAFF'S FIRST SET OF INTERROGATORIES (NOS. 1-7)

PROGRESS ENERGY FLORIDA, INC. ("PEF"), pursuant to Rule 28-106.206, Florida Administrative Code, Rule 1.340, Florida Rules of Civil Procedure, and the Order Establishing Procedure in this matter, hereby responds to Staff's First Set of Interrogatories (Nos. 1-7):

RESPONSES

Please refer to PEF's Petition for approval of cost recovery for a new environmental program, filed on March 11, 2011, for the following questions.

1. (a) **Please provide a detailed breakdown of the component activities that comprise each of the projects for each plant listed in the redacted Exhibit "C."**

   (b) **When will each of the projects listed in the redacted Exhibit "C" begin?**

   (c) **When will each of the projects listed in the redacted Exhibit "C" be completed?**

Answer:

Please see site specific responses below:

ANCLOTE PLANT

Thermal Studies: Begin 2Q 2011 end 3Q 2014

- Phase I Thermal Monitoring – Year 1
  - Installation of field continuous recording thermal probes at select stations
  - Biweekly maintenance and data download
  - Data download, analysis, and final report
- Phase II Biological Monitoring – Plan of Study (POS) development
  - Results from Phase I used to develop biological monitoring POS
  - Submit report to FDEP for review
  - Finalize Phase II POS

Aquatic Organism Return Studies and Implementation: Begin 2Q 2011 end 3Q 2014

- Meet with FDEP to discuss plan
- Develop organism return plan
  - Evaluate impingement load and organism survival
  - Evaluate engineering options for impingement reduction and organism return system
  - Finalize plan for submittal to FDEP
- Implement approved organism return system plan

Whole Effluent Toxicity Testing: Begin 2Q 2011 continued as required quarterly

- Implement quarterly chronic WET testing
  - Auto-samplers for 24 hour time proportional composite sample collection
  - Arrange for sample holding, packaging, courier transport and delivery
  - Quarterly testing by qualified laboratory
  - Final report and submittal to FDEP

CRYSTAL RIVER ENERGY COMPLEX

Thermal Studies: Begin 4Q 2011 end 2Q 2014

- Phase I Thermal Monitoring – Year 1
  - Installation of field continuous recording thermal probes at select stations
  - Biweekly maintenance and data download
  - Data download, analysis, and final report
- Phase II Biological Monitoring – POS development

- Results from Phase I used to develop biological monitoring POS
- Submit report to FDEP for review
- Finalize Phase II POS

Aquatic Organism Return Studies and Implementation: Begin 4Q 2011 end 4Q 2014

- Meet with FDEP to discuss plan
- Develop organism return plan
  - Evaluate impingement load and organism survival
  - Evaluate engineering options for impingement reduction and organism return system
  - Finalize plan for submittal to FDEP
- Implement approved organism return system plan

Whole Effluent Toxicity Testing: Begin 4Q 2011 continue as required quarterly

- Implement quarterly chronic WET testing
  - Auto-samplers for 24 hour time proportional composite sample collection
  - Arrange for sample holding, packaging, courier transport and delivery
  - Quarterly testing by qualified laboratory
  - Final report and submittal to FDEP

SUWANNEE PLANT

Thermal Studies: Begin 3Q 2011 end 1Q 2014

- Phase I Thermal Monitoring – Year 1
  - Installation of field continuous recording thermal probes at select stations
  - Biweekly maintenance and data download
  - Data download, analysis, and final report
- Phase II Biological Monitoring – POS development
  - Results from Phase I used to develop biological monitoring POS
  - Submit report to FDEP for review
  - Finalize Phase II POS

Aquatic Organism Return Studies and Implementation: Begin 3Q 2011 end 4Q 2014

- Meet with FDEP to discuss plan
- Develop organism return plan
  - Evaluate impingement load and organism survival
  - Evaluate engineering options for impingement reduction and organism return system

  - Finalize plan for submittal to FDEP

- Implement approved organism return system plan

Whole Effluent Toxicity Testing: Begin 3Q 2011 continue as required quarterly

- Implement quarterly chronic WET testing
  - Auto-samplers for 24 hour time proportional composite sample collection
  - Arrange for sample holding, packaging, courier transport and delivery
  - Quarterly testing by qualified laboratory
  - Final report and submittal to FDEP

BARTOW PLANT

Thermal Studies: Begin 4Q 2011 end 2Q 2014

- Phase II Biological Monitoring – Year 1
  - Field collection and laboratory sorting, identification, enumeration, and analysis of benthic cores from select stations
  - Field collection and laboratory granulometric analysis of sediment cores
  - Field collection of water quality data
- Phase II Biological Monitoring – Year 2
  - Field collection and laboratory sorting, identification, enumeration, and analysis of benthic cores from select stations
  - Field collection and laboratory granulometric analysis of sediment cores
  - Field collection of water quality data
  - Data Analysis and Final Report

Aquatic Organism Return Studies and Implementation: Begin 2Q 2011 end 3Q 2014

- Meet with FDEP to discuss plan
- Develop organism return plan
  - Evaluate impingement load and organism survival
  - Evaluate engineering options for impingement reduction and organism return system
  - Finalize plan for submittal to FDEP
- Implement approved organism return system plan

Whole Effluent Toxicity Testing: Begin 3Q 2011 continue as required quarterly

- Implement quarterly chronic WET testing
    - Auto-samplers for 24 hour time proportional composite sample collection
    - Arrange for sample holding, packaging, courier transport and delivery
    - Quarterly testing by qualified laboratory
    - Final report and submittal to FDEP

Dissolved Oxygen Study: Begin 2Q 2011 end 4Q 2012

- POS finalization and contractor selection
- Initial field parameter testing of intake and discharge canal for station locations
- Installation of continuous recording probes – May through September (2 years)
- Biweekly maintenance and data download
- Data analysis and final report

Freeboard Limitation & Related Studies: Begin 2Q 2011 end 4Q 2012

- Revision of draft freeboard study/water balance study
- Perform feasibility study for corrective actions to achieve freeboard standards
- Implement feasibility study conclusions

2. Referring to the Thermal Studies project on pages 3 - 4:

(a) PEF indicated, on page 3, that site-specific monitoring plans of the project would be divided into two phases. Will phase II activities be started after the completion of phase I activities, or will these two phases begin simultaneously?

(b) Will PEF be required, per the new permits, to take any action based on the outcome of the Thermal Studies such as improving or modifying the current facilities? If so, please provide details on the conditions or criteria which will trigger such actions.

Answer:

(a) Phase II activities will be started after the completion of the Phase I activities. Information gained from the Phase I activities will be used to define the scope and extent of the Phase II activities.

(b) Thermal sources need to demonstrate a lack of appreciable harm to balanced, indigenous populations in the receiving water bodies. If the Florida Department of Environmental Protection, Florida Fish and Wildlife Conservation Commission, or Environmental Protection Agency determine that the results of the thermal studies indicate significant negative effects on the diversity and abundance of seagrasses and aquatic organisms in the area, they may require Progress Energy to implement engineering and/or operational modifications to mitigate the alleged impacts.

3. Referring to the Aquatic Organism Return Studies & Implementation project, PEF stated, in the second to last sentence on page 4, "Implementation may involve significant capital improvements and modification of the cooling water intake structure."

(a) Please elaborate on the "capital improvements and modification" that may be required.

(b) What will be the potential activities that comprise such improvements and modifications?

Answer:

(a) There are enhancements that could be made to cooling water intake structures for the collection of live impinged organisms and return back to suitable habitat. One type of modification could be the installation of specialized rotating screens with the installation and operation of an organism return piping system for the return of organisms to a suitable habitat outside of the influence of the power plant. Another option would be the installation of a closed cycle cooling system.

(b) Biological studies of the diversity and abundance of impinged organisms; latent survival studies of impinged organisms; engineering and cost evaluations; pilot studies; construction and installation; start-up and post-operational monitoring.

4. Referring to the Whole Effluent Toxicity (WET) Testing project on page 5:

(a) PEF indicated that the requirement to conduct chronic WET testing is more stringent than existing acute WET testing requirements. Please explain in detail how the new requirements are more stringent than the existing acute WET testing requirements. Did PEF conduct WET testing prior to the new permits? If so, what will be the estimated "extra costs" resulting from the new permits?

(b) On page 6 of the petition PEF stated "costs for the WET testing will recur annually." Per Exhibit B of the petition, the expiration date of the IWFP is January 13, 2016. Does PEF expect that annual WET testing will occur after January 13, 2016?

Answer:

(a) The NPDES petition references acute whole effluent toxicity (WET) testing because it is a similar test that some of PEF's plants had to perform in the past when requesting permission from the FDEP to use a new additive in their plant systems. Acute testing was not a quarterly requirement but a one-time requirement driven by the use of a new additive. The costs PEF is requesting ECRC recovery of are not associated with the potential addition of new additives, but rather with the newly required quarterly chronic WET testing. The additional requirements for quarterly WET testing are entirely new, and all of the costs PEF is requesting are incremental increases beyond what PEF is currently required to incur. From a technical standpoint, the chronic WET test is a 7- day test measuring growth, reproduction and mortality effects. It requires significantly more laboratory time and effort than a 4-day acute toxicity test. The additional time and effort associated with the 7-day chronic toxicity test doubles the laboratory fee, and includes additional fees for the collection of a 24-hour time proportional composite sample, shipping and handling. Please see below for a more detailed description by site of these additional requirements:

- Anclote – This permit is final. The expired permit did not require quarterly acute WET testing. The renewed permit contains a requirement to perform quarterly chronic WET testing and possible additional follow up testing as a result of these tests. All costs associated with the newly required quarterly tests and associated follow up tests are incremental increases beyond what PEF is currently required to incur and should be recovered through ECRC.

- Bartow - This permit is final. The expired permit did not require quarterly acute WET testing. The renewed permit contains a requirement to perform quarterly chronic WET testing and possible follow up as a result of these tests. All costs associated with the newly required quarterly tests and associated follow up tests

are incremental increases beyond what PEF is currently required to incur and should be recovered through ECRC.

- Crystal River 4 & 5 – This permit is still in draft form and is expected to be final by July 2011. The current permit does not require PEF to perform quarterly acute WET testing. The renewed permit is expected to require quarterly chronic WET testing. All costs associated with the expected required quarterly tests and potential costs associated with follow up tests are incremental increases beyond what PEF is currently required to incur and should be recovered through ECRC.

- Suwannee – This permit is still being drafted and is expected to be final by the fourth quarter of 2011. The current permit does not require PEF to perform acute WET testing. If the renewed permit requires quarterly chronic WET testing, this testing will be a new requirement for the Suwannee Plant and the costs associated with these tests and possible additional follow up testing as a result of the quarterly tests are incremental increases beyond what PEF is currently required to incur and should be recovered through ECRC.

As referenced above, several of the renewed NPDES permits are still in draft form. PEF expects to have more information on the final status of these permits for the 2011 estimated/actual filing and 2012 projection filing, and will update estimated costs at this time.

(b) Yes. It is likely that the requirement for 7 day chronic whole effluent toxicity testing will remain a component of future NPDES permits.

5. Referring to the Dissolved Oxygen Study project on pages 5 - 6:

(a) PEF stated that it is required "to develop and implement a study of dissolved oxygen (DO) levels . . . ." What activities will be involved in the study's implementation?

(b) When will PEF be required to start and complete the implementation?

(c) Have the costs associated with the implementation been included in the chart of Projected Compliance Costs for NPDES Renewal Permits in Exhibit "C"? If not, what are the estimated compliance costs?

Answer:

(a) The dissolved oxygen study will be comprised of several components. An initial field dissolved oxygen evaluation to identify the lowest dissolved areas of the intake and discharge canal will be performed. Continuously recording dissolved oxygen meters will then be installed in the intake and discharge canal. These recorders will be maintained during the warmer months for two years. Results will then be analyzed and summarized in a final report.

(b) The dissolved oxygen study will begin in May 2011 and conclude at the end of 2012.

(c) The dissolved oxygen study costs are incorporated in the Exhibit C table.

6. Referring to the Freeboard Limitation and Related Studies project on page 6:

(a) When will PEF be required to complete the "studies to evaluate whether the new freeboard limitations can be met under the existing design"?

(b) Within what time period after the completion of the aforementioned studies will PEF need to begin "to conduct additional feasibility studies," if it is determined that the new limits cannot be met with the existing design?

(c) Has PEF included the costs associated with the feasibility studies in Exhibit "C"? If not, what are the estimated costs?

Answer:

(a) The Administrative Order (AO) states that PEF shall be in compliance with the freeboard limitations no later than 30 months from the issuance date of the AO, No. AO021TL. The AO was issued in conjunction with the NPDES permit on February 4, 2011. The compliance date is August 5, 2013. The anticipated Plan of Study completion date is June 24, 2011.

(b) In accordance with the AO, Condition 14, the feasibility study report shall be submitted to the FDEP for review and approval no later than 60 days after the approved Plan of Study anticipated completion date of June 24, 2011. Upon FDEP approval, PEF will implement engineering option(s) specified in the feasibility study report.

(c) The costs associated with the feasibility studies have been included in Exhibit "C".

7. In Order No. PSC-10-0683-FOF-EI, issued November 15, 2010, in Docket No. 100007-EI, the Commission approved PEF's Effluent Limitation Guidelines-related Information Collection Request (ELG-ICR) Project. A major part of the ELG-ICR

Project is for collecting extensive data about a wide range of topics regarding the wastewater at the Crystal River Plant and the Suwannee River Plant. PEF petitioned Florida Industrial Wastewater Facility Permit (IWFP) compliance program consists of 5 wastewater-related studies at 4 sites including the Crystal River Plant and the Suwannee River Plant.

(a) Can the relevant results of the ELG-ICR Project be used for the petitioned IWFP compliance program so that the scope of certain activities of it can be minimized?

(b) If so, please provide details including the associated avoiding costs.

(c) If not, please explain why.

Answer:

(a) No, the ELG-ICR responses cannot be used to minimize the scope of activities listed in the IWFP petition.

(b) N/A.

(c) The 2010 USEPA's ELG-ICR involved updating the Steam Electric Effluent Guidelines found in 40 CFR Part 423. The limits USEPA sets forth in these categorical treatment technology guidelines must be met, using a certain level of treatment, prior to co-mingling with other internal industrial wastewater sources. In the ELG ICR, USEPA largely focused on treatment of flue gas desulfurization (FGD) wastewater and wastewater used to convey coal combustion residuals (fly ash and bottom ash).

The activities indentified in the IWFP petition largely involve "end of pipe" issues that take into account the effects of facilities' combined discharges. These issues, such as those associated with Clean Water Act (CWA) Sections 316(a) and 316(b) (thermal discharges and intake technologies, respectively), and water quality (dissolved oxygen study and Whole Effluent Toxicity Testing) are not addressed in the USEPA ELG-ICR nor is the issue involving the integrity of industrial wastewater percolation pond systems discharging industrial wastewater to groundwater, which is a Florida-specific program not addressed under federal rules.

DATED this 2nd day of May, 2011.

HOPPING GREEN & SAMS, P.A.

By: _____

Gary V. Perko
Florida Bar No. 855898
P.O. Box 6526
Tallahassee, FL 32301
(850) 222-7500

Attorneys for Progress Energy Florida, Inc.

AFFIDAVIT

(STATE OF FLORIDA

COUNTY OF PINELLAS)

I hereby certify that on this 26th day of APRIL, 2011, before me, an officer duly authorized in the State and County aforesaid to take acknowledgments, personally appeared Patricia Q. West, who is personally known to me, and he/she acknowledged before me that he/she provided the answers to interrogatory number(s) 1 - 7 from STAFF'S FIRST SET OF INTERROGATORIES TO PROGRESS ENERGY FLORIDA, INC. (NOS. 1-7) in Docket No(s). 110007-EI, and that the responses are true and correct based on his/her personal knowledge.

In Witness Whereof, I have hereunto set my hand and seal in the State and County aforesaid as of this 26th day of APRIL, 2011.

June C. Mooney

Notary Public
State of Florida, at Large

JUNE C. MOONEY
MY COMMISSION # DD806913
EXPIRES: September 18, 2012
1-800-3-NOTARY Fl. Notary Discount Assoc. Co.

My Commission Expires:

September 18, 2012

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Progress' Responses to Staff's Second Set of Interrogatories (No. 8)

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In re: Environmental cost recovery clause.	DOCKET NO. 110007-EI DATED: MAY 13, 2011

PROGRESS ENERGY FLORIDA'S RESPONSE TO STAFF'S SEOND SET OF INTERROGATORIES (NO. 8)

PROGRESS ENERGY FLORIDA, INC. ("PEF"), pursuant to Rule 28-106.206, Florida Administrative Code, Rule 1.340, Florida Rules of Civil Procedure, and the Order Establishing Procedure in this matter, hereby responds to Staff's Second Set of Interrogatories (No. 8):

RESPONSES

8. **Referring to Forms 42-5A and 42-7A of Exhibit WG-1, please provide a detailed explanation why PEF, for calculating the 2010 Final True-up schedules, used the Jurisdictional Factors that the Commission approved for the period January 2011 through December 2011, on page 3 of order No. PSC-10-0683-FOF-EI, issued on November 15, 2010, in Docket No. 090007-EI, instead of using the Jurisdictional Factors that the Commission approved for January 2010 through December 2010, on page 4 of order No. PSC-10-0759-FOF-EI, issued on November 18, 2009, in Docket No. 100007-EI, as the Company did previously (e.g. 2008 and 2009 Final True-up calculations).**

Answer:

In Order No. PSC-10-0759-FOF-EI the Commission approved the 2010 jurisdictional factors as reasonable for projection purposes, not as final factors for use in actuals. The jurisdictional factors that PEF used in the 2010 Final True-up schedules were appropriate as they were based on the most up to date information for the period. These factors were developed based on the budget information that supported the 2010 forecasted surveillance report that was filed with the Commission in March 2010. These same separation factors were also the basis of the Company's 2010 actual surveillance reports.

The same factors were used to develop the 2011 projected costs. This was reasonable based on the fact that the forecasted separation factors for 2011 were not available at the time of the 2011 projection filing. The 2011 separation factors were developed based on

the budget information for 2011 that supported the forecasted surveillance report that was filed with the Commission in March 2011. Consistent with the 2010 methodology, updated 2011 separation factors will be used in the 2011 actual surveillance reports and the 2011 true-up filing when that is filed in March 2012.

The Company used the same methodology for the 2009 time period. The separation factors used in the 2009 true-up filing were the same as those used in 2009 actual surveillance reporting. There was no difference between the projected separation factors and the true-up separation factors as this period fell under the Company's 2006 base rate settlement agreement which included a revenue sharing mechanism and the Company was not required to perform forecasted surveillance reports during this time period.

DATED this 13th day of May, 2011.

HOPPING GREEN & SAMS, P.A.

By: _____

Gary V. Perko
Florida Bar No. 855898
P.O. Box 6526
Tallahassee, FL 32301
(850) 222-7500

Attorneys for Progress Energy Florida, Inc.

AFFIDAVIT

(STATE OF FLORIDA

COUNTY OF Pinellas)

I hereby certify that on this 12th day of May, 2011, before me, an officer duly authorized in the State and County aforesaid to take acknowledgments, personally appeared WILL GARRETT, who is personally known to me, and he acknowledged before me that he provided the answers to interrogatory number(s) 8 from STAFF'S SECOND SET OF INTERROGATORIES TO PROGRESS ENERGY FLORIDA, INC. (NO. 8) in Docket No. 110007-EI, and that the responses are true and correct based on his personal knowledge.

In Witness Whereof, I have hereunto set my hand and seal in the State and County aforesaid as of this 12th day of May, 2011.

Will Garrett

SUZANNE H. MILLER
MY COMMISSION # DD 842069
EXPIRES: March 27, 2013
Bonded Thru Notary Public Underwriters

Notary Public
State of Florida

My Commission Expires:

3/27/13

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Progress' Responses to Staff's Third Set of Interrogatories (No. 9)

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In re: Environmental cost recovery clause.	DOCKET NO. 110007-EI
	DATED: JUNE 8, 2011

PROGRESS ENERGY FLORIDA'S RESPONSE TO STAFF'S THIRD SET OF INTERROGATORIES (NO. 9)

PROGRESS ENERGY FLORIDA, INC. ("PEF"), pursuant to Rule 28-106.206, Florida Administrative Code, Rule 1.340, Florida Rules of Civil Procedure, and the Order Establishing Procedure in this matter, hereby responds to Staff's Third Set of Interrogatories (No. 9):

RESPONSE

Please refer to Exhibit WG-1, of witness Will Garrett's testimony filed on April 1, 2011, for the following questions.

9. **Referring to the Amortization and Return on Deferred Gain on Sales of Emission Allowances (Project 5) reported on page 5 of Form 42-8A:**

   a. **Please provide the amounts of the Annual SO2 Allowance Auction Proceeds, annual NOx purchases and Seasonal NOx purchases for each month for the period January 2010 through December 2010.**

   b. **Please explain how the numbers on line 1c 1581002 NOx Emission Allowance Inventory were derived. Please provide corresponding formula that PEF used for the calculation.**

Answer:

a. See attachment ROG-9 – SO2 & NOx Breakout.

b. The numbers on line 1 c 1581002 NOx Emission Allowance Inventory were derived from 2010 NOx purchase, sales and usage transactions. See attachment ROG-9 – SO2 & NOx Breakout line 17 Ending Balance (1581002) for calculation of numbers on line 1 c.

SO2 & NOx Breakout

1 Monthly Inventory Detail SO2 Emissions Allowances

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2 Beginning Balance (1581001)	7,312,131.07	7,000,741.17	6,834,721.04	6,734,331.06	6,640,695.48	6,519,512.08	6,351,198.22	6,202,537.20	6,061,925.01	5,945,565.48	5,847,545.23	5,776,103.81
3 SO2 Emissions Expense (5090001)	311,389.90	166,020.13	100,389.98	93,635.58	121,183.40	168,313.86	148,661.02	140,612.19	116,359.53	98,020.25	71,441.42	102,026.04
4 Ending Balance (1581001) (Line 2 + Line 3)	7,000,741.17	6,834,721.04	6,734,331.06	6,640,695.48	6,519,512.08	6,351,198.22	6,202,537.20	6,061,925.01	5,945,565.48	5,847,545.23	5,776,103.81	5,674,077.77

6 Monthly Inventory Detail Auctioned SO2 Allowances

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
7 Beginning Balance (25401FL)	(1,921,713.96)	(1,909,321.24)	(1,896,928.52)	(1,884,535.80)	(1,918,980.09)	(1,901,178.46)	(1,883,376.83)	(1,865,575.20)	(1,847,773.57)	(1,829,971.94)	(1,812,170.31)	(1,794,368.68)
8 SO2 Auction Proceeds	0.00	0.00	0.00	68,472.67	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9 SO2 Amortization Expense (4074004)	12,392.72	12,392.72	12,392.72	34,028.38	17,801.63	17,801.63	17,801.63	17,801.63	17,801.63	17,801.63	17,801.63	17,801.63
10 Ending Balance (25401FL) (Line 7 - Line 8 + Line 9)	(1,909,321.24)	(1,896,928.52)	(1,884,535.80)	(1,918,980.09)	(1,901,178.46)	(1,883,376.83)	(1,865,575.20)	(1,847,773.57)	(1,829,971.94)	(1,812,170.31)	(1,794,368.68)	(1,776,567.05)

12 Monthly Inventory Detail NOx Emissions Allowances

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
13 Beginning Balance (1581002)	36,341,932.35	34,508,213.77	33,472,206.26	32,934,435.04	32,462,754.58	31,471,529.29	30,662,918.50	29,718,190.33	28,894,162.24	28,106,624.64	27,525,606.89	26,998,394.32
14 NOX Purchases (Annual)	375,000.00	500,000.00	0.00	0.00	6,300.00	380,000.00	0.00	0.00	0.00	7,500.00	0.00	1,635,000.00
15 NOx Emissions Expense (5090003)	2,208,718.58	806,007.51	537,771.22	471,680.46	997,525.29	1,188,610.79	944,728.17	824,028.09	787,537.60	588,517.75	527,212.57	917,967.21
16 Other - NOx Sales (Annual)	0.00	730,000.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
17 Ending Balance (1581002) (Line 13 + Line 14 - Line 15 - Line 16)	34,508,213.77	33,472,206.26	32,934,435.04	32,462,754.58	31,471,529.29	30,662,918.50	29,718,190.33	28,894,162.24	28,106,624.64	27,525,606.89	26,998,394.32	27,715,427.11

Note> There were no seasonal NOx purchases in 2010.

DATED this 8th day of June, 2011.

HOPPING GREEN & SAMS, P.A.

By: _____

Gary V. Perko
Florida Bar No. 855898
P.O. Box 6526
Tallahassee, FL 32301
(850) 222-7500

Attorneys for Progress Energy Florida, Inc.

AFFIDAVIT

(STATE OF FLORIDA

COUNTY OF Pinellas)

I hereby certify that on this 7th day of June, 2011, before me, an officer duly authorized in the State and County aforesaid to take acknowledgments, personally appeared WILL GARRETT, who is personally known to me, and he acknowledged before me that he provided the answers to interrogatory number(s) 9 from STAFF'S THIRD SET OF INTERROGATORIES TO PROGRESS ENERGY FLORIDA, INC. (NO. 9) in Docket No. 110007-EI, and that the responses are true and correct based on his personal knowledge.

In Witness Whereof, I have hereunto set my hand and seal in the State and County aforesaid as of this 7th day of June, 2011.

Will Garrett

SUZANNE H. MILLER
MY COMMISSION # DD 842069
EXPIRES: March 27, 2013
Bonded Thru Notary Public Underwriters

Suzanne H. Miller
Notary Public
State of Florida

My Commission Expires:

3/27/13

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Progress' Responses to Staff's Fourth Set of Interrogatories (Nos. 10-11)

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In re: Environmental cost recovery clause.	DOCKET NO. 110007-EI
	DATED: JULY 19, 2011

PROGRESS ENERGY FLORIDA'S RESPONSE TO STAFF'S FOURTH SET OF INTERROGATORIES (NOS. 10-11)

PROGRESS ENERGY FLORIDA, INC. ("PEF"), pursuant to Rule 28-106.206, Florida Administrative Code, Rule 1.340, Florida Rules of Civil Procedure, and the Order Establishing Procedure in this matter, hereby responds to Staff's Fourth Set of Interrogatories (Nos. 10-11):

RESPONSES

Please refer to Exhibit G-1, of witness Will Garrett's testimony filed on April 1, 2011, for the following questions.

10. Please refer to PEF's response to Staff's 1st Set of Interrogatories, No. 9, filed on April 16, 2009, in Docket 090007-EI, regarding the table of *PEF's Generating Facilities and their Air Emission Monitoring and Control Measures.*

a. Please update the table in light of PEF's Review of Integrated Clean Air Compliance Plan, filed on April 1, 2011.

b. Please add a column to the table entitled "Retirement Date" for each air emission monitoring equipment and control system.

Answer:

See attached document.

11. Please refer to PEF's Petition to Modify Scope of Existing Environmental Programs, filed on May 24, 2011.

a. **Item 5, page 4, of the petition indicates that "[i]n 2011, PEF will conduct diagnostic stack testing in order to help inform development of comments on the proposed rule and the development of the compliance strategies." Item 7, page 5, of the petition indicates that "PEF expects to incur approximately $85,000 in costs ... for the remainder of 2011 and approximately $300,000 for calendar year 2012." It appears that the petitioned activities are aiming at preparing for a proposed rule. Please identify any existing rule or regulation that requires PEF to incur the $85,000 and $300,000 in costs.**

b. **Please provide a detailed breakdown of the component activities that comprised the estimated $85,000 in costs.**

c. **Please provide a detailed breakdown of the component activities that comprise the estimated $300,000 in costs which is indicated in item 7, page 5, of the petition.**

d. **Item 4, page 3, of the petition indicates that "EPA issued its proposed rule to replace CAMR on March 16, 2011, ... In accordance with a consent decree, the EPA Administrator must sign a final rule by November 16, 2011. The Clean Air Act generally requires affected facilities to comply with the final rule within three years of adoption, ..." However, on May 16, 2011, the EPA delayed indefinitely, under Section 705 of the Administrative Procedures Act, the effective date for the final rule until judicial challenges are completed or the Agency completes its ongoing reconsideration, whichever is earlier. Will PEF delay its incurrence of the $85,000 and $300,000 in costs for the petitioned proposed rule-related activities?**

Answer:

a. The activities identified in PEF's petition and associated costs in 2011 and 2012 are related to EPA's development of new regulations under Section 112 of the Clean Air Act. The activities in 2011 are necessary for PEF to assess the potential impact of the proposed MACT standards on PEF's electric generating units (EGUs) so that PEF can prepare comments on the proposed rule and assess compliance alternatives. Following up on that initial testing, activities in 2012 will include detailed engineering and other analyses necessary to develop compliance strategies for inclusion in PEF's Integrated Clean Air Compliance Plan. As stated in PEF's petition, the proposed MACT standard and other ongoing rulemakings present significant challenges to the utility industry. Submitting comments on the proposed rule is an opportunity to participate in the development of the final rule by informing EPA of the effects of the proposed rule and suggesting more cost-effective alternatives. Given the lead times for engineering and installation of potential compliance alternatives, PEF also must begin preparing for

compliance with the final rule *now*. As noted in PEF's petition, the EPA is on a court-ordered schedule to issue the final EGU MACT rule by November 16, 2011, and the Clean Air Act generally provides only 3 years to comply with a new MACT standard. By comparison, the original Clean Air Interstate Rule had an initial compliance deadline of approximately 5 years.

As explained in PEF's petition, PEF's request for recovery is fully consistent with established Commission precedent. The Commission repeatedly has stated that "utilities *are expected* to take steps to control the level of costs that must be incurred for environmental compliance." E.g., Order No. PSC-08-0775-FOF-EI, at 7 (Nov. 24, 2008) (emphasis added). Moreover, the Commission has recognized that "[a]n effective way to control the costs of complying with a particular environmental law or regulation can be participation in the regulatory and legal processes involved in defining compliance." Id. Based on that understanding, the Commission has repeatedly approved ECRC recovery of costs incurred by utilities for technical analyses and other activities associated with participation in development of regulations and compliance strategies. In 2005, for example, the Commission approved recovery of FPL's costs for legal challenges to the CAIR rule, as well as preliminary engineering evaluations necessary to develop CAIR compliance strategies. Order No. PSC-05-1251-FOF-EI (Dec. 2005); see also Order No. 08-0775-FOF-EI (Nov. 2008) (approving recovery of litigation and consulting costs related to EPA's 316(b) rules). Similarly, in 2009, the Commission approved recovery of PEF's costs for emissions monitoring and modeling associating with DEP's *development* of TMDLs and parallel air rulemaking. Order No. PSC-09-0759-FOF-EI (Nov. 18, 2009). In this case, PEF similarly seeks to minimize compliance costs by participating in the development of the final MACT rule and associated compliance strategies.

b. The 2011 component activities include: three days of emissions testing for HCL, mercury, and particulate matter; stack test crew mobilization fee; and sample shipment costs.

c. The 2012 component activities include: Flue gas desulfurization (FGD or "scrubber ") optimization and testing; selective catalytic reduction (SCR) optimization and testing; electrostatic precipitator (ESP) optimization and testing; stack emissions testing; and varying unit operational parameters for Hg, PM, HCl and SO2 (e.g., Hydrated Lime injection rates (off, low, medium, and high molar rates); hydrated lime injection locations; fuel; air heater temperatures; combustion conditions.)

d. On May 16, 2011, EPA announced its intention to allow more time to seek and review additional public input on the final emissions standards for *boilers and certain solid waste incinerators* which were issued in the *Federal Register* on March 21, 2011 (also known as the "Industrial Boiler MACT"). 76 Fed. Reg. 15608 (March 21, 2011).

The agency's May 16, 2011 action does *not* apply on the electric generating unit (EGU) MACT rule which is the subject of PEF's May 24, 2011 petition. Therefore, PEF will not delay incurrence of the $85,000 and $300,000 in costs.

DATED this 19th day of July, 2011.

HOPPING GREEN & SAMS, P.A.

By: _____

Gary V. Perko
Florida Bar No. 855898
P.O. Box 6526
Tallahassee, FL 32301
(850) 222-7500

Attorneys for Progress Energy Florida, Inc.

Attachment_ROG10 a + b (June 2011); Rev.00
PEF's Generating Facilities and their Air Emission Monitoring and Control Measures

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15		17	18
						Sc	ox, Hg, CO2, CO and PM Monitoring					SO2, Nox, Hg, CO2, and Particulate Matter En				Controling	
Plant Name	Unit No.	Unit Type	Operating Mode	Net Summer Capacity (MW)	Commercial In-service Month/Year	Existing Equipment/Technology	In Operation (yes/no)	Equipment/ Technology Under Construction	In-service Date	Retirement Date	ECRC Project number	Existing System/ Technology	In Operation (yes/no)	System/Technology Under Construction	In-service Date	Retirement Date	ECRC Project number
1 Crystal River	U1	Tangentially fired PC boiler	Baseload	440.5	1966	CEMS SO2, NOx, CO2	Yes	None	1994	N/A	N/A	ESP, LNB	Yes	No	1966, 1999	N/A	N/A
2 Crystal River	U2	Tangentially fired PC boiler	Baseload	523.8	1969	CEMS SO2, NOx, CO2	Yes	None	1994	N/A	N/A	ESP, LNB	Yes	No	1969, 1998	N/A	N/A
3 Crystal River	U4	Wall fired PC boiler	Baseload	760	1982	CEMS SO2, NOx, CO2, CO	Yes	N/A	1994 (CO: 2009)	N/A	N/A	ESP, LNB, SCR, FGD	Yes, Yes, Yes, Yes	No, No, No, No	1982, 2008, 2010,2010	N/A	7.4
4 Crystal River	U5	Wall fired PC boiler	Baseload	760	1984	CEMS SO2, NOx, CO2, CO	Yes	N/A	1994 (CO: 2010)	N/A	N/A	ESP, LNB, SCR, FGD	Yes, Yes, Yes, Yes	No, No, No, No	1984, 2009, 2009,2009	N/A	7.4
5 Anclote	U1 - U2	Tangentially fired boiler	Intermediate	525	10/16/74, 10/31/78	CEMS SO2, NOx, CO2	Yes	None	1994	N/A	N/A	None					
6 Bartow	U1	Wall fired boiler	Intermediate	120	1958	CEMS SO2, NOx, CO2	No	None	May-05	Mar-09	N/A	ESP	No	No	1962	Mar-09	N/A
7 Bartow	U2	Tangentially fired boiler	Intermediate	120	1961	CEMS SO2, NOx, CO2	No	None	May-05	Mar-09	N/A	None					
8 Bartow	U3	Tangentially fired boiler	Intermediate	225	1963	CEMS SO2, NOx, CO2	No	None	May-05	Mar-09	N/A	None					
9 Bartow	U4A - U4D	Combined cycle combustion turbines	Baseload	1280	2009	CEMS SO2, NOx, CO2, CO	Yes	None	2009	N/A	N/A	WI, DLN, SCR		No	2009	N/A	N/A
10 Bartow	P1-P4	Simple cycle combustion turbines	Peakers	56	1972	PEMS SO2, NOx, CO2	Yes	None	2007	N/A	7.2	None					
11 Suwannee	U1	Wall fired boiler	Intermediate	35	1953	CEMS SO2, NOx, CO2	Yes	None	1994	N/A	N/A	None					
12 Suwannee	U2	Wall fired boiler	Intermediate	34	1954	CEMS SO2, NOx, CO2	Yes	None	1994	N/A	N/A	None					
13 Suwannee	U3	Wall fired boiler	Intermediate	84	1956	CEMS SO2, NOx, CO2	Yes	None	1994	N/A	N/A	None					
14 Suwannee	P1 - P3	Simple cycle combustion turbines	Peakers	63	1980	PEMS SO2, NOx, CO2	Yes	None	2007	N/A	7.2	WI	Yes		1980	N/A	N/A
15 Hines Energy Complex	PB1A - PB1B	Combined cycle combustion turbines	Baseload	500	Aug-98	CEMS SO2, NOx, CO2	Yes	None	Aug-98	N/A	N/A	WI, DLN, SCR	Yes	No	Aug-98	N/A	N/A
16 Hines Energy Complex	PB2A - PB2B	Combined cycle combustion turbines	Baseload	530	Aug-03	CEMS SO2, NOx, CO2, CO	Yes	None	Aug-03	N/A	N/A	WI, DLN, SCR	Yes	No	Aug-03	N/A	N/A
17 Hines Energy Complex	PB3A - PB3B	Combined cycle combustion turbines	Baseload	530	Aug-05	CEMS SO2, NOx, CO2, CO	Yes	None	Aug-05	N/A	N/A	WI, DLN, SCR	Yes	No	Aug-05	N/A	N/A
18 Hines Energy Complex	PB4A - PB4B	Combined cycle combustion turbines	Baseload	530	Sep-07	CEMS SO2, NOx, CO2, CO	Yes	None	Sep-07	N/A	N/A	WI, DLN, SCR	Yes	No	Sep-07	N/A	N/A
19 Tiger Bay Cogen Facility	U1	Combined cycle combustion turbine	Baseload	270	7/20/1994	CEMS SO2, NOx, CO2	Yes	None	1994	N/A	N/A	DLN	Yes	No	Jul-94	N/A	N/A
20 University of Florida	CT	Combustion turbine cogeneration	Baseload	48	9/24/2002	CEMS SO2, NOx, CO2	Yes	None	Sep-02	N/A	N/A	SI	Yes	No	Sep-02	N/A	N/A
21 Intercession City	P1 -P6	Simple cycle combustion turbines	Peakers	56.7	1974	PEMS SO2, NOx, CO2	Yes	None	2007	N/A	7.2	None					
22 Intercession City	P7 - P10	Simple cycle combustion turbines	Peakers	96.3	Aug-93	CEMS SO2, NOx, CO2	Yes	None	Aug-93	N/A	N/A	WI	Yes	No	Aug-93	N/A	N/A
23 Intercession City	P11	Simple cycle combustion turbines	Peakers	171	Jan-97	CEMS SO2, NOx, CO2	Yes	None	Jan-97	N/A	N/A	WI	Yes	No	Jan-97	N/A	N/A
24 Intercession City	P12 - P14	Simple cycle combustion turbines	Peakers	91	2001	CEMS SO2, NOx, CO2	Yes	None	Jun-05	N/A	N/A	WI, DLN	Yes	No	Jun-05	N/A	N/A
25 DeBary	P1 - P6	Simple cycle combustion turbines	Peakers	51.9	1975 - 1976	PEMS SO2, NOx, CO2	Yes	None	2007	N/A	7.2	None					
26 DeBary	P7 - P10	Simple cycle combustion turbines	Peakers	92.9	Nov-92	CEMS SO2, NOx, CO2	Yes	None	Nov-92	N/A	N/A	WI	Yes	No	Nov-92	N/A	N/A
27 Bayboro Power Plant	P1 - P4	Simple cycle combustion turbines	Peakers	56.7	1973	PEMS SO2, NOx, CO2	Yes	None	2007	N/A	7.2	None					
28 Turner	P1 - P2	Simple cycle combustion turbines	Peakers	18	10/9/1970	PEMS SO2, NOx, CO2	Yes	None	2007	N/A	7.2	None					
29 Turner	P3 - P4	Simple cycle combustion turbines	Peakers	82	6/14/1974	PEMS SO2, NOx, CO2	Yes	None	2007	N/A	7.2	None					
30 Higgins Power Plant	P1 - P2	Simple cycle combustion turbines	Peakers	37	1969	PEMS SO2, NOx, CO2	Yes	None	2007	N/A	7.2	None					
31 Higgins Power Plant	P3 - P4	Simple cycle combustion turbines	Peakers	42.9	1970 -1971	PEMS SO2, NOx, CO2	Yes	None	2007	N/A	7.2	None					
32 Avon Park	P1 - P2	Simple cycle combustion turbines	Peakers	33.8	1968	PEMS SO2, NOx, CO2	Yes	None	2007	N/A	7.2	None					
33 Rio Pinar	P1	Simple cycle combustion turbines	Peakers	18	11/26/1970	None						None					

Note Column 7:	CEMS	= Continuous emissions monitoring system	PEMS	= Predictive emissions monitoring system
Note Column 13:	WI	= Water Injection for NOx control	ESP	= Electrostatic precipitator for particulate matter control
	SI	= Steam injection for NOx control	LNB	= Low Nox burners
	DLN	= Dry low NOx combustion technology for natural gas	FGD	= Flue gas desulfurization
	SCR	= Selective catalytic reduction for NOx control		

00000329

AFFIDAVIT

STATE OF FLORIDA

COUNTY OF PINELLAS

I hereby certify that on this 18th day of July, 2011, before me, an officer duly authorized in the State and County aforesaid to take acknowledgments, personally appeared Patricia Q. West, who is personally known to me, and she acknowledged before me that she provided the answers to interrogatory numbers 10 and 11 from STAFF'S FOURTH SET OF INTERROGATORIES TO PROGRESS ENERGY FLORIDA, INC. (NOS. 10-11) in Docket No. 110007-EI, and that the responses are true and correct based on her personal knowledge.

In Witness Whereof, I have hereunto set my hand and seal in the State and County aforesaid as of this 18th day of July, 2011.

June C. Mooney

Notary Public
State of Florida, at Large

JUNE C. MOONEY
MY COMMISSION # DD806913
EXPIRES: September 18, 2012
Fl. Notary Discount Assoc. Co.
1-800-3-NOTARY

My Commission Expires:

September 18, 2012

17

Progress' Responses to Staff's Fifth Set of Interrogatories (No. 12)

RECEIVED
SEP 12 2011
FLORIDA PUBLIC SERVICE COMMISSION
OFFICE OF THE GENERAL COUNSEL

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In re: Environmental cost recovery clause.

DOCKET NO. 110007-EI

DATED: SEPTEMBER 12, 2011

PROGRESS ENERGY FLORIDA'S RESPONSE TO STAFF'S FIFTH SET OF INTERROGATORIES (NO. 12)

PROGRESS ENERGY FLORIDA, INC. ("PEF"), pursuant to Rule 28-106.206, Florida Administrative Code, Rule 1.340, Florida Rules of Civil Procedure, and the Order Establishing Procedure in this matter, hereby responds to Staff's Fifth Set of Interrogatories (No. 12):

RESPONSE

12. **Please refer to PEF's Estimated and Actual True-up testimonies filed on August 1, 2011.**

    a) **On page 11, lines 1 – 2, of witness West's testimony, it states "As of January 1, 2012, the emission allowances under CAIR [Clean Air Interstate Rule] will have no value." On page 7, lines 19 – 22, of witness Foster's testimony, it states "PEF has reflected movement of these capital investments from the NOx allowance inventory line of schedule 42-8E page 5 to a line showing these investments as a regulatory asset to be recovered in rates in 2012." Please explain why PEF did not afford the same treatment to the SO_2 allowance inventory, which will be also valueless by December 31, 2011, per witness West's testimony.**

    b) **Please specify how PEF will handle the SO_2 allowance inventory when it will lose its value at the end of 2011.**

    c) **It appears that beginning on January 1, 2012, Florida electric generating units would be subject to the NOx emission only under the Ozone season portion of the Cross-State Air Pollution Rule (CSAPR), and units subject to the Acid Rain Program would return to that program for compliance with SO_2 emissions. According to witness West, emission allowances previously issued to utility companies under CAIR and the Acid Rain Program cannot be used to comply with CSAPR requirements. Please identify whether proposed emission allowance allocations under the new rule will be sufficient to cover the projected**

future emissions from PEF's fossil generating stations. If PEF's emissions allowance will not be sufficient, please describe what steps PEF will take to comply with CSAPR.

Answer:

a) The emission allowances referred to in witness West's testimony (page 11, lines 1 – 2) are the NOx allowances issued under the Clean Air Interstate Rule (CAIR). SO_2 allowances were issued for the Acid Rain Program (ARP) under Title IV of the Clean Air Act and were also utilized at a 2:1 ratio for CAIR compliance. The SO_2 allowances will remain in effect for future ARP compliance, but will not be used for CSAPR because Florida is not included in the SO_2 program of the new rule; Florida is only included in the NOx ozone season of CSAPR.

b) As stated in response 12 a), the SO_2 allowances will not lose value at the end of 2011. These allowances will continue to be used to comply with the ARP.

c) As described in PEF's August 19, 2011 responses to the FPSC Undocketed Information Request (Question 1),

"... the final CSAPR is stringent with a 70% reduction in the number of ozone-season NOx allowances allocated to PEF units as opposed to the proposed Transport Rule. In addition, the total allocation to all utilities in the state was reduced by approximately 50%; therefore, the opportunity to purchase allowances within the state of Florida will be limited. In addition, the stringency of this rule with the assurance provisions starting in 2012 has added a layer of complexity to the initial analysis due to the lack of market data for potential emissions allowance prices.

Short-term compliance strategies will be limited in nature and dependent upon how the allowance market develops and whether a reasonable forecast of future allowance prices can be obtained. The compliance options for the next year or two most likely will include adjustments to dispatch during the NOx ozone season (May 1 – September 30) to run coal and oil-fired units less and increase the generation from natural-gas fired units, in addition to limited allowance purchases. The options evaluated will also need to take into account the constraints associated with this rule along with the price of allowances, which include the state cap on allowance and the strict assurance provisions, which would result in the need to surrender additional allowances if the state emissions cap is exceeded.

While PEF is evaluating the cost-effective short-term options available to address this particular rule, any long-term compliance strategies cannot be developed with this rule in isolation. PEF's fleet is also impacted by a number of other proposed EPA regulations including the Maximum Achievable Control Technology for electric generating units (Utility MACT) rule and 316(b) cooling water intake requirements along with future SO_2 and ozone National Ambient Air Quality Standards (NAAQS) requirements. These regulations and other long range planning issues are taken into account in determining the most viable options for PEF's fleet."

DATED this 12th day of September, 2011.

HOPPING GREEN & SAMS, P.A.

By: _____

Gary V. Perko
Florida Bar No. 855898
P.O. Box 6526
Tallahassee, FL 32301
(850) 222-7500

Attorneys for Progress Energy Florida, Inc.

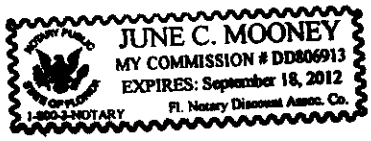
AFFIDAVIT

STATE OF FLORIDA

COUNTY OF PINELLAS

I hereby certify that on this 30th day of August, 2011, before me, an officer duly authorized in the State and County aforesaid to take acknowledgments, personally appeared Patricia Q. West, who is personally known to me, and she acknowledged before me that she provided the answers to interrogatory number 12 from STAFF'S FIFTH SET OF INTERROGATORIES TO PROGRESS ENERGY FLORIDA, INC. (NO. 12) in Docket No. 110007-EI, and that the responses are true and correct based on her personal knowledge.

In Witness Whereof, I have hereunto set my hand and seal in the State and County aforesaid as of this 30th day of August, 2011.



Notary Public
State of Florida, at Large

My Commission Expires:

September 18, 2012

18

Progress' Responses to Staff's Sixth Set of Interrogatories (Nos. 13-14)

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

RECEIVED
SEP 15 2011
FLORIDA PUBLIC SERVICE COMMISSION
OFFICE OF THE GENERAL COUNSEL

In re: Environmental cost recovery clause.

DOCKET NO. 110007-EI

DATED: SEPTEMBER 15, 2011

PROGRESS ENERGY FLORIDA'S RESPONSE TO STAFF'S SIXTH SET OF INTERROGATORIES (NOS. 13-14)

PROGRESS ENERGY FLORIDA, INC. ("PEF"), pursuant to Rule 28-106.206, Florida Administrative Code, Rule 1.340, Florida Rules of Civil Procedure, and the Order Establishing Procedure in this matter, hereby responds to Staff's Sixth Set of Interrogatories (Nos. 13-14):

RESPONSES

13. **Please refer to pages 4 and 7 of witness Foster's testimony and page 8 of Exhibit TGF-3 filed on August 26, 2011.**

    a. **On page 4 of his testimony, witness Foster stated "NOx and SO2 emission allowances under the current CAIR cannot be used to satisfy the new CSAPR programs effective January 1, 2012." (Lines 22 – 23) Referring to page 8 of Exhibit TGF-3, PEF has projected SO2 expenses totaling $335,206 for 2012, on Line 6a 5090001 SO2 Allowance Expense. Please explain from where PEF will obtain the SO2 allowances that will be useful under the new CSAPR rule.**

Answer: Please see PEF's response to Staff's Fifth Set of Interrogatories No. 12a.

    b. **Referring to page 8 of Exhibit TGF-3, please explain the differences between Line 6a 5090001 SO2 Allowance Expense and Line 6b 4074004 SO2 Allowance Amortization Expense.**

Answer: Line 6a 5009001 SO2 Allowance Expenses is the estimated cost of allowances that will be expensed concurrent with monthly emissions of SO2 in 2012. PEF is allocated allowances from the EPA at no cost and also purchases allowances in the market. PEF values its pool of SO2 inventory allowances at average cost and expenses these allowances to meet emission compliance requirements using an average cost method.

Line 6b 4074004 SO2 Allowance Amortization Expense is estimated amortization of 2012 SO2 allowance auction proceeds. EPA auctions a percentage of a utility's SO2 allowances each year. EPA remits these auction proceeds to the utility and the utility then gives them back to the customers through the ECRC. PEF accounts for the proceeds in as a regulatory liability (account 25401FL) and amortizes the proceeds for each vintage year over a 12 month period.

c. **According to the Excel file ecrc-2012-projection.xlsm which PEF filed on August 26, 2011, it appears that PEF has projected it will use the allowances from its 2011 SO2 inventory to cover the company's 2012 SO2 allowance expense. In light of witness Foster's testimony mentioned in (a), please explain why such projection is appropriate.**

Answer: Please see PEF's response to Staff's 5th Set of Interrogatories No. 12a. Due to the fact that these allowances still have value and are expected to be used to comply with the Acid Rain Program under Title V of the Clean Air Act, it is appropriate to continue to treat these allowance expenses in the same manner as in prior periods. The Commission approved ECRC recovery of SO_2 Emission Allowances under CAA Title IV in Order No. PSC-95-0450-FOF-EI.

d. **Referring to the beginning balance of $22,549,875 reported on Line 1d 1823403 NOx Emission Allowance Regulatory, please break this amount down to show how much was purchased by PEF from the allowance market and how much was allocated to PEF by the EPA under the CAIR program.**

Answer: All of the $22.5 million referenced above was purchased by PEF from the allowance market. PEF does not book any value in inventory for allowances the EPA gives to PEF at no charge. The Company does not impute a value for allowances based on market conditions. For this reason, all of the $22.5 million was incurred purchasing NOx allowances and represent investment PEF has made in this inventory. When allowances are expensed, PEF values its pool of NOx inventory allowances at average cost consistent with inventory accounting principles. Consistent with this inventory method, this cost is spread over all inventory and expensed at an average cost as the allowances are used. In no case would PEF expense more than PEF has incurred purchasing allowances. [NOTE: This answer also is responsive to Interrogatory No. 16a of Staff's Seventh Set of Interrogatories to PEF]

e. **For the purchased portion mentioned in (d), please fill out Table 1 below for the period 2007 through 2011.**

Answer: Please see Attachment 13-e. [NOTE: PEF has revised the tables to also include the additional information requested in Interrogatory No. 16c (Table I) of Staff's Seventh Set of Interrogatories to PEF]

f. **Please elaborate on the statement "[t]he impact this has on 2012 costs is instead of expensing some portion of the investment balance, the full balance of approximately $22.5 million is amortized." (Lines 16 – 18 on page 7 of Foster's testimony)**

Answer: As PEF has described in its Integrated Clean Air Compliance Plan, these allowances represent an inventory of NOx annual and seasonal allowances that would have been used under the Clean Air Interstate Rule (CAIR) over a period of several years. EPA's new Cross-State air Pollution Rule (CSAPR) does not recognize NOx allowances that qualify under the prior EPA CAIR. Because the EPA has changed their rules for compliance, any unused NOx allowances

issued under the CAIR are expected to have no value as of year-end 2011. Prior to EPA changing the rules, the value of these allowances was expected to be used over several years. Because these allowances may now have no value in the future, PEF believes it is appropriate to amortize their cost into rates over the projection period. If CSAPR is stayed and/or reconsidered, PEF's purchased emissions allowances could retain a market value and would not be written off. PEF cannot predict what may happen in the future related to motions filed challenging the CSAPR.

g. Please provide detailed explanations regarding whether PEF acted prudently in acquiring approximately $22.5 million in now worthless NOx allowances.

Answer: The strategic purchase of annual and ozone season NOx emission allowances over time has always been part of PEF's Commission-approved Integrated Clean Air Compliance Plan. As discussed below, PEF has consistently kept the Commission apprised of its NOx allowance procurement strategy. PEF acted in a reasonable and prudent manner by gradually increasing its NOx allowance inventory based on forecasted needs using the best information available at the time. PEF adjusted its procurement strategy in response to judicial and regulatory developments affecting its compliance obligations and changes in forecasts. Between the time the Clean Air Interstate Rule (CAIR) was vacated until it was subsequently reinstated, PEF did not purchase any additional NOx allowances. After CAIR was reinstated, PEF made some limited purchases in order to ensure compliance going forward. However, PEF stopped purchasing NOx allowances after May 2009 -- well before EPA first indicated that banked allowances may not be useful when it proposed a new rule to replace CAIR in July 2010. EPA's final Cross-State Pollution Rule (CSAPR), which if not stayed or revised, would devalue PEF's NOx allowance inventory, does not provide a basis for applying improper hindsight review.

Regulatory Background

By way of background, CAIR established new seasonal and annual emission compliance requirements for NOx. Beginning in 2009, CAIR required affected sources to complete a seasonal NOx emission allowance compliance submittal for the May 1 through September 30 time period and an annual NOx emission allowance compliance submittal for the January 1 through December 31 time period each year. For each submittal, affected sources were required to have an amount of NOx allowances equal to the tons of NOx emitted during the relevant time period.

When PEF first submitted its Integrated Clean Air Compliance Plan for Commission review in March 2006, PEF provided detailed economic analyses of five potential compliance scenarios, including one ("Plan A") that would call for installation of NOx emission controls on all of PEF's coal-fired units at the Crystal River Plant to comply with CAIR without having to purchase allowances. However, the economic analysis demonstrated that "Plan D," which relied on strategic purchases of annual and seasonal NOx allowance rather than installing NOx controls on Crystal River Units 1 and 2, was the most cost-effective option for compliance with CAIR and related regulatory requirements. *See* Testimony of Daniel J. Roeder in Docket NO. 060007-EI (filed Mar.31, 2006) and Exhibit No. 11 (DJR-1).

In the 2007 ECRC docket, PEF submitted updated economic analyses confirming that Plan D, including its reliance on NOx allowance purchases, was the most cost-effective option. *See* Testimony of Samuel Waters in Docket No. 070007-EI (filed June 1, 2007) and Exhibit No. 30 (SSW-1). As discussed on pages 8-9 of the testimony of PEF witness Samuel Waters, the economic analyses demonstrated that "[n]ot only is Plan D the most cost-effective alternative under base planning assumptions, it is the most robust plan over a range of allowance prices, representing the best balance between increased capital expenditures for added controls and increased allowance prices" In the same 2007 ECRC docket, PEF witness Joseph McCallister explained PEF's allowance purchase strategy as follows:

> PEF's overall procurement strategy for meeting emission allowance requirements is to buy allowances over time based on forecasted needs to comply with existing and future compliance requirements. PEF believes a procurement strategy of buying emission allowances over time is a reasonable and prudent approach to manage compliance requirements, reduce price risk and volatility for customers, and provide greater price certainty for our customers.

Testimony of Joseph McCallister in Docket No. 070007-EI, at p.2 (filed Aug. 3, 2007). Mr. McCallister also advised the Commission that PEF had begun purchasing NOx allowances and explained the market conditions at that time. *Id.* at pp. 3-5. Based on the record, including the testimony of Mr. Waters and Mr. McCallister, the Commission specifically found that "PEF's Integrated Clean Air Compliance Plan represents the most cost-effective alternative for achieving compliance with CAIR, CAMR, CAVR, and related regulatory requirements, and it is reasonable and prudent for PEF to recover prudently incurred costs to implement the plan." Order No. PSC-07-0922-FOF-EI issued in Docket No. 070007-EI, at p.8 (Nov. 2007).

In the 2008 ECRC docket, Mr. McCallister reiterated PEF's allowance procurement strategy and again advised the Commission that, consistent with its strategy, "PEF has been purchasing seasonal and annual NOx allowances over time to gradually increase inventories to the levels necessary to achieve compliance." Testimony of J. McCallister in Docket No. 080007-EI, at p. 4 (filed Aug. 4, 2008). However, Mr. McCallister also advised the Commission that PEF had stopped purchasing CAIR emission allowances in light of a recent (July 2008) federal court order vacating CAIR. *Id.* Once again, based on Mr. McCallister's testimony and annual review submitted by PEF witness Patricia West, the Commission found that "PEF's Plan represents the most cost-effective alternative for achieving and maintaining compliance with CAIR, CAVR, and other environmental requirements." Order No. PSC-08-0775-FOF-EI, issued in Docket No. 080007-EI, at p. 11 (Nov. 2008).

In December 2008, the federal court issued a revised decision that remanded CAIR back to EPA without vacating the rule. *See, North Carolina v. EPA*, 550 F.3d 1176, 1178 (DC Cir. 2008). As a result, CAIR remained in effect in its original form and, as Mr. McCallister advised the Commission in testimony submitted in April 2009, PEF resumed purchasing allowances consistent with its procurement strategy and the requirement to comply with CAIR. Testimony of J. McCallister in Docket No. 090007-EI, at pp. 4-5 (filed April 1, 2009). In August 2009, Mr. McCallister updated the Commission on PEF's implementation of its allowance procurement

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strategy. Testimony of J. McCallister in Docket No. 090007-EI (filed Aug, 3 and 28, 2009). Once again, based on Mr. McCallister's testimony and annual review submitted by Ms. West, the Commission found that "PEF's [Integrated Clean Air Compliance] plan remains the most cost-effective alternative for achieving and maintaining compliance with air quality control and monitoring regulatory requirements." Order No. PSC-09-0683-FOF-EI, issued in Docket No. 090007-EI, at p. 6 (Nov. 2009).

In July, 2010, EPA issued a proposed "transport rule" to replace CAIR in response to the federal court's remand. *See* 75 Fed. Reg. 45,210 (Aug. 2, 2010). At that time, EPA proposed to continue to include Florida within the annual NOx and ozone season NOx allowance programs. The preamble to the proposed rule included a one-page discussion of how banked NOx allowances <u>might be</u> treated. *Id.* at 45,339. EPA requested comment on alternative approaches that would allow some or all of the banked allowances to be used. However, EPA's proposed approach was to not allow use of banked NOx allowances. This was the first indication banked NOx allowances <u>might</u> lose value. It was not until July 6, 2011, when EPA issued the final CSAPR to replace CAIR that EPA announced its <u>final</u> decision that Florida would not be included in the annual NOx program and that banked allowances could not be used for compliance.[1] *See* 76 Fed. Reg. 48,208 (Aug. 8, 2011). In any event, as noted below, PEF had already stopped purchasing NOx allowances in May 2009, well before EPA had indicated that NOx allowances might lose value.

<u>Prudence of PEF's NOx Allowance Procurement Strategy</u>

Under well-established Commission precedent, "the standard for determining prudence is consideration of what a reasonable utility manager would have done, in light of conditions and circumstances which were known, or reasonably should have been known, at the time the decision was made." PSC-08-0749-FOF-EI, at p. 28 (Nov. 12, 2008). During the relevant time period, in order to determine if PEF needed to purchase seasonal and annual NOx emission allowances, PEF compared the total seasonal and annual NOx emissions projections from fuel and generation forecasts to the number of seasonal and annual NOx allowances held by PEF, which includes allocations, purchases made over time, and carryovers. As part of the fuel and generation forecasting processes, emission burn projections are generated on a periodic basis for future periods with consideration of generation availability, planned outage schedules, purchase power contracts, fuel price forecasts, planned environmental equipment installations and load projections. In aggregate, if the number of allowances that PEF required to comply with CAIR based on forecasted emissions was greater than the number of allowances PEF held, then PEF needed to purchase additional allowances from the market. The following discussion summarizes PEF's annual and seasonal NOx forecasted emissions, allocations and purchases made over time to demonstrate the prudence of PEF's NOx allowance procurement strategy.

[1] While CSAPR is a final rule, several motions have been filed, and more are expected, requesting reconsideration and a stay of the rule which could delay implementation. To date Edison Mission Energy, Luminant Energy, Xcel Energy and the state of Louisiana have challenged CSAPR. Additional challenges to the rule are expected. If CSAPR is stayed and/or reconsidered, PEF's purchased emissions allowances could retain a market value and would not be written off.

For illustrative purposes, as outlined in Figure 1 below as of July 19, 2007, PEF's annual NOx allowance allocations for 2009 were 16,566 tons with projected emissions of 34,183 tons. At that point in time, PEF had procured 2,650 of annual NOx allowances for 2009. PEF was forecasting the need to procure a minimum of an additional 14,967 annual NOx allowances to comply with CAIR for 2009. Similarly, as of July 19, 2007, annual NOx allowance allocations for 2010 were 16,566 tons with projected emissions of 20,917 tons. At that point in time, PEF had procured 650 annual NOx allowances for 2010. After purchases of 2010 annual NOx allowances totaling 650 tons, PEF was forecasting the need to purchase an additional 3,696 tons of 2010 annual NOx allowances to comply with CAIR requirements for 2010.

As a result, consistent with the procurement strategy described in PEF's Integrated Clean Air Compliance Plan and prior testimony, PEF bought NOx allowances over time to meet forecasted needs. Figure 1 below demonstrates that the forecasted needs decreased over time due to changes in forecasted emissions due to lower power demand forecasts and changes in the fuel markets. As of May 2009, PEF estimated based on recent forecasts that it had accumulated an adequate inventory to be in compliance with CAIR requirements for 2009 and 2010. Thus, PEF made no additional annual NOx allowance purchases.

Annual NOx	[illegible]		[illegible]		[illegible]		[illegible]	
	2009	2010	2009	2010	2009	2010	2009	2010
[illegible]	16,566	16,566	16,182	16,182	16,182	16,182	16,182	16,182
[illegible]	0	0	0	0	0	0	0	92
[illegible]	2,650	650	10,010	2,610	11,410	2,610	12,260	2,610
[illegible]	19,216	17,216	26,192	18,792	27,592	18,792	28,442	18,884
[illegible]	34,183	20,912	31,866	19,726	28,927	19,510	28,350	18,170
[illegible]	(14,967)	(3,696)	(5,674)	(934)	(1,335)	(718)	92	714

Figure 1. PEF Annual NOx Position Over Time

For illustrative purposes, with respect to seasonal NOx allowances, Figure 2 below demonstrates that, as of July 19, 2007, PEF had procured sufficient 2009 seasonal NOx allowances, but was forecasting the need to purchase additional seasonal NOx allowances to comply with CAIR requirements for 2010. Rather than purchasing additional allowances to meet the forecasted 2010 need, PEF exchanged allowances between years for 2010 CAIR compliance. As shown in Figure 2, between July 19, 2007 and July 14, 2008, PEF's net position for 2010 CAIR compliance changed from a requirement to purchase a minimum of 192 seasonal NOx allowances to estimated position that achieved minimum compliance. As with annual NOx allowances, forecast changes occurred over time as a result of lower power demand forecasts and changes in the fuel markets. Based on the changed forecast, PEF made no additional seasonal NOx allowance purchases after July 2007. Although PEF projected a surplus of allowances at this point in time, the CAIR rule in effect at that time would have allowed PEF to "bank" any surplus allowances for use in later years.

Seasonal NOx	7/18/2007		7/14/2008	
	2009	2010	2009	2010
[redacted]	8,121	8,121	7,962	7,962
	0	1,956	0	978
	8,243		6,885	1,155
	16,364	10,077	14,847	10,095
	14,408	10,269	13,869	9,820
	1,956	(192)	978	275

Figure 2. PEF Seasonal NOx Position Over Time

As noted in Figure 3 below, as of July 14, 2008 PEF forecasted a deficit of seasonal NOx allowances extending through 2020. Thus, although PEF had a surplus in 2009 and 2010, PEF was forecasting the need for additional purchases.

[redacted]													
Seasonal NOx Position													
Owned													
Carryover		-	978	275	-	-	-	-	-	-	-	-	-
Sold Allowances													
Purchased Allowances		6,885	1,155	667									
EPA Seasonal Allocation	NA	7,962	7,962	7,962	7,962	7,962	7,962	6,529	6,529	6,529	6,529	6,529	6,529
Total Owned	NA	14,847	10,095	8,904	7,962	7,962	7,962	6,529	6,529	6,529	6,529	6,529	6,529
Seasonal Projected Burn	NA	13,869	9,820	10,726	10,581	9,060	9,327	9,524	9,181	8,778	9,191	8,564	8,771
Net Position	NA	978	275	(1,822)	(2,619)	(1,098)	(1,365)	(2,995)	(2,652)	(2,249)	(2,662)	(2,035)	(2,242)

Figure 3. PEF Seasonal NOx Risk Report 7/14/2008

For additional illustration of PEF's procurement strategy and approach, as outlined in Figures 4 and 5 below, PEF forecasted the need to purchase annual NOx positions through 2020 on July 14, 2008 and February 13, 2009. In addition, the February 13, 2009 estimated position shows a forecasted annual NOx deficit for the remaining calendar year in 2009. As noted earlier, based on a forecasted deficit for 2009 in early 2009, PEF made some limited purchases of annual NOx allowances over time based on forecasted needs to build adequate inventory for 2009 compliance. However, PEF has not entered into any more contracts to buy allowances since May 2009.

[redacted]													
Annual NOx Position													
CAIR Compliance													
Owned													
Carryover		-	-	-	-	-	-	-	-	-	-	-	-
Sold Allowances													
Purchased Allowances		10,010	2,610	2,785	1,850	1,025	850						
EPA Annual Allocation	NA	16,182	16,182	16,182	16,182	16,182	16,182	13,593	13,593	13,593	13,593	13,593	13,593
Total Owned	NA	26,192	18,792	18,967	17,832	17,207	16,832	13,593	13,593	13,593	13,593	13,593	13,593
Annual Projected Burn	NA	31,866	19,726	22,119	21,271	20,003	19,834	20,416	19,967	19,325	19,288	18,926	18,926
Net Position	NA	(5,674)	(934)	(3,152)	(3,439)	(2,796)	(2,802)	(6,823)	(6,374)	(5,732)	(5,695)	(5,333)	(5,333)

Figure 4. PEF NOx Annual Risk Report 7/14/2008

NOx POSITION												
Annual NOx Position												
CAIR Compliance												
Owned												
Carryover	-	-	-	1,537	1,163	-	-	-	-	-	-	-
Sold Allowances												
Purchased Allowances	11,410	2,610	3,085	1,950	1,325	950						
EPA Annual Allocation	16,182	16,182	16,182	16,182	16,182	16,182	13,593	13,593	13,593	13,593	13,593	13,593
Total Owned	27,592	18,792	19,267	19,669	18,670	17,132	13,593	13,593	13,593	13,593	13,593	13,593
Annual Projected Burn	28,927	19,510	17,730	18,506	18,750	17,442	17,672	19,393	18,661	18,447	18,511	18,975
Net Position	(1,335)	(718)	1,537	1,163	(80)	(310)	(4,079)	(5,800)	(5,068)	(4,854)	(4,918)	(5,382)

Figure 5. PEF NOx Annual Risk Report 2/13/2009

As these illustrations show, PEF was making procurement decisions over time based on periodic forecasts that existed at the time purchases were made and consistent with expected rules and regulations in place. PEF was executing its long-term procurement strategy and was monitoring changes to forecasted emissions over time. Once the NOx allowance inventories were deemed to be adequate, PEF no longer made emission allowance purchases.

The table provided in response to Staff Interrogatory No. 13e details all of PEF's NOx allowance purchases over time. Consistent with the procurement strategy that PEF described in its Integrated Clean Air Compliance Plan and testimony submitted to the Commission, between late-2006 and mid-2008, PEF purchased NOx allowances to gradually build up an inventory that would allow PEF to comply with CAIR over the long-term based on forecasted needs. Between the time CAIR was vacated in July 2008 until it was reinstated in December 2008, PEF did not purchase any additional allowances. After CAIR was reinstated, PEF made some limited purchases in order to ensure compliance going forward, but PEF made no NOx allowances purchases after May 2009 -- well before EPA first indicated that banked allowances may not be useful when it proposed a new rule to replace CAIR in July 2010.

Conclusion

As demonstrated above, PEF acted prudently in implementing its procurement strategy of purchasing NOx allowances over time to gradually increase inventory levels based on emission forecasts developed using the best information available at the time. The Commission recognized as much when it repeatedly approved PEF's Integrated Clean Air Compliance Plan in each annual ECRC proceeding since 2007. EPA's subsequent decision that "banked" NOx allowances cannot be used beyond 2011 is not a basis for "impermissibly applying hindsight review, which is the application of facts that are known today to decisions made in the past (*i.e.*, Monday morning quarterbacking)." Order No. 13452 issued in Docket No. 820001-EU-A (June 22, 1984).

h. Please explain in detail why it is appropriate for PEF to use a one year amortization period, rather than a longer amortization period, to recover the aforementioned $22.5 million.

Answer: PEF believes the amortization of this investment into rates over one year is appropriate because due to the EPA changing the program that they established these allowances will no longer have value in future periods. These investments were prudently incurred under a Commission approved Compliance Plan as described further above in response to Interrogatory No. 13g. While PEF believes a one year amortization period is the most appropriate, other amortization periods could also be reasonable under these circumstances.

i. Please fill out Tables 2 through 5 below.

Answer: Please see Attachment 13-i. [NOTE: PEF has revised the tables to also include the additional information requested in Interrogatory No. 16c (Tables II – V) of Staff's Seventh Set of Interrogatories to PEF]

14. Please refer to witness Sorrick's testimony filed on August 26, 2011.

a. Referring to lines 11 – 12, on page 3, please explain in detail why PEF projects approximately $1.1 million in CR5 outage costs will be recovered through the ECRC. What is the cause of this outage and how long will it be?

Answer: This is a regularly scheduled maintenance outage, which includes maintenance activities associated with the Crystal River Unit 5 (CR5) air pollution control equipment. The $1.1 million for which PEF seeks ECRC recovery includes only costs directly associated with the new clean air equipment. As with all power plant equipment, regular maintenance and engineering inspections are required to maintain equipment performance and reliability. The outages are scheduled based upon the optimized Generating Unit Maintenance Schedule which considers multiple variables when granting unit outages. During a unit outage, when the steam plant is not producing flue gases, the clean air equipment must also be removed from service. To make efficient use of the steam plant outage period, inspections, cleanings and maintenance of the clean air equipment are performed concurrently. The fall CR5 outage in 2012 is scheduled for [redacted].

b. Please provide a detailed breakdown of the component items that comprise the $1.1 million in O&M expenditures related to the aforementioned CR5 outage.

Answer: The O&M cost of the Crystal River Unit 5 (CR5) outage is based upon the periodic maintenance of clean air equipment. Please see Confidential Attachment 14-b, which is being filed pursuant to a Request for Confidential Classification of certain confidential proprietary information..

c. **Referring to lines 3-4, on page 4, please provide a detailed explanation regarding the "alternative" water project. What will be the component activities and their associated costs that comprise this alternative water project? Which units at Crystal River plan will be the beneficiaries of the project?**

Answer: To operate the FGD systems on Crystal River Units 4&5, additional water was needed. The need to install additional ground water wells and increase the permitted use of ground water was necessary to supply this additional water. This required a modification to the existing water use permit conditions contained in the Conditions of Site Certification (COC) for Crystal River Units 4&5. The modified COC conditions required the following contained in COC PA77-09O, Section C.II.D. "a" through "f". The first two of these conditions are provided below:

a. *Within 6 months of groundwater use rising to more than 3 million gallons per day (average annual daily withdrawal quantity) from all the wells included in this site certification, the Licensee shall submit for SWFWMD approval, an Alternative Water Supply Plan. The Alternative Water Supply Plan shall evaluate, identify, and propose alternative water supply development of at least three million two hundred thousand (3,200,000) gallons per day* (gpd).

b. *Within 2 years of groundwater use rising to more than 3 million gallons per day (average annual daily withdrawal quantity) from all the wells included in this site certification, Licensee shall submit to SWFWMD, a preliminary design of the approved alternative water supply project that the Licensee will implement.*

Per the license requirements listed above, the Crystal River Units 4 & 5 FGD consumption of water exceeded the 3 million gallons per day in August of 2011. Therefore, in order to optimize the FGD water usage and comply with the site's conditions of certification, a team was formed to evaluate and develop "alternative" water use strategies on site and to develop the alternative water supply plan including the identification of possible projects. A portfolio of alternative projects is under evaluation including the use of wastewater from the coal pile runoff ponds, wastewater from the limestone storage building sumps, and rainwater from the roof of the limestone storage building. One of the more attractive projects is to use "gray" water from the City of Crystal River. The initial quantity will be 750,000 gallons per day and could grow to an average daily flow rate of up to 1.5 million gallons per day. The costs included in the 2012 ECRC budget includes engineering and development costs of delivering the City of Crystal River water to the Crystal River Units 4 & 5. Other projects will likely be required in the future to ensure sufficient capacity is available for the clean air requirements.

The benefit of the alternative water supply projects will be to off-set groundwater usage at Units 4 & 5 due to additional water use associated with operation of the new air pollution control equipment. The water requirements associated with the FGD system average approximately 2.8 mgd per day. This usage, coupled with historical plant groundwater usage of approximately 0.8 – 1.0 mgd requires Units 4 & 5 to comply with the site's conditions of certification relative to groundwater withdrawals.

The additional water use that triggered these above requirements is directly attributable to the operation of the CR 4 & 5 FGD systems. Thus, the activities discussed above are required to comply with the site's conditions of certification while operating the clean air equipment.

d. Referring to lines 5-7, on page 4, please provide a detailed explanation regarding the "alternative" wastewater system. What will be the component activities and their associated costs that comprise such alternative water project?

Answer: The Crystal River Units 4 & 5 Flue Gas Desulfurization (FGD) blowdown (wastewater) is currently being discharged to lined solids settling ponds. Following settling, the wastewater is then discharged to the existing percolation pond system. Crystal River Units 4 & 5 are covered by a site-wide groundwater monitoring plan which is part of the Industrial Waste Water (IWW) permit (FLA016960). This permit, last modified November 17, 2009 in conjunction with agency authorization to operate the wet FGD systems and discharge treated FGD blowdown, requires periodic monitoring of a series of groundwater wells located at various locations throughout the Crystal River Units Energy Complex. The monitoring well locations were approved by the Florida Department of Environmental Protection (FDEP) and are strategically located such that the discharge to groundwater from industrial wastewater percolation pond systems and other installations are monitored on a quarterly basis with results submitted to the FDEP. Based upon our review of these results and trends associated with the discharge of treated FGD blowdown, and in consideration of industry experience with FGD blowdown, FDEP will likely require Crystal River Units 4&5 to add a treatment system upstream of the FGD blowdown discharge to the percolation pond to ensure compliance with applicable groundwater quality standards. The costs that comprise this project include development and engineering and will be based upon the design needed to address the observed impacts. At this point, we are in the study and planning phase of this project.

DATED this 15th day of September, 2011.

HOPPING GREEN & SAMS, P.A.

By: _____

Gary V. Perko
Florida Bar No. 855898
P.O. Box 6526
Tallahassee, FL 32301
(850) 222-7500

Attorneys for Progress Energy Florida, Inc.

Table 1 PEF's CAIR Program-related NOx Allowance Purchasing					
	Amount of Allowances Purchased (ton)	Actual Costs for the purchasing ($)	When (mm/yy) the Purchasing Made (Note 2)	Type	Reasons of the Purchasing
1	545	$392,400	12/06	Seasonal Nox	Note 1
2	200	$144,000	12/06	Seasonal Nox	Note 1
3	500	$360,000	12/06	Seasonal Nox	Note 1
4	350	$273,875	12/06	Seasonal Nox	Note 1
5	200	$144,000	01/07	Seasonal Nox	Note 1
6	300	$216,000	01/07	Seasonal Nox	Note 1
7	32	$23,040	01/07	Seasonal Nox	Note 1
8	150	$145,500	02/07	Seasonal Nox	Note 1
9	90	$84,600	02/07	Seasonal Nox	Note 1
10	250	$228,750	02/07	Seasonal Nox	Note 1
11	400	$348,000	03/07	Seasonal Nox	Note 1
12	250	$208,125	03/07	Seasonal Nox	Note 1
13	111	$91,853	03/07	Seasonal Nox	Note 1
14	500	$407,500	03/07	Seasonal Nox	Note 1
15	300	$212,500	03/07	Seasonal Nox	Note 1
16	3900	$12,829,050	04/07	Annual Nox	Note 1
17	271	$227,640	04/07	Seasonal Nox	Note 1
18	193	$163,085	05/07	Seasonal Nox	Note 1
19	100	$84,750	05/07	Seasonal Nox	Note 1
20	100	$85,000	05/07	Seasonal Nox	Note 1
21	100	$85,000	05/07	Seasonal Nox	Note 1
22	2000	$1,515,000	05/07	Seasonal Nox	Note 1
23	100	$71,500	05/07	Seasonal Nox	Note 1
24	100	$66,500	05/07	Seasonal Nox	Note 1
25	52	$33,930	05/07	Seasonal Nox	Note 1
26	100	$64,000	06/07	Seasonal Nox	Note 1
27	250	$160,000	06/07	Seasonal Nox	Note 1
28	300	$186,000	06/07	Seasonal Nox	Note 1
29	1000	$4,525,000	06/07	Annual Nox	Note 1
30	1000	$4,525,000	06/07	Annual Nox	Note 1
31	300	$162,000	07/07	Seasonal Nox	Note 1
32	100	$52,000	07/07	Seasonal Nox	Note 1
33	100	$50,000	07/07	Seasonal Nox	Note 1
34	1875	$5,671,875	09/07	Annual Nox	Note 1
35	250	$918,750	09/07	Annual Nox	Note 1
36	100	$427,500	09/07	Annual Nox	Note 1

37	300	$1,207,500	09/07	Annual Nox	Note 1
38	500	$1,812,500	09/07	Annual Nox	Note 1
39	150	$528,750	09/07	Annual Nox	Note 1
40	300	$757,500	09/07	Annual Nox	Note 1
41	200	$725,000	09/07	Annual Nox	Note 1
42	200	$795,000	10/07	Annual Nox	Note 1
43	500	$1,962,500	10/07	Annual Nox	Note 1
44	500	$1,262,500	10/07	Annual Nox	Note 1
45	100	$392,500	10/07	Annual Nox	Note 1
46	200	$785,000	10/07	Annual Nox	Note 1
47	100	$391,250	10/07	Annual Nox	Note 1
48	300	$1,117,500	10/07	Annual Nox	Note 1
49	100	$347,000	11/07	Annual Nox	Note 1
50	300	$1,023,000	12/07	Annual Nox	Note 1
51	200	$665,000	12/07	Annual Nox	Note 1
52	100	$297,500	12/07	Annual Nox	Note 1
53	100	$297,500	12/07	Annual Nox	Note 1
54	200	$644,000	12/07	Annual Nox	Note 1
55	200	$649,000	01/08	Annual Nox	Note 1
56	900	$2,407,500	01/08	Annual Nox	Note 1
57	105	$280,875	01/08	Annual Nox	Note 1
58	200	$624,000	01/08	Annual Nox	Note 1
59	100	$312,000	01/08	Annual Nox	Note 1
60	100	$305,000	01/08	Annual Nox	Note 1
61	300	$915,000	01/08	Annual Nox	Note 1
62	200	$615,000	01/08	Annual Nox	Note 1
63	250	$962,500	02/08	Annual Nox	Note 1
64	750	$2,040,000	03/08	Annual Nox	Note 1
65	250	$836,250	03/08	Annual Nox	Note 1
66	250	$798,750	03/08	Annual Nox	Note 1
67	250	$973,750	04/08	Annual Nox	Note 1
68	200	$504,000	04/08	Annual Nox	Note 1
69	400	$1,090,000	04/08	Annual Nox	Note 1
70	150	$663,000	04/08	Annual Nox	Note 1
71	50	$221,000	04/08	Annual Nox	Note 1
72	50	$221,000	04/08	Annual Nox	Note 1
73	150	$629,250	04/08	Annual Nox	Note 1
74	50	$138,500	04/08	Annual Nox	Note 1
75	500	$2,135,000	05/08	Annual Nox	Note 1
76	250	$955,000	05/08	Annual Nox	Note 1
77	150	$326,250	05/08	Annual Nox	Note 1

78	200	$494,000	05/08	Annual Nox	Note 1
79	250	$493,750	06/08	Annual Nox	Note 1
80	1200	$2,094,000	06/08	Annual Nox	Note 1
81	250	$1,292,500	06/08	Annual Nox	Note 1
82	250	$1,273,750	07/08	Annual Nox	Note 1
83	500	$2,637,500	01/09	Annual Nox	Note 1
84	150	$513,000	01/09	Annual Nox	Note 1
85	250	$805,000	02/09	Annual Nox	Note 1
86	150	$460,500	02/09	Annual Nox	Note 1
87	100	$302,500	02/09	Annual Nox	Note 1
88	100	$292,000	02/09	Annual Nox	Note 1
89	100	$242,000	02/09	Annual Nox	Note 1
90	100	$212,000	02/09	Annual Nox	Note 1
91	100	$209,000	03/09	Annual Nox	Note 1
92	100	$122,000	04/09	Annual Nox	Note 1
93	100	$112,000	05/09	Annual Nox	Note 1

Note 1: PEF made these purchases because the forecasted emissions at the time showed a need to purchase additional allowances. Please see response to 13g below for a more detailed description of how this was done.
Note 2: This column shows when PEF entered into a contract to purchase these allowances. Many of these are forward purchases and would show up on PEF's accounting books when the transfer occurred which would have been some time in the future.

Table 2. PEF's Total CAIR Program-related NOx Emission Allowance Inventory and Expenses (Note 1)

	Inventory Beginning Balance		Inventory Ending Balance		Allowances allocated from the EPA		Allowances Purchased from the Market		Allowance Auction		Allowance Expenses & Other	
	(in ton)	(in $)	(in ton)	(in $)	(in ton)	(in $)	(in ton)	(in $)	Amount (in ton)	Proceeds (in $)	(in ton)	(in $)
2011	29,511	$27,715,427	43,688	$23,890,030	26,644	$0	0	$0	n/a	n/a	12,467	$3,825,397
2010	24,061	36,341,932	29,511	27,715,427	26,436	0	800	2,392,500	n/a	n/a	21,786	11,019,005
2009	26,625	65,510,820	24,061	36,341,932	26,878	0	3,950	12,504,000	n/a	n/a	33,391	41,672,888
2008	15,136	28,663,433	26,625	65,510,820	0	0	10,655	36,911,125	n/a	n/a	(834)	63,738
2007	0	0	15,136	28,663,433	0	0	15,119	28,545,473	n/a	n/a	(17)	(117,960)

Table 3. PEF's CAIR Program-related Annual NOx Emission Allowance Inventory and Expenses (Note 1)

	Inventory Beginning Balance		Inventory Ending Balance		Allowances allocated from the EPA		Allowances Purchased from the Market		Allowance Auction		Allowance Expenses & Other	
	(in ton)	(in $)	(in ton)	(in $)	(in ton)	(in $)	(in ton)	(in $)	Amount (in ton)	Proceeds (in $)	(in ton)	(in $)
2011	19,792	$26,591,351	30,108	$23,064,767	17,914		0	$0	n/a	n/a	7,598	$3,526,584
2010	16,035	34,316,004	19,792	26,591,351	17,923		800	2,392,500	n/a	n/a	14,966	10,117,153
2009	17,430	59,169,925	16,035	34,316,004	18,249		3,950	12,504,000	n/a	n/a	23,593	37,357,921
2008	6,775	22,377,135	17,430	59,169,925	0		10,655	36,911,125	n/a	n/a	0	118,335
2007	0	0	6,775	22,377,135	0	0	6,775	22,259,175	n/a	n/a	0	(117,960)

Table 4. PEF's CAIR Program-related Seasonal NOx Emission Allowance Inventory and Expenses (Note 1)

	Inventory Beginning Balance		Inventory Ending Balance		Allowances allocated from the EPA		Allowances Purchased from the Market		Allowance Auction		Allowance Expenses & Other	
	(in ton)	(in $)	(in ton)	(in $)	(in ton)	(in $)	(in ton)	(in $)	Amount (in ton)	Proceeds (in $)	(in ton)	(in $)
2011	9,719	$1,124,076	13,580	$825,263	8,730	$0	0	$0	n/a	n/a	4,869	$298,814
2010	8,026	2,025,928	9,719	1,124,076	8,513	0	0	0	n/a	n/a	6,820	901,852
2009	9,195	6,340,895	8,026	2,025,928	8,629	0	0	0	n/a	n/a	9,798	4,314,967
2008	8,361	6,286,298	9,195	6,340,895	0	0	0	0	n/a	n/a	(834)	(54,597)
2007	0	0	8,361	6,286,298	0	0	8,344	6,286,298	n/a	n/a	(17)	0

Table 5. PEF's SO2 Emission Allowance Inventory and Expenses (Note 1)

	Inventory Beginning Balance		Inventory Ending Balance		Allowances allocated from the EPA		Allowances Purchased from the Market		Allowance Auction		Allowance Expenses & Other	
	(in ton)	(in $)	(in ton)	(in $)	(in ton)	(in $)	(in ton)	(in $)	Amount (in ton)	Proceeds (in $)	(in ton)	(in $)
2011	143,338	$5,674,078	185,384	$5,169,875	59,571	$0	0	$0	n/a	$5,122	17,525	$504,203
2010	145,210	7,312,131	143,338	5,674,078	59,571	0	0	0	n/a	$68,473	61,442	1,638,053
2009	98,285	11,191,195	145,210	7,312,131	125,653	0	0	0	n/a	$131,619	78,728	3,879,064
2008	41,697	2,905,441	98,285	11,191,195	125,653	0	27,000	23,027,500	n/a	$906,201	96,064	14,741,746
2007	34,136	1,942,701	41,697	2,905,441	125,653	0	13,000	10,400,000	n/a	$1,098,566	131,091	9,437,260

(Note 1) These represent when the allowances were actually transferred into PEF inventory, and may be after the date the purchase occurred. For example, the 800 allowances shown in Tables 2 and 3 for 2010 were actually purchased in 2009. As shown in Attachment A and explained in response to Staff Interrogatory No. 13g, PEF did not make any NOx allowance purchases after May 2009.

Absorber Maintenance Activities

ACTIVITY	ACTIVITY NAME	TOTAL COST
[redacted]		
1	OPERATE A/R PUMPS AND OBSERVE SPRAY NOZZLES	[redacted]
2	DRAIN ABSORBER TOWER TO EMERGENCY STORAGE TANK/REFILL TANK	[redacted]
3	OPEN/CLOSE ABSORBER TOWER DOORS	[redacted]
4	INITIAL INSPECTION OF DUCTWORK INTO ABSORBER - KNOCK DOWN BUILDUP	[redacted]
5	VACCUMING THE ABSORBER TOWER AND SUMPS	[redacted]
6	INSPECT ABSORBER TILE AND INLET AND OUTLET DUCT LINING - NOTE SCALING	[redacted]
7	SCAFFOLD TO ABSORBER TRAYS	[redacted]
8	CLEAN AND INSPECT ALL ABSORBER NOZZLES - REPLACE AS NECESSARY	[redacted]
9	FGD 6.9KV & 480V BREAKER MAINTENANCE	[redacted]
10	ABSORBER RECYCLE PUMP IMPLELLER ADJUSTMENTS & LINER INSPECTION	[redacted]
11	ABSORBER RECYCLE PUMP TECHNICAL FIELD ADVISOR	[redacted]
12	CLEAN AND INSPECT 'A' ABS RECYCLE PUMP SUCTION	[redacted]
13	OVATION DEVICENET AND FIELDBUS MAINTENANCE	[redacted]
14	CLEAN AND INSPECT 'C' ABS RECYCLE PUMP SUCTION	[redacted]
15	CLEAN AND INSPECT 'D' ABS RECYCLE PUMP SUCTION	[redacted]
16	CLEAN AND INSPECT 'E' ABS RECYCLE PUMP SUCTION	[redacted]
17	ABSORBER HYDRAULIC POWER UNIT FLUSH AND PM	[redacted]
18	INSPECT AND REPAIR ABS RECYCLE PUMP SUCTION KNIFE VALVES (10)	[redacted]
19	INSPECT AND REPAIR ABS INSTRUMENT INLET AND OUTLET PORTS	[redacted]
20	INSPECT AND REPAIR ABSORBER TOWER AGITATORS	[redacted]
21	INSPECT AND REPAIR ABSORBER TRAY	[redacted]
22	CLEAN TRAY OF ANY SCALE OR DEPOSITS	[redacted]
23	INSPECT SPRAY HEADERS FOR EROSION	[redacted]
24	SCAFFOLD ABOVE MIST ELIMINATOR TOP CHEVRON LAYER	[redacted]
25	TEST MIST ELIMINATOR OVER AND UNDERSPRAYS BY RUNNING WATER	[redacted]
26	CLEAN/REPLACE PLUGGED MIST ELIMINATOR NOZZLES	[redacted]
27	INSPECT ALL LEVELS OF MIST ELIMINATOR CHEVRONS	[redacted]
28	CLEAN MIST ELIMINATOR CHEVRONS	[redacted]
29	INSPECT OXIDATION AIR SUPPLY HEADERS	[redacted]
30	CLEAN AND INSPECT ABS AREA SUMPS	[redacted]
31	FLAKE GLASS LINING REPAIRS	[redacted]
32	TEST EMERGENCY QUENCH SYSTEM - CLEAN NOZZLES	[redacted]
33		[redacted]

SCR Maintenance Activities

ACTIVITY	ACTIVITY NAME	TOTAL COST
[redacted]	[redacted]	[redacted]
1	OPEN/CLOSE SCR DOORS: INLET PLENUM, CATALYST LEVELS, BYPASS DUCTS, AIGs	[redacted]
2	Vacuum ash deposits at each catalyst level	[redacted]
3	Internal Inspection of Ammonia Injection grid nozzles A Train	[redacted]
4	Internal Inspection of Ammonia Injection grid nozzles B Train	[redacted]
5	CLEAN AND INSPECT CATALYST AND SONIC HORNS	[redacted]
6	Sonic Horn Maintenance PM's	[redacted]
7	Internal Inspection and repair of catalyst seals and cover grates	[redacted]
8	REMOVE TWO TEST COUPONS (ONE FROM EACH LAYER) FOR ANAYLSIS	[redacted]
9	SCR 6.9KV & 480V BREAKER MAINTENANCE	[redacted]
10	Internal Inspection of economizer bypass dampers	[redacted]
11	Internal Inspection of economizer puff blowers lances	[redacted]
12	Internal Inspection of SCR dampers	[redacted]
13	Ovation DeviceNet maintenance	[redacted]
14	Internal Inspection of SCR expansion joint	[redacted]
15	Internal Inspection of SCR bypass expansion joint	[redacted]
16	OPEN/CLOSE SCR DOORS: INLET PLENUM, CATALYST LEVELS, BYPASS DUCTS, AIGs	[redacted]
17	CLEAN AND BLOW OUT TEST GRID INSTRUMENT LINES	[redacted]
18	Internal Inspection of AMM Injection grid nozzles	[redacted]
19	Scaffolding for AMM Injection nozzle inspections (2) secondary & (1) Primary	[redacted]
20	Catalyst Manufacture Coupon Testing Analysis	[redacted]
21		[redacted]

FGD Maintenance Activities

ACTIVITY	ACTIVITY NAME	TOTAL COST
[redacted]	[redacted]	[redacted]
1	Turblex Oxidation Air PM	[redacted]
2	Turblex Oxidation Air PM - Annual	[redacted]
3	Turblex Oxidation Air PM - Annual	[redacted]
4	Relay settings maintenance & Testing	[redacted]
5	Common Bus & Cublicles Cleanings	[redacted]
6	ME Pump overhaul (1)	[redacted]
7	FGD Service Water Pump & Strainer	[redacted]
8	Well pump maintenance (2) per outage	[redacted]
9	6.9KV & 480V Breaker Maintenance	[redacted]
10	CEMS Solutions	[redacted]
11	Emerson Ovation Patch updates	[redacted]
12	Internal Tank inspections	[redacted]
13	Emerson Support	[redacted]
14	Ovation DeviceNet maintenance	[redacted]
15		[redacted]

AFFIDAVIT

(STATE OF FLORIDA

COUNTY OF PINELLAS)

I hereby certify that on this 15th day of September, 2011, before me, an officer duly authorized in the State and County aforesaid to take acknowledgments, personally appeared PATRICIA Q. WEST, who is personally known to me, and she acknowledged before me that she provided the answers to interrogatory number(s) 13a and 13c from STAFF'S SIXTH SET OF INTERROGATORIES TO PROGRESS ENERGY FLORIDA, INC. (NO. 13a & 13c) in Docket No. 110007-EI, and that the responses are true and correct based on her personal knowledge.

In Witness Whereof, I have hereunto set my hand and seal in the State and County aforesaid as of this 15th day of September, 2011.

Patricia Q. West

Patricia Q. West

JUNE C. MOONEY
MY COMMISSION # DD806913
EXPIRES: September 18, 2012
1-800-3-NOTARY Fl. Notary Discount Assoc. Co.

June C. Mooney

Notary Public
State of Florida

My Commission Expires:

Sept. 18, 2012

AFFIDAVIT

(STATE OF FLORIDA

COUNTY OF Pinellas)

I hereby certify that on this 15th day of September, 2011, before me, an officer duly authorized in the State and County aforesaid to take acknowledgments, personally appeared THOMAS G. FOSTER , who is personally known to me, and he acknowledged before me that he provided the answers to interrogatory number(s) 13b, c, d, f, g, and h from STAFF'S SIXTH SET OF INTERROGATORIES TO PROGRESS ENERGY FLORIDA, INC. (NO. 13b, c, d, f, g, & h) in Docket No. 110007-EI, and that the responses are true and correct based on his personal knowledge.

In Witness Whereof, I have hereunto set my hand and seal in the State and County aforesaid as of this 15th day of September, 2011.

Thomas G. Foster

SUZANNE H. MILLER
MY COMMISSION # DD 842069
EXPIRES: March 27, 2013
Bonded Thru Notary Public Underwriters

Notary Public
State of Florida

My Commission Expires:

3/27/13

AFFIDAVIT

(STATE OF NORTH CAROLINA

COUNTY OF WAKE)

I hereby certify that on this 15th day of September, 2011, before me, an officer duly authorized in the State and County aforesaid to take acknowledgments, personally appeared JAMES J. McCLAY, who is personally known to me, and he acknowledged before me that he provided the answers to interrogatory number(s) 13e and 13g from STAFF'S SIXTH SET OF INTERROGATORIES TO PROGRESS ENERGY FLORIDA, INC. (NO. 13e & 13g) in Docket No. 110007-EI, and that the responses are true and correct based on his personal knowledge.

In Witness Whereof, I have hereunto set my hand and seal in the State and County aforesaid as of this 15th day of September, 2011.

James J. McClay

James J. McClay

TONYA J. HENSLEY NOTARY PUBLIC WAKE COUNTY, NC

Tonya J. Hensley

Notary Public
State of North Carolina

My Commission Expires:

January 29, 2013

AFFIDAVIT

(STATE OF NORTH CAROLINA

COUNTY OF Wake)

I hereby certify that on this 15th day of September, 2011, before me, an officer duly authorized in the State and County aforesaid to take acknowledgments, personally appeared JAMES A. KING, who is personally known to me, and he acknowledged before me that he provided the answers to interrogatory number(s) 13i from STAFF'S SIXTH SET OF INTERROGATORIES TO PROGRESS ENERGY FLORIDA, INC. (NO. 13i) in Docket No. 110007-EI, and that the responses are true and correct based on his personal knowledge.

In Witness Whereof, I have hereunto set my hand and seal in the State and County aforesaid as of this 15th day of September, 2011.

James A. King

James A. King

TONYA J. HENSLEY NOTARY PUBLIC WAKE COUNTY, NC

Tonya J. Hensley

Notary Public
State of North Carolina

My Commission Expires:

January 29, 2013

AFFIDAVIT

(STATE OF FLORIDA

COUNTY OF Pinellas)

I hereby certify that on this 15 day of September, 2011, before me, an officer duly authorized in the State and County aforesaid to take acknowledgments, personally appeared DAVID W. SORRICK, who is personally known to me, and he acknowledged before me that he provided the answers to interrogatory number(s) 14a, b, c, and d from STAFF'S SIXTH SET OF INTERROGATORIES TO PROGRESS ENERGY FLORIDA, INC. (NO. 14a, b, c, & d) in Docket No. 110007-EI, and that the responses are true and correct based on his personal knowledge.

In Witness Whereof, I have hereunto set my hand and seal in the State and County aforesaid as of this 15th day of September, 2011.

David W. Sorrick

LYNDA K. BATES
MY COMMISSION EXPIRES
February 27, 2014
#DD 936274
Bonded thru
Notary Public Underwriters
NOTARY PUBLIC, STATE OF FLORIDA

Notary Public
State of Florida

My Commission Expires:
2/27/2014

AFFIDAVIT

(STATE OF FLORIDA

COUNTY OF PINELLAS)

I hereby certify that on this 15th day of September, 2011, before me, an officer duly authorized in the State and County aforesaid to take acknowledgments, personally appeared PATRICIA Q. WEST, who is personally known to me, and she acknowledged before me that she provided the answers to interrogatory number(s) 14c and 14d from STAFF'S SIXTH SET OF INTERROGATORIES TO PROGRESS ENERGY FLORIDA, INC. (NO. 14c & 14d) in Docket No. 110007-EI, and that the responses are true and correct based on her personal knowledge.

In Witness Whereof, I have hereunto set my hand and seal in the State and County aforesaid as of this 15th day of September, 2011.

Patricia Q. West

Patricia Q. West

JUNE C. MOONEY
MY COMMISSION # DD806913
EXPIRES: September 18, 2012
1-800-3-NOTARY
FL Notary Discount Assoc. Co.

June C. Mooney

Notary Public
State of Florida

My Commission Expires:

Sept. 18, 2012

19

Progress' Responses to Staff's Seventh Set of Interrogatories (Nos. 15-16)

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In re: Environmental cost recovery clause.	DOCKET NO. 110007-EI DATED: SEPTEMBER 27, 2011

PROGRESS ENERGY FLORIDA'S RESPONSE TO STAFF'S SEVENTH SET OF INTERROGATORIES (NOS. 15-16)

PROGRESS ENERGY FLORIDA, INC. ("PEF"), pursuant to Rule 28-106.206, Florida Administrative Code, Rule 1.340, Florida Rules of Civil Procedure, and the Order Establishing Procedure in this matter, hereby responds to Staff's Seventh Set of Interrogatories (Nos. 15-16):

RESPONSES

15. **For purposes of the following requests, please refer to PEF's Petition for approval of cost recovery for the National Pollutant Discharge Elimination System (NPDES) and Exhibit C filed on March 11, 2011, Forms 42-5E through -7E filed on August 1, 2011, and Forms 42-2P through -3P filed on August 26.**

Referring to Forms 42-5E through 7E, it appears that the total expenditures associated with the NPDES project will be $648,334 in O&M costs. On Forms 42-2P through 3P, it appears that the total expenditures associated with the NPDES project will be $839,525, with $648,334 in O&M costs and $191,525 in capital costs. (see Table I below) In the Petition and Exhibit C, however, PEF estimated that the total expenditures would be $1,110,000 for 2011 and approximately $430,000 for 2012. (see Table II below) Please provide updated information regarding the expenditures associated with the NPDES project by filling out Tables III and IV.

Table I. NPDES Costs Per PEF's Petition and Exhibit C filed on March 2011								
	Bartow		Anclote		Crystal River		Suwannee	
	2011	2012	2011	2012	2011	2012	2011	2012
	635,000	240,000	145,000	55,000	210,000	85,000	120,000	50,000
Plant sub-total	875,000		200,000		295,000		170,000	
2011 Sub-total	1,110,000							
2012 Sub-total	430,000							
Total	1,540,000							

Table II. NPDES Costs Per Forms 42-5E, 42-7E, 42-2P, and 42-3P				
	2011		2012	
	O&M	Capital	O&M	Capital
Forms 42-5E & 7E	648,334			
Forms 42-2P & 3P			648,000	191,525
2011 Sub-total	648,334			
2012 Sub-total			839,525	
Total	1487859			

Answer:

Please see Attachment 15 which provides the same information requested in Tables III and IV in a slightly different format for ease of readability and consistency with Exhibit C in PEF's petition to recover NPDES costs filed March 11, 2011.

The $191,525 referenced above represents the 2012 system revenue requirements associated with the projected $2,261,704 of capital investment as can be seen on lines 9 and 1 of Exhibit_(TGF-3), Form 42-4P page 16 of 16, respectively.

16. For purposes of the following requests, please refer to page 7 of witness Foster's testimony and page 8 of Exhibit TGF-3 filed on August 26, 2011.

a. Please explain in detail whether the $22.5 million is the actual expenditure that PEF incurred for obtaining the CAIR NOx allowances during prior years, the company-imputed market value of its CAIR NOx allowance inventory, or a combination of the two.

Answer:

Please see PEF's response to Staff's Sixth Set of Interrogatories No. 13d.

b. Please break down the $22.5 million into CAIR Annual NOx allowances and CAIR Seasonal NOx allowances.

Answer:

The estimated $22.5 million in CAIR NOx allowances consists of an estimated $21.8 million in Annual NOx allowances and an estimated $0.8 million in Seasonal NOx allowances.

c. **Please fill out the tables below.**

Table I. PEF's CAIR Program-related NOx Allowance Purchasing

	Amount of Allowances Purchased (ton)	Actual Costs for the purchasing ($)	When (mm/yy) the Purchasing Made	Reasons of the Purchasing
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				

Table II. PEF's Total CAIR Program-related NOx Emission Allowance Inventory and Expenses

	Inventory Beginning Balance		Inventory Ending Balance		Allowances allocated from the EPA		Allowances Purchased from the Market		Allowance Auctions		Allowance Expenses	
									Amounts	Proceeds		
	(in ton)	(in $)	(in ton)	(in $)	(in ton)	(in $)	(in ton)	(in $)	(in ton)	(in $)	(in ton)	(in $)
2011												
2010												
2009												
2008												
2007												

Table III. PEF's CAIR Program-related Annual NOx Emission Allowance Inventory and Expenses

	Inventory Beginning Balance		Inventory Ending Balance		Allowances allocated from the EPA		Allowances Purchased from the Market		Allowance Auctions		Allowance Expenses	
									Amounts	Proceeds		
	(in ton)	(in $)	(in ton)	(in $)	(in ton)	(in $)	(in ton)	(in $)	(in ton)	(in $)	(in ton)	(in $)
2011												
2010												
2009												
2008												
2007												

Table IV. PEF's CAIR Program-related Seasonal NOx Emission Allowance Inventory and Expenses

	Inventory Beginning Balance		Inventory Ending Balance		Allowances allocated from the EPA		Allowances Purchased from the Market		Allowance Auctions		Allowance Expenses	
									Amounts	Proceeds		
	(in ton)	(in $)	(in ton)	(in $)	(in ton)	(in $)	(in ton)	(in $)	(in ton)	(in $)	(in ton)	(in $)
2011												
2010												
2009												
2008												
2007												

Table V. PEF's SO2 Emission Allowance Inventory and Expenses

	Inventory Beginning Balance		Inventory Ending Balance		Allowances allocated from the EPA		Allowances Purchased from the Market		Allowance Auctions		Allowance Expenses	
									Amounts	Proceeds		
	(in ton)	(in $)	(in ton)	(in $)	(in ton)	(in $)	(in ton)	(in $)	(in ton)	(in $)	(in ton)	(in $)
2011												
2010												
2009												
2008												
2007												

Answer:

Please see PEF's response to Staff's Sixth Set of Interrogatories No. 13e and 13i.

DATED this 27th day of September, 2011.

HOPPING GREEN & SAMS, P.A.

By: _____

Gary V. Perko
Florida Bar No. 855898
P.O. Box 6526
Tallahassee, FL 32301
(850) 222-7500

Attorneys for Progress Energy Florida, Inc.

AFFIDAVIT

(STATE OF FLORIDA

COUNTY OF PINELLAS)

I hereby certify that on this 16th day of September, 2011, before me, an officer duly authorized in the State and County aforesaid to take acknowledgments, personally appeared PATRICIA Q. WEST, who is personally known to me, and she acknowledged before me that she provided the answers to interrogatory number 15 from STAFF'S SEVENTH SET OF INTERROGATORIES TO PROGRESS ENERGY FLORIDA, INC. (NO. 15 - 16) in Docket No. 110007-EI, and that the responses are true and correct based on her personal knowledge.

In Witness Whereof, I have hereunto set my hand and seal in the State and County aforesaid as of this 16th day of September, 2011.

Patricia Q. West

Patricia Q. West

JUNE C. MOONEY
MY COMMISSION # DD806913
EXPIRES: September 18, 2012
1-800-3-NOTARY Fl. Notary Discount Assoc. Co.

June C. Mooney

Notary Public
State of Florida

My Commission Expires:

Sept. 18, 2012

AFFIDAVIT

(STATE OF FLORIDA

COUNTY OF Pinellas)

I hereby certify that on this 19th day of September, 2011, before me, an officer duly authorized in the State and County aforesaid to take acknowledgments, personally appeared THOMAS G. FOSTER , who is personally known to me, and he acknowledged before me that he provided the answers to interrogatory number(s) 15 and 16b from STAFF'S SEVENTH SET OF INTERROGATORIES TO PROGRESS ENERGY FLORIDA, INC. (NO. 15& 16b) in Docket No. 110007-EI, and that the responses are true and correct based on his personal knowledge.

In Witness Whereof, I have hereunto set my hand and seal in the State and County aforesaid as of this 19th day of September, 2011.

Thomas Foster

Thomas G. Foster

SUZANNE H. MILLER
MY COMMISSION # DD 842069
EXPIRES: March 27, 2013
Bonded Thru Notary Public Underwriters

Suzanne H. Miller

Notary Public
State of Florida

My Commission Expires:

3/27/13

20

Progress' Responses to Staff's Eighth Set of Interrogatories (No. 17)

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In re: Environmental cost recovery clause.	DOCKET NO. 110007-EI DATED: OCTOBER 6, 2011

PROGRESS ENERGY FLORIDA'S RESPONSE TO STAFF'S EIGHTH SET OF INTERROGATORIES (NO. 17)

PROGRESS ENERGY FLORIDA, INC. ("PEF"), pursuant to Rule 28-106.206, Florida Administrative Code, Rule 1.340, Florida Rules of Civil Procedure, and the Order Establishing Procedure in this matter, hereby responds to Staff's Eighth Set of Interrogatories (No. 17):

RESPONSE

17. Please refer to PEF's response to No.13 of Staff's Sixth Set of Interrogatories.

a. It appears that the amounts shown in columns "Amount of Allowances Purchased (ton)" and "Actual Costs for the Purchase ($)" of attachment 13-e, Table 1 PEF's CAIR Program-related NOx Allowance Purchase, do not tie with the amounts shown in columns "Allowances Purchased from the Market (in ton)" and "Allowances Purchased from the Market (in $)" of attachment 13-i, Table 3 PEF's CAIR Program-related Annual NOx Emission Allowance Inventory and Expenses. Please explain why.

Answer:

The numbers in Attachment 13-i, Table 3 do tie with those in Attachment 13-e, Table 1; however, the dates listed in Attachment 13-e, Table 1 represent the purchase date, not the date transferred into inventory (see notes to Attachments 13e & i). Many of the purchases were forward contracts and in some cases the actual transfer did not occur until several years after the purchase. Attachment 17-b provides the dates the allowances were transferred into inventory. When sorted by those dates, Table 1 does tie to the inventory listed in Table 3.

In addition there is a $250 discrepancy between Table 1 and Table 4 of Attachments 13e & i. This has been corrected in Attachment 17-b.

b. Please reconcile the amounts, in tons and in $, respectively, reported in Table 1 of attachment 13-e with those amounts shown in Table 3 of attachment 13-i.

Answer:

Please see Attachment 17-b. [NOTE: This answer is the same information provided in response to Interrogatory No. 13-e (Table 1) of Staff's Sixth Set of Interrogatories to PEF, with the addition of a column "When (mm/yy) Transferred to PEF Inventory," and sorted by that column]

DATED this 6th day of October, 2011.

HOPPING GREEN & SAMS, P.A.

By: _____

Gary V. Perko
Florida Bar No. 855898
P.O. Box 6526
Tallahassee, FL 32301
(850) 222-7500

Attorneys for Progress Energy Florida, Inc.

Attachment 17-b

Table 1 PEF's CAIR Program-related NOx Allowance Purchasing

	Amount of Allowances Purchased (ton)	Actual Costs for the purchasing ($)	When (mm/yy) the Purchasing Made (Note 2)	When (mm/yy) Transferred to PEF Inventory	Type	Reasons of the Purchasing
1	545	$392,400	12/06	01/07	Seasonal Nox	Note 1
2	200	$144,000	12/06	01/07	Seasonal Nox	Note 1
3	32	$23,040	01/07	02/07	Seasonal Nox	Note 1
4	500	$360,000	12/06	02/07	Seasonal Nox	Note 1
5	350	$273,875	12/06	03/07	Seasonal Nox	Note 1
6	90	$84,600	02/07	03/07	Seasonal Nox	Note 1
7	150	$145,500	02/07	03/07	Seasonal Nox	Note 1
8	200	$144,000	01/07	03/07	Seasonal Nox	Note 1
9	250	$228,750	02/07	03/07	Seasonal Nox	Note 1
10	300	$212,250	03/07	08/07	Seasonal Nox	Note 1
11	400	$348,000	03/07	04/07	Seasonal Nox	Note 1
12	250	$208,125	03/07	04/07	Seasonal Nox	Note 1
13	500	$407,500	03/07	04/07	Seasonal Nox	Note 1
14	300	$216,000	01/07	04/07	Seasonal Nox	Note 1
15	111	$91,853	03/07	04/07	Seasonal Nox	Note 1
16	100	$84,750	05/07	05/07	Seasonal Nox	Note 1
17	100	$85,000	05/07	05/07	Seasonal Nox	Note 1
18	100	$85,000	05/07	05/07	Seasonal Nox	Note 1
19	271	$227,640	04/07	06/07	Seasonal Nox	Note 1
20	2000	$1,515,000	05/07	06/07	Seasonal Nox	Note 1
21	100	$71,500	05/07	06/07	Seasonal Nox	Note 1
22	100	$64,000	06/07	06/07	Seasonal Nox	Note 1
23	193	$163,085	05/07	06/07	Seasonal Nox	Note 1
24	100	$66,500	05/07	06/07	Seasonal Nox	Note 1
25	250	$160,000	06/07	07/07	Seasonal Nox	Note 1
26	300	$186,000	06/07	07/07	Seasonal Nox	Note 1
27	52	$33,930	05/07	07/07	Seasonal Nox	Note 1
28	100	$50,000	07/07	08/07	Seasonal Nox	Note 1
29	100	$52,000	07/07	08/07	Seasonal Nox	Note 1
30	300	$162,000	07/07	08/07	Seasonal Nox	Note 1
31	3900	$12,829,050	04/07	11/07	Annual Nox	Note 1
32	1875	$5,671,875	09/07	11/07	Annual Nox	Note 1
33	200	$725,000	09/07	11/07	Annual Nox	Note 1
34	100	$392,500	10/07	12/07	Annual Nox	Note 1
35	200	$785,000	10/07	12/07	Annual Nox	Note 1
36	100	$391,250	10/07	12/07	Annual Nox	Note 1
37	300	$1,117,500	10/07	12/07	Annual Nox	Note 1
38	100	$347,000	11/07	12/07	Annual Nox	Note 1
39	250	$918,750	09/07	01/08	Annual Nox	Note 1
40	200	$665,000	12/07	01/08	Annual Nox	Note 1

Table 1 PEF's CAIR Program-related NOx Allowance Purchasing

	Amount of Allowances Purchased (ton)	Actual Costs for the purchasing ($)	When (mm/yy) the Purchasing Made (Note 2)	When (mm/yy) Transferred to PEF Inventory	Type	Reasons of the Purchasing
41	1000	$4,525,000	06/07	01/08	Annual Nox	Note 1
42	1000	$4,525,000	06/07	01/08	Annual Nox	Note 1
43	200	$649,000	01/08	01/08	Annual Nox	Note 1
44	200	$624,000	01/08	01/08	Annual Nox	Note 1
45	100	$312,000	01/08	01/08	Annual Nox	Note 1
46	100	$427,500	09/07	01/08	Annual Nox	Note 1
47	100	$305,000	01/08	02/08	Annual Nox	Note 1
48	300	$915,000	01/08	02/08	Annual Nox	Note 1
49	300	$1,207,500	09/07	02/08	Annual Nox	Note 1
50	200	$615,000	01/08	02/08	Annual Nox	Note 1
51	900	$2,407,500	01/08	02/08	Annual Nox	Note 1
52	105	$280,875	01/08	02/08	Annual Nox	Note 1
53	500	$1,812,500	09/07	02/08	Annual Nox	Note 1

Attachment 17-b

Table 1 PEF's CAIR Program-related NOx Allowance Purchasing						
	Amount of Allowances Purchased (ton)	Actual Costs for the purchasing ($)	When (mm/yy) the Purchasing Made (Note 2)	When (mm/yy) Transferred to PEF Inventory	Type	Reasons of the Purchasing
54	150	$528,750	09/07	02/08	Annual Nox	Note 1
55	100	$297,500	12/07	02/08	Annual Nox	Note 1
56	200	$795,000	10/07	02/08	Annual Nox	Note 1
57	100	$297,500	12/07	03/08	Annual Nox	Note 1
58	200	$644,000	12/07	03/08	Annual Nox	Note 1
59	750	$2,040,000	03/08	04/08	Annual Nox	Note 1
60	500	$1,962,500	10/07	04/08	Annual Nox	Note 1
61	150	$663,000	04/08	04/08	Annual Nox	Note 1
62	50	$138,500	04/08	05/08	Annual Nox	Note 1
63	400	$1,090,000	04/08	05/08	Annual Nox	Note 1
64	50	$221,000	04/08	05/08	Annual Nox	Note 1
65	50	$221,000	04/08	05/08	Annual Nox	Note 1
66	200	$504,000	04/08	05/08	Annual Nox	Note 1
67	150	$629,250	04/08	05/08	Annual Nox	Note 1
68	500	$2,135,000	05/08	06/08	Annual Nox	Note 1
69	250	$955,000	05/08	06/08	Annual Nox	Note 1
70	300	$1,023,000	12/07	06/08	Annual Nox	Note 1
71	150	$326,250	05/08	06/08	Annual Nox	Note 1
72	500	$1,262,500	10/07	06/08	Annual Nox	Note 1
73	200	$494,000	05/08	06/08	Annual Nox	Note 1
74	250	$493,750	06/08	06/08	Annual Nox	Note 1
75	250	$1,273,750	07/08	01/09	Annual Nox	Note 1
76	1200	$2,094,000	06/08	01/09	Annual Nox	Note 1
77	500	$2,637,500	01/09	02/09	Annual Nox	Note 1
78	150	$513,000	01/09	02/09	Annual Nox	Note 1
79	150	$460,500	02/09	02/09	Annual Nox	Note 1
80	250	$1,292,500	06/08	02/09	Annual Nox	Note 1
81	100	$302,500	02/09	03/09	Annual Nox	Note 1
82	250	$805,000	02/09	03/09	Annual Nox	Note 1
83	100	$212,000	02/09	03/09	Annual Nox	Note 1
84	100	$242,000	02/09	03/09	Annual Nox	Note 1
85	100	$209,000	03/09	04/09	Annual Nox	Note 1
86	100	$122,000	04/09	04/09	Annual Nox	Note 1
87	100	$292,000	02/09	06/09	Annual Nox	Note 1
88	250	$962,500	02/08	06/09	Annual Nox	Note 1
89	100	$112,000	05/09	06/09	Annual Nox	Note 1
90	250	$973,750	04/08	07/09	Annual Nox	Note 1
91	300	$757,500	09/07	01/10	Annual Nox	Note 1, Note 3
92	250	$836,250	03/08	12/10	Annual Nox	Note 1
93	250	$798,750	03/08	12/10	Annual Nox	Note 1

Table 1 PEF's CAIR Program-related NOx Allowance Purchasing						
	Amount of Allowances Purchased (ton)	Actual Costs for the purchasing ($)	When (mm/yy) the Purchasing Made (Note 2)	When (mm/yy) Transferred to PEF Inventory	Type	Reasons of the Purchasing

Summary of Table 1				
	Annual		Seasonal	
	Tons	$	Tons	$
2007	6,775	$22,259,175	8,344	$6,286,298
2008	10,655	$36,911,125	0	0
2009	3,950	$12,504,000	0	0
2010	800	$2,392,500	0	0
Total	22,180	$74,066,800	8,344	$6,286,298

Note 1: Please see PEF's response to Interrogatory 13g, previously submitted, for a more detailed description of how this was done.

Note 2: This column shows when PEF entered into a contract to purchase these allowances. Many of these are forward purchases and would show up on PEF's accounting books when the transfer occurred which would have been some time in the future, shown in the following column.

Note 3: 150 tons of NOx allowances were transfered on 1/10 and the remaining 150 tons on 6/10

AFFIDAVIT

(STATE OF NORTH CAROLINA

COUNTY OF WAKE)

I hereby certify that on this 3rd day of October, 2011, before me, an officer duly authorized in the State and County aforesaid to take acknowledgments, personally appeared JAMES A. KING, who is personally known to me, and he acknowledged before me that he provided the answers to interrogatory number(s) 17a and 17b from STAFF'S EIGHTH SET OF INTERROGATORIES TO PROGRESS ENERGY FLORIDA, INC. (NO. 17a & 17b) in Docket No. 110007-EI, and that the responses are true and correct based on his personal knowledge.

In Witness Whereof, I have hereunto set my hand and seal in the State and County aforesaid as of this 3rd day of October, 2011.

James A. King

James A. King

DONNA J. SEARS
NOTARY PUBLIC
Wake County
North Carolina
My Commission Expires Aug. 23, 2014

Donna J Sears

Notary Public
State of North Carolina

My Commission Expires:

August 23, 2014

21

Progress' Responses to Staff's Ninth Set of Interrogatories (Nos. 18-19)

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In re: Environmental cost recovery clause.	DOCKET NO. 110007-EI DATED: OCTOBER 14, 2011

PROGRESS ENERGY FLORIDA'S RESPONSE TO STAFF'S NINTH SET OF INTERROGATORIES (NOS. 18-19)

PROGRESS ENERGY FLORIDA, INC. ("PEF"), pursuant to Rule 28-106.206, Florida Administrative Code, Rule 1.340, Florida Rules of Civil Procedure, and the Order Establishing Procedure in this matter, hereby responds to Staff's Ninth Set of Interrogatories (Nos. 18-19):

RESPONSES

18. For the purpose of the following requests, please refer to Form 42-4P Deferred Gain on Sales of Emission Allowances, page 8 of witness T. G. Foster's Exhibit TGF-3, and its corresponding worksheet 'Form 42 4P p5' of Excel file ecrc-2012-projection.xls PEF, filed on August 26, 2011.

a. Please provide the projected amounts of the Allowance Auction Proceeds for each month, if any, for the period January 2012 through December 2012.

Answer:

EPA remits allowance auction proceeds to PEF in April each year. $4,832 of proceeds was projected for April 2012 consistent with actual proceeds remitted to PEF by EPA in April 2011.

Please also see the response to Q18b below.

b. With respect to the $(1,732,535) reported in column April on row Line 1b, 25401FL Auctioned SO2 Allowance, please explain how this amount was derived.

Answer:

In the process of answering Staff Interrogatory 18 & 19, PEF discovered two minor errors that combined have the impact of increasing 2012 retail revenue requirements by $26,250. The first is a formula error on Exhibit TGF-3 Form 42-4P page 5 of 16 Line 1b in April. The April balance is shown as $(1,732,535) but should have been $(1,386,941). Making this revision increases 2012 retail revenue requirements by $26,231 or $26,250 after revenue tax multiplier of

1.00072. The second error was a formula error that misallocated $198,112 to Production Demand instead of Energy on Exhibit TGF-3 Form 42-1P Line 1b. Making this revision has no impact on 2012 retail revenue requirements. Attached please find revised schedules from Exhibit TGF-3 that reflect making these corrections as well as changing the amortization of the NOx allowance balance to a three year period: Revised Form 42-1P, Revised Form 42-2P, Revised Form 42-3P, Revised and Original Forms 42-4P pg 5, 42-5P pg 5, and Revised Form 42-7P.

As mentioned above, the $(1,732,535) of Auctioned SO2 Allowance on Line 1b on Form 42-4P in April 2012 is incorrect. The amount should be $(1,386,941) which is derived by subtracting April 2012 Allowance Amortization Expense of $(44,279) on Line 6b and adding projected April 2012 allowance proceeds of $4,832 to the March 2012 Auctioned SO2 Allowance balance of $(1,426,388) on Line 1b. Revising the Auctioned SO2 Allowance from $(1,732,535) to $(1,386,941) in April 2012 results in an increase of $26,250 in revenue requirements.

In addition, due to a formula error $198,112 in capital expenditures was incorrectly allocated to Production Demand, instead of Energy on Form 42-1P. Reallocating the $198,112 out of Production Demand and into Energy does not result in any change to retail revenue requirements. This change has been reflected in the attached Revised Form 42-1P.

19. For the purpose of the following requests, please refer to Form 42-1P on page 1 of witness T. G. Foster's Exhibit TGF-3, filed on August 26, 2011, Forms 42-5E and 42-7E on pages 5 and 7 of witness T. G. Foster's Exhibit TGF-1, filed on August 1, 2011, and Forms 42-5A and 42-7A on pages 5 and 7 of witness W. Garrett's Exhibit WG-1, filed on April 1, 2011.

a. Please explain how each of the dollar amounts reported in columns 'Energy($),' 'Transmission Demand($),' 'Distribution Demand($),' and 'Production Demand($)' on Line 2 'True-up for Estimated Over/(Under) Recovery for the current period January 2011-December 2011' of Form 42-1P were derived from the corresponding dollar amounts reported in the 'End of Period Total' column on line 8 of Forms 42-5E, and on lines 7 and 8 of Form 42-7E. Please support your response with a worksheet in Excel file format.

Answer:

The estimated/actual costs as shown on Forms 42-5E and 42-7E are used in Form 42-2E to calculate the estimated/actual end of period true-up amount. These amounts are used in Form 42-1E to get to the Current Period True-up Amount as shown on Line 4 of this Form. This amount carries over to Form 42-1P line 2 and is allocated to the functional areas consistent with the methodology used in Docket 100007 which was described last year in some detail in response to Staff's Eleventh Set of Interrogatories Question Number 48. This allocation is achieved in a three-step process: 1. Allocate the portion of the over recovery due to the Sales Variance, 2. Allocate the portion of the over recovery due to the Cost Variance and 3. Use a weighted average allocation of the first two steps to allocate any interest. The summation of steps 1-3 allocates the revenue requirement to functional areas for use in allocating to the retail rate classes. The detailed calculations are shown in Attachments 19-a.1 and 19-a.2. For ease of review, PEF has also attached Forms 42-2E, 42-5E, and 42-7E to this response.

b. **Please explain how each of the dollar amounts reported in columns 'Energy($),' 'Transmission Demand($),' 'Distribution Demand($),' and 'Production Demand($)' on Line 3 'Final True-up for the period January 2010-December 2010' of Form 42-1P were derived from the corresponding dollar amounts reported in the 'End of Period Total' column on line 8 of Forms 42-5A, and on lines 7 and 8 of Form 42-7A. Please support your response with a worksheet in Excel file format.**

Answer:

The final actual costs as reported on Forms 42-5A and 42-7A are used in Form 42-2A to calculate the over/under recovery. This information is used in Form 42-1A to get to line 3, Final True Up Amount to be Refunded/(Recovered). The $6,232,839 in line 3 of Form 42-1A is allocated to the different functional areas using the same ratio as the 2010 Estimated/Actual true-up in Docket 100007 was allocated in the original 2011 Projection filing. The methodology used to create the Estimated/Actual ratio was explained in detail in response to Staff's Eleventh Set of Interrogatories Question Number 48 in Docket 100007. The math used to break the $6,232,839 out into functional areas is shown in Attachment 19-b.

DATED this 14th day of October, 2011.

HOPPING GREEN & SAMS, P.A.

By: _____

Gary V. Perko
Florida Bar No. 855898
P.O. Box 6526
Tallahassee, FL 32301
(850) 222-7500

Attorneys for Progress Energy Florida, Inc.

ECRC Rate Analysis - 2011 Projection
Allocation of Over-Recovery
Sales vs Cost Variance

Attachment 19-a.1

Allocation of Over-Recovery						
Description	Energy	Transmission	Distribution	Production Demand	Total	Reference
Sales	$2,272,960	$429,581	$1,254,611	$2,404,679	$6,361,830	<a>
Costs	20,808	(2,493,845)	(976,205)	(409,986)	(3,859,228)	<b>
Interest & Other Adjustment	45,585	(41,024)	5,533	39,641	49,735	
Total Over/(Under)-Recovery 2011	$2,339,353	($2,105,287)	$283,939	$2,034,333	$2,552,337	
Total Over Recovery 2011					2,502,602	42-2E, line 5
Interest & Other Adjustment					49,735	42-2E, line 6 & 12
Difference					$0	

Cost Variance						
Description	Energy	Transmission	Distribution	Production Demand	Total	Reference
2011 Projection	$196,817,927	$988,344	$9,195,150	$6,058,409	$213,059,829	42-1P, Line 1c
2011 Estimated Actual	196,797,118	3,482,189	10,171,355	6,468,396	$216,919,058	42-2E, Line 4c
Difference	$20,808	($2,493,845)	($976,205)	($409,986)	($3,859,228)	<b>

Sales Variance		
Description	Rev Req	Reference
2011 Projection	$174,178,144	42-1P, Line 4
2011 Estimated Actual	180,539,974	42-2E, Line 1
Difference - Over Recovery	$6,361,830	<a>

00000381

Energy-Production Demand Reconciliation
CAIR Projects Allocated to Retail Classes on Energy vs Demand
2011 Estimated/Actuals

Attachment 19-a.2

	O&M				
	Energy ($)	Transmission Demand ($)	Distribution Demand ($)	Production Demand ($)	Total ($)
Original Total	18,424,619			19,492,333	
7.2 CAIR - Peaking	111,470			(111,470)	
7.4 CAIR Crystal River - Base	15,063,675			(15,063,675)	
7.4 CAIR Crystal River - A&G	116,630			(116,630)	
Total	15,291,774			(15,291,774)	
TOTAL Energy	33,716,393	3,482,189	10,169,880	4,200,559	51,569,021

	Capital				
	Energy ($)	Transmission Demand ($)	Distribution Demand ($)	Production Demand ($)	Total ($)
Original Total	3,165,871			162,182,691	
7.1 CAIR Anclote- Intermediate	-			-	
7.2 CAIR CT's - Peaking	235,018			(235,018)	
7.3 CAIR Crystal River - Base	29,441			(29,441)	
7.4 CAIR Crystal River AFUDC - Base	159,650,395			(159,650,395)	
Total	159,914,854			(159,914,854)	
TOTAL Energy	163,080,725	-	1,475	2,267,837	165,350,037

Energy-Production Demand Reconciliation
CAIR Projects Allocated to Retail Classes on Energy vs Demand
2010 Actuals

Attachment 19-b

Row			Energy	Transmission	Distribution	Production	Total
1	2010 Actual Final True-up -- Docket 110007-EI Exhibit WG-1 Form 42-1A Line 3		$6,232,839				
2	2010 Estimated/Actual Over Recovery (by functional area) -- Docket 100007-EI Revised Exhibit TGF-3 Form 42-1P Line 2	*	32,634,175	(1,826,794)	(555,669)	4,067,797	
3	2010 Estimated/Actual Over Recovery (total) - Docket 100007-EI Revised Exhibit TGF-3 Form 42-1P Line 2	/	34,319,509				
4	2010 Actual Final True up (by functional area) -- Form 42-1P Line 3 -- Row 1 * (Row 2/Row 3)	=	$5,926,762	($331,768)	($100,916)	$738,761	$6,232,839

Form 42-2E

PROGRESS ENERGY FLORIDA
Environmental Cost Recovery Clause (ECRC)
Calculation of the Current Period Estimated/Actual Amount
January 2011 through December 2011

End-of-Period True-Up Amount
(in Dollars)

Line	Description		Actual January 11	Actual February 11	Actual March 11	Actual April 11	Actual May 11	Actual June 11	Estimated July 11	Estimated August 11	Estimated September 11	Estimated October 11	Estimated November 11	Estimated December 11	End of Period Total
1	ECRC Revenues (net of Revenue Taxes)		$ 15,126,181	$ 13,098,247	$ 11,705,358	$ 12,859,417	$ 15,274,316	$ 16,831,036	$ 17,299,934	$ 17,816,203	$ 17,913,485	$ 15,570,600	$ 13,804,963	$ 13,240,234	$ 180,539,974
2	True-Up Provision	38,881,686	3,240,141	3,240,141	3,240,141	3,240,141	3,240,141	3,240,141	3,240,141	3,240,141	3,240,141	3,240,141	3,240,141	3,240,140	38,881,686
3	ECRC Revenues Applicable to Period (Lines 1 + 2)		18,366,321	16,338,387	14,945,499	16,099,558	18,514,456	20,071,177	20,540,075	21,056,344	21,153,625	18,810,741	17,045,104	16,480,374	219,421,659
4	Jurisdictional ECRC Costs														
	a. O & M Activities (Form 42-5E, Line 9)		3,290,933	3,258,044	4,181,938	4,247,023	3,872,417	5,811,433	5,630,968	5,239,401	5,085,712	4,175,934	3,386,518	3,388,700	51,569,021
	b. Capital Investment Projects (Form 42-7E, Line 9)		13,896,574	13,879,845	13,856,981	13,829,335	13,804,501	13,785,996	13,763,983	13,737,814	13,720,949	13,703,061	13,690,192	13,680,806	165,350,037
	c. Total Jurisdictional ECRC Costs		17,187,507	17,137,889	18,038,919	18,076,358	17,676,918	19,597,429	19,394,951	18,977,215	18,806,661	17,878,995	17,076,710	17,069,506	216,919,058
5	Over/(Under) Recovery (Line 3 - Line 4c)		1,178,814	(799,502)	(3,093,420)	(1,976,800)	837,538	473,748	1,145,123	2,079,129	2,346,965	931,746	(31,607)	(589,132)	2,502,602
6	Interest Provision (Form 42-3E, Line 10)		9,258	8,619	6,814	4,815	3,944	3,082	2,767	2,556	2,422	2,215	1,852	1,391	49,735
7	Beginning Balance True-Up & Interest Provision (Order No. PSC-10-0683-FOF-EI)		38,881,686	36,829,617	32,798,594	26,471,847	21,259,722	18,861,064	16,097,753	14,005,503	12,847,047	11,956,293	9,650,114	6,360,218	38,881,686
	a. Deferred True-Up from January 2010 to December 2010		6,232,839	6,232,839	6,232,839	6,232,839	6,232,839	6,232,839	6,232,839	6,232,839	6,232,839	6,232,839	6,232,839	6,232,839	6,232,839
8	True-Up Collected/(Refunded) (see Line 2)		(3,240,141)	(3,240,141)	(3,240,141)	(3,240,141)	(3,240,141)	(3,240,141)	(3,240,141)	(3,240,141)	(3,240,141)	(3,240,141)	(3,240,141)	(3,240,140)	(38,881,686)
9	End of Period Total True-Up (Lines 5+6+7+7a+8)		43,062,456	39,031,433	32,704,686	27,492,561	25,093,903	22,330,592	20,238,342	19,079,886	18,189,132	15,882,953	12,613,057	8,785,176	8,785,176
10	Adjustments to Period Total True-Up Including Interest		0	0	0	0	0	0	0	0	0	0	0	0	0
11	End of Period Total True-Up (Lines 9 + 10)		$ 43,062,456	$ 39,031,433	$ 32,704,686	$ 27,492,561	$ 25,093,903	$ 22,330,592	$ 20,238,342	$ 19,079,886	$ 18,189,132	$ 15,882,953	$ 12,613,057	$ 8,785,176	$ 8,785,176

Form 42-5E

PROGRESS ENERGY FLORIDA
Environmental Cost Recovery Clause (ECRC)
Calculation of the Current Period Estimated/Actual Amount
January 2011 through December 2011

O&M Activities
(in Dollars)

Line	Description	Actual January 11	Actual February 11	Actual March 11	Actual April 11	Actual May 11	Actual June 11	Estimated July 11	Estimated August 11	Estimated September 11	Estimated October 11	Estimated November 11	Estimated December 11	End of Period Total
1	Description of O&M Activities													
1	Transmission Substation Environmental Investigation, Remediation, and Pollution Prevention	$ 546,422	$ 633,153	$ 600,196	$ 84,221	$ 623,720	$ 566,479	$ 325,833	$ 325,833	$ 325,833	$ 325,833	$ 325,833	$ 325,833	$ 5,009,189
1a	Distribution Substation Environmental Investigation, Remediation, and Pollution Prevention	486,865	221,152	443,243	578,289	117,201	374,251	171,790	171,790	171,790	171,790	171,790	171,790	3,251,741
2	Distribution System Environmental Investigation, Remediation, and Pollution Prevention	622,226	823,044	901,921	421,788	677,391	726,364	765,400	843,600	763,800	409,000	0	0	6,954,534
3	Pipeline Integrity Management, Review/Update Plan and Risk Assessments - Intm	91,094	178,851	18,620	41,108	75,584	57,867	188,423	188,290	188,290	188,290	188,290	188,290	1,592,997
4	Above Ground Tank Secondary Containment - Pkg	0	0	0	0	0	0	0	0	0	0	0	0	0
5	SO2 & NOx Emissions Allowances - Energy	336,510	152,899	247,154	652,356	671,414	691,940	681,389	687,168	567,830	332,042	388,594	233,006	5,642,301
6	Phase II Cooling Water Intake 316(b) - Base	0	0	0	0	0	0	0	0	0	0	0	0	0
6a	Phase II Cooling Water Intake 316(b) - Intm	0	0	0	0	0	0	0	0	0	0	0	0	0
7.2	CAIR/CAMR - Peaking	0	22,371	2,546	0	0	0	21,783	0	4,000	16,500	33,500	20,500	121,200
7.4	CAIR/CAMR Crystal River - Base	621,951	770,056	1,146,444	1,602,058	1,476,594	1,009,702	1,787,464	1,453,184	1,514,783	1,458,425	1,794,355	1,598,790	16,233,808
7.4	CAIR/CAMR Crystal River - Energy	860,823	773,753	1,085,947	1,012,680	542,795	1,990,846	1,301,439	1,149,661	1,134,325	1,117,675	491,546	865,213	12,326,703
7.4	CAIR/CAMR Crystal River - A&G	4,621	6,151	10,963	14,213	13,777	13,534	14,000	14,000	8,750	8,750	8,750	8,750	126,258
8	Arsenic Groundwater Standard - Base	(2)	(3,312)	0	0	3,312	0	0	0	0	0	0	0	(2)
9	Sea Turtle - Coastal Street Lighting - Distrib	15	0	0	0	1,000	0	163	163	163	163	163	163	1,991
11	Modular Cooling Towers - Base	0	0	0	0	0	700,000	700,000	700,000	700,000	0	240,761	240,760	3,281,521
12	Greenhouse Gas Inventory and Reporting - Energy	0	0	0	0	0	0	0	0	0	0	0	0	0
13	Mercury Total Daily Maximum Loads Monitoring - Energy	9,500	0	9,500	0	0	9,500	0	0	0	21,163	0	0	49,663
14	Hazardous Air Pollutants (HAPs) ICR Program - Energy	0	0	0	0	0	0	0	0	0	0	0	0	0
15	Effluent Limitation Guidelines ICR Program - Energy	0	0	0	0	0	0	0	0	0	0	0	0	0
16	National Pollutant Discharge Elimination System (NPDES) - Energy	0	0	0	4,270	4,270	21,309	23,359	30,275	36,899	434,652	58,648	34,652	648,334
17	Maximum Achievable Control Technology (MACT) - Energy	0	0	0	0	0	0	30,000	30,000	25,000	0	0	0	85,000
2	Total of O&M Activities	3,580,024	3,578,118	4,486,535	4,410,982	4,207,058	6,161,791	6,011,043	5,593,963	5,441,463	4,484,283	3,702,230	3,687,747	55,325,237
3	Recoverable Costs Allocated to Energy	1,206,833	926,652	1,342,602	1,669,306	1,218,478	2,713,595	2,036,187	1,897,104	1,764,054	1,905,532	938,788	1,132,871	18,752,001
4	Recoverable Costs Allocated to Demand - Transm	546,422	633,153	600,196	84,221	623,720	566,479	325,833	325,833	325,833	325,833	325,833	325,833	5,009,189
	Recoverable Costs Allocated to Demand - Distrib	1,109,106	1,044,196	1,345,164	1,000,077	795,593	1,100,614	937,353	1,015,553	935,753	580,953	171,953	171,953	10,208,266
	Recoverable Costs Allocated to Demand - Prod-Base	621,948	766,744	1,146,444	1,602,058	1,479,906	1,709,702	2,487,464	2,153,184	2,214,783	1,458,425	2,035,116	1,839,550	19,515,326
	Recoverable Costs Allocated to Demand - Prod-Intm	91,094	178,851	18,620	41,108	75,584	57,867	188,423	188,290	188,290	188,290	188,290	188,290	1,592,997
	Recoverable Costs Allocated to Demand - Prod-Peaking	0	22,371	2,546	0	0	0	21,783	0	4,000	16,500	33,500	20,500	121,200
	Recoverable Costs Allocated to Demand - A&G	4,621	6,151	10,963	14,213	13,777	13,534	14,000	14,000	8,750	8,750	8,750	8,750	126,258
5	Retail Energy Jurisdictional Factor	0.9601	0.9822	0.9942	0.9960	0.9893	0.9877	0.9787	0.9771	0.9770	0.9748	0.9851	0.9890	
6	Retail Transmission Demand Jurisdictional Factor	0.69516	0.69516	0.69516	0.69516	0.69516	0.69516	0.69516	0.69516	0.69516	0.69516	0.69516	0.69516	
	Retail Distribution Demand Jurisdictional Factor	0.99624	0.99624	0.99624	0.99624	0.99624	0.99624	0.99624	0.99624	0.99624	0.99624	0.99624	0.99624	
	Retail Production Demand Jurisdictional Factor - Base	0.92792	0.92792	0.92792	0.92792	0.92792	0.92792	0.92792	0.92792	0.92792	0.92792	0.92792	0.92792	
	Retail Production Demand Jurisdictional Factor - Intm	0.72541	0.72541	0.72541	0.72541	0.72541	0.72541	0.72541	0.72541	0.72541	0.72541	0.72541	0.72541	
	Retail Production Demand Jurisdictional Factor - Peaking	0.91972	0.91972	0.91972	0.91972	0.91972	0.91972	0.91972	0.91972	0.91972	0.91972	0.91972	0.91972	
	Retail Production Demand Jurisdictional Factor - A&G	0.92374	0.92374	0.92374	0.92374	0.92374	0.92374	0.92374	0.92374	0.92374	0.92374	0.92374	0.92374	
7	Jurisdictional Energy Recoverable Costs (A)	1,158,680	910,157	1,334,815	1,662,629	1,205,441	2,680,217	1,992,817	1,853,660	1,723,481	1,857,513	924,800	1,120,409	18,424,619
8	Jurisdictional Demand Recoverable Costs - Transm (B)	379,851	440,143	417,233	58,547	433,585	393,794	226,506	226,506	226,506	226,506	226,506	226,506	3,482,189
	Jurisdictional Demand Recoverable Costs - Distrib (B)	1,104,935	1,040,270	1,340,106	996,316	792,601	1,096,476	933,828	1,011,734	932,234	578,768	171,306	171,306	10,169,880
	Jurisdictional Demand Recoverable Costs - Prod-Base (B)	577,118	711,477	1,063,809	1,486,582	1,373,234	1,586,467	2,308,167	1,997,982	2,055,142	1,353,302	1,888,425	1,706,955	18,108,660
	Jurisdictional Demand Recoverable Costs - Prod-Intm (B)	66,080	129,740	13,507	29,820	54,830	41,977	136,684	136,587	136,587	136,587	136,587	136,587	1,155,573
	Jurisdictional Demand Recoverable Costs - Prod-Peaking (B)	0	20,575	2,341	0	0	0	20,034	0	3,679	15,175	30,811	18,854	111,469
	Jurisdictional Demand Recoverable Costs - A&G (B)	4,269	5,682	10,127	13,129	12,726	12,502	12,932	12,932	8,083	8,083	8,083	8,083	116,831
9	Total Jurisdictional Recoverable Costs for O&M Activities (Lines 7 + 8)	$ 3,290,933	$ 3,258,044	$ 4,181,938	$ 4,247,023	$ 3,872,417	$ 5,811,433	$ 5,630,968	$ 5,239,401	$ 5,085,712	$ 4,175,934	$ 3,386,518	$ 3,388,700	$ 51,569,021

Notes:
(A) Line 3 x Line 5
(B) Line 4 x Line 6

00000385

Form 42-7E

PROGRESS ENERGY FLORIDA
Environmental Cost Recovery Clause (ECRC)
Calculation of the Current Period Estimated/Actual Amount
January 2011 through December 2011

Capital Investment Projects-Recoverable Costs
(in Dollars)

Line	Description	Actual January 11	Actual February 11	Actual March 11	Actual April 11	Actual May 11	Actual June 11	Estimated July 11	Estimated August 11	Estimated September 11	Estimated October 11	Estimated November 11	Estimated December 11	End of Period Total
1	Description of Investment Projects (A)													
	3 Pipeline Integrity Management - Barlow/Anclote Pipeline-Intermediate	$ 37,172	$ 37,100	$ 37,030	$ 36,960	$ 37,063	$ 37,298	$ 37,424	$ 37,454	$ 37,487	$ 37,519	$ 37,551	$ 37,867	$ 447,925
	4.1 Above Ground Tank Secondary Containment - Peaking	122,953	122,675	122,428	122,284	122,268	122,137	124,245	128,553	131,109	133,301	135,297	138,797	1,526,047
	4.2 Above Ground Tank Secondary Containment - Base	32,965	32,945	32,865	32,794	32,769	32,733	32,678	32,622	32,567	32,511	32,458	32,401	392,308
	4.3 Above Ground Tank Secondary Containment - Intermediate	3,117	3,112	3,108	3,102	3,098	3,093	3,088	3,083	3,079	3,073	3,068	3,064	37,085
	5 SO2/NOX Emissions Allowances - Energy	287,609	285,371	283,541	279,413	273,346	267,111	260,831	254,572	248,832	244,717	241,422	238,578	3,165,343
	7.1 CAIR/CAMR Anclote- Intermediate	0	0	0	0	0	0	0	0	0	0	0	0	0
	7.2 CAIR CT's - Peaking	21,458	21,426	21,394	21,363	21,342	21,318	21,285	21,253	21,223	21,189	21,156	21,123	255,532
	7.3 CAMR Crystal River - Base	2,644	2,644	2,644	2,644	2,644	2,644	2,644	2,644	2,644	2,644	2,644	2,644	31,728
	7.4 CAIR/CAMR Crystal River AFUDC - Base	14,445,526	14,423,381	14,398,017	14,372,454	14,353,568	14,339,552	14,325,156	14,308,746	14,294,176	14,277,725	14,262,668	14,250,927	172,051,896
	7.4 CAIR/CAMR Crystal River AFUDC - Energy	3,779	3,818	3,323	3,379	4,062	5,292	5,870	5,408	5,408	5,408	5,408	5,408	56,562
	9 Sea Turtle - Coastal Street Lighting -Distribution	118	118	117	117	117	116	119	123	127	131	136	141	1,480
	10.1 Underground Storage Tanks-Base	1,790	1,787	1,785	1,782	1,779	1,776	1,774	1,771	1,768	1,765	1,763	1,760	21,300
	10.2 Underground Storage Tanks-Intermediate	868	867	865	863	861	860	857	855	854	852	850	848	10,299
	11 Modular Cooling Towers - Base	12,159	12,057	11,956	11,854	11,753	11,651	8,890	438	438	438	438	438	82,510
	11.1 Thermal Discharge Permanent Cooling Tower - Base	4,035	4,030	4,026	4,020	4,016	4,011	4,007	4,002	3,997	3,993	3,988	3,983	48,108
2	Total Investment Projects - Recoverable Costs	14,976,192	14,951,332	14,923,099	14,893,029	14,868,686	14,849,592	14,828,868	14,801,525	14,783,709	14,765,266	14,748,847	14,737,979	178,128,124
3	Recoverable Costs Allocated to Energy	291,388	289,189	286,864	282,792	277,408	272,403	266,701	259,980	254,240	250,125	246,830	243,986	3,221,905
	Recoverable Costs Allocated to Demand - Distribution	118	118	117	117	117	116	119	123	127	131	136	141	1,480
4	Recoverable Costs Allocated to Demand - Production - Base	14,499,119	14,476,844	14,451,293	14,425,548	14,406,529	14,392,367	14,375,149	14,350,223	14,335,590	14,319,076	14,303,959	14,292,153	172,627,850
	Recoverable Costs Allocated to Demand - Production - Intermediate	41,157	41,079	41,003	40,925	41,022	41,251	41,369	41,392	41,420	41,444	41,469	41,779	495,309
	Recoverable Costs Allocated to Demand - Production - Peaking	144,411	144,103	143,822	143,647	143,610	143,455	145,530	149,806	152,332	154,490	156,453	159,920	1,781,579
5	Retail Energy Jurisdictional Factor	0.96010	0.98220	0.99420	0.99600	0.98930	0.98770	0.97870	0.97710	0.97700	0.97480	0.98510	0.98900	
	Retail Distribution Demand Jurisdictional Factor	0.99624	0.99624	0.99624	0.99624	0.99624	0.99624	0.99624	0.99624	0.99624	0.99624	0.99624	0.99624	
6	Retail Demand Jurisdictional Factor - Production - Base	0.92792	0.92792	0.92792	0.92792	0.92792	0.92792	0.92792	0.92792	0.92792	0.92792	0.92792	0.92792	
	Retail Demand Jurisdictional Factor - Production - Intermediate	0.72541	0.72541	0.72541	0.72541	0.72541	0.72541	0.72541	0.72541	0.72541	0.72541	0.72541	0.72541	
	Retail Demand Jurisdictional Factor - Production - Peaking	0.91972	0.91972	0.91972	0.91972	0.91972	0.91972	0.91972	0.91972	0.91972	0.91972	0.91972	0.91972	
7	Jurisdictional Energy Recoverable Costs (B)	279,761	284,041	285,200	281,661	274,439	269,053	261,020	254,027	248,393	243,822	243,152	241,302	3,165,871
	Jurisdictional Demand Recoverable Costs - Distribution (B)	117	117	117	117	117	116	119	123	127	131	135	140	1,475
8	Jurisdictional Demand Recoverable Costs - Production - Base (C)	13,454,022	13,433,353	13,409,644	13,385,755	13,368,106	13,354,965	13,338,988	13,315,859	13,302,281	13,286,957	13,272,930	13,261,975	160,184,835
	Jurisdictional Demand Recoverable Costs - Production - Intermediate (C)	29,856	29,799	29,744	29,687	29,758	29,924	30,010	30,026	30,046	30,064	30,082	30,307	359,302
	Jurisdictional Demand Recoverable Costs - Production - Peaking (C)	132,818	132,534	132,276	132,115	132,081	131,938	133,847	137,780	140,103	142,088	143,893	147,082	1,638,554
9	Total Jurisdictional Recoverable Costs for Investment Projects (Lines 7 + 8)	$ 13,896,574	$ 13,879,845	$ 13,856,981	$ 13,829,335	$ 13,804,501	$ 13,785,996	$ 13,763,983	$ 13,737,814	$ 13,720,949	$ 13,703,061	$ 13,690,192	$ 13,680,806	$ 165,350,037

Notes:
(A) Each project's Total System Recoverable Expenses on Form 42-8E, Line 9; Form 42-8E, Line 5 for Projects 5 - Allowances and Project 7. 4 - Reagents
(B) Line 3 x Line 5
(C) Line 4 x Line 6

00000386

AFFIDAVIT

(STATE OF FLORIDA

COUNTY OF Pinellas)

I hereby certify that on this 14th day of October, 2011, before me, an officer duly authorized in the State and County aforesaid to take acknowledgments, personally appeared THOMAS G. FOSTER , who is personally known to me, and he acknowledged before me that he provided the answers to interrogatory number(s) 18a, 18b, 19a, and 19b from STAFF'S NINTH SET OF INTERROGATORIES TO PROGRESS ENERGY FLORIDA, INC. (NO. 18a, 18b, 19a, & 19b) in Docket No. 110007-EI, and that the responses are true and correct based on his personal knowledge.

In Witness Whereof, I have hereunto set my hand and seal in the State and County aforesaid as of this 14th day of October, 2011.

Thomas G. Foster

SUZANNE H. MILLER
MY COMMISSION # DD 842069
EXPIRES: March 27, 2013
Bonded Thru Notary Public Underwriters

Suzanne H. Miller
Notary Public
State of Florida

My Commission Expires:

3/27/13

22

Progress' Responses to Staff's Tenth Set of Interrogatories (No. 20)

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In re: Environmental cost recovery clause.	DOCKET NO. 110007-EI DATED: OCTOBER 19, 2011

PROGRESS ENERGY FLORIDA'S RESPONSE TO STAFF'S TENTH SET OF INTERROGATORIES (NO. 20)

PROGRESS ENERGY FLORIDA, INC. ("PEF"), pursuant to Rule 28-106.206, Florida Administrative Code, Rule 1.340, Florida Rules of Civil Procedure, and the Order Establishing Procedure in this matter, hereby responds to Staff's Tenth Set of Interrogatories (No. 20):

RESPONSE

20. **For purposes of the following requests, please refer to witness P.Q. West's testimony and T.G. Foster's testimony filed on August 1, 2011. On page 11, lines 1 – 2 of her testimony, witness West stated "[a]s of January 1, 2012, the emissions allowances under CAIR will have no value." On page 7, lines 18 – 19, of his testimony witness Foster stated "any NOx allowances not used by the end of 2011 are not expected to be useful for compliance with the new Rule." Please identify the specific language in the new Cross State Air Pollution Rule (CSAPR) that supports these witnesses' aforementioned statements. Please also identify where in the rule this language can be found.**

Answer:

Language to support the statements regarding the value and usefulness of NOx allowances for compliance with CSAPR can be found at Federal Register Volume 76, No. 152 (August 8, 2011):

- 48353 – 48354 (Language to be codified at 40 CFR 52.35):
  - "(3) By November 7, 2011, the Administrator will remove from the CAIR NOx Allowance Tracking System accounts all CAIR NOx allowances allocated for a control period in 2012 and any subsequent year, and, thereafter, no holding or surrender of CAIR NOx allowances will be required with regard to emissions or excess emissions for such control periods; and
  - (4) By November 7, 2011, the Administrator will remove from the CAIR NOx Ozone Season Allowance Tracking System accounts all CAIR NOx Ozone Season allowances allocated for a control period in 2012 and any subsequent year, and thereafter, no holding or surrender of CAIR NOx allowances will be required with regard to emissions or excess emissions for such control periods."

DATED this 19th day of October, 2011.

HOPPING GREEN & SAMS, P.A.

By: _____

Gary V. Perko
Florida Bar No. 855898
P.O. Box 6526
Tallahassee, FL 32301
(850) 222-7500

Attorneys for Progress Energy Florida, Inc.

AFFIDAVIT

STATE OF FLORIDA

COUNTY OF PINELLAS

I hereby certify that on this 5th day of October, 2011, before me, an officer duly authorized in the State and County aforesaid to take acknowledgments, personally appeared Patricia Q. West, who is personally known to me, and she acknowledged before me that she provided the answer to interrogatory number 20 from STAFF'S TENTH SET OF INTERROGATORIES TO PROGRESS ENERGY FLORIDA, INC. (NO. 20) in Docket No. 110007-EI, and that the responses are true and correct based on his/her personal knowledge.

In Witness Whereof, I have hereunto set my hand and seal in the State and County aforesaid as of this 5th day of October, 2011.

June C. Mooney

Notary Public
State of Florida, at Large

JUNE C. MOONEY
MY COMMISSION # DD806913
EXPIRES: September 18, 2012
1-800-3-NOTARY Fl. Notary Discount Assoc. Co.

My Commission Expires:
September 18, 2012