

Hopping Green & Sams

Attorneys and Counselors

February 11, 2013

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VIA HAND DELIVERY

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

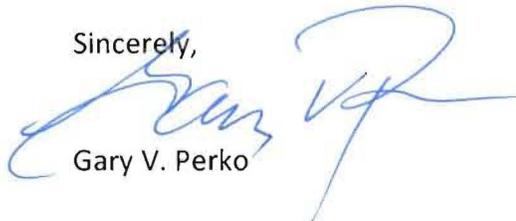
Re: *Petition for approval of a new environmental program for cost recovery under the Environmental Cost Recovery Clause, Progress Energy Florida, Inc.; Docket #120318-EI*

Dear Ms. Cole:

Enclosed please find the original and five (5) copies of Progress Energy Florida, Inc.'s ("PEF") responses to Staff's First Data Request in the above referenced docket.

Thank you for your assistance in this matter. Please call me at (850) 425-2359 should you have any questions.

Sincerely,



Gary V. Perko

Enclosures: As stated.
GVP/srl

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PROGRESS ENERGY FLORIDA, INC.'S RESPONSES TO STAFF'S DATA REQUEST #1
DOCKET NO. 120318-EI

- Q1. In the first paragraph of its Petition, PEF references new conditions of certification which impose new groundwater monitoring and operation and maintenance requirements (GMOMR) for Crystal River Energy Center (CR) Units 3, 4 and 5.**
- a. Please describe how Unit 3 is affected by the new GMOMR.**
 - b. Please identify and describe each compliance project, if any, that solely pertains to CR Unit 3.**
 - c. Please provide the amount of O&M costs that are associated with each project identified in response to question 1.b.**
 - d. Please provide the amount of capital costs that are associated with each project identified in response to question 1.b.**

Response:

- a) CR Unit 3 is not affected by the new GWMOMR. The first requirement, percolation pond flow quantification, is specific to Units 4 & 5. The freeboard limitation and impoundment integrity inspection requirements pertain to the overall, site-wide, industrial wastewater percolation pond system. While CR3 can utilize these systems as a backup, these systems were originally constructed, and are largely used by Units 1, 2, 4, & 5. The last requirement involving groundwater flow/contour mapping, is associated with the coal combustion residuals storage area.
 - b) None of these new requirements pertain solely to CR Unit 3.
 - c) N/A
 - d) N/A
- Q2. Please refer to the Petition at paragraph 4.a.**
- a. How many flow monitoring devices will need to be installed?**
 - b. What is expected to be the average labor cost to install a flow monitoring device?**
 - c. What is expected to be the average equipment cost of a flow monitoring device?**
 - d. What is expected to be the total cost associated with the flow monitoring device installations described in the Petition at paragraph 4.a.?**
 - e. For the installations described in the Petition at 4.a., please identify: i.) each entity (including, if applicable, PEF) that will provide the device, installation, or other related services, ii.) the specific services that each entity will provide and iii.) the date that an RFP was, or will be, issued.**

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- f. Apart from the installations discussed in response to the questions above, are there any other capital projects necessary to satisfy the percolation pond flow quantification requirement (PPFQR)?
- g. If the response to question 2.f. is affirmative, please identify and describe each of the capital projects that will be carried out to comply with the PPFQR.
- h. If the response to 2.f. is affirmative, please provide the costs associated with each capital project identified in response to question 2.g.
- i. For each capital project identified in response to question 2.g., please identify: i.) each entity (including, if applicable, PEF) that will provide the equipment, engineering, installation, or other related services, ii.) the specific services that each entity will provide, and iii.) the date that an RFP was, or will be, issued.
- j. For satisfying the requirement that PEF quantify industrial wastewater flow to the Units 4 and 5 industrial wastewater percolation basin system, please identify: i.) each entity (including, if applicable, PEF) that will provide data analysis or other related services, ii.) the specific services that each entity will provide, and iii.) the date that an RFP was, or will be, issued.
- k. When is each of the projects that is planned to satisfy the new PPFQR expected i.) to begin and ii.) to be completed?

Response:

- a) PEF is evaluating two flow monitoring options: 1) Install Three New Magnetic Flowmeters and 2) Install New Sump and Pumping System. Two or three devices will be required depending on the option selected.
- b) Labor costs vary depending on the flow monitoring option selected. Estimated labor costs for option 1 and option 2 are \$287k and \$615k, respectively. These estimates are subject to change as details of each option are finalized.
- c) Equipment costs vary depending on the flow monitoring option selected. Estimated material costs for option 1 and option 2 are \$203k and \$327k, respectively. These estimates are subject to change as details of each option are finalized.
- d) Total costs vary depending on the flow monitoring option selected. Total estimated costs for option 1 and option 2 are \$490k and \$942k, respectively. These estimates are subject to change as details of each option are finalized.
- e) (i) The only entity that has been selected is Stantec who will provide engineering support. Other specific entities for work other than engineering support have not yet been determined. (ii) Stantec will provide engineering support. (iii) An RFP for engineering support was sent in December 2012. RFPs for other types of work required have not been submitted.
- f) No.
- g) N/A
- h) N/A
- i) N/A

- j) Stantec and PEF personnel will review the system inflows and original design data, current piping drawings, potential for future flows and elevation data.
- k) (i) The design work started in December 2012. (ii) The preliminary design work is expected to be completed by the end of February 2013. At this time, PEF cannot provide specific dates for installation/completion until the design work is finalized. Further testing still needs to be done before PEF decides on flow monitoring Option 1 or 2.

Q3. Please refer to the Petition at paragraph 4.b.

- a. **Is it anticipated that PEF will need to undertake any capital projects in order to meet the new limitations on the freeboard capacity of the CR facility's industrial wastewater percolation basins?**
- b. **If the response to question 3.a. is affirmative, please identify and describe each such project.**
- c. **For each capital project identified in response to question 3.a., please identify: i.) each entity (including, if applicable, PEF) that will provide equipment, perform the work described or other related services, ii.) the specific equipment or services that each entity will provide, and iii.) the date that an RFP was, or will be, issued.**
- d. **When is each capital project identified in response to question 3.a. expected i.) to begin and ii.) to be completed?**
- e. **Please identify: i.) each entity (including, if applicable, PEF) that will perform the assessment of the basins to determine appropriate operating levels or other related services, ii.) the specific services that each entity will provide, and iii.) the date that an RFP was, or will be, issued.**
- f. **When is assessment of the basins to determine appropriate operating levels expected i.) to begin and ii.) to be completed?**

Response:

- a) No modifications or projects are anticipated to meet the limitations on freeboard capacity at Crystal River.
- b) N/A
- c) N/A
- d) N/A
- e) N/A
- f) (i) The basin inspection started in January 2013. (ii) The basin assessment and final report are expected to be completed by February 15, 2013.

- Q4. Referring to the Petition at paragraph 4.c., please identify: i.) each entity (including, if applicable, PEF) that will perform annual impoundment integrity inspection and related services, ii.) the specific services that each entity will provide, and iii.) the date that an RFP was, or will be, issued.**

Response:

i) PEF selected ENERCON to perform the 2013 impoundment integrity inspection and related services. PEF has not decided if future inspections will be performed by PEF or a third party.

ii) The specific services that ENERCON will perform is contained in the Conditions of Certification PA-77-09 at Attachment H, Section IV.C., which reads as follows:

"1. No later than 180 days following issuance of the Mod P COC, and annually thereafter, all impoundments shall be inspected by qualified personnel with knowledge and training in impoundment integrity. Annual inspections shall include observations of dike and toe areas for erosion, cracks or bulges, seepage, wet or soft soil, changes in geometry, the depth and elevation of the impounded water, sediment or slurry, freeboard, changes in vegetation such as overly lush, dead or unnaturally tilted vegetation, and any other changes which may indicate a potential compromise to impoundment integrity.

2. Within 30 days after the annual inspection, a qualified individual shall certify to the Department that no breaches or structural defects resulting in the discharges to surface waters of the State and that no changes were observed which may indicate a potential compromise to impoundment integrity during the previous calendar year.

3. The certification shall also include a statement that the impoundments provide the necessary minimum wet weather detention volume to contain the combined volume for all direct rainfall and all rainfall runoff to the pond resulting from the 10-year, 24-hour rainfall event and maximum dry weather plant waste flows which could occur during a 24-hour period."

iii) An RFP was issued to three potential contractors on November 8, 2012. All respondents were considered qualified. ENERCON was selected as the lowest priced respondent.

- Q5. Please refer to the Petition at paragraph 4.d.**

- a. Please identify: i.) each entity (including, if applicable, PEF) that will perform groundwater flow/contour mapping and related services, ii.) the specific services that each entity will provide, and iii.) the date that an RFP was, or will be, issued.**
- b. When are the projects that are planned to satisfy the new groundwater/contour mapping requirement expected i.) to begin and ii.) to be completed?**

Response:

a) Geosyntec Consultants (Geosyntec) will perform groundwater flow/contour mapping services necessary to satisfy Condition VI. (2), Attachment H, of the Conditions of Certification related to groundwater contour maps and flow analysis using existing groundwater monitoring well data from wells associated with the Crystal River ash storage area. Geosyntec will collect groundwater monitoring data on a semi-annual basis to submit in an annual report to FDEP. No RFP was issued for the groundwater flow/contour mapping services as Geosyntec is currently performing other hydrogeological investigations of the Crystal River site groundwater monitoring well system.

- b) PEF is required to begin the study with the first quarter 2013 groundwater sampling effort. FDEP has provided no end date, therefore, it is expected that this requirement will remain in place as long as the Crystal River ash storage area is in operation.

Q6. Please refer to the Petition at paragraph 9.

- a. **Please explain why O&M costs associated with the new GWMOMR compliance program should be allocated to the rate classes on an energy basis.**
- b. **Please explain why capital expenditures associated with the new GWMOMR compliance program should be allocated to rate classes on a demand basis.**

Response: PEF is proposing to allocate O&M and capital expenditures associated with the GWMOMR compliance program to rate classes consistent with the National Pollutant Discharge Elimination System (NPDES) Permit Renewal Requirement project approved in Order No. PSC-11-0553-FOF-EI. In that order, the Commission approved as reasonable that O&M costs for the NPDES project should be allocated to rate classes on an energy basis, and capital costs for the NPDES project should be allocated to rate classes on a demand basis. This cost allocation methodology should be applied to the GWMOMR compliance program as it requires similar environmental requirements as the NPDES project such as wastewater percolation pond freeboard capacity limitation and related studies. Moreover, it is reasonable to allocate costs that vary with volume of plant production such as wastewater impact and groundwater monitoring O&M costs to rate classes on an energy basis. It is also reasonable to allocate fixed costs such as capital to rate classes on a demand basis. This is consistent with how similar costs are allocated to retail rate classes in base rates.

Q7. Referring to Petition at Exhibit 1, please provide a detailed breakdown of the component items and related costs that support the capital expenditure for percolation pond flow quantification.

Response: Please see "**Attachment A**" which is a cost breakdown from Stantec dated January 18, 2013.



Stantec Consulting Services, Inc
Project 198800902
01/18/2013

**Progress Energy - Florida
Crystal River Power Station - Percolation Pond
Flow Monitoring Study
Opinion of Probable Costs
Revision A - For Review**

Progress Energy Florida
Crystal River

Totals
Cost Estimate

Stantec Consulting Services, Inc
Project 198800902
01/18/2013

Total Installed Cost Estimate For Option # 1 - Install Three New Magnetic Flowmeters

Area Total Installed Costs	Comments	Total Cost
Mechanical/ Piping		\$42,850.00
Electrical and Instrumentation		\$107,683.00
Cabling		\$8,850.75
Conduit & Raceway		\$56,755.48
Civil Estimate (engineering costs are included in the sub-sections)		\$210,000.00
Contingency & 15%		\$63,920.88
Note: \$65/Hr Labor Rates used in Est.		
		\$490,060.11

Total Installed Cost Estimate For Option # 2 - Install New Sump and Pumping System

Area Total Installed Costs	Comments	Total Cost
Mechanical/ Piping		\$85,306.00
Electrical and Instrumentation		\$131,000.00
Cabling		\$65,329.70
Conduit & Raceway		\$28,598.89
Civil Estimate (engineering costs are included in the sub-sections)		\$509,000.00
Contingency & 15%		\$122,885.19
Note: \$65/Hr Labor Rates used in Est.		
		\$942,119.77

Option 1 - Three New Magnetic Flowmeters - Cabling Summary

Cable Type & Descripton	Quantity	Labor	Material	Unit Cost Installed	Total Cost	Comments
1 PR #16 Shld TC	2000	\$3,150.00	\$544.00	\$1.85	\$3,694.00	
Belden Cable for FT's	150	\$517.50	\$165.00	\$4.55	\$682.50	
		\$0.00	\$0.00	\$11.70	\$0.00	
3/C #14 TC	425	\$1,487.50	\$573.75	\$4.85	\$2,061.25	
		\$0.00	\$0.00	\$26.00	\$0.00	
3/C #8 TC	150	\$624.00	\$487.50	\$7.41	\$1,111.50	
# 6 Ground Wiring	50	\$91.50	\$210.00	\$6.03	\$301.50	
Exothermic Welds	6	\$500.00	\$500.00		\$1,000.00	
		\$6,371	\$2,480			
		Labor Total	Material Total	Total	\$8,851	

Option 1 - Three New Magnetic Flowmeters - Civil Summary

Equipment Costs

Item	Description	Vendor	Costs	Notes
1	12' x 12' x 6' Pre-Cast Concrete Vault		\$ 15,000	
		Total	\$ 15,000	

Installation Costs *

Item	Description	Vendor	Costs	Notes
1	Soil Removal		\$ 30,000	Trench that is 8 x 12 x 20
2	Dewatering		\$ 80,000	
3	Vault Installation		\$ 35,000	Vault is 12 x 12 x 6
4	Final Backfill and Grading		\$ 30,000	
* Installation Costs are based on information provided by Moretrench				
		Total	\$ 175,000	

Engineering Costs

Item	Description	Vendor	Costs	Notes
1	Engineering Fee	Stantec	\$ 20,000	Based on Proposal
		Total	\$ 20,000	

Estimated Total Installed Cost **\$ 210,000**

Option 2 - New Sump and Pumps - Mechanical and Piping Summary

Equipment Costs

Item	Description	Vendor	Costs	Notes
1	New Self-Priming Sump Pumps	Gorman Rupp Pumps	\$ 27,606	Quotation from Hudson Pump
2	16" By-Pass Valve		\$ 8,000	Carbon Steel flanged with standard Trim
3	New CS pipe from 8" to Sump		\$ 4,200	About 50 Linear Feet
4	New HDPE From 10" to Sump		\$ 1,000	About 50 Linear Feet
5	New HDPE 10" Piping From Sump to Perc Pond		\$ 2,000	About 100 Linear Feet
6	New HDPE 4" Piping From Sump to 10" Tie-In		\$ 500	About 30 Linear Feet
		Total	\$ 43,306	

Installation Costs

Item	Description	Vendor	Costs	Notes
1	Pump Installation on Pre-Fabbed Concrete Skid		\$ 5,000	
2	Piping Installation		\$ 10,000	All Piping Above Grade
2	Demo 16" Below Grade Pipe		\$ 2,000	
		Total	\$ 17,000	

Engineering Costs

Item	Description	Vendor	Costs	Notes
1	Engineering Fee	Stantec	20,000	
2	Vendor Start-Up and Commissioning		5,000	
		Total	25,000	

Estimated Total Installed Cost \$ 85,306

Option 2 - New Sump and Pumps - Cabling Summary

Cable Type & Description	Quantity	Labor	Material	Unit Cost Installed	Total Cost	Comments
1 PR #16 Shld TC	30	\$47.25	\$8.16	\$1.85	\$55.41	LT Cabling
2 PR #16 Shld TC	1500	\$2,362.50	\$408.00	\$1.85	\$2,770.50	Mag Flow Signal to DCS
12/C #14 TC	1500	\$6,375.00	\$4,275.00	\$7.10	\$10,650.00	Misc Alarms to DCS
Belden Cable for FT	50	\$78.75	\$13.60	\$1.85	\$287.00	FT Cabling
3/C #10 TC + Gnd	30	\$115.20	\$57.00	\$5.74	\$172.20	Motor Feed
3/C #4 TC + Gnd	30	\$173.70	\$177.30	\$11.70	\$351.00	Motor Feed
3/C #4/0 TC + Gnd	1500	\$18,000.00	\$21,000.00	\$26.00	\$39,000.00	Power Feed to Pit
4/0 Bare Copper Gnd	1700	\$3,111.00	\$7,140.00	\$6.03	\$10,251.00	Installed in Tray As Well
Exothermic Welds	20	\$1,500.00	\$180.00	\$84.00	\$1,680.00	
Ground Rods	2	\$150.00	\$18.00	\$84.00	\$168.00	
		\$ 31,866	\$ 33,269			
		Labor Total	Material Total	Total \$	65,330	

Option 2 - New Sump and Pumps - Civil Summary

Equipment Costs

Item	Description	Vendor	Costs	Notes
1	12' x 12' x 12' Pre-Cast Concrete Vault		\$ 25,000	
2	Pipe Supports		\$ 5,000	
Total			\$ 30,000	

Installation Costs *

Item	Description	Vendor	Costs	Notes
1	Soil Removal		\$ 75,000	Vault is 12 x 12 x 12
2	Dewatering		\$ 150,000	
3	Vault Installation		\$ 125,000	Vault is 12 x 12 x 12
4	Final Backfill / Grading		\$ 100,000	
5	Pipe Supports		\$ 4,000	
* Installation Costs are based on information provided by Moretrench				
Total			\$ 454,000	

Engineering Costs

Item	Description	Vendor	Costs	Notes
1	Engineering Fee	Stantec	\$ 25,000	Based on Proposal
Total			\$ 25,000	

Total Cost **\$ 509,000**