

**FLORIDA POWER & LIGHT COMPANY  
DOCKET NO. 120007-EI  
ENVIRONMENTAL COST RECOVERY CLAUSE  
FPL SUPPLEMENTAL CAIR/CAMR/CAVR FILING  
APRIL 2, 2012**

**Per Order No. PSC-11-0553-FOF-EI, issued on December 7, 2011, the discussion below provides FPL's current estimates of project activities and associated costs related to its Clean Air Interstate Rule (CAIR), Clean Air Mercury Rule (CAMR) and Clean Air Visibility Rule (CAVR)/ Best Available Retrofit Technology (BART) Projects.**

**CAIR Compliance Project Update:**

**Status of CAIR Rule Revision** – On July 11, 2008 the United States Circuit Court of Appeals for the District of Columbia (the Court) issued an opinion vacating the United States Environmental Protection Agency's (EPA) CAIR. On December 23, 2008, the Court issued an opinion on rehearing of the July 11 decision and remanded CAIR to the EPA without vacatur, instructing EPA to remedy the CAIR flaws in accordance with the Court's July 11 opinion. This results in CAIR remaining in effect in its current form until it is revised for the July 11 opinion. On July 6, 2010 EPA published a proposed Clean Air Transport Rule (CATR) to replace the CAIR rule that had been remanded to EPA by the Court. EPA subsequently withdrew the proposed CATR and on July 6, 2011 EPA made public its Cross State Air Pollution Rule (CSAPR) as the replacement to CAIR. Interested parties filed petitions for reconsideration with EPA and also filed petitions for judicial review of CSAPR. FPL joined the Florida Coordinating Group in its petition to EPA for reconsideration of several issues through which the affected Florida generating units would receive additional emission allowances under CSAPR. On December 30, 2011 the DC Circuit Court of Appeals issued a stay on the rule and set an abbreviated schedule for submittal of briefs and oral argument to assess the merits of a stay and remand of the rule to EPA. All parties have filed briefs and oral argument is set for April 2012. In the Court's decision to stay the rule, the CAIR requirements are now in effect for all affected states. FPL anticipates that the court's decision could come early this summer but we cannot know the outcome of their decision. In accordance with the December 23, 2008 Court decision, CAIR remains in effect until a replacement rule is finalized by EPA.

**St. Johns River Power Park (SJRPP) Selective Catalytic Reduction Systems (SCR) and Ammonia Injection Systems** – The construction and installation of SCR and Ammonia Injection Systems on SJRPP was accomplished in 2009 with the controls on both units being placed into service in 2010. The total CAIR capital cost for installation of the SCR and Ammonia Injection System for FPL's ownership share of SJRPP is \$55.3 million.

Estimated CAIR O&M expenses for 2012 are \$0.6 million and estimated annual O&M expenses beginning 2013 are approximately \$0.6 million (FPL 20% ownership). Ongoing

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O&M activities for the SCR include incremental operating staff, ammonia consumption, maintenance of the SCR ammonia injection skid and SCR auxiliary equipment.

**Scherer SCR and Wet Flue Gas Desulfurization (FGD)** - Current capital cost estimates for FPL's share of the installation of the FGD, Scrubber and SCR with Ammonia Injection System on Scherer Unit 4 is \$363.9 million. The planned construction activities in 2012 include the installation of instrumentation for the FGD and SCR controls on Unit 4, by-product and reagent facility common storage, and final tie-in of controls during the spring planned outage.

Unit specific engineering and design work on the FGD and SCR for Unit 4 was completed in 2008 and procurement of materials needed for the construction of the equipment began in 2009. Foundation work for the FGD and SCR and for the new chimney at the output from the FGD was completed in 2008. Project work accomplished in 2009 included: delivery and initial installation of SCR structural steel; delivery and installation of SCR ammonia storage facility; initial construction of FGD chimney liner and absorber foundation activities; Scherer common FGD facility work including limestone handling prep equipment, tanks, piping, and electrical; and initial construction activities for FGD gypsum waste disposal facility. The 2010 project work included the erection of the scrubber vessel and stack/liner. Unanticipated, persistent inclement weather increased the original planned construction schedule. Project work in 2010 also included the SCR support structure and Unit 4 FGD absorber vessel. Additionally, construction was substantially completed in 2010 for SCR and FGD project common facilities (e.g., unloading and storage facilities for ammonia and limestone and limestone grinding facilities). Construction activities completed in 2011 included the completion of FGD absorber fill, recycle pump alignments, SCR damper completion, SCR ash system, and CEMS sample lines. FPL estimates its share of the Scherer Unit 4 CAIR capital costs to be \$29.7 million in 2012 and \$7.4 million in 2013. FPL has preliminarily estimated annual O&M for operation of the SCR, FGD, and common plant facilities supporting the controls at \$3.4 million for 2012 when the FGD and SCR are projected to be in-service and \$5.6 million in 2013 for the first full year of controls operation. O&M activities for the SCR include incremental operating staff, ammonia consumption, maintenance of the SCR ammonia injection skid and SCR auxiliary equipment. O&M activities for the FGD include limestone consumption, limestone and by-product handling operation, FGD operations, FGD tower and auxiliary equipment maintenance.

**800 MW unit cycling project** -FPL witness Randall R. LaBauve introduced this project in his September 1, 2006 testimony and subsequently provided an estimate for implementation of the projects with a total capital cost of \$104.8 million. FPL had originally planned completion of the 800 MW unit cycling project in 2010 at the Martin and Manatee Plants utilizing existing planned outage windows to complete project work. As a result of changes to the Manatee Unit 2 outage schedule to accommodate system load requirements, completion of remaining boiler and associated drain work was accomplished in 2011.

Total capital costs for the 800 MW unit cycling project are \$115.2 million and total O&M expenses to date are \$4.1 million. Completed work in 2011 included the Super Heat (SH) Spray Upgrade, Extraction Control/Mass Blowdown on Manatee Unit 2, the implementation

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of rotor stress monitors on all four 800 MW units, and the remaining boiler work at Manatee Unit 2. Projected O&M expenses for 2012 are \$0.540 million and 0.549 million in 2013 for treatment of condenser tube fouling.

**Continuous Emissions Monitoring System (CEMS) Plan for Gas Turbines (GT)** - The Low Mass Emitting (LME) CEMS under 40 CFR Part 75 have been installed, tested, and are now in operation at the Fort Myers, Port Everglades, and Fort Lauderdale Gas Turbine Parks, as required by the CAIR and by the CSAPR.

FPL has projected O&M expenses of \$5,000 per year that will be required for routine maintenance of these CEMS systems. It should be noted that the LME option is available for a GT only if its emissions remain under EPA-prescribed thresholds. If any GT emits more than 50 tons of NO<sub>x</sub> or 25 tons of SO<sub>2</sub> in a given calendar year, the testing for that GT will be required every year, instead of every five years. That would increase the testing costs for non-qualifying GTs to \$65,000 per year, along with \$5,000 per year for maintenance. FPL has not projected operation of any GT to exceed the LME limits.

**Purchases of allowances** – To comply with the CAIR Ozone Season NO<sub>x</sub> program requirements, FPL purchased CAIR allowances that were needed for compliance at a total cost of \$98,325 for compliance year 2009. The 855 CAIR Ozone season allowances, in addition to the 12,418 allowances allocated to FPL by the EPA, were needed to comply with CAIR requirements for fossil generating unit emissions during the May through September 2009 Ozone Season. As a result of the lower than previously projected system load, and changes in FPL's generation plan mentioned above, FPL had sufficient allowances for compliance with the 2010 and 2011 CAIR NO<sub>x</sub> Ozone Season and had sufficient allowances for compliance with the CAIR 2010 and 2011 NO<sub>x</sub> Annual programs without purchasing additional allowances. Future purchases of allowances will be made as needed for compliance with the annual and ozone season NO<sub>x</sub> requirements under CAIR and the CSAPR. While FPL has received allocations to its existing CAIR fossil generating units, FPL has projected, but does not know precisely, the number of allowances it will be allocated under the CAIR NO<sub>x</sub> Annual and Ozone Season new source set-aside program for the West County Energy Center generating units.

FPL has evaluated the proposed allowance allocations under CSAPR and has projected that it will have sufficient allocated allowances to cover projected emissions in 2012 and 2013 and has not projected a need to purchase allowances under CSAPR or CAIR.

Actual CAIR capital costs through 2011 were \$949.0 million.

<b>CAIR CAPITAL COST ESTIMATES (\$Millions)</b>			
<b>PROJECT</b>	<b>2012</b>	<b>2013</b>	<b>TOTAL PROJECT</b>
SJRPP- SCR/Ammonia Injection System	0.0	0.0	55.3
Scherer-SCR/FGD	29.7	7.4	363.9
800 MW Unit Cycling - Martin	0.0	0.0	58.3
800 MW Unit Cycling - Manatee	0.0	0.0	56.9
CEMS at GTs	Capital project completed	Capital project completed	Capital project completed
Allowances	N/A	N/A	N/A

Actual CAIR O&M expenses through 2011 are \$6.6 million.

<b>CAIR O&amp;M EXPENSE ESTIMATES (\$Millions)</b>			
<b>PROJECT</b>	<b>2012</b>	<b>2013</b>	<b>TOTAL PROJECT</b>
SJRPP- SCR/Ammonia Injection System	0.6	0.6	0.6 (2012+ annual operating costs are on-going)
Scherer-SCR/FGD	3.4	5.6	3.4 (2012+ annual operating costs are on-going)
800 MW Unit Cycling – Martin	0.300	0.300	0.305 (2012+ annual operating costs are on-going)
800 MW Unit Cycling – Manatee	0.240	0.249	0.249 (2012+ annual operating costs are on-going)
CEMS at GTs	0.005	0.005	0.005 (2012+ annual operating costs are on-going)
Allowances	0	0	N/A

**CAMR Compliance Project Update:**

On March 15, 2005, EPA issued the Clean Air Mercury Rule to permanently cap and reduce mercury (Hg) emissions from coal-fired power plants for the first time. In response to the EPA CAMR, the Georgia Environmental Protection Division (EPD) promulgated two major rules to implement Hg reductions within Georgia: a rule to adopt the CAMR federal Hg cap and trade program: Rule 391-3-1-.02(15) – “*Georgia Mercury Trading Rule*” and a Georgia state specific Multipollutant Rule: Rule 391-3-1-.02(2)(sss) – “*Multipollutant Control for Electric Utility Steam Generating Units*” which became effective June 1, 2008. The Multipollutant Rule was promulgated to specify the implementation of specific air pollution control equipment for reductions in Hg, sulfur dioxide (SO<sub>2</sub>), and nitrogen oxides (NO<sub>x</sub>) emissions from identified coal-fired Electric Generating Units (EGUs) within Georgia. Section 4(i) of the Multipollutant Rule requires that Scherer Unit 4 may not be operated after April 30, 2010, unless it is equipped and operated with sorbent injection and a baghouse for the control of Hg emissions.

Installation of the Hg controls, and associated continuous Hg emission monitoring that would have been needed to comply with the CAMR requirements remain necessary to comply with the requirements of the Georgia Multipollutant Rule; therefore installation of Hg controls on Plant Scherer Unit 4 must continue. The vacatur of CAMR does not change the compliance obligations at Plant Scherer, including FPL’s share of Unit 4. In addition, on December 16, 2011 EPA published its final Mercury and Air Toxics Standards (MATS) Rule as a replacement for CAMR. EPA’s MATS Rule sets limits on emissions of Toxic Metal Hazardous Air Pollutants (HAPs), including Hg, limits on emissions of acid gasses, and work practice standards for emissions of Organic HAPs. FPL has reviewed the compliance requirements of the MATS rule and believes that controls installed on Scherer Unit 4 for compliance with CAIR, CAMR, and the Georgia Multi-Pollutant Rule, will allow the unit to meet the rule’s emission specifications for Hazardous Air Pollutants. Specifically, FPL is complying with the Hg reduction requirements of the Georgia Multipollutant Rule and EPA’s MATS Rule by using the following projects identified previously under CAMR:

1. Installation of Fabric Filter Baghouse and Mercury Sorbent Injection System on Scherer Unit 4 (completed 2010).
2. Installation of HgCEMS on Scherer Unit 4 (completed 2009).
3. Installation of HgCEMS on SJRPP Units 1 & 2 (completed in 2008 prior to the vacatur of CAMR). Hg CEMS are required to comply with MATS Rule.

Total capital costs to date for the CAMR project are \$107.3million. Projected annual O&M associated with operation of the Hg controls includes purchase of new sorbent, disposal of spent sorbent, replacement of filter bags, and maintenance activities associated with the baghouse and sorbent injection system, and the maintenance costs associated with FPL’s share of the Scherer Unit 4 Hg CEMS. Projected CAMR capital expenses for plant Scherer are \$0.133 million for 2012 and \$0.111 million for 2013 for anticipated capital equipment component replacements. Projected CAMR O&M expenses for plant Scherer are \$3.3 million for 2012 and \$4.2 million for 2013 primarily for purchase and disposal of sorbents and replacement of bags.

FPL's cost associated with the installation of Hg CEMS at SJRPP represented a total capital cost of \$0.4 million. FPL does not yet know whether SJRPP will meet all applicable emission specifications of the MATS rule. FPL and JEA have recently initiated a study of the potential impacts of MATS and other proposed rules on the SJRPP units to develop the appropriate compliance strategy.

Actual CAMR capital costs through 2011 are \$107.3million.

<b>CAMR CAPITAL COST ESTIMATES (\$Millions)</b>			
<b>PROJECT</b>	<b>2012</b>	<b>2013</b>	<b>TOTAL PROJECT</b>
SJRPP-Mercury CEMS	0.0	0.0	0.40
Scherer-Sorbent Injection/Baghouse/ Mercury CEMS	0.133	0.111	106.9

Actual CAMR O&M expenses through 2011 are \$3.5 million.

<b>CAMR O&amp;M EXPENSE ESTIMATES (\$Millions)</b>			
<b>PROJECT</b>	<b>2012</b>	<b>2013</b>	<b>TOTAL PROJECT</b>
SJRPP-Mercury CEMS	0	0	0.0
Scherer-Sorbent Injection/Baghouse/ HgCEMS	3.31	4.15	(2012+ annual operating costs are on-going)

**CAVR / BART Project Update:**

FPL successfully concluded negotiations with the Florida Department of Environmental Protection (FDEP or the Department) regarding Turkey Point Units 1 & 2 in February 2009, with the Department accepting FPL's proposed plan to comply with the BART requirements under the Regional Haze program. In 2011 FPL negotiated with FDEP changes to its compliance plan at Turkey Point to address changes to the state's plan as a result of the CSAPR impact on the regional haze State Implementation Plan (SIP). FPL proposed to remove the requirement to install new multi-cyclone dust collectors and instead proposed to reduce emissions of SO2 through use of 0.7% Sulfur residual fuel oil and to commit to no longer burning fossil fuels in the Unit 2 boiler and to take a significant reduction in fuel oil firing in Unit 1 boiler beginning in 2013. FPL projects that there will be no associated capital costs or increased O&M for compliance with the BART permit at Turkey Point. In 2011 FDEP identified that there were concerns with the analysis of the Putnam units which they were projecting exceedances of the criteria. FPL retained a consultant in 2012 to prepare

modeling required by the state to demonstrate that the Putnam plant does not exceed the criteria thresholds. FPL will recover those costs through the CAVR ECRC project.

EPA has told FDEP that it will not approve Florida's Draft CAVR SIP, primarily due to the FDEP Reasonable Progress Control Technology (RPCT) Rule which uses a permit application process that EPA finds unacceptable. FDEP has indicated that it will withdraw the RPCT Rule from the Florida Administrative Code (FAC) and delete the RPCT provision from the SIP. FDEP contends that visibility improvements at Florida's Class 1 Areas will meet the Reasonable Progress glide slope in 2018 by way of existing air rules promulgated previously. At this time, FDEP has determined that no additional rulemaking will be needed. Until EPA rules on the FDEP CAVR SIP, FPL cannot know if controls will be required beyond 2018.

When EPA issued its CSAPR, Florida was no longer included in the particulate matter portion of the rule removing previously affected units from the annual NOx and SO2 requirements. Because of the regulatory uncertainty from the status of CSAPR and CAIR, FPL must undergo a full 5-factor BART Determination for SO2 and NOx. Turkey Point Units 1&2, Manatee Units 1&2, and Martin Units 1&2 are affected by this change. Consultant costs for BART Determinations for these facilities are estimated to be \$30,000.

Actual CAVR capital costs through 2011 are \$0.

Actual CAVR O&M expenses through 2011 are \$0.041 million. FPL has projected a preliminary estimated O&M total cost of \$0.030 million in 2012 for the required modeling of the Putnam facility.

<b>CAVR/BART O&amp;M EXPENSE ESTIMATES (\$Millions)</b>			
<b>PROJECT</b>	<b>2012</b>	<b>2013</b>	<b>TOTAL PROJECT*</b>
Reasonable Process Control Technology	.030	0	0.071

\* *Through 2012*