

1                                   BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

2   DIRECT TESTIMONY OF

3   **J. MICHAEL KENNEDY**

4   ON BEHALF OF

5   PROGRESS ENERGY FLORIDA

6   DOCKET NO. 080007-EI

7   AUGUST 29, 2008

8

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

10   A. My name is J. Michael Kennedy. My business address is Post Office Box 14042,  
11       St. Petersburg, Florida 33733.

12

13   **Q. By whom are you employed and in what capacity?**

14   A. I am employed by Progress Energy Service Company, LLC, as a Principal  
15       Environmental Specialist.

16

17   **Q. What are your job responsibilities?**

18   A. I am responsible for analyzing and assessing emerging environmental regulatory  
19       and legislative issues for Progress Energy Florida (“PEF” or the “Company”) and  
20       Progress Energy Carolinas. Prior to assuming my current position in August,  
21       2005, I managed the environmental permitting and compliance activities in support  
22       of Florida Power Corporation’s and then PEF’s generating fleet. This included air  
23       construction permitting and “Title V” air operational permitting issues.

DOCUMENT NUMBER-DATE

PROGRESS ENERGY FLORIDA

07894 AUG 29 08

FPSC-COMMISSION CLERK

1 **Q. Please summarize your educational background and professional experience.**

2 A. I earned a B.S. degree in meteorology from Purdue University in 1978. Since  
3 obtaining my degree, I have had over 30 years experience in the air regulatory  
4 field. Before coming to work at Florida Power Corporation (now PEF), from  
5 January 1990 to June 1992, I was Senior Environmental Scientist at Indianapolis  
6 Power & Light Company, where my responsibilities included support of generating  
7 plants in the area of air permitting and compliance. From August 1986 to  
8 December 1989, I was the Permitting and Planning Manager for the Indianapolis  
9 Air Pollution Control Division. I managed the areas of air operating and  
10 construction permits, air quality modeling and planning, and regulatory  
11 development for Indianapolis/Marion County, Indiana. From June 1978 until July  
12 1986, I worked as an Air Quality Planner for the Indianapolis Air Pollution Control  
13 Division. During that time, I helped develop the State Implementation Plan for  
14 compliance with the Clean Air Act Amendments of 1977.

15

16 **Q. What is the purpose of your testimony?**

17 A. The purpose of my testimony is to provide a brief summary of the recent federal  
18 appellate court decision concerning the federal Clean Air Interstate Rule ("CAIR").  
19 I also will summarize other existing and foreseeable air regulatory requirements  
20 that have or could have a bearing on PEF's Commission-approved Integrated  
21 Clean Air Compliance Plan.

22

1 **Q. Were you involved in the development of PEF's Integrated Clean Air**  
2 **Compliance Plan?**

3 A. Yes. I became involved in the development of PEF's compliance strategy even  
4 before CAIR was adopted in final form. I reviewed the draft, proposed, and final  
5 regulations to help the Company determine how many allowances it would be  
6 allocated so that the cost-effective control strategies could be developed. I also  
7 analyzed the Clean Air Mercury Rule ("CAMR") and the Clean Air Visibility Rule  
8 ("CAVR") as part of PEF's development of its integrated plan to achieve  
9 compliance with those rules as well as CAIR. In 2006 and 2007, I assisted in the  
10 preparation of the Integrated Clean Air Compliance Plan reports that PEF  
11 submitted to the Commission in Dockets 060007-EI and 070007-EI. Among other  
12 things, I prepared the discussion of CAIR and related air regulatory requirements,  
13 including CAMR, CAVR and Prevention of Significant Deterioration ("PSD") pre-  
14 construction permitting.

15  
16 **Q. Please summarize the recent decision concerning CAIR issued by the U.S.**  
17 **Circuit Court of Appeals for the District of Columbia ("D.C Circuit").**

18 A. By way of background, the U.S. Environmental Protection Agency ("EPA")  
19 originally adopted CAIR to require 28 states and the District of Columbia to  
20 substantially reduce sulfur dioxide ("SO<sub>2</sub>") and nitrogen oxides ("NO<sub>x</sub>") emissions  
21 from power plants to prevent them from contributing to nonattainment of national  
22 ambient air quality standards in downwind states. Among other things, CAIR  
23 established a new "cap-and trade" program designed to achieve a 73 percent

1 reduction in SO<sub>2</sub> emissions and a 61 percent reduction in NO<sub>x</sub> emissions when  
2 fully implemented. In accordance with the federal rule, FDEP adopted its own rule  
3 to implement the CAIR cap-and-trade program and submitted the rule to EPA for  
4 approval as an amendment to Florida's State Implementation Plan ("SIP") under  
5 the federal Clean Air Act.

6  
7 On July 11, 2008, the D.C. Circuit issued its decision in response to challenges to  
8 CAIR brought by several parties. See, *North Carolina v. EPA*, \_\_\_ F.3d \_\_\_,  
9 2008 WL 2698180 (D.C. Cir. July 11, 2008). The D.C. Circuit's opinion  
10 addressed numerous issues, but the court's key point was that that each state must  
11 eliminate its significant contribution to non-attainment in another state. Based on  
12 that premise, the court invalidated the CAIR cap-and-trade program because, the  
13 court concluded, EPA had failed to demonstrate that they would avoid "significant  
14 contribution" to nonattainment of air quality in downwind states or otherwise  
15 avoid "interference with maintenance" of the standards. The court also found  
16 other flaws in the rule and, therefore, vacated the entire rule and remanded it back  
17 to EPA. The court did, however, uphold EPA's inclusion of the state of Florida  
18 within the scope of the CAIR. Thus, Florida likely will be included in any rule  
19 developed by EPA in response to the D.C. Circuit's decision.

20  
21 **Q. What is the current status of CAIR in light of the D.C. Circuit's decision?**

22 A. The D.C. Circuit's vacatur of CAIR is not final because the court has not yet  
23 issued a mandate. The Petitioners and EPA originally had 45 days, or until August

1 25, 2008, to petition for rehearing of the decision. However, EPA requested and  
2 the D.C. Circuit has granted an extension of that deadline through September 24,  
3 2008. Assuming one or more of the parties petitions for rehearing, the court will  
4 issue its mandate upon completion of any proceedings on the petition(s). The  
5 Petitioners and EPA also can seek review by the U.S. Supreme Court within 90  
6 days after the later of the D.C. Circuit's decision or completion of proceedings on a  
7 petition for rehearing.

8  
9 **Q. What air regulatory requirements other than CAIR have a bearing on PEF's**  
10 **implementation of its Integrated Clean Air Compliance Program?**

11 A. Notwithstanding the vacatur of CAIR, PEF must comply with the regulatory  
12 requirements established in CAVR. As implemented in FDEP's rules, CAVR has  
13 two primary components. First, certain industrial facilities that began operating  
14 between August 1962 and August 1977, including PEF's Crystal River Units 1 and  
15 2 and Anclote Units 1 and 2, are required to install Best Available Retrofit  
16 Technology ("BART") no later than December 31, 2013, unless exempt based on  
17 the level of modeled visibility impairment. Second, if DEP determines  
18 implementation of BART has not achieved reasonable progress toward improving  
19 visibility in "Class I" areas, it may require emission units constructed before 1999  
20 to install Reasonable Progress Control Technology ("RPCT") by December 31,  
21 2017. This RPCT requirement could apply to Crystal River Units 4 and 5, as well  
22 as PEF's "BART-eligible" units. BART requirements potentially apply for NO<sub>x</sub>,  
23 SO<sub>2</sub> and particulate matter; whereas RPCT applies for SO<sub>2</sub>.

1 **Q. Could the vacatur of CAIR impact the CAVR component of PEF's Integrated**  
2 **Clean Air Compliance Plan?**

3 A. Yes, it could. Under the current FDEP Rule 62-296.340(3)(a)2.b., Florida  
4 Administrative Code, BART-eligible sources that are subject to CAIR are not  
5 required to install BART for SO<sub>2</sub> or NO<sub>x</sub>. Based on this provision, PEF does not  
6 plan to install SO<sub>2</sub> or NO<sub>x</sub> controls on Crystal River Units 1 and 2 as part of its  
7 Integrated Clean Air Compliance Plan. Instead, PEF's plan focuses on Crystal  
8 River Units 4 and 5 because, as PEF's largest and newest coal-fired units, they  
9 provided the most cost-effective means of reducing SO<sub>2</sub> and NO<sub>x</sub> emissions.

10

11 If the vacatur of CAIR stands, the "CAIR satisfies BART" provision in FDEP's  
12 rule will no longer apply. For that reason, it is conceivable that Crystal River  
13 Units 1 and 2 could be subject to BART for SO<sub>2</sub> or NO<sub>x</sub>. For coal-fired units such  
14 as Crystal River Units 1 and 2, the rules include presumptive BART limits based  
15 on use of FGD for SO<sub>2</sub> and use of SCR for NO<sub>x</sub>. However, assuming the vacatur  
16 of CAIR stands, PEF believes that it would make more sense to go forward with  
17 the Crystal River Unit 4 and 5 SCR and FGD projects, rather than installing  
18 controls on Units 1 and 2. Our analyses indicate that this strategy of "grouping"  
19 Units 1 and 2 with Units 4 and 5 would provide at least as much, if not more,  
20 visibility benefits than installing controls on Units 1 and 2.

21

22 **Q. What is the status of PEF's CAVR permitting efforts for the Crystal River**  
23 **units?**

1 A. PEF submitted a BART permit application for Crystal River Units 1 and 2 in  
2 January 2007. In light of the CAIR vacatur, we are preparing a revised permit  
3 application to implement the “grouping” strategy I previously mentioned to take  
4 advantage of the near-complete Crystal River 4 and 5 controls. In preliminary  
5 discussions, FDEP officials have indicated that this strategy would be an  
6 acceptable means of complying with the BART and related requirements of DEP’s  
7 rules. The FDEP officials also indicated that a final permit will likely be issued by  
8 the end of this year.

9  
10 **Q. Would the vacatur of CAIR impact PEF’s plans for Anclote Units 1 and 2?**

11 A. Anclote Units 1 and 2 also would potentially be subject to BART for SO<sub>2</sub> and NO<sub>x</sub>  
12 if the CAIR vacatur stands. The presumptive BART limits for these oil-fired units  
13 are based on the firing of one percent sulfur oil for SO<sub>2</sub> and installation of low  
14 NO<sub>x</sub> burners (“LNBS”) for NO<sub>x</sub>. However, installation of LNBS would increase  
15 particulate matter (“PM”) emissions such that additional PM controls could be  
16 required. For that reason, our revised permitting strategy will propose an  
17 alternative NO<sub>x</sub> control strategy that would not require additional PM controls.

18  
19 **Q. Are there any other, foreseeable air quality regulations or regulatory**  
20 **initiatives that could impact PEF’s generating units in the future?**

21 A. Yes. There are at least three foreseeable regulatory initiatives that could impact  
22 PEF’s generating units in the relatively near future.

23

1 First, in March 2008, EPA adopted a new, more stringent national ambient air  
2 quality standard for ozone. *See* 73 Federal Register 16435 (March 12, 2008).  
3 Current monitoring data suggest that several areas in Florida, including Tampa  
4 Bay, Orlando and Jacksonville, may be designated “nonattainment” under the new  
5 standard. In accordance with EPA’s rules, FDEP must submit its recommendation  
6 of nonattainment areas to EPA by March 2009. EPA then has one year, by March  
7 2010, to issue final nonattainment areas designations. FDEP then has up to three  
8 years, by March 2013, to submit a SIP revision to the EPA showing how it would  
9 bring these areas into compliance. In developing the SIP revision, FDEP will  
10 evaluate the adequacy of current regulations and programs, and determine if any  
11 new regulations or programs are necessary. Because NO<sub>x</sub> is an ozone precursor,  
12 FDEP could require installation and operation of NO<sub>x</sub> emission controls to ensure  
13 attainment of the new standard.

14  
15 Second, as Ms. West noted in her pre-filed testimony and Exhibit No. \_\_ (PQW-1)  
16 submitted on April 1, 2008, the D.C. Circuit recently vacated the federal CAMR  
17 regulation in *New Jersey v. EPA*, 517 F.3d 574 (D.C. Cir. 2008). As a result of the  
18 D.C. Circuit’s decision, EPA may promulgate new Maximum Achievable Control  
19 Technology (“MACT”) requirements for power plants. Although the EPA has not  
20 released a schedule for such rulemaking, FDEP has stated that it independently  
21 intends to adopt new rules establishing mercury emission standards for various  
22 industrial sources, including coal-fired power plants. FDEP is currently in the  
23 process of gathering data to support the rulemaking effort and FDEP officials have

1 stated that they intend to propose a rule for final adoption in the spring of 2009.  
2 As explained in the Integrated Clean Air Compliance Plan reports that PEF  
3 previously submitted to the Commission, the synergistic effect of SCR and FGD  
4 control systems results in substantial reductions in mercury emissions. Thus,  
5 depending on the final rules adopted by FDEP or EPA, the Crystal River 4 and 5  
6 SCR and FGD systems could be a key component of PEF's mercury compliance  
7 strategy.

8  
9 Finally, if the D.C. Circuit's vacatur of CAIR stands, EPA or the U.S. Congress  
10 will likely establish new rules or legislation to prevent upwind SO<sub>2</sub> and NO<sub>x</sub>  
11 emissions from contributing to nonattainment of air quality standards in down-  
12 wind states. Given the uncertainty surrounding CAIR, however, the timing of any  
13 such rules or legislation cannot be predicted at this time.

14  
15 **Q. What is the status of PEF's Integrated Clean Air Compliance Plan in light of**  
16 **the D.C. Circuit's CAIR decision?**

17 A. Because the D.C. Circuit's decision vacating CAIR is not final, PEF is continuing  
18 forward with installation of the emission control components of its Integrated  
19 Clean Air Compliance Plan to ensure that the Company can meet CAIR's  
20 imminent compliance deadlines in the event the D.C. Circuit revisits the vacatur.  
21 Given our state of knowledge at this time, we believe this is a reasonable and  
22 prudent course of action. As I discussed previously, PEF also is continuing to  
23 work with FDEP in developing a cost-effective plan to meet CAVR and other

1 existing and foreseeable air regulatory requirements by taking advantage of the  
2 near-complete Crystal River 4 and 5 controls, rather than installing expensive  
3 controls on Units 1 and 2 or other PEF generating units, and implementing  
4 alternative NOx controls for Anclote Units 1 and 2. If this strategy is not  
5 approved, PEF will need to re-evaluate its current plans, assuming the D.C.  
6 Circuit's vacatur becomes final.

7

8 **Q. Does this conclude your testimony?**

9 **A. Yes, it does.**