

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In re: Petition to modify scope of existing environmental program by Duke Energy Florida, Inc.

DOCKET NO. 130301-EI  
ORDER NO. PSC-14-0173-PAA-EI  
ISSUED: April 16, 2014

The following Commissioners participated in the disposition of this matter:

ART GRAHAM, Chairman  
LISA POLAK EDGAR  
RONALD A. BRISÉ  
EDUARDO E. BALBIS  
JULIE I. BROWN

NOTICE OF PROPOSED AGENCY ACTION ORDER  
APPROVING PETITION TO MODIFY SCOPE  
OF EXISTING ENVIRONMENTAL COMPLIANCE PROGRAM

BY THE COMMISSION:

NOTICE is hereby given by the Florida Public Service Commission that the action discussed herein is preliminary in nature and will become final unless a person whose interests are substantially affected files a petition for a formal proceeding, pursuant to Rule 25-22.029, Florida Administrative Code.

I. BACKGROUND

On December 31, 2013, Duke Energy Florida, Inc. (DEF or Company) petitioned the Florida Public Service Commission (Commission) to modify the scope of its previously approved Integrated Clean Air Compliance Program to encompass additional compliance activities at the Company's Crystal River Units 1 and 2 (Petition). With our approval, prudently incurred costs associated with the described activities may be recovered through the Environmental Cost Recovery Clause (ECRC).

On March 25, 2014, the Sierra Club and Earthjustice (collectively Sierra Club) filed comments recommending denial of the Petition. On March 26, 2014, the Sierra Club revised its comments.

Pursuant to Section 366.8255(2), Florida Statutes (F.S.), electric utilities may petition this Commission to recover projected environmental compliance costs required by environmental laws or regulations. We have jurisdiction over this matter pursuant to Section 366.8255, F.S.

II. REVIEW

By its Petition, DEF requests approval to recover, through the ECRC, reasonably and prudently incurred costs associated with new activities at the Company's Crystal River Units 1 and 2 (CR 1 and 2). The proposed activities consist of the addition of dry sorbent and activated carbon injection, and changes to the existing electrostatic precipitators. DEF asserts that the proposed activities are needed for compliance with the Environmental Protection Agency's (EPA) Mercury Air Toxics Standards Rule (MATS) and Clean Air Visibility Rule (CAVR).

The Company estimates that the total cost of the activities will be approximately \$28 million. DEF also expects to incur additional annual O&M costs of approximately \$2 million while the new pollution controls remain in operation. All projects are expected to be in-service by February 2016. Attachment A of this Order summarizes the estimated ECRC impact associated with these projects.

A. Criteria for ECRC Eligibility

Pursuant to Section 366.8255(2), F.S., electric utilities may petition this Commission to recover projected environmental compliance costs that are required by environmental laws or regulations. We have interpreted the statute to prescribe two criteria, relevant to this docket, for recovery of environmental compliance costs through the clause.

- 1) The activities are legally required to comply with a governmentally imposed environmental regulation that was created, became effective, or whose effect was triggered after the company's last test year upon which rates are based.
- 2) None of the expenditures are being recovered through some other cost recovery mechanism or through base rates.<sup>1</sup>

With respect to the second criterion, there is no indication that the costs at issue are being recovered through base rates or any other cost recovery mechanism. Therefore, our review of the DEF Petition is primarily focused upon whether the proposed activities are necessary for compliance with governmentally imposed environmental regulation.<sup>2</sup>

---

<sup>1</sup> See Order No. PSC-94-0044-FOF-EI, issued January 12, 1994, in Docket No. 930613-EI, *In re: Petition to establish an environmental cost recovery clause pursuant to Section 366.0825, Florida Statutes by Gulf Power Company.*

<sup>2</sup> We will also evaluate whether the proposed activities are prudent at this time.

B. DEF's Proposed Activities

CR 1 and 2 entered commercial service prior to 1970 and are located at DEF's Crystal River Energy Complex (Crystal River Site). Current air permits allow the units to continue operating on coal through 2020, presuming compliance with all applicable regulations.<sup>3</sup> Currently applicable regulations include MATS and CAVR, which DEF asserts are the governmentally imposed regulations that require the activities proposed in the Petition.

*Mercury and Air Toxics Standards Rule*

On February 16, 2012, the EPA issued MATS, which imposes emission limits for mercury and acid gases (hydrochloric acid) on coal and oil-fired electric utility generating units, including CR 1 and 2 and Crystal River Units 4 and 5.<sup>4</sup> MATS compliance for existing coal-fired power plants is required by April 16, 2015, with a provision for a one-year extension under limited circumstances. Based on existing data, CR 1 and 2, as currently operated, will exceed the MATS emission limits.

The Florida Reliability Coordinating Council (FRCC) has evaluated the potential impact of shutting-down CR 1 and 2 in 2015, as a means of complying with MATS. The FRCC determined that significant reliability issues would result from the retirement/shutdown of the Crystal River units (including Crystal River Unit 3) and thus, concluded that an extension of the MATS compliance deadline was needed for reliability purposes.

The FRCC also determined that the addition of new generation, specifically a 1,179 megawatt combined cycle power plant, in the vicinity of the existing Crystal River Site, combined with other projects and operating solutions, would resolve the reliability issues created by the shutdown of CR 1 and 2 and Crystal River Unit 3. Based on the FRCC's study, on February 6, 2014, the Florida Department of Environmental Protection granted DEF's request for a one-year extension; thus, MATS compliance for CR 1 and 2 is required by April 16, 2016.

---

<sup>3</sup> In support of efforts to address CAVR requirements for SO<sub>2</sub> and NO<sub>x</sub> (scheduled to take effect in 2018), the Florida Department of Environmental Protection issued new air permits for CR 1 and 2. The new permits, issued in September and October 2012, require DEF to install Flue Gas Desulfurization and Selective Catalytic Reduction on CR 1 and 2 by 2018 or cease coal fired operation of the units on or before the end of 2020. On April 30, 2013, DEF notified the Florida Department of Environmental Protection of its decision to shut down CR 1 and 2 by December 31, 2020.

<sup>4</sup> See 40 CFR 63.9981 (applying the regulation to operators of coal-fired EGUs); 40 CFR 63.9982 (describing sources affected by the new regulation including existing coal-fired EGUs); 40 CFR 63.10042 (defining "coal-fired electric utility steam generating unit" to mean an electric utility steam generating unit meeting the definition of "fossil fuel-fired" that burns coal for more than 10.0 percent of the average annual heat input during any three consecutive calendar years or for more than 15.0 percent of the annual heat input during any one calendar year and providing that "fossil fuel-fired" means in part, an electric utility steam generating unit that is capable of combusting more than 25 MW of fossil fuels; and, Table 2 of 40 C.F.R. Part 63, Subpart UUUUU (Emission Limits for Existing EGUs). (Table 2 to 40 C.F.R. Part 63, Subpart UUUUU, Table 2 also contains limits for particulate emissions; however, data provided by DEF indicates that CR 1 and 2 meet these requirements.).

Based on 2013 data, Crystal River Units 4 and 5 operate within the MATS limits; however, CR 1 and 2 would require more than \$1 billion of additional emission control systems to meet MATS limits as stand-alone units.<sup>5</sup> Thus, DEF evaluated complying with the site-wide averaging provisions of MATS which allow averaging of emissions across co-located units at a plant site like the Crystal River Site. DEF asserts that applying the site-wide averaging provision of MATS coupled with the use of alternative coal and the addition of less expensive pollution controls, such as the controls proposed in the Petition, will allow DEF to reliably comply with the requirements of MATS by the April 2016 compliance date.

DEF identified and compared the merits of pursuing the following alternatives for compliance with MATS by the 2016 compliance date:

- 1) Retire CR 1 and 2 in April 2016 and meet system requirements with purchased power and/or new resources in a manner that the grid would support. This alternative includes several transmission projects that would need to be completed between 2014 and 2017.
- 2) Establish a MATS compliance plan for CR 1 and 2 and configure the units to operate in compliance through mid-2018, and establish a resource plan to provide for replacement of combined cycle generation in that timeframe. This alternative includes a competitive solicitation for combined cycle energy and capacity starting in 2018, identification of additional resources needed in 2016 and beyond, and a transmission plan that supports the required resources.

DEF assessed the transmission resources required to support the replacement power options in the first alternative and estimates that the transmission projects would cost \$150 million. Additionally, while the issues identified by the FRCC's study may be addressed with transmission system upgrades, DEF expressed concern regarding the timing of the required upgrades. Based on the timing and magnitude of the projects needed to support the first alternative, we find that DEF's concerns are reasonable.

In the 2013 ECRC proceeding, we approved coal trials for the Company to evaluate alternate fuel options that may allow DEF to continue operating CR 1 and 2 beyond the MATS compliance date. Based on the coal trials, the Company has determined that the use of coal with lower levels of mercury and chlorides, plus the installation of dry sorbent and activated carbon injection will allow DEF to continue operating CR 1 and 2 in compliance with MATS.

The dry sorbent injection systems utilizing hydrated lime are needed to reduce acid gas emissions. Based on 2013 data, DEF estimates that the dry sorbent injection systems will reduce hydrochloric acid emissions at the Crystal River Site and allow the site to operate in compliance with MATS. Upon review, DEF's assertion appears to be accurate.<sup>6</sup>

---

<sup>5</sup> See DEF Response to Staff's First Data Request, Item No. 17 for cost estimate.

<sup>6</sup> Compare Table 2 of 40 C.F.R. Part 63, Subpart UUUUU with DEF's response to Staff's Second Data Request, Item No. 11.

Based on 2013 data DEF asserts that the activated carbon injection systems will reduce mercury emissions at the Crystal River Site and thereby provide additional reliability support for the system in the event of an outage at Crystal River Units 4 and 5.<sup>7</sup> Currently, the Crystal River Site operates at the MATS limit for mercury emissions. As discussed, CR 1 and 2 are not MATS compliant on a stand alone basis. Therefore, under the site-wide averaging provision of MATS, compliance is largely dependent on the operation of Crystal River Units 4 and 5. Upon review, the activated carbon injection systems appear to provide a margin necessary for reliable operation of CR 1 and 2.

After DEF established a MATS compliance plan for CR 1 and 2 to operate through mid-2018, the Company performed an economic evaluation comparing the alternatives identified above. When compared to retiring the units in 2016, DEF estimates that the second alternative<sup>8</sup> will result in a net present value savings of approximately \$307 million, with cumulative savings beginning in 2017. Thus, we find that DEF's proposal represents significant savings based on avoided transmission projects and avoided purchased power agreements that would otherwise be needed, for reliability purposes, in the 2016 through 2018 timeframe.

#### *Clean Air Visibility Rule*

In June 2005, the EPA finalized the CAVR which requires state agencies to improve visibility in national park and wilderness areas. Current air permit requirements, issued by the Florida Department of Environmental Protection, limit particulate emissions and opacity for CR 1 and 2.<sup>9</sup>

CR 1 and 2 operate with electrostatic precipitators to reduce particulate emissions and meet the regulatory requirements for CAVR-related emission levels. However, the alternate coal usage and the injections from the new pollution controls (necessary for compliance with MATS) reduce the efficiency of the existing electrostatic precipitators and the estimated emissions will exceed the limits set in DEF's air permit. In order to address the reduced efficiency and meet the limits set in DEF's air permit, DEF proposes changes to the electrostatic precipitators. DEF estimates that the proposed changes to the electrostatic precipitators will permit the continued operation of CR 1 and 2 in compliance with CAVR. The cost for these changes are included in DEF's estimated \$28 million project cost. DEF has scheduled tests in 2014 and 2015 to assess the performance of the electrostatic precipitators. Once the installation and commissioning for all of the compliance projects have been completed, additional testing will be scheduled to confirm expected levels of performance and to demonstrate compliance.

Based on the information provided by DEF, we find that the proposed changes to the electrostatic precipitators are necessary for DEF to continue the reliable operation of CR 1 and 2 under the environmental requirements including CAVR.

---

<sup>7</sup> See DEF Response to Staff's Second Data Request, Item No. 4.

<sup>8</sup> Including the \$28 million associated with the activities proposed in the Petition.

<sup>9</sup> DEP air permit No. 0170004-017-AC.

C. Comments Filed by the Sierra Club and Earthjustice

On March 25, 2014, the Sierra Club filed comments in this docket in which it asserts that DEF should retire CR 1 and 2 in 2016 because additional MATS compliance expenditures are not prudent. The Sierra Club offers three primary arguments in support of its position: DEF has not fully accounted for the costs of continued operation of CR 1; DEF has failed to account for energy efficiency helping to meet load requirements in the absence of CR 1 and 2; and DEF has given “short shrift” to renewable resources.

The Sierra Club asserts that compliance with EPA rules expected to take effect in the next six years will cost over \$1 billion for CR 1 and 2. However, upon review, we find that several of the EPA rules identified by the Sierra Club are speculative at this time. Similarly, while it acknowledges the demand-side management goal setting process as part of Florida’s comprehensive resource planning process, the Sierra Club nonetheless, asserts that DEF should “move to incremental annual energy savings of 1 percent to 2 percent relative to sales over the next five or six years.” Upon review, we find that this argument is more appropriate in DEF’s upcoming demand-side management goals docket (Docket No. 130200-EI) scheduled for hearing in July 2014. Finally, the Sierra Club asserts that DEF should pursue additional renewable resources. However, DEF’s 2013 Ten-Year Site Plan reflects that the Company continues to keep an open request for soliciting proposals for renewable energy projects. To date, the Company has logged over 300 responses. In our review of the 2013 ten-year site plans, we estimated that approximately 966 megawatts of renewable generation will be added over the ten year planning horizon with approximately 55 percent (540 megawatts) contracted with DEF.

III. DECISION

We find that the activities proposed by DEF would not be carried out but for the Company’s obligation to comply with a government-imposed environmental regulation. We have not identified any information that suggests that the costs DEF is seeking to recover are being recovered through base rates or any other cost recovery mechanism. Thus, the proposed program meets the criteria for ECRC cost recovery. Moreover, we find that DEF’s proposed activities are the most cost-effective way to comply with MATS and CAVR. Compliance requirements for MATS are known at this time and proceeding with the proposed activities is estimated to result in more than \$300 million in savings when compared to retiring CR 1 and 2 in 2016, with net savings as soon as 2017. The short term extended operation of CR 1 and 2 appears to be a rational balance between environmental compliance and maintaining grid reliability. Therefore, we shall approve DEF’s Petition.

Based on the foregoing, it is

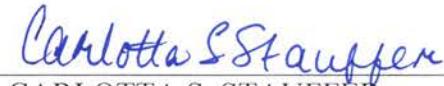
ORDERED by the Florida Public Service Commission that the Duke Energy Florida petition to modify the scope of its existing environmental compliance program and recover the

associated costs through the Environmental Cost Recovery Clause is hereby approved. It is further,

ORDERED that the provisions of this Order, issued as proposed agency action, shall become final and effective upon the issuance of a Consummating Order unless an appropriate petition, in the form provided by Rule 28-106.201, F.A.C., is received by the Office of Commission Clerk, 2540 Shumard Oak Boulevard, Tallahassee, Florida 32399-0850, by the close of business on the date set forth in the "Notice of Further Proceedings" attached hereto. It is further

ORDERED that, if no timely protest is filed and this Order becomes final, then this docket shall be closed upon the issuance of a Consummating Order.

By ORDER of the Florida Public Service Commission this 16th day of April, 2014.



CARLOTTA S. STAUFFER  
Commission Clerk  
Florida Public Service Commission  
2540 Shumard Oak Boulevard  
Tallahassee, Florida 32399  
(850) 413-6770  
[www.floridapsc.com](http://www.floridapsc.com)

Copies furnished: A copy of this document is provided to the parties of record at the time of issuance and, if applicable, interested persons.

CWM

**NOTICE OF FURTHER PROCEEDINGS OR JUDICIAL REVIEW**

The Florida Public Service Commission is required by Section 120.569(1), Florida Statutes, to notify parties of any administrative hearing that is available under Section 120.57, Florida Statutes, as well as the procedures and time limits that apply. This notice should not be construed to mean all requests for an administrative hearing will be granted or result in the relief sought.

Mediation may be available on a case-by-case basis. If mediation is conducted, it does not affect a substantially interested person's right to a hearing.

The action proposed herein is preliminary in nature. Any person whose substantial interests are affected by the action proposed by this order may file a petition for a formal proceeding, in the form provided by Rule 28-106.201, Florida Administrative Code. This petition must be received by the Office of Commission Clerk, 2540 Shumard Oak Boulevard, Tallahassee, Florida 32399-0850, by the close of business on May 7, 2014.

In the absence of such a petition, this order shall become final and effective upon the issuance of a Consummating Order.

Any objection or protest filed in this/these docket(s) before the issuance date of this order is considered abandoned unless it satisfies the foregoing conditions and is renewed within the specified protest period.

**Table 1:** Estimated ECRC Retail Factor Impact (\$/1,000 kWh)<sup>10</sup>

<b>2014</b>	N/A
<b>2015</b>	0.32
<b>2016</b>	0.13
<b>2017</b>	0.11
<b>2018</b>	0.07
<b>2019</b>	0.17
<b>2020</b>	0.15
<b>2021</b>	0.14

---

<sup>10</sup> See DEF's response to Staff's First Data Request, Item No. 31. See also, DEF's response to Staff's First Data Request, Item No. 33 (The Company intends to recover any unrecovered costs associated with the proposed activities at CR 1 and 2 retirements through the ECRC over a three-year amortization period.).