

State of Florida



## Public Service Commission

CAPITAL CIRCLE OFFICE CENTER • 2540 SHUMARD OAK BOULEVARD  
TALLAHASSEE, FLORIDA 32399-0850

**-M-E-M-O-R-A-N-D-U-M-**

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**DATE:** July 18, 2013

**TO:** Office of Commission Clerk (Cole)

**FROM:** Division of Engineering (Graves) *REG*  
Division of Economics (Wu) *JW*  
Division of Accounting and Finance (Mouring, Prestwood) *M CDP*  
Office of the General Counsel (Murphy) *CM AT*

**RE:** Docket No. 130092-EI – Petition of Gulf Power Company to include the Plant Daniel Bromine and ACI Project, the Plant Crist Transmission Upgrades Project, and the Plant Smith Transmission Upgrades Project in the Company's program, and approve the costs associated with these compliance projects for recovery through the ECRC.

**AGENDA:** 07/30/13 – Regular Agenda – Proposed Agency Action – Interested Persons May Participate

**COMMISSIONERS ASSIGNED:** All Commissioners

**PREHEARING OFFICER:** Graham

**CRITICAL DATES:** None

**SPECIAL INSTRUCTIONS:** None

**FILE NAME AND LOCATION:** S:\PSC\ENG\WP\130092.RCM.DOC

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### Case Background

On April 1, 2013, in Docket No. 130007-EI, Gulf Power Company (Gulf or Company) filed a petition requesting that the Commission approve Gulf's inclusion of the Plant Daniel Bromine and Activated Carbon Injection Project, the Plant Crist Transmission Upgrades Project, and the Plant Smith Transmission Upgrades Project in the Company's Compliance Program and

Docket No. 130092-EI

Date: July 18, 2013

approve recovery of the costs associated with these projects through the Environmental Cost Recovery Clause (Petition).

On April 29, 2013, Docket No. 130092-EI was established to address Gulf's request. The Commission has jurisdiction over this subject matter pursuant to the provisions of Section 366.8255, Florida Statutes (F.S.).

### Discussion of Issues

**Issue 1:** Should the Commission approve Gulf's Petition to include the proposed Plant Crist Transmission Upgrades in its Environmental Compliance Program and recover the associated cost through the Environmental Cost Recovery Clause?

**Recommendation:** No. The proposed Plant Crist transmission upgrades are not needed for Gulf to comply, or remain in compliance, with the Mercury and Air Toxics Standards (MATS) rule. Therefore the Environmental Cost Recovery Clause (ECRC) is not the appropriate mechanism to recover such costs. Gulf may request recovery through more conventional means, such as a rate case. Staff notes that in its petition in Docket No. 130140-EI,<sup>1</sup> filed on July 12, 2013, Gulf stated "if the Commission finds that these transmission costs should be included in base rates, Gulf is requesting a step increase of \$16,392,000 effective July 1, 2015." (Graves, Wu)

**Staff Analysis:** On February 16, 2012, the Environmental Protection Agency issued the MATS rule. The MATS rule imposes emissions limits for mercury, acid gases and particulate matter on coal and oil-fired electric utility generating units. Compliance for existing sources is required by April 16, 2015, with provisions for one and two year extensions under limited circumstances.<sup>2</sup>

Gulf's Plant Crist facility, which is subject to the requirements of the MATS rule, is a four-unit, coal-fired electric generating facility with a summer capacity of 903 MW. The units are also capable of natural gas-fired generation; however, pipeline capacity limits the generation capability to approximately 75 MW.

Exhaust gases from the four Crist units pass through a common scrubber which reduces air emissions in order to comply with various environmental requirements. The Crist units' scrubber was approved for cost recovery through the ECRC by the Commission in 2007.<sup>3</sup> According to Gulf, when the scrubber is in operation, the Crist facility should meet MATS requirements. When the scrubber is not in operation, due to malfunction or planned maintenance, the emissions exhaust through a bypass stack. Under these circumstances, the SO<sub>2</sub> and mercury emissions emitted from the bypass stacks would not meet their respective MATS limits and the four Plant Crist units would be unable to operate until the scrubber is back in service.

Gulf asserted that the Crist facility is a "must run" facility which means that a minimum number of units at the facility must run during certain system conditions in order to reliably serve the Company's customers. Shutting down all four Crist units during a scrubber outage could introduce a reliability risk to the transmission system. Gulf evaluated four options to address the Company's transmission risks. Each option evaluated by Gulf contains the same transmission upgrades needed to maintain reliability; however, the timing of the transmission upgrades varies. Under three of the options, the Crist facility remains a must run facility under varying operating

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<sup>1</sup> DN 130140-EI, In Re: Petition for rate increase by Gulf Power Company.

<sup>2</sup> National Emission Standards for Hazardous Air Pollutants, 77 Fed. Reg. 9304 (Feb.16, 2012) (codified at 40 C.F.R. pt. 63, subpart UUUUU).

<sup>3</sup> See Order No. PSC-07-0721-S-EI, issued September 5, 2007, in Docket No. 070007-EI, In re: Environmental cost recovery clause.

schemes. The fourth option (Option 4) accelerates the Plant Crist transmission upgrades, by up to seven years, thus removing the must run requirements for the Crist facility.

Gulf asserted that Option 4 has the lowest total net present value cost of the four options and that the costs associated with Option 4 have a higher level of certainty.<sup>4</sup> The proposed Plant Crist transmission upgrades are projected to total approximately \$76 million, with the initial upgrades projected to be completed by April 2016, and the remaining upgrades being placed in-service by 2018.

Staff believes that, in reviewing the Petition, the pertinent matter is whether or not the Plant Crist transmission upgrades are eligible for cost recovery in the ECRC. As discussed below, staff is recommending that the transmission upgrades are not eligible for ECRC recovery.

### ECRC Eligibility

Pursuant to Section 366.8255, F.S., electric utilities may petition the Commission to recover projected environmental compliance costs that are required by environmental laws or regulations.<sup>5</sup> Environmental laws or regulations include “all federal, state or local statutes, administrative regulations, orders, ordinances, resolutions, or other requirements that apply to electric utilities and are designed to protect the environment.”<sup>6</sup> If the Commission approves a utility’s petition for cost recovery through this clause, only prudently incurred costs may be recovered.<sup>7</sup>

The Commission has interpreted the statute to prescribe three criteria for recovery of environmental compliance costs through the clause. Pursuant to Order No. PSC-94-0044-FOF-EI, these criteria are:

- (a) All expenditures will be prudently incurred after April 13, 1993.
- (b) 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.
- (c) None of the expenditures are being recovered through some other cost recovery mechanism or through base rates.<sup>8</sup>

Gulf asserted that the Plant Crist transmission upgrades constitute environmental compliance activities that satisfy the Commission’s criteria for cost recovery through the ECRC. Staff has found no information that would suggest the project does not satisfy the first and third

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<sup>4</sup> The results of Gulf’s analysis are confidential due to on-going negotiations.

<sup>5</sup> Section 366.8255(2), F.S.

<sup>6</sup> Section 366.8255(1)(c), F.S.

<sup>7</sup> See Order No. PSC 11-0080-PAA-EI, issued January 31, 2011, in Docket No. 100404-EI, recounting history of ECRC eligibility criteria pursuant to Section 366.8255, F.S.

<sup>8</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.

criteria listed above. Staff's primary concern regarding the eligibility of the Plant Crist transmission upgrades for recovery through the ECRC focuses on the second criterion.

In response to a staff data request, Gulf stated that the Commission's decision in Order No. PSC-12-0432-PAA-EI<sup>9</sup> supports its request because the proposed upgrades: (a) are being made first and foremost to comply with the MATS rule, (b) are the most cost-effective option to comply with the MATS rule, (c) are reasonable, and (d) are an innovative compliance strategy.<sup>10</sup>

Staff observes that in the Order cited by Gulf, the Commission approved the conversion of Duke Energy Florida's (DEF) Anclote units 1 and 2, which burned a mixture of heavy fuel oil and natural gas, to burn 100 percent natural gas. Once the fuel conversion of DEF's units is completed (projected 2014), the MATS rule will no longer apply to the units as the rule does not apply to natural gas-fired power plants.<sup>11</sup> Therefore, DEF will be able to operate the Anclote units without restriction by the MATS rule. Unlike DEF's Anclote units, the operational characteristics of the Plant Crist units will remain restricted by the MATS rule with or without the proposed transmission upgrades.

Staff believes a more relevant Commission decision was made by Order No. PSC-11-0080-PAA-EI<sup>12</sup> (Turbine Upgrade Order), in which the Commission denied a turbine upgrade project that would offset the parasitic load imposed by environmental equipment which was being installed to comply with the environmental regulations. In that Order, the Commission reasoned that:

When the baghouse, scrubber, and selective catalytic reduction system, whose costs we have approved for recovery through the ECRC, are installed in 2012, FPL will be in compliance with applicable environmental regulations, with or without the turbine upgrade.<sup>13</sup>

Similarly, in the instant case, when the Plant Crist scrubber is operational, the units should meet the requirements of the MATS rule with or without the transmission upgrades. In the Turbine Upgrade Order the Commission additionally stated:

[T]here is no "direct nexus between the project, its compliance costs, and the relevant environmental requirement." We find that the proposed project does not meet established criteria for recovery through the ECRC.<sup>14</sup>

In the instant case, staff believes that the scrubber, not the proposed transmission upgrades, represents the "direct nexus" to the relevant environmental requirement. According to

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<sup>9</sup> Order No. PSC-12-0432-PAA-EI, issued August 20, 2012, in Docket No. 120103-EI, In re: Petition of Progress Energy Florida, Inc. to modify scope of existing environmental program.

<sup>10</sup> See Gulf Response to Staff's First Data Request, Item No. 17.

<sup>11</sup> See Order No. PSC-12-0432-PAA-EI at p. 3.

<sup>12</sup> Order No. PSC-11-0080-PAA-EI, issued January 31, 2011, in Docket No. 100404-EI, In re: Petition by Florida Power & Light Company to recover Scherer Unit 4 Turbine Upgrade costs through environmental cost recovery clause or fuel cost recovery clause.

<sup>13</sup> Id. at p. 5.

<sup>14</sup> Id., quoting Order No. PSC-07-0722-FOF-EI, Issued September 22, 2007, in Docket No. 060162-EI.

Gulf, the transmission upgrades will serve to satisfy reliability concerns when, for whatever reason, a sufficient amount of generating capacity from the Crist facility is not available.<sup>15</sup>

Conclusion

Staff recommends that after the MATS compliance date, Gulf will be able to utilize coal-fired operation of the Plant Crist units, and remain in compliance with MATS requirements, while the scrubber is operational. Staff recommends that the scrubber, not the proposed transmission upgrades, represents the “direct nexus” to the relevant environmental requirement. According to Gulf, the transmission upgrades will serve to satisfy reliability concerns when, for whatever reason, a sufficient amount of generating capacity from the Crist facility is not available. Therefore, staff recommends that the proposed Plant Crist transmission upgrades do not satisfy all three criteria for cost recovery through the ECRC. As such, staff recommends that the proposed Plant Crist transmission upgrades are not eligible for cost recovery through the ECRC, and the Petition for this project should be denied.

Gulf may request recovery of the proposed Plant Crist transmission upgrades through more conventional means, such as a rate case. In this context, staff notes that in its petition in Docket No. 130140-EI,<sup>16</sup> filed on July 12, 2013, Gulf stated “if the Commission finds that these transmission costs should be included in base rates, Gulf is requesting a step increase of \$16,392,000 effective July 1, 2015.”

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<sup>15</sup> See Petition at p. 6.

<sup>16</sup> DN 130140-EI, In Re: Petition for rate increase by Gulf Power Company.

**Issue 2:** Should the Commission approve Gulf's Petition for including the proposed Plant Smith Transmission Upgrades in its Environmental Compliance Program and recovering the associated cost through the Environmental Cost Recovery Clause?

**Recommendation:** No. The proposed Plant Smith transmission upgrades are not needed for Gulf to comply, or remain in compliance, with the MATS rule. Therefore, the ECRC is not the appropriate mechanism to recover such costs. Gulf may request recovery through more conventional means, such as a rate case. Staff notes that in its Petition in Docket No. 130140-EI,<sup>17</sup> filed on July 12, 2013, Gulf stated "if the Commission finds that these transmission costs should be included in base rates, Gulf is requesting a step increase of \$16,392,000 effective July 1, 2015." (Graves, Wu)

**Staff Analysis:** Gulf's Plant Smith facility includes two coal-fired electric generating units, unit 1 and unit 2, which are subject to the MATS rule. Units 1 and 2 have a summer capacity of 357 MW, collectively. Similar to the Crist facility, the Smith facility is designated as a must-run facility for reliability purposes. According to Gulf, Smith units 1 and 2, as they exist today, would not meet MATS rule requirements; therefore, they would be unable to generate past 2015.<sup>18</sup> In order to comply with the MATS rule Gulf is considering adding emission controls to Smith units 1 and 2 or retiring and replacing the units. Gulf's analysis and decision to install additional MATS controls or to retire and replace the units have not yet been completed.

In previous filings, Gulf indicated that a scrubber may be necessary to attain MATS compliance at Plant Smith. Further evaluation by Gulf indicated that a lower cost emission control system is available. The Company determined that the most cost-effective emission controls for units 1 and 2 consist of Activated Carbon Injection (ACI), and dry sorbent injection (DSI), conversion of the hot precipitators to cold precipitators, and the use of low sulfur and low chloride coal (collectively MATS controls).<sup>19</sup> As previously mentioned, Gulf's compliance plan (retirement/replacement or controls) for Smith units 1 and 2 is on-going; therefore, the Company is not requesting recovery of costs associated with the MATS controls at this time.

While the discussed MATS controls would allow Smith units 1 and 2 to meet the MATS regulatory requirements, Gulf has indicated that the controls would greatly increase the variable operating cost of the units. For this reason, Gulf evaluated two options that would allow for continued operation of Smith units 1 and 2:

*Option 1* - install MATS controls and continue to operate the Plant Smith units as must-run.

*Option 2* - install MATS controls along with additional transmission upgrades to eliminate must-run status of Smith units 1 and 2.

Both options evaluated include the same transmission upgrades; however, Option 2 accelerates the installation of the Plant Smith transmission upgrades by up to seven years.

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<sup>17</sup> DN 130140-EI, In Re: Petition for rate increase by Gulf Power Company.

<sup>18</sup> See Petition at p. 8.

<sup>19</sup> See Gulf's 2013 Environmental Compliance Program Update at p. 23.

Moving the proposed Plant Smith transmission upgrades forward removes the must-run requirements for the Smith units, thus allowing the units to commit and dispatch economically. The proposed Plant Smith transmission upgrades total approximately \$77 million, with all upgrades projected to be completed by May 2015.

Gulf indicated that retiring units 1 and 2 and constructing new generation, by the MATS rule compliance date, is not reasonable. Gulf further asserted that constructing new generation at Plant Smith is not feasible for several reasons including: replacement generation capital costs are an order of magnitude above the capital costs of transmission upgrades and the necessary gas lateral and annual firm transportation cost estimates are extremely cost prohibitive. Because the Plant Smith facility is designated as a must-run facility, retiring the units absent constructing new generation at the Plant Smith facility would require the same transmission upgrades evaluated in Option 2. Therefore, Option 2 preserves the Company's option of adding emission controls or retiring units 1 and 2. Gulf states that it will update its Compliance Program with the Commission once a decision to add emission controls or retire Smith units 1 and 2 has been made.

Similar to Issue 1, staff believes that, in reviewing the Petition, the pertinent matter is whether or not the Plant Smith transmission upgrades are eligible for cost recovery in the ECRC. As discussed below, staff is recommending that the transmission upgrades are not eligible for ECRC recovery.

#### ECRC Eligibility

Like Issue 1, staff's recommendation regarding the appropriate cost recovery mechanism is based on the criteria set-forth by the Commission in Order No. PSC-94-0044-FOF-EI. Staff has found no information that would suggest the upgrades do not satisfy the first and third criteria previously discussed in Issue 1. Similar to Issue 1, staff's primary concern regarding the eligibility of the Plant Smith transmission upgrades for recovery through the ECRC focuses on the second criterion.

Staff notes that if the Company were to move forward with the proposed transmission upgrades, compliance activities such as retirement and replacement or the addition of emissions controls would still be necessary in order to comply with the MATS rule. The Plant Smith transmission upgrades will not bring Plant Smith into compliance with the MATS rule; rather, they will allow the Company to operate the Smith units in economic dispatch. Therefore, staff recommends that the MATS controls or the retirement of the units, not the proposed transmission upgrades, represent the "direct nexus" to the relevant environmental requirement.

#### Conclusion

Staff recommends that the MATS controls or the retirement of the units, not the proposed transmission upgrades, represent the "direct nexus" to the relevant environmental requirement. The Plant Smith transmission upgrades will allow the Company to operate the Smith units in economic dispatch. However, compliance activities such as retirement and replacement or the addition of emissions controls would still be necessary in order to comply with the MATS rule. Therefore, staff recommends that the proposed Plant Smith transmission upgrades do not satisfy

all three criteria for cost recovery through the ECRC. As such, staff recommends that the proposed Plant Smith transmission upgrades are not eligible for cost recovery through the ECRC, and the Petition for this project should be denied.

Gulf may request recovery of the proposed Plant Crist transmission upgrades through more conventional means, such as a rate case. In this context, staff notes that in its petition in Docket No. 130140-EI, filed on July 12, 2013, Gulf stated “if the Commission finds that these transmission costs should be included in base rates, Gulf is requesting a step increase of \$16,392,000 effective July 1, 2015.”

**Issue 3:** Should the Commission approve Gulf's Petition to include Plant Daniel Bromine and Activated Carbon Injection Project in its Environmental Compliance Program and recover the associated cost through the Environmental Cost Recovery Clause?

**Recommendation:** Yes. Based on Gulf's filing and responses to data requests, staff recommends that the proposed Bromine and ACI project will be needed for Gulf to comply with environmental regulations. Staff recommends that the prudently incurred costs associated with the Bromine and ACI project are eligible for cost recovery through the ECRC. (Graves, Wu)

**Staff Analysis:** Gulf's ownership interest at Plant Daniel is associated with two coal-fired electric generating units. Gulf owns 50 percent of Daniel units 1 and 2 (255 MW each). Plant Daniel is located in Mississippi and is operated by Mississippi Power.

During 2010, the Company determined that, at a minimum, Plant Daniel units 1 and 2 would require installation of the scrubber projects in order to comply with certain environmental regulations. The Plant Daniel scrubbers were approved for cost recovery through the ECRC by the Commission in 2010.<sup>20</sup> The scrubber projects are currently scheduled for completion in 2015.

Gulf asserted that the scrubbers will allow Plant Daniel to achieve compliance with the particulate matter limit of the MATS rule, which was issued in 2012; however, additional environmental controls are necessary to achieve the mercury limits.<sup>21</sup> Gulf's conclusion that additional controls are needed is based on Plant Daniel emissions data as well as data from similar units.

Gulf determined that additive injection upstream of the precipitator or a baghouse with ACI would be required for Plant Daniel units 1 and 2 to comply with the MATS mercury standards. Each technology works in conjunction with the scrubbers to increase the total mercury removal.

Gulf determined that Bromine and ACI rather than more capital intensive controls such as baghouses with ACI will be sufficient to comply with MATS rules.<sup>22</sup> The Bromine injection system would add Bromine to the coal supply, which would cause mercury to be oxidized after combustion. Oxidized mercury can then be collected in the scrubbers. The ACI system is based on injecting powdered activated carbon into the duct work where it mixes with flue gas to absorb elemental mercury which is then captured in the precipitator.

The capital cost of the Bromine and ACI project is projected to be approximately \$135 million less than the baghouse installation cost.<sup>23</sup> Engineering, procurement, and construction of the Plant Daniel Bromine and ACI systems are scheduled to begin in January 2014. Both injection systems will be placed in-service with the scrubbers during the fourth quarter of 2015.

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<sup>20</sup> Order No. PSC-10-0683-FOF-EI, issued November 15, 2010, in Docket No. 100007-EI, In re: Environmental cost recovery clause.

<sup>21</sup> See Petition at p. 7.

<sup>22</sup> See Gulf's 2013 Environmental Compliance Program Update at p. 21.

<sup>23</sup> See Gulf's 2013 Environmental Compliance Program Update at p. 21.

Staff believes that, in reviewing the Petition, the pertinent matter is whether or not the Bromine and ACI project is eligible for cost recovery in the ECRC. As discussed below, staff is recommending that the Bromine and ACI project is eligible for ECRC recovery.

#### ECRC Eligibility

Like Issues 1 and 2, staff's recommendation regarding the appropriate cost recovery mechanism for Gulf's proposed bromine and ACI project is based on the criteria set-forth by the Commission in Order No. PSC-94-0044-FOF-EI.<sup>24</sup> Staff has found no information that would suggest the project does not satisfy the first and third criteria previously discussed in Issue 1.

With respect to the second criterion, Gulf determined that additional environmental controls would be required for Plant Daniel units 1 and 2 to comply with the MATS mercury standards. Unlike the projects discussed in Issues 1 and 2, staff believes that the Bromine and ACI project does represent a "direct nexus" to complying with the MATS rule as they directly affect the emissions of the associated units. Furthermore, Gulf's decision to install Bromine and ACI appears to be the most cost-effective approach to meeting the compliance standards set forth in the MATS rule.

#### Conclusion

With respect to the application of the three ECRC eligibility criteria in this case, staff believes that: (a) all costs associated with the project are going to be incurred after April 13, 1993, (b) the proposed Bromine and ACI project is needed to comply with environmental regulations, and (c) the costs of the project are not being recovered through base rates or another recovery mechanism. As such, staff recommends that the costs associated with the Bromine and ACI project are eligible for cost recovery through the ECRC, and the Petition for this project should be approved.

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<sup>24</sup> 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.

Docket No. 130092-EI

Date: July 18, 2013

**Issue 4:** Should this docket be closed?

**Recommendation:** If no person whose substantial interests are affected by the proposed agency action files a protest within 21 days of the issuance of the order, this docket should be closed upon the issuance of a consummating order. (Murphy)

**Staff Analysis:** At the conclusion of the protest period, if no protest is filed this docket should be closed upon the issuance of a consummating order.