

Robert L. McGee, Jr.
Regulatory & Pricing Manager
One Energy Place
Pensacola, Florida 32520-0780
Tel 850.444.6530
Fax 850.444.6026
RLMCGEE@southernco.com



September 23, 2013

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

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COMMISSION
CLERK

RE: Docket No. 130092-EI

Dear Ms. Cole:

Enclosed for official filing in Docket No. 130092-EI is an original and fifteen copies of a revised Exhibit JOV-1 of James O. Vick's prepared direct testimony originally filed April 1, 2013 in Docket No. 130007-EI. While the only information being revised is presented on page 20 of 34, the entire Exhibit JOV-1 is being refiled as a matter of convenience and ease of future reference.

The revision corrects a calculation error but does not affect any conclusions or the relative ranking of any of the Options analyzed. In the analysis of Plant Crist compliance Options 1-4, where production costs were calculated for must run cases, the must run cases incorrectly utilized natural gas the entire year, during both the must run period as well as the remainder of the year. The fuel should have been constrained to natural gas in the must run period only and economically dispatched on coal the remainder of the year. This correction, as reflected in the revised document, affects certain scenarios more than others. However, all corrected cases still support the decision to move forward with Option 4—Transmission.

Sincerely,

Robert L. McGee, Jr.
Robert L. McGee, Jr.
Regulatory and Pricing Manager

Robert L. McGee, Jr.
Regulatory and Pricing Manager

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Enclosures

cc: Beggs & Lane
Jeffrey A. Stone, Esq.

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**GULF POWER COMPANY
ENVIRONMENTAL COMPLIANCE
PROGRAM UPDATE**

For

**Clean Air Interstate Rule
National Ambient Air Quality Standards
Mercury and Air Toxics Standards
Clean Air Visibility Rule**



April 1, 2013

Revised September 24, 2013

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1.0 EXECUTIVE SUMMARY

Since the Clean Air Act Amendments (CAAA) were passed by Congress in 1990, Gulf Power Company (Gulf Power or Gulf) has reviewed and updated its environmental compliance planning as needed on an on-going basis. The goal of this process is to identify reasonable, cost-effective compliance strategies that will minimize the impact on Gulf Power's customers while achieving environmental objectives and assuring compliance with all environmental requirements.

Gulf's original environmental Compliance Plan¹ was filed on March 29, 2007. The original document: (a) addressed the requirements of the Clean Air Interstate Rule (CAIR), Clean Air Mercury Rule (CAMR), and the Clean Air Visibility Rule (CAVR); (b) reviewed the decision process for assuring compliance at Gulf Power; and (c) provided cost estimates for incorporating these requirements at Gulf Power. The document reviewed the specific issues, timing, alternatives, process, and costs necessary for compliance with the new federal rules and the corresponding implementation programs developed by the Florida Department of Environmental Protection (FDEP) and the Mississippi Department of Environmental Quality (MDEQ). Gulf's original Compliance Plan was submitted with the Company's petition for review and approval of the plan and acceptance of its components for cost recovery through the Environmental Cost Recovery Clause (ECRC).

On June 22, 2007, the Office of Public Counsel (OPC), the Florida Industrial Power Users' Group (FIPUG) and Gulf filed a petition for approval of a stipulation regarding the substantive provisions of Gulf's Compliance Plan. That stipulation identified 10 specific components of Gulf's Program that were entering the implementation phase as being reasonable and prudent and set forth a process for review in connection with subsequent components of the Program. On August 14, 2007, the Florida Public Service Commission (Commission or FPSC) voted to approve the stipulation with the proviso that Gulf provide an annual status report regarding cost-effectiveness and prudence of the subsequent phases in its program into which the Company is moving. The Commission's approval of the stipulation is memorialized in Order No. PSC-07-0721-S-EI.

This document is the sixth update of Gulf's original environmental Compliance Plan. Since the Commission's approval of Gulf's Compliance Program in 2007, there have been a number of regulatory and legislative developments. Gulf has addressed in several of its intervening filings, as well as in the annual updates, regulatory updates and changes to schedules of approved projects. There have been several significant court decisions that have had and will have further impacts on Gulf's Compliance Program.

On August 8, 2011, the Environmental Protection Agency (EPA) adopted the Cross State Air Pollution Rule (CSAPR) to replace CAIR effective January 1, 2012. Like the CAIR, the CSAPR was intended to address interstate emissions of SO₂ and NO_x that interfere with downwind states' abilities to meet or maintain national ambient air quality standards for ozone and/or particulate matter. In December 2011, the U.S. Court of Appeals for the District of Columbia Circuit stayed the rule and on August 21, 2012, vacated CSAPR in its

entirety and directed the EPA to continue to administer CAIR pending the EPA's development of a valid replacement rule. The states of Florida and Mississippi had already completed plans to implement CAIR, and emissions reductions were being accomplished by the installation and operation of emission controls at the Company's coal-fired facilities and/or by the purchase of emission allowances.

The Clean Air Visibility Rule was finalized in July 2005 with a goal of restoring natural visibility conditions in certain areas (primarily national parks and wilderness areas) by 2064. In 2005, the EPA determined that compliance with CAIR satisfies Best Available Retrofit Technology (BART) obligations under CAVR, but on June 7, 2012, the EPA issued a final rule replacing CAIR with CSAPR as an alternative means of satisfying BART obligations. The vacatur of CSAPR creates additional uncertainty with respect to whether additional controls may be required for CAVR and BART compliance.

In February 2008, the U.S. Court of Appeals for the District of Columbia Circuit (D.C. Circuit) issued an opinion vacating the EPA's CAMR. In a separate proceeding in the U.S. District Court for the District of Columbia, the Court, under a consent decree, required the EPA to issue a proposed Electric Generating Unit (EGU) Maximum Achievable Control Technology (MACT) rule by March 16, 2011, and a final rule by November 16, 2011. The MACT rule, renamed the Mercury and Air Toxics Standards (MATS), was published in the federal register on February 16, 2012. The MATS rule imposes stringent 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, three years after the effective date of the rule.

As discussed in previous compliance strategy updates, compliance with the MATS rule is likely to require substantial capital expenditures and compliance costs. These costs may arise from unit retirements, installation of additional emission controls, changing fuel sources for certain existing units, and/or upgrades to the transmission system. The MATS rule also requires installation of additional continuous emission monitors and/or additional emissions testing.

Gulf has recently finalized its MATS compliance strategy for Plant Crist and Plant Daniel. Gulf has determined that it is not economical to add the environmental controls at Plant Scholz necessary to comply with MATS and that coal-fired generation will cease at Plant Scholz on April 1, 2015. Gulf has not finalized its MATS compliance strategy for Plant Smith; however, Gulf has determined that the installation of transmission upgrades should be part of any of the potentially viable MATS compliance strategies for Plant Smith. Once the Company determines the most cost-effective compliance options for Plant Smith, Gulf will submit revisions to the environmental Compliance Program for the Commission's review.

This document addresses Gulf's ongoing compliance projects as well as new MATS compliance projects selected for Plant Crist, Plant Daniel, and Plant Smith. Gulf's Compliance Program has been updated to include the Plant Daniel Bromine and Activated Carbon Injection (ACI) Project, the Plant Crist Transmission Upgrades Project, and the Plant

Smith Transmission Upgrades Project that will be required for compliance with the MATS rule. Gulf Power is requesting approval of inclusion of these projects in the Company's Compliance Program at this time. Gulf Power's ultimate compliance program will be impacted by factors such as: final requirements of new or revised environmental regulations; the cost and availability of emissions allowances; performance of emission control equipment; and changes to the Company's fuel mix. Based on these factors, future environmental compliance costs will continue to be incurred, and projections will be revised. The timing of the requirements and costs incurred will be a function of the compliance options selected, new generating resources, fuel sources and prices, fuel sulfur content, transmission upgrades, energy demand, and other variables.

Detailed capital and O&M costs for Gulf's Compliance Program for CAIR, MATS, and CAVR are provided in Section 3 of this document. As noted in the Commission's approval of Gulf's original environmental Compliance Program, the program would likely evolve over time. For example, the Plant Smith Units 1 and 2 scrubber and the Plant Smith baghouse project, have been removed from Gulf's Compliance Program. The Plant Smith scrubber and baghouse projects were originally included in Gulf's Compliance Program for future consideration; however, it has been determined that the projects are no longer viable compliance options. Environmental compliance strategies for Plant Smith are being evaluated in response to finalization of the MATS rule, vacatur of the CSAPR, CAVR, and anticipation of future land and water regulations.

In addition to the air rules mentioned above that are aimed at reductions of NO_x, SO₂, mercury, acid gases and particulate matter, the EPA is regulating greenhouse gas (GHG) emissions under the Clean Air Act. The EPA has proposed GHG performance standards for new electric generating units and is planning to develop federal guidelines for states to establish greenhouse gas performance standards for existing units.

During the 2013-2014 timeframe, the EPA is expected to issue new land and water regulations that will affect the storage and handling of coal combustion byproducts (CCB), intake structure requirements, and effluent guidelines. Once finalized, these rules could further impact Gulf's Compliance Program. All of this uncertainty reinforces the need for a flexible, robust compliance plan. Accordingly, as Gulf finalizes its strategy for complying with the MATS regulations, as decision dates for equipment purchases approach, and as regulatory and economic drivers become better defined, the analysis will be updated as needed to enable the selection of the most reasonable and cost-effective compliance alternatives while maintaining future flexibility in the plan.

2.0 REGULATORY AND LEGISLATIVE UPDATE

This section provides a regulatory and legislative update and review of the CAIR and its vacated replacement rule, the Cross State Air Pollution Rule (CSAPR), the National Ambient Air Quality Standards (NAAQS), the CAVR, as well as the vacated CAMR and its replacement rule the Mercury and Air Toxics Standards (MATS).

2.1 CLEAN AIR INTERSTATE RULE / CROSS STATE AIR POLLUTION RULE

In March 2005, the EPA published the final CAIR, a rule that addresses transport of SO₂ and NO_x emissions that contribute to non-attainment of the ozone and fine particulate matter NAAQS in the eastern United States. This cap and trade rule addresses power plant SO₂ and NO_x emissions that were found to contribute to non-attainment of the 8-hour ozone and fine particulate matter standards in downwind states. Twenty-eight eastern states, including Florida and Mississippi, are subject to the requirements of the rule. The rule calls for additional reductions of NO_x and SO₂ to be achieved in two phases, 2009/2010 and 2015, as shown in Table 2.1-1.

Table 2.1-1

CAIR Emission Reduction Requirements

Emissions	Phase I reduction from acid rain allocations	Phase II reduction from current allocations
SO ₂	50% (2010)	66% (2015)
NO _x	50% (2009)	65% (2015)

In 2008, the U.S. Court of Appeals for the District of Columbia Circuit issued decisions invalidating certain aspects of the CAIR, but left CAIR compliance requirements in place while the EPA developed a new rule. In August 2011, the EPA adopted the CSAPR to replace CAIR effective January 1, 2012. Like the CAIR, the CSAPR was intended to address interstate emissions of SO₂ and NO_x that interfere with downwind states' abilities to meet or maintain national ambient air quality standards for ozone and/or particulate matter. However, in December 2011, the U.S. Court of Appeals for the District of Columbia Circuit stayed the rule and on August 21, 2012, vacated CSAPR in its entirety and directed the EPA to continue to administer CAIR pending the EPA's development of a valid replacement. On January 24, 2013, the U.S. Court of Appeals for the District of Columbia Circuit denied requests by the EPA and other parties for rehearing.

The states of Florida and Mississippi have completed plans to implement CAIR, and emissions reductions are being accomplished by the installation and operation of emission controls at the Company's coal-fired facilities and/or by the purchase of emission allowances. Decisions regarding Gulf's CAIR compliance strategy were made jointly with the CAVR and CAMR compliance plans due to co-benefits of proposed controls.

2.2 NATIONAL AMBIENT AIR QUALITY STANDARDS

Final revisions to the National Ambient Air Quality Standard (NAAQS) for SO₂, including establishment of a new one-hour standard, became effective during August 2010. The EPA plans to issue area designations under this new standard in June 2013. This may result in some of the Company's service area ultimately being designated as nonattainment. Implementation of the revised SO₂ standard could require additional reductions of SO₂ emissions and increased compliance and operational costs.

The EPA regulates ground level ozone through implementation of an eight-hour ozone NAAQS. In March 2008, the EPA adopted a more stringent eight-hour ozone standard, which it began to implement in September 2011. On May 21, 2012, the EPA published a final determination of nonattainment areas based on the 2008 eight-hour ozone air quality standards. No areas within the Company's service area were determined to be in nonattainment of this standard. The EPA will continue reviewing the ozone NAAQS under the normal five-year review cycle with a new revision expected in 2014.

The EPA regulates fine particulate matter concentrations on an annual and 24-hour average basis. All areas within the Company's service area have achieved attainment with the 1997 and 2006 particulate matter NAAQS. On January 15, 2013, the EPA published a final rule that increases the stringency of the annual fine particulate matter standard. The new standard could result in the designation of new nonattainment areas within the Company's service area.

Revisions to the NAAQS for nitrogen dioxide (NO₂), which established a new one-hour ozone standard, became effective in April 2010. The EPA signed a final rule with area designations for the new NO₂ standard in January 2012, designating the entire country as "unclassifiable/attainment," with no nonattainment areas designated. While this standard is not focused on the electric utility sector, the new NO₂ standard could result in additional compliance and operational costs for units that require new source permitting.

2.3 CLEAN AIR VISIBILITY RULE

The Clean Air Visibility Rule (formerly called the Regional Haze Rule) was finalized in 2005, with a goal of restoring natural visibility conditions in certain areas (primarily national parks and wilderness areas) by 2064. The rule involves the application of Best Available Retrofit Technology (BART) to certain sources built between 1962 and 1977 and any additional emissions reductions necessary for each designated area to achieve reasonable progress toward the natural conditions goal by 2018 and for each 10-year planning period

thereafter. In 2005, the EPA determined that compliance with the CAIR satisfies BART obligations under CAVR, but, on June 7, 2012, the EPA issued a final rule replacing CAIR with CSAPR as an alternative means of satisfying BART obligations. The vacatur of CSAPR creates additional uncertainty with respect to whether additional controls may be required for CAVR and BART compliance.

In the face of this uncertainty the states have proceeded with various activities. Florida submitted a revised State Implementation Plan (SIP) on September 17, 2012 that abandoned reliance on CAIR or CSAPR and proposed a series of EGU BART limits in August and December 2012 which included BART limits for the coal fired units at Plant Smith and no further controls for Plant Crist. The EPA completed a review of the Florida SIP and proposed approval on December 14, 2012. The EPA must finalize approval or disapproval of the Florida SIP by June 28, 2013. Similar to Florida, the State of Mississippi requested source-specific BART analyses by December 15, 2012. A report for Plant Daniel was submitted in December that demonstrated that the plant already meets “top level control” relative to BART. Following submittal of a revised Mississippi SIP, the EPA will have until the summer of 2014 to finalize an approval or disapproval. Until these issues are resolved, it remains uncertain what additional controls will ultimately be required at Plant Smith, Plant Crist and Plant Daniel for CAVR and BART compliance.

2.4 CLEAN AIR MERCURY RULE / MERCURY AND AIR TOXICS STANDARDS

In March 2005, the EPA published the final Clean Air Mercury Rule (CAMR), a cap and trade program for the reduction of mercury emissions from coal-fired power plants. The rule set caps on mercury emissions to be implemented in two phases, 2010 and 2018, and provided for an emission allowance trading market. The final CAMR was challenged in the D.C. Circuit and in February 2008, the court issued an opinion vacating the CAMR. The vacatur became effective with the issuance of the court’s mandate on March 14, 2008, nullifying CAMR mercury emission control obligations and monitoring requirements. In a separate proceeding in the U.S. District Court for the District of Columbia, the Court, under a consent decree, required the EPA to issue a final MACT rule by November 16, 2011.

On February 16, 2012, the EPA published the final Mercury Air Toxics Standards (MATS) rule, which imposes stringent emissions limits for acid gases, mercury, and particulate matter (surrogate for non-mercury metals) on coal- and oil-fired electric utility steam generating units. Compliance for existing sources is required by April 16, 2015 three years after the effective date of the final rule, unless a one-year extension is granted by the state or local air permitting agency. Sources needing a fifth year to comply may seek an Administrative Order under Section 113(a) of the Clean Air Act. According to the EPA, an Administrative Order would be limited to units that are required to run for reliability purposes.

Numerous petitions for administrative reconsideration of the MATS rule were filed with the EPA. On November 30, 2012, the EPA proposed a reconsideration of certain new source and startup/shutdown issues. The EPA plans to complete its reconsideration rulemaking by April

2013. Challenges to the final rule have also been filed in the U.S. Court of Appeals for the District of Columbia by numerous states, environmental organizations, industry groups, and others.

3.0 GULF'S COMPLIANCE PROGRAM

3.1 GULF POWER'S ELECTRIC GENERATING SYSTEM

Gulf Power owns and operates three fossil-fueled generating facilities in Northwest Florida (Plants Crist, Smith and Scholz). Gulf also owns a 50 percent undivided ownership interest in Units 1 and Unit 2 at Mississippi Power Company's Plant Daniel. This fleet of generating units consists of ten fossil steam units, one combined cycle (CC) unit, and one combustion turbine (CT). The nameplate generating capacity of Gulf's generating fleet affected by CAIR/CSAPR, NAAQS, MATS, and/or CAVR is 2,783 megawatts (MW).

This document is the sixth update of Gulf's original environmental Compliance Plan filed on March 29, 2007. The original document: (a) addressed the requirements of the Clean Air Interstate Rule (CAIR), Clean Air Mercury Rule (CAMR), and the Clean Air Visibility Rule (CAVR); (b) reviewed the decision process for assuring compliance at Gulf Power; and (c) provided cost estimates for incorporating these requirements at Gulf Power. The document reviewed the specific issues, timing, alternatives, process, and costs necessary for compliance with the new federal rules and the corresponding implementation programs developed by the Florida Department of Environmental Protection (FDEP) and the Mississippi Department of Environmental Quality (MDEQ).

On June 22, 2007, the Office of Public Counsel (OPC), the Florida Industrial Power Users' Group (FIPUG) and Gulf filed a petition for approval of a stipulation regarding the substantive provisions of Gulf's CAIR/CAMR/CAVR Compliance Plan. On August 14, 2007, the Commission voted to approve the stipulation with the proviso that Gulf provide an annual status report regarding cost-effectiveness and prudence of the phases in its Plan into which the Company is moving. That stipulation identified the following 10 specific components of Gulf's plan as being reasonable and prudent for implementation and set forth a process for review in connection with the three remaining components of the plan.

- Crist Units 4 through 7 Scrubber
- Crist Unit 6 Selective Catalytic Reduction (SCR) Project
- Crist Units 4 through 7 CAIR and Mercury Monitor
- Daniel Units 1 and 2 Scrubbers
- Daniel Units 1 and 2 SNCRs and Low NOx Burners
- Daniel Units 1 and 2 CAIR and Mercury Monitors
- Smith Units 1 and 2 Selective Non-Catalytic Reduction (SNCR) Projects
- Smith Units 1 and 2 CAIR and Mercury Monitors
- Scholz Units 1 and 2 Mercury Monitors
- Market Purchase of Additional Emission Allowances

The remaining components of Gulf's proposed Compliance Plan specifically identified in the initial 2007 filing were still in the planning phase at that time, with possible implementation not expected to occur until after 2011. The specifically identified components included the

Plant Daniel Unit 1 and Unit 2 SCRs, the Plant Smith Unit 1 and Unit 2 scrubber, and the Plant Smith Unit 2 baghouse. The parties stated in their stipulation that since Gulf had not yet made its decision whether to implement these additional components, there was no agreement at that time regarding their reasonableness or prudence. The stipulation provides that once Gulf makes a decision to proceed with implementation of additional components, Gulf would make a supplementary filing in the ECRC docket identifying the timing of planned implementation and providing updated estimates prior to incorporating them in the normal projection or true-up filings under the ECRC.

On April 1, 2010, Gulf filed its second supplemental petition to update its Compliance Program to include the next implementation phase of the Program, the Plant Daniel Unit 1 and Unit 2 SCRs. The Plant Daniel SCR projects were approved in PSC Order No. PSC-10-0683-FOF-EI dated November 15, 2010. The Plant Smith Units 1 and 2 scrubber and the Plant Smith baghouse project, have since been removed from Gulf's Compliance Program. The Plant Smith scrubber and baghouse projects were originally included in Gulf's Compliance Program for future consideration; however, it has been determined that the projects are no longer viable compliance options

This filing will update Gulf's Compliance Program to include the Plant Daniel Bromine and ACI Project, the Plant Crist Transmission Upgrades Project, and the Plant Smith Transmission Upgrades Project that will be required for compliance with the MATS rule. Gulf Power is requesting approval of inclusion of these projects in the Company's Compliance Program.

A summary of the updated Compliance Program capital projects and associated expenditures through 2022 is provided in Table 3.1-1. The projected plant O&M expenses associated with the capital projects are included in Table 3.1-2. The cost information is provided by plant and by project.

**Table 3.1-1
Compliance Program Capital Expenditures
\$ in Thousands**

	Prior Years**	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	Total
By Plant												
Plant Crist												
Mercury Monitoring												
Unit 6 SCR	191,424											
Units 4-7 Scrubber	587,048											587,048
MATS Transmission Upgrades*	23	1,028	37,382	16,703	2,565	13,253	5,403					76,357
Plant Scholz												
Mercury Monitoring	644											644
Plant Smith												
Unit 1 SNCR	8,363											8,363
Unit 2 SNCR	2,905											2,905
Mercury Monitoring	1,433											1,433
CAIR Parametric Monitor	230											
MATS Transmission Upgrades*	1,765	26,945	41,900	6,370								76,980
Plant Daniel												
Mercury Monitoring												
Unit 1 SCR												
Unit 2 SCR												
Units 1 & 2 Scrubber	69,087											
Unit 1 Low NOx Burners	3,187											3,187
Unit 2 Low NOx Burners	3,586											3,586
Unit 1 & 2 Bromine & Activated Carbon Injection*												
By Project												
Mercury Monitoring	2,077											
SCRs	191,424											
Scrubbers	656,135											
SNCRs	11,268											11,268
CAIR Parametric Monitor	230											
Low Nox Burners	6,773											6,773
Unit 1 & 2 Activated Carbon & Bromine Injection												
MATS Transmission Upgrades	1,788	27,973	79,282	23,073	2,565	13,253	5,403					153,337
Annual Total	869,695	142,631	188,670	99,296	95,994	145,036	60,975	4,067	667	333	667	1,608,031

*Items Gulf seeks to include in the Compliance Program. All other items previously approved.

**2006-2012 expenditures

Expenditures presented for Plant Daniel represent Gulf's ownership portion.

Allowance cost projections are not included in Table 3.1-1

**Table 3.1-2
Compliance Program Plant O&M Expenses
\$ in Thousands**

	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	Total
By Plant											
Plant Crist											
Mercury Monitoring											
Unit 6 SCR											
Units 4-7 Scrubber											
Plant Scholz											
Mercury Monitoring											
Plant Smith											
Unit 1 & 2 SNCR											
Mercury Monitoring											
Plant Daniel											
Mercury Monitoring											
Unit 1 SCR											
Unit 2 SCR											
Units 1&2 Scrubber											
Unit 1 & 2 Bromine & Activated Carbon Injection*											
By Project											
Mercury Monitoring											
SCRs											
Scrubbers											
SNCRs											
Activated Carbon & Bromine Injection*											
Annual Total	15,578	16,783	23,494	33,892	34,298	35,620	38,569	39,557	40,870	41,918	320,579

*Items Gulf seeks to include in the Compliance Program. All other items previously approved.

Expenses presented for Plant Daniel represent Gulf's ownership portion.

Allowance cost projections are not included in Table 3.1-2

3.2 GULF'S EVALUATION OF MATS COMPLIANCE OPTIONS

For Gulf Power's plants Crist and Daniel, compliance options to address the impact of the MATS requirements were proposed and the cost of those options were evaluated. The Company evaluated the alternatives for each facility to determine the most reasonable, reliable, and cost effective plan. Gulf has not finalized its MATS compliance strategy for Plant Smith; however, a similar evaluation was conducted to determine the first part of Plant Smith's MATS strategy. Section 3.3 discusses the MATS evaluation on a plant-by-plant basis. Even though applicable options are unit specific, the economic evaluation for each option is structured similarly.

Generally, the economic evaluation includes unit commitment and energy value modeling and cost implications. A comparison analysis for each compliance option is conducted to help determine the most economical option by capturing the applicable fixed costs and relative changes to system production costs. These fixed costs include:

- Firm natural gas transportation costs, if any
- Revenue requirements for incremental capital additions for environmental controls
- Revenue requirements for incremental transmission capital additions for environmental compliance

System production cost impacts are estimated using the Southern electric system's marginal replacement costs for each viable compliance alternative. Marginal replacement costs are generated with the Pro-Sym® model. The marginal replacement costs are then used in the Southern Company GenVal model to dispatch the existing unit under each option, considering its marginal fuel cost, emission allowance price, and variable operation and maintenance costs (including any additional environmental variable operating costs). This model also considers any forced commitment and dispatch needed to maintain transmission system reliability (must-run requirements). The energy benefits of each option (marginal replacement costs minus variable operating costs) are compared to determine the commitment and energy value to the Southern electric system for each compliance option. Under unconstrained unit operation, the existing unit is allowed to commit and dispatch in the most economic manner to generate optimized system production costs. When a unit is forced to commit and dispatch to meet transmission reliability requirements, the system production costs are sub-optimal. The delta between these sub-optimal system production costs and the optimized system production costs are the must-run production costs associated with the transmission reliability requirement or the must-run production cost savings associated with removing the transmission reliability requirement.

The system production cost impacts are evaluated across a range of integrated scenarios in order to capture variations in the operating environments that would affect the relative costs of the options. These scenarios were developed around uncertainty in fuel prices and CO₂ policy. Fuel prices (primarily natural gas driven) included low, moderate, and high scenarios, and CO₂ penalties range from \$0 to \$20 per metric tonne (escalating above inflation).

3.3 PLANT-BY-PLANT COMPLIANCE PROGRAM

3.3.1 PLANT CRIST

Plant Crist is a four-unit, coal-fired electric generating facility located just north of Pensacola, Florida. Three older natural gas/oil-fired units at the site have been retired. Units 4 and 5 each have a nameplate rating of 93.75 MW and Units 6 and 7 have nameplate ratings of 370 MW and 578 MW, respectively. All four units were affected under the Acid Rain Program, and the plant has primarily operated on low-sulfur coals since the 1990s to lower SO₂ emissions. All four units are equipped with low-NO_x burner systems. Plant Crist Units 4 and 5 have SNCR systems, while Crist Units 6 and 7 are equipped with SCR systems for NO_x control.

The Plant Crist Unit 7 SCR became operational in 2005, significantly reducing emissions of NO_x from the plant. This project was the result of an agreement between Gulf and the FDEP. The agreement also called for additional NO_x reductions on Plant Crist Units 4 through 6 up to and including an SCR for Unit 6. The Plant Crist Unit 6 SCR was placed in service during 2012.

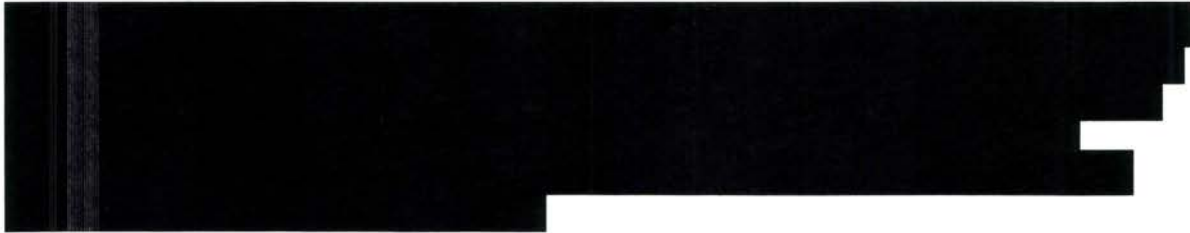
The Plant Crist Units 4 through 7 flue gas desulfurization (FGD) scrubber became operational in December 2009 and is designed to reduce SO₂ emissions by approximately 95%. With these reductions, Gulf Power will be able to reasonably manage compliance with its SO₂ allowance bank for the acid rain program and CAIR. Mercury emissions are also being reduced through the co-benefits of the scrubber and SCRs. The Plant Scholz mercury monitor has been relocated to Plant Crist in order to further analyze Plant Crist mercury emissions.

Plant Crist MATS Requirements

The MATS requirements apply to the four coal-fired units at Plant Crist. A review of Plant Crist emissions data was performed using recent annual particulate tests and data from the scrubber stack's SO₂ and mercury CEMS. This historical data indicates that during normal operation with the scrubber and SCRs in-service, Plant Crist should meet MATS requirements without any additional emissions controls, such as a baghouse. However, the MATS rule does limit the ability of the units to operate in the event of a scrubber malfunction or outage for any meaningful period of time without additional environmental controls. Without the ability to operate the Plant Crist units during a scrubber malfunction or outage, a reliability risk is introduced to the operation of the transmission system as it stands today.

Currently, when the scrubber is out of service due to malfunction or outage, the scrubber is bypassed and the emissions exhaust through the appropriate bypass stack. This mode of operation is termed "scrubber maintenance" or "scrubber bypass" mode. With the scrubber bypassed, the SO₂ and mercury emissions emitted from the bypass stacks would not meet

their respective MATS limits, and Plant Crist would be unable to operate until the scrubber is back in service. This MATS limitation is an important consideration in evaluating MATS compliance for Plant Crist because generation from this plant meets reliability requirements for Gulf's transmission system.



Studies were performed to identify the key transmission projects that would be necessary to alleviate this transmission risk in the event of a scrubber malfunction or outage. As explained in the following section, the best option for MATS compliance at Plant Crist for Gulf's customers is to proceed with the identified transmission projects in order to allow Plant Crist to commit and dispatch in the most economic manner, while avoiding the installation of additional environmental controls.

Plant Crist MATS Options

Gulf evaluated four options to address the impact of the MATS requirements on Plant Crist, as illustrated in Figure 3.3-1:

Option 1- [REDACTED] MW Natural Gas:

Supply Plant Crist with enough natural gas to generate at least [REDACTED] MW to meet the current transmission reliability requirements. This would require a new natural gas pipeline lateral.

Option 2- [REDACTED] MW Natural Gas/[REDACTED] MW Coal with ACI and DSI Controls:

Use the existing natural gas pipeline to provide [REDACTED] MW of generation with the remaining [REDACTED] MW of generation needed for current transmission reliability requirements provided by coal. This would not require a new gas lateral, but would require ACI and dry sorbent injection (DSI) controls for the scrubber bypass and would require the use of low sulfur and low chloride coal for long bypasses. This option would require an inventory of the low sulfur/low chloride coal.

Option 3- [REDACTED] MW Natural Gas and Transmission Upgrades:

Use the existing natural gas pipeline capacity to provide [REDACTED] MW of generation and implement certain transmission improvements to reduce the Plant Crist transmission reliability requirement from [REDACTED] MW to [REDACTED] MW.

Option 4- Transmission Upgrades Only:

Construct the transmission improvements necessary to remove all significant

transmission reliability (must-run) requirements for Plant Crist, allowing it to commit and dispatch economically.

Plant Crist Scrubber Bypass MATS Analysis

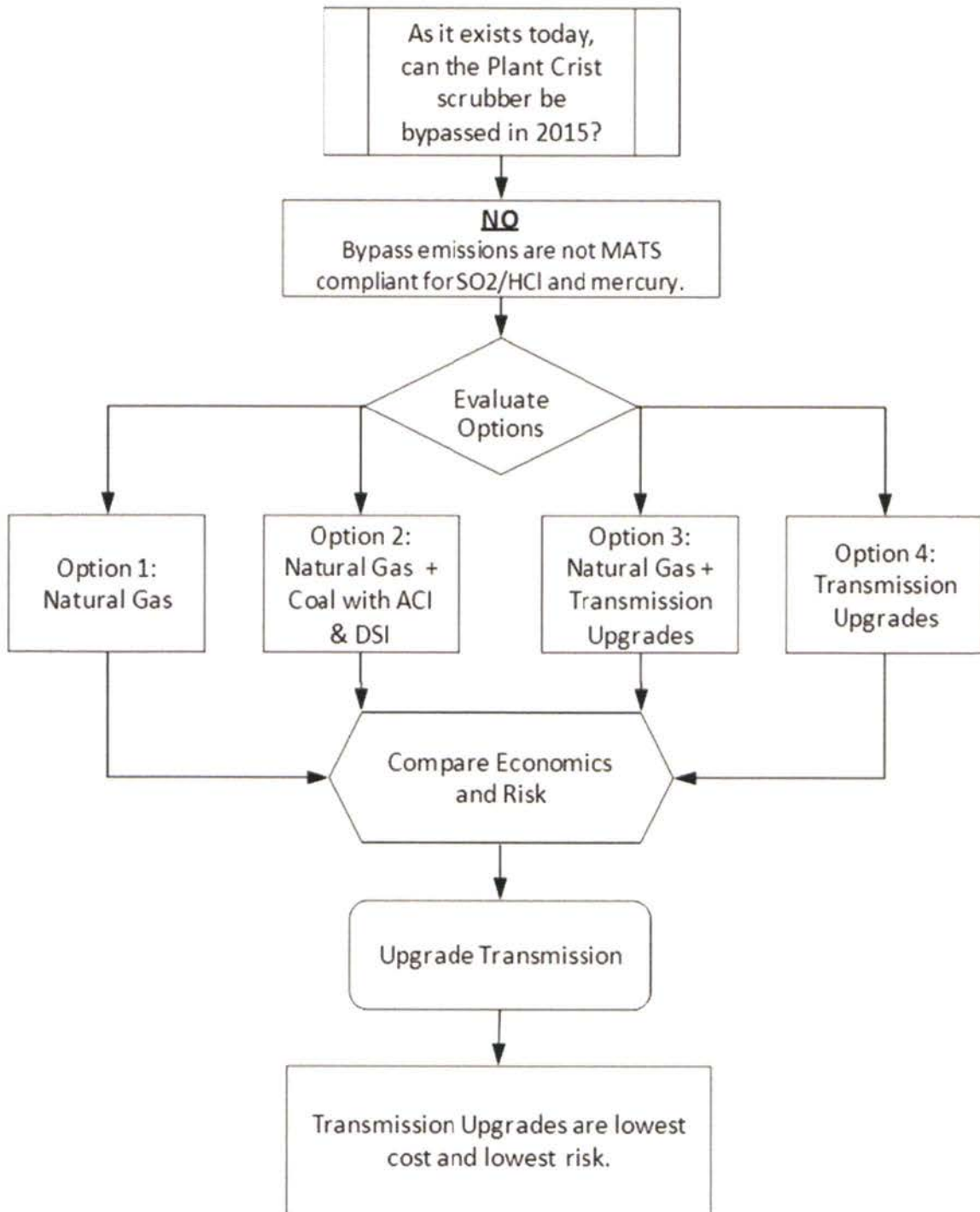


Figure 3.3-1 Plant Crist MATS Scrubber Bypass Analysis

Plant Crist MATS Analysis

For each Plant Crist MATS option, the NPV (Net Present Value) of estimated revenue requirements was calculated for transmission upgrades, fuel, must-run production costs, and emission control retrofits. The transmission NPV for Options 1 and 2 were the NPV of transmission projects that were projected to be needed primarily in the 2020 to 2025 timeframe even without the MATS rule. These NPVs were considered to be a base transmission cost. Transmission NPVs for Options 3 and 4 reflect higher costs of \$■ M and \$■ M, respectively, due to acceleration of many of these base transmission projects that Gulf must now move forward with due to MATS under these compliance options.

The fuel NPV included a gas pipeline cost for Option 1 and gas firm transportation cost for Options 1, 2, and 3. The must-run production cost NPV is the increased production cost of requiring the Plant Crist units to commit and operate to meet the transmission requirements. The fuel and must-run production cost NPVs for Option 1 range from \$■ to \$■ M across the range of integrated system scenarios; Option 2 ranges from \$■ to \$■ M; and Option 3 ranges from \$■ to \$■ M. Option 4, transmission upgrades only, had zero fuel or must run cost.

The emission control retrofits NPV was only a factor in Option 2, the gas and coal combination. It had an estimated NPV cost of \$■ M for the ACI and DSI controls needed to lower acid gas and mercury emissions.

**Table 3.3-1
 Plant Crist MATS Analysis
 NPV 2013 in millions**

Option	Transmission NPV	Fuel and Must Run Production Costs NPV	Emission Controls NPV	Total all NPV Costs
Option 1: Natural Gas	■	■	\$0	■
Option 2: Natural Gas and Coal	■	■	■	■
Option 3: Natural Gas and Transmission Upgrades	■	■	\$0	■
Option 4: Transmission Upgrades Only	■	\$0	\$0	■

Plant Crist MATS Conclusion

Option 1 had the highest total NPV cost by a large margin. Therefore, it was eliminated from further consideration.

The cost of Option 2 was the next highest of the four options. Option 2 has plant operational risks associated with operating an emission control system intermittently and handling a secondary coal supply. In addition, uncertainty surrounding the potential effects the injection additives may have on compliance with current land- and water-based environmental rules increased the risk associated with Option 2. Furthermore, the coal pile at Plant Crist has already been reduced in size to accommodate existing environmental controls. The coal pile area today could not support two separate coal inventories, which would be required under this option. For these cost and operational reasons, Option 2 was eliminated from consideration.

The low end of the cost range for Option 3 was comparable to, but still higher than, the lowest cost option, Option 4. The high end of the cost range for Option 3 was well above the cost of Option 4. The cost of Option 3 is also subject to future natural gas price volatility and other variable market conditions which leave Gulf's customers exposed to the risk of costly must-run operations rather than the benefit of operating the Plant Crist units in economic system dispatch. Additionally, this option required a commitment to generate [REDACTED] MW with only natural gas firing during scrubber bypass. This operational constraint at Plant Crist would require an engineering study to more fully understand the operational challenges of this option.

Option 4, transmission upgrades only, had the lowest total NPV cost and has the lowest risk of the four options. The costs associated with Option 4 have a higher level of certainty, and the transmission upgrades do not cause any plant operational risks or costly must-run constraints. Option 4 has the benefit of removing the must-run requirement from Plant Crist, which will allow Gulf to operate the plant the most economically, generating a production cost savings for Gulf's customers as shown in Table 3.3-1. Therefore, it was determined that Option 4, transmission upgrades only, would be the lowest compliance cost and risk and therefore the best option for Gulf's customers.

Conclusions for Plant Crist

Based on previous economic assessments of Crist Units 4 through 7 and the Crist Unit 6 SCR economic evaluation, the retrofit of Crist Units 4 through 7 with a single scrubber, SNCRs on Units 4 and 5, and SCRs on Units 6 and 7 are the best options for compliance with the current requirements of CAIR, CAVR, and the anticipated NAAQS. These are the only technologies that offer the necessary emission reductions for SO₂ and NO_x, and when used together, the scrubber and the SCRs on Units 6 and 7 provide additional benefit by reducing mercury emissions. Decisions regarding Gulf's CAIR compliance strategy were made jointly

with the CAVR and CAMR/MATS compliance plans due to co-benefits of proposed controls. As discussed above transmission upgrades are the lowest cost MATS compliance option for Plant Crist. The transmission upgrades have a higher level of certainty than Options 1, 2 or 3 and will not create any plant operational risks. The upgrades will also allow the plant to operate under economic dispatch rather than in must-run. The initial transmission upgrades are currently projected to be completed by April 2016 with the remaining projects being placed in-service by 2018.

The scrubber, mercury monitors, SNCRs, and SCRs have been approved for recovery through the ECRC in past proceedings, subject to ongoing review of costs within the ECRC annual review process. The MATS transmission upgrades were added to the Compliance Program during 2013 and have not been approved for ECRC recovery at this time. Gulf Power is requesting approval of inclusion of these projects in the Company's Compliance Program.

3.3.2 PLANT DANIEL

Gulf Power's ownership interest at Plant Daniel is associated with two coal-fired electric generating units that have a nameplate rating of 548.25 MW each. Gulf Power and Mississippi Power Company each own 50 percent of Daniel Units 1 and 2. The plant is operated by Mississippi Power. The facility is located just north of Pascagoula, Mississippi, with direct transmission access across Alabama and into Florida. Both coal-fired units were affected by the Acid Rain Program and have operated on low-sulfur coals since the 1990s. These New Source Performance Standards (NSPS) units are relatively low NO_x emitters, and as a result, Gulf and Mississippi Power have been able to delay installation of controls and associated costs required under the Acid Rain Program. Low NO_x burners were installed on Daniel Units 1 and 2 during 2010 and 2008, respectively, for CAIR annual and seasonal NO_x cap and trade allowance programs.

For compliance with the CAIR, CAVR, MATS and anticipated NAAQS, Plant Daniel Units 1 and 2 need significant emission reductions. Only a few technologies have demonstrated the ability to provide the necessary emission reductions at the commercial scale required for the coal units at Plant Daniel. Retrofit options are each reviewed below specifically for Plant Daniel.

Plant Daniel Retrofit Options

Plant Daniel Unit 1 and Unit 2 Flue Gas Desulfurization Scrubber Projects

Very high levels of SO₂ emission reductions can be achieved by flue gas desulfurization. Other than flue gas desulfurization, there are no other commercially available options for SO₂ emission reductions at the level needed to assure compliance with the CAIR, CAVR, MATS, and the anticipated NAAQS. Flue gas desulfurization, or wet scrubbing, has been determined to be the only viable SO₂ retrofit compliance option for Plant Daniel.

The Daniel scrubber projects are designed to reduce SO₂ emissions by approximately 95%. With these reductions, Gulf Power will be able to reasonably manage compliance using its SO₂ allowance bank for the acid rain program and CAIR. The scrubber projects are currently scheduled for completion in the fall of 2015. Site development is approximately 75% complete, and all of the Phase I deep foundations have been installed. The scrubbers will minimize reliance on the SO₂ allowance market and allow Plant Daniel to comply with the MATS particulate matter (PM) and surrogate SO₂ limits as well as the CAIR, CAVR, and NAAQS rules.

Plant Daniel NOx Reduction Projects

The Daniel Unit 1 and 2 Low NOx burners were planned for CAIR annual and seasonal NOx cap and trade allowance programs. The Daniel Unit 2 Low NOx burners were installed during 2008 and the Unit 1 Low NOx burners were placed in-service in 2010.

The Plant Daniel Units 1 and 2 SCRs are now scheduled to be in service by 2020. The anticipated timeline for compliance with the revised ozone NAAQS has been deferred one year from 2019 to 2020. This timeline is subject to change because it is influenced by several different parties and factors, including the EPA and state regulatory agencies, atmospheric modeling, and ambient air quality. The NAAQS revisions are scheduled to be finalized in 2014. In addition to the NAAQS, the SCRs will help meet the requirements of the CAIR and the CAVR. The SCRs, along with the Unit 1 and 2 scrubbers, will provide a co-benefit of reducing mercury emissions and assisting in compliance with MATS.

Plant Daniel MATS Requirements

The MATS requirements apply to the coal-fired units at Plant Daniel. Plant Daniel emission data as well as data from other similar units (without scrubbers) indicate that while the MATS PM limit will be met, neither the acid gases nor the mercury limits will be met without installing additional environmental controls. The Company determined that at a minimum Plant Daniel Units 1 and 2 would require installation of scrubbers in order to comply with MATS as well as CAIR, CAVR, and the anticipated NAAQS. With the Plant Daniel scrubbers that are currently under construction, the acid gas limits will be achieved. The mercury emissions, however, will need to be reduced further to meet MATS limits. As explained in the following section, the best option to meet the MATS limits at Plant Daniel includes installing the already approved scrubbers and adding bromine injection, and activated carbon injection (ACI).

Plant Daniel MATS Options

After reviewing the proposed MATS rule, it was 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, by varying degrees, the total mercury removal. The construction lead-time requirements for bromine injection, ACI, or a baghouse with ACI are shorter than

the lead-time of the scrubber projects, which allowed the Company to wait for the final MATS rule to be published prior to committing to the ultimate MATS compliance strategy for Plant Daniel.

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.

Plant Daniel MATS Analysis and Conclusion

Testing completed for Plant Daniel has confirmed that bromine and ACI rather than more capital intensive controls such as baghouses with ACI will be sufficient to meet the final MATS standards. Gulf's 50% ownership costs for installing the injection systems is projected to be approximately \$ million. This selection represents approximately \$135 million in capital cost reductions when compared to the baghouse installation cost.

Engineering, procurement, and construction of the Plant Daniel bromine and ACI systems are scheduled to begin in January 2014 and last for approximately two years. Both injection systems will be placed in service with the scrubbers during fourth quarter of 2015.

Conclusions for Plant Daniel

The retrofit of Daniel Units 1 and 2 with scrubbers, bromine injection and ACI, the installation of Low-NOx burners, and the addition of SCRs on both units are the best options for compliance with the CAIR, MATS, CAVR, and the anticipated NAAQS. Fuel switching alone will not reduce emissions to the required level. Allowance purchases are too uncertain and risky as a sole compliance option and are not applicable for MATS compliance.

The scrubbers, low NOx burners, mercury monitors, and SCRs have been approved for recovery through the ECRC in past proceedings, subject to ongoing review of costs within the ECRC annual review process. This filing will update Gulf's Compliance Program to include the Plant Daniel bromine and ACI projects that have not been approved for ECRC recovery at this time. Gulf Power is requesting approval of inclusion of these projects in the Company's Compliance Program.

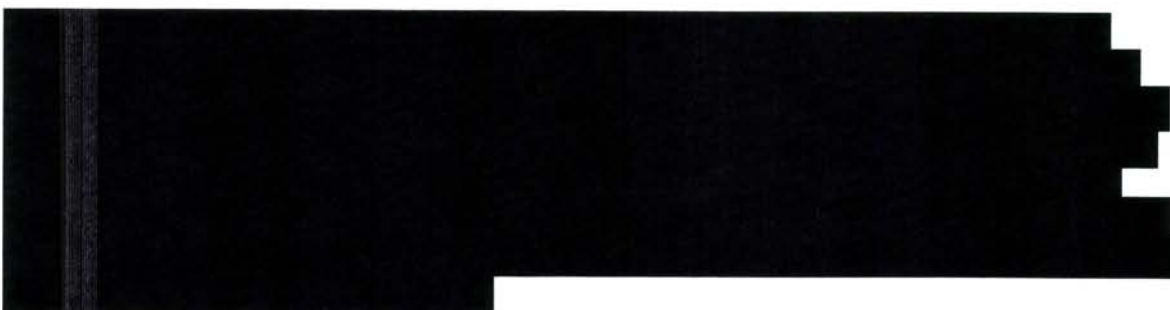
3.3.3 PLANT SMITH

Plant Smith includes two coal-fired electric generating units, Unit 1 and Unit 2, along with an oil-fired combustion turbine (CT) and a natural gas-fired combined cycle unit. The facility is located just north of Panama City, Florida. Plant Smith Unit 1 has a nameplate rating of 149.6 MW, and Unit 2 has a nameplate rating of 190.4 MW. Both coal-fired units were affected under the Acid Rain Program, and the plant has operated on low-sulfur coals since the 1990s to lower SO₂ emissions. Both units are also equipped with low-NO_x combustion systems. Unit 1 has special low-NO_x burner tips, and Unit 2 has low-NO_x burners and separated overfired air.

The CAIR required the installation of a parametric emission monitoring system on the Plant Smith CT during 2007. Installation of SNCRs for Plant Smith Units 1 and 2 was needed for Phase I CAIR compliance in 2009. In addition to CAIR compliance, the SNCRs were needed to assist in maintaining local compliance with the anticipated 8-hour ozone non-attainment designation. The Smith Unit 2 SNCR was placed in-service in the fall of 2008, and the Smith Unit 1 SNCR was placed in-service during May of 2009.

Plant Smith MATS Requirements

Plant Smith Units 1 and 2 are subject to the MATS rule. Plant Smith emissions data, as well as data from similar units, indicate that while the MATS PM limit would be met, neither the acid gases nor the mercury limits will be met without additional emissions controls. Therefore, in order to continue operation of these Plant Smith units, additional environmental controls will be required to meet MATS limits. The analysis and the decision to install additional environmental controls on Plant Smith Units 1 and 2 for MATS compliance or to retire and replace is ongoing. However, due to the short MATS compliance window, this Compliance Plan update must address time sensitive transmission improvements that are caused by the requirements of the MATS rule.



The proposed transmission upgrades allow Gulf to defer the retirement versus controls decision until there is more certainty surrounding future environmental regulations such as 316(b), CCB and effluent guidelines. The final MATS strategy could potentially include air pollution equipment as well as land and water controls needed due to anticipated effects the injection additives may have on compliance with current land- and water-based environmental rules.

The following MATS scenarios and analysis show that installation of certain transmission upgrades are part of the most economic option for Gulf's customers in the event that additional emissions controls are installed on Plant Smith Units 1 and 2 for MATS compliance. The same transmission upgrades are required if these units retire as a result of MATS.

Plant Smith MATS Options

The MATS compliance options for Plant Smith include retirement of Plant Smith Units 1 and 2 as well as options that would allow continued coal-fired operation of Smith Units 1 and 2 as illustrated in Figure 3.3-2. Gulf first evaluated the available options that would allow Smith Units 1 and 2 to achieve compliance with applicable MATS requirements and to continue to operate in a manner that would satisfy its must-run transmission obligations.

If Smith Units 1 and 2 continue to operate on coal, new environmental controls are required. Available emission control systems were reviewed to determine the most cost-effective emission controls for these units to meet the MATS requirements. In previous Compliance Plan updates, Gulf indicated that a scrubber may be necessary to attain CAMR/MATS compliance at Plant Smith. Further evaluation of available control systems indicates that a lower cost emission control system is available for Plant Smith. This control system consists of ACI, DSI, conversion of the hot precipitators to cold precipitators, and the use of low sulfur and low chloride coal (collectively referred to as "MATS controls" hereafter). While the proposed MATS controls would allow Smith Units 1 and 2 to meet the MATS regulatory requirements, the controls would greatly increase the variable operating cost of Smith Units 1 and 2 due to the heavy use of sorbent injections as well as the use of a premium-priced coal for both units. Maintaining Smith Units 1 and 2 as must-run units with this increase in operation costs would have significant cost impacts to Gulf's customers over the remaining life of the two units. For that 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 three Plant Smith units as must-run, and Option 2 - install MATS controls along with additional transmission upgrades to eliminate the must-run status of Smith Units 1 and 2 (as well as Smith Unit 3). Following evaluation of these options, Gulf determined that Option 2, installing MATS controls along with additional transmission upgrades, is the most economic option for continued operation due to the high variable operating costs of Smith Units 1 and 2 caused by MATS compliance.

Unless replacement generation is constructed on-site to maintain the transmission reliability requirements (concurrent with the Smith Units 1 and 2 retirement), a retirement option for Plant Smith MATS compliance requires the addition of transmission improvements. On-site replacement generation for MATS is not feasible for several reasons: replacement generation capital costs are an order of magnitude above the capital costs of the transmission upgrades; the necessary gas lateral and annual firm transportation cost estimates are extremely cost prohibitive; and due to the short compliance timeframe of the MATS rule, construction of replacement generation is not possible by the MATS compliance date. This means that

transmission improvements are the most economic option for MATS compliance for either retirement or continued operation of Smith Units 1 and 2. Due to the long lead time required for the transmission improvements, Gulf must proceed immediately with these projects while continuing to evaluate the ultimate Compliance Plan—retirement/replacement or controls—for Smith Units 1 and 2.

Plant Smith- MATS Analysis

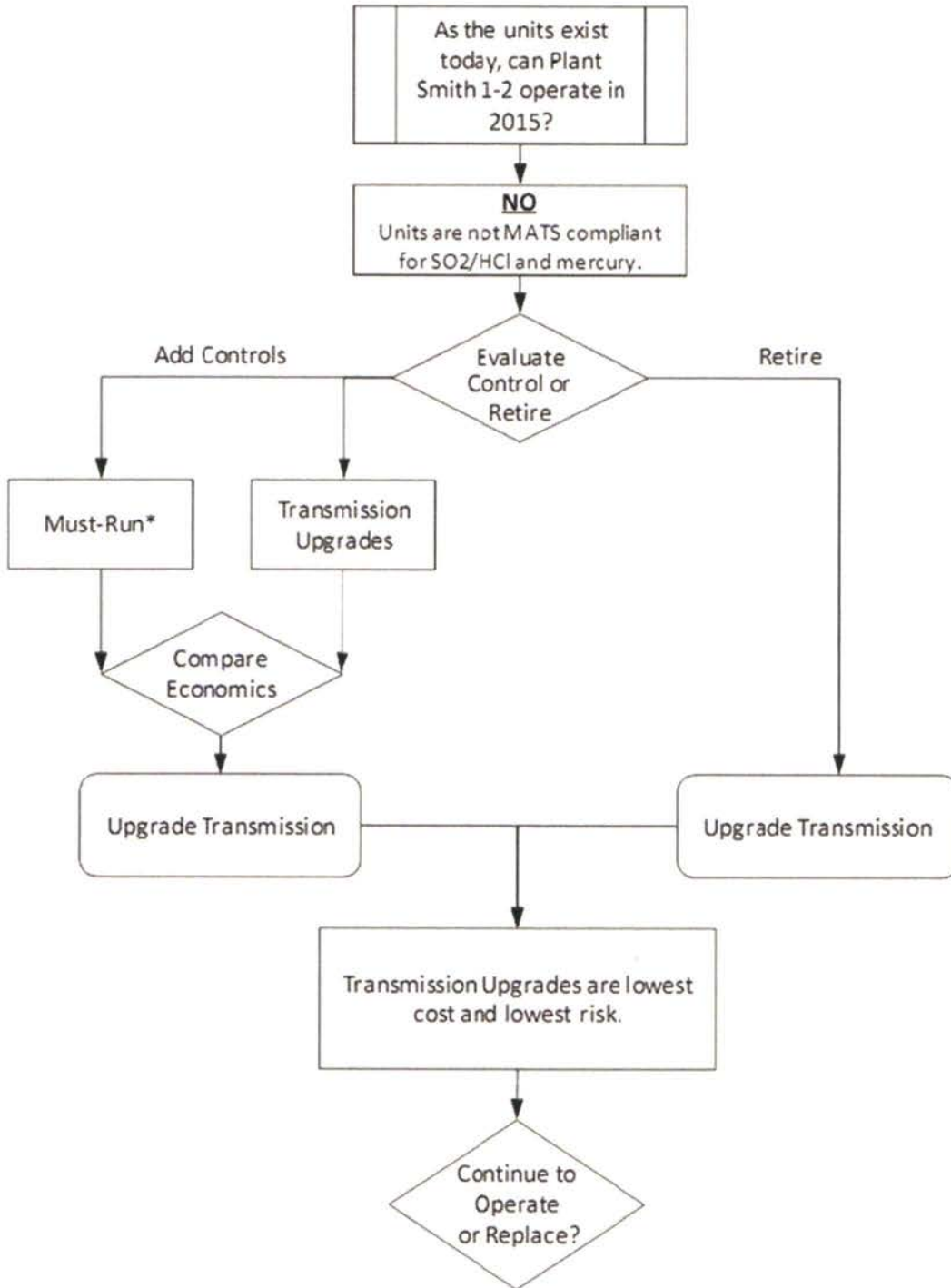


Figure 3.3-2 Plant Smith MATS Analysis

Plant Smith MATS Analysis

For each Plant Smith MATS option, the NPV of estimated revenue requirements was calculated for the transmission upgrades and must-run production costs. A summary of the NPV costs are provided in Table 3.3-2. The transmission NPV for Option 1 is the NPV cost of transmission projects that were projected to be needed in 2023 and beyond under the current must-run arrangement. This NPV is considered to be a base transmission cost. The Option 2 transmission NPV reflects a \$█M higher cost due to acceleration of those transmission improvements which Gulf must now move forward with due to MATS under this compliance option.

The must-run production cost NPV is the increased production cost of requiring Plant Smith Units 1 through 3 to commit and operate to meet the transmission requirements. This must-run production cost NPV for Option 1 ranges from \$█ to \$█M across the range of integrated system scenarios while Option 2, controls and transmission upgrades, had zero must-run cost.

**Table 3.3-2
 Plant Smith MATS Analysis
 NPV 2013 in millions**

Option	Transmission NPV	Must-Run Production Costs NPV	Total all NPV Costs
1 – Controls and continue Must-Run	█	█	█
2 – Controls and Transmission Upgrades	█	\$0	█

Plant Smith MATS Conclusion

With Option 1 there is risk and uncertainty due to future fuel prices and CO₂ regulatory impacts. Option 2, MATS controls and transmission upgrades, had the lowest total NPV as well as lower risk and less uncertainty. This indicated that installation of the transmission upgrades, as a part of the MATS compliance strategy, is the most cost-effective option for continued operation. Proceeding with the transmission upgrades evaluated in Option 2, which were also identified as being necessary under a retirement option, preserves the decision to install MATS controls or to retire the two units for a future time when more is known with regard to costs of compliance requirements associated with additional environmental regulations. Therefore, Gulf determined that the first part of the MATS compliance strategy for Plant Smith is the installation of the transmission upgrades required in Option 2. Gulf will submit revisions to its environmental Compliance Program for the Commission’s review after a decision is made either to install additional MATS controls or to retire the units.

Conclusions for Plant Smith

The retrofit of Smith Units 1 and 2 with SNCRs and the installation of a CAIR parametric monitor for the CT were the best option for compliance with CAIR as described in Gulf's original Compliance Plan evaluations. The CT parametric monitor was placed in-service in 2007. The Smith Unit 2 SNCR was placed in-service in the fall of 2008 and the Smith Unit 1 SNCR was placed in-service during May of 2009.

The Plant Smith scrubber and baghouse projects were originally included in Gulf's Compliance Program for future consideration; however, it has been determined that the projects are no longer viable compliance options. The Plant Smith Units 1 and 2 scrubber and the Plant Smith baghouse projects have been removed from Gulf's Compliance Program.

Further evaluation of available control systems indicates that a lower cost MATS emission control system is available for Plant Smith. This control system consists of ACI, DSI, conversion of the hot precipitators to cold precipitators, and the use of low sulfur/low chloride coal. This proposed MATS strategy for Plant Smith also meets the proposed Florida SIP requirements for CAVR /BART.

The analysis and decision to install additional MATS controls or to retire and replace the units have not yet been completed. However, Gulf has determined that transmission improvements are the most economic option for MATS compliance for either retirement or continued operation of Smith Units 1 and 2. The transmission upgrades are currently projected to be completed in 2015. The proposed transmission upgrades allow Gulf to defer the retirement decision until there is more certainty surrounding future environmental regulations such as 316(b), CCB, and effluent guidelines. Once the Company determines the most cost-effective overall compliance options for Plant Smith, Gulf will submit revisions to the environmental Compliance Program for the Commission's review. As stated previously, the plans for compliance could include air and water improvements to meet regulatory requirements.

The CAIR parametric monitor, mercury monitor, and SNCRs have been approved for recovery through the ECRC in past proceedings, subject to ongoing review of costs within the ECRC annual review process. The MATS transmission upgrades have not been approved for recovery through the ECRC at this time. Gulf Power is requesting approval of inclusion of the MATS transmission projects in the Company's Compliance Program.

3.3.4 PLANT SCHOLZ

Plant Scholz consists of two coal-fired electric generating units that each have a nameplate rating of 49 MW. The facility is located in Jackson County, Florida. Both units were affected under the Acid Rain Program, and the plant has operated on low-sulfur coals since the 1990s to lower SO₂ emissions. Because these units are small and older, NO_x averaging was used to achieve compliance with the NO_x requirements under the Acid Rain Program without the installation of emission control equipment.

For CAIR and CAVR requirements at Plant Scholz, a thorough assessment was conducted to compare retrofit controls versus retirement and replacement options for compliance. Fuel switching, allowance purchases, and emission control retrofit versus retirement and replacement were all evaluated as options for compliance. Because this small plant is nearing retirement, significant investments in capital equipment to reduce emissions cannot be justified economically. The plant will utilize Company-wide allowance trading options rather than installing additional emission control equipment for CAIR compliance. In response to finalization and evaluation of the MATS rule, Gulf has decided to cease coal-fired operation of Plant Scholz as of April 1, 2015. Gulf has determined that it is not economical to add the environmental controls at Plant Scholz necessary to comply with MATS.

4.0 POTENTIAL NEW ENVIRONMENTAL REGULATIONS

4.1 EPA'S EXCESS EMISSION STATE IMPLEMENTATION PLANS

On February 12, 2013, the EPA proposed a rule that would require certain states to revise their State Implementation Plans (SIPs) relating to the regulation of excess emissions at industrial facilities, including fossil fuel-fired generating facilities, during periods of startup, shut-down, or malfunction (SSM). The EPA proposed a determination that the SSM provisions in the SIPs for 36 states (including Florida and Mississippi) do not meet the requirements of the Clean Air Act and must be revised within 18 months of the date on which the EPA publishes the final rule. If finalized as proposed, this new requirement could result in additional compliance and operational costs.

4.2 GLOBAL CLIMATE ISSUES

The EPA regulates greenhouse gases under the Clean Air Act (CAA). In addition, over the past several years, the U.S. Congress has considered many proposals to reduce greenhouse gas emissions, mandate renewable or clean energy, and impose energy efficiency standards. Such proposals are expected to continue to be considered by the U.S. Congress. International climate change negotiations under the United Nations Framework Convention on Climate Change are also continuing. The financial and operational impacts of climate or energy legislation, if enacted, would depend on a variety of factors, including the specific provisions and timing of any legislation that might ultimately be adopted.

In April 2007, the U.S. Supreme Court ruled that carbon dioxide (CO₂) and GHGs could be considered "pollutants" under the CAA and that the EPA must decide whether emissions of these pollutants endanger public health and welfare. The EPA's final endangerment finding (December 2009) provided the "cause" for the EPA to regulate GHGs which it has done through a number of subsequent actions including the Light Duty Vehicle Rule (April 2010). The Light Duty Vehicle Rule made GHGs "regulated pollutants" under the CAA and triggered stationary source permitting requirements for GHGs. The Tailoring Rule (May 2010) changed the permitting emission thresholds and detailed a phased approach for GHG stationary source permitting requirements. As of January 2, 2011 new and modified stationary sources that have GHG emissions over the thresholds must go through the prevention of significant deterioration permitting process including installation of the best available control technology for CO₂ and other GHGs. Greenhouse gases must also be addressed in existing Title V operating permits as the permits are renewed.

In April 2012, the EPA proposed GHG New Source Performance Standards for future new fossil fuel-fired electric generating units. The proposed rule sets the standard at 1,000 pounds of CO₂ per megawatt hour and it includes an option for new coal-fired units to use a 30-year average to meet the standard rather than having to meet the standard annually. This rule could impact the flexibility and operations of new natural gas combined-cycle units and

would eliminate new coal-fired electric generation unless it includes carbon capture and storage. In addition to these rules, the EPA has announced plans to develop federal guidelines for states to establish GHG performance standards for existing units.

Each of the EPA's final CAA rulemakings (the Endangerment Finding, the Light Duty Vehicle Rule, and the Tailoring Rule) were challenged in the U.S. Court of Appeals for the District of Columbia Circuit. On June 26, 2012, the Court issued its decisions to dismiss or deny these cases, and on December 20, 2012, the U.S. Court of appeals for the District of Columbia Circuit rejected an industry-backed request to reconsider its decision to uphold the GHG regulations.

International climate change negotiations under the United Nations Framework Convention on Climate Change also continue. In 2009, a nonbinding agreement known as the Copenhagen Accord was reached that included a pledge from countries to reduce their GHG emissions. The 2012 negotiations took place in Doha, Qatar from November 26 to December 7, 2012. These negotiations resulted in a plan of action to develop the legal instrument by the end of the 2015 negotiations as required by 2011's Durban Agreement. Also, a second commitment period under the Kyoto Protocol was established that will run from January 1, 2013, to 2020. The U.S. is not part of this second commitment period since it is not a party to the Kyoto Protocol. The outcome and impact of the international negotiations cannot be determined at this time.

Although the outcome of federal and international initiatives cannot be determined at this time, additional restrictions on the Company's GHG emissions or requirements relating to renewable energy or energy efficiency at the federal or state level are likely to result in significant additional compliance costs, including significant capital expenditures. These costs could affect future unit retirement and replacement decisions and could result in the retirement of a significant number of coal-fired generating units.

4.3 COAL COMBUSTION BYPRODUCTS (CCB) REGULATION

The EPA continues to evaluate the regulatory program for coal combustion byproducts including coal ash and gypsum under federal solid and hazardous waste laws. In June 2010, the EPA published a proposed rule that requested comments on two potential regulatory options for the management and disposal of coal combustion byproducts: regulation as a solid waste or regulation as if the materials technically constituted a hazardous waste. Adoption of either option could require closure of, or significant change to, existing storage facilities and construction of lined landfills, as well as additional waste management and groundwater monitoring requirements. Under both options, the EPA proposes to exempt the beneficial reuse of coal combustion byproducts from regulation; however, a hazardous or other designation indicative of heightened risk could limit or eliminate beneficial reuse options. Environmental groups and other parties have filed lawsuits in the U.S. District Court for the District of Columbia seeking to require the EPA to complete its rulemaking process and issue final regulations pertaining to the regulation of coal combustion byproducts. In

addition to the EPA's rulemaking for CCBs, Congress has made multiple attempts to pass coal ash legislation.

The Company currently operates three coal-fired electric generating plants in Florida and is part owner of Plant Daniel Units 1 and 2 located in Mississippi. Each plant has on-site coal combustion byproducts storage facilities. In addition to on-site storage, the Company sells a portion of its coal combustion byproducts to third parties for beneficial reuse. Historically, individual states have regulated coal combustion byproducts and the States of Florida and Mississippi each have their own regulatory parameters. The Company has a routine and robust inspection program in place to ensure the integrity of its CCB surface impoundments and compliance with applicable regulations.

4.4 316(B) INTAKE STRUCTURE REGULATION

In April 2011, the EPA published a proposed rule that establishes standards for reducing effects on fish and other aquatic life caused by cooling water intake structures at existing power plants and manufacturing facilities. The rule also addresses cooling water intake structures for new units at existing facilities. Compliance with the proposed rule could require changes to existing cooling water intake structures at certain generating facilities, and new generating units constructed at existing plants would be required to install closed cycle cooling towers. The EPA has entered into an amended settlement agreement to extend the deadline for issuing a final rule until June 27, 2013. If finalized as proposed, some of the Company's facilities may be subject to significant additional capital expenditures and compliance costs that could affect future unit retirement and replacement decisions. The ultimate outcome of this rulemaking will depend on the final rule and the outcome of any legal challenges and cannot be determined at this time.

4.5 EFFLUENT LIMITATIONS GUIDELINES

On September 15, 2009, the EPA announced its plans to commence a rulemaking to revise the current effluent guidelines for steam electric generating plants. The EPA completed a multi-year study of power plant wastewater discharges and concluded that pollutant discharges from coal-fired power plants will increase significantly in the next few years as new air pollution controls are installed. The EPA's study concludes that technologies are available to significantly reduce pollutant loadings from ash transport water and Flue Gas Desulfurization (FGD) scrubber wastewater. The EPA is scheduled to propose a rule by April 19, 2013 and finalize it by May 22, 2014. New advanced wastewater treatment requirements are expected and may result in the installation of additional controls on certain facilities. The impact of the revised guidelines will depend on the specific technology requirements of the final rule and, therefore, cannot be determined at this time.

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

IN RE: Petition of Gulf Power Company to include) Docket No.: 130092-EI
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 those)
compliance strategies for recovery through)
the ECRC)

CERTIFICATE OF SERVICE

I HEREBY CERTIFY that a true copy of the foregoing was furnished by U. S. mail this 23rd day of September, 2013 on the following:

J. R. Kelly/Joseph A. McGlothlin
Charles J. Rehwinkel
Public Counsel
Office of Public Counsel
c/o The Florida Legislature
111 W. Madison Street, Room 812
Tallahassee, FL 32399-1400
mcglothlin.joseph@leg.state.fl.us

Jon C. Moyle, Jr.
Karen Putnal
c/o Moyle Law Firm
118 North Gadsden Street
Tallahassee, FL 32301
jmoyle@moylelaw.com

Federal Executive Agencies
c/o Lt. Col. Gregory J. Fike
Christopher Thompson
Thomas A. Jernigan
AFLOA/JACE-ULFSC
139 Barnes Drive, Suite 1
Tyndall Afb, FL 32403
gregory.fike@us.af.mil
Christopher.Thompson.5@us.af.mil
Thomas.jernigan@us.af.mil

Suzanne Brownless
Martha Barrera/Martha Brown
Office of the General Counsel
2540 Shumard Oak Blvd
Tallahassee, FL 32399-0850
sbrownle@psc.state.fl.us
mbarrera@psc.state.fl.us
mbrown@psc.state.fl.us

Office of the General Counsel
Charles Murphy
2540 Shumard Oak Blvd
Tallahassee, FL 32399-0850
cmurphy@psc.state.fl.us

Robert Scheffel Wright
John T. La Via, III
c/o Gardner Law Firm
1300 Thomaswood Drive
Tallahassee, FL 32308
schef@gbwlegal.com
jlavia@gbwlegal.com



JEFFREY A. STONE
Florida Bar No. 325953
RUSSELL A. BADDERS
Florida Bar No. 007455
STEVEN R. GRIFFIN
Florida Bar No. 0627569
BEGGS & LANE
P. O. Box 12950
Pensacola FL 32591-2950
(850) 432-2451
Attorneys for Gulf Power