

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-

DATE: August 3, 2007

TO: Office of Commission Clerk (Cole)

FROM: Division of Economic Regulation (McNulty) *wem 1/9/07*
Office of the General Counsel (Brown) *MCB S.M.C.*

RE: Docket No. 070007-EI – Environmental cost recovery clause.

AGENDA: 08/14/07 – Regular Agenda – Decision on Stipulation Prior to Hearing – Interested Persons May Participate

COMMISSIONERS ASSIGNED: All Commissioners

PREHEARING OFFICER: Carter

CRITICAL DATES: None

SPECIAL INSTRUCTIONS: None

FILE NAME AND LOCATION: S:\PSC\ECR\WP\070007.RCM.DOC

Case Background

In the 2006 Environmental Cost Recovery Clause (ECRC) proceedings, Gulf Power Company (Gulf) and the Office of Public Counsel (OPC) agreed on a process to review Gulf's proposed plan to comply with the Environmental Protection Agency's (EPA) Clean Air Interstate Rule (CAIR) and Clean Air Mercury Rule (CAMR). The Commission approved the agreement by Order No. PSC-06-0972-FOF-EI, issued November 22, 2006, in Docket No. 060007-EI. There the Commission stated:

We approve the following stipulation regarding Gulf's request for recovery of compliance costs relating to the Clean Air Interstate Rule and the Clean Air Mercury Rule as a project that qualifies for recovery through the ECRC.

DOCUMENT NUMBER - DATE

06701 AUG-3 07

FPSC-COMMISSION CLERK

Gulf's reasonable and necessary, prudently incurred costs for compliance with the Clean Air Interstate Rule (CAIR) and Clean Air Mercury Rule (CAMR) are appropriate for recovery through the ECRC as provided for in F.S. 366.8255 and past Commission orders implementing the ECRC. The costs impacting 2007 ECRC revenue requirements as outlined in Gulf's petition, testimony and exhibits are appropriately incorporated in the Company's cost recovery factors for 2007 which have been submitted for approval in this proceeding, subject to the normal evaluation and true-up process that takes place in the ongoing ECRC proceedings. Given the magnitude and the scope of Gulf's ongoing CAIR/CAMR Compliance Program, Gulf agrees to make a supplementary filing in the ECRC docket during the first quarter of 2007 that will identify the timing and current estimates of costs for specific projects planned by the Company in order to comply with CAIR/CAMR requirements along with information regarding the relative value of the planned projects compared to other viable compliance alternatives, if any. This supplemental filing will include a description of the evaluation process used and the results of that process that lead Gulf to conclude that the chosen control technology is both cost effective and that the affected generating units remain economically viable as a source of energy to Gulf's retail customers with the addition of the controls. The parties to the ECRC (including the Commission Staff) will be allowed to submit normal requests for discovery in connection with the supplemental filing in order to determine whether there is any objection to any components of the CAIR/CAMR program with regard to the reasonableness or prudence of the proposed action. If there are any objections, the objecting party shall give notice to the Company before the end of the second quarter of 2007 such that testimony and exhibits addressing the resulting issue(s) can be filed in the normal time frame for the 2007 ECRC hearing and the issue(s) can be resolved by the Commission in the normal course of the ongoing ECRC proceedings. The deadlines set forth in this stipulation can be extended for good cause by mutual agreement of the parties. In the event the parties are unable to reach an agreement regarding a request for extension of a deadline, the request may be presented to the prehearing officer for resolution by motion showing good cause why the deadline should be extended.

Order No. PSC-06-0972-FOF-EI, page 9.

Thereafter, the supplemental filing on Gulf's CAIR and CAMR compliance plans was scheduled for March 30, 2007, in the current ECRC docket, with any objections to the plans to be filed by June 29, 2007. Gulf filed its supplemental petition for approval of its compliance plan and associated estimated costs on March 29, 2007.¹

The Commission has jurisdiction over this matter pursuant to section 366.8255, Florida Statutes. Section 366.8255 authorizes the Commission to review and decide whether a utility's

¹ OPC and FPL reached the same stipulation for FPL's CAIR and CAMR compliance plans, and FPL filed its supplemental petition by March 30, 2007 as well. No party filed any objections to the supplemental filings by June 29, 2007.

environmental compliance costs are recoverable through an environmental cost recovery factor. Section 366.8255(1)(d) provides that:

‘Environmental compliance costs’ includes all costs or expenses incurred by an electric utility in complying with environmental laws or regulations. . . .

Section 366.8255(1)(c) provides that:

‘Environmental laws or regulations’ includes 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.

Section 366.8255(2) provides that:

An electric utility may submit to the commission a petition describing the utility’s proposed environmental compliance activities and projected environmental compliance costs in addition to any Clean Air Act compliance activities and costs shown in a utility’s filing under s. 366.825. If approved, the commission shall allow recovery of the utility’s prudently incurred environmental compliance costs, including the costs incurred in compliance with the Clean Air Act, and any amendments thereto or any change in the application or enforcement thereof, through an environmental compliance cost-recovery factor that is separate and apart from the utility’s base rates. An adjustment for the level of costs currently being recovered through base rates or other rate-adjustment clauses must be included in the filing.

On June 22, 2007, Gulf, OPC and the Florida Industrial Power Users’ Group (FIPUG) filed a petition for approval of a stipulation regarding the substantive provisions of Gulf’s plan to achieve and maintain compliance with CAIR, CAMR, and the Clean Air Visibility Rule (CAVR). That stipulation is the subject of this recommendation.

Discussion of Issues

Issue 1: Should the Commission approve Gulf's, OPC's, and FIPUG's Stipulation Regarding Portions of Gulf Power Company's CAIR/CAMR/CAVR Environmental Compliance Program?

Recommendation: Yes, the Commission should approve the Stipulation. (McNulty, Brown)

Staff Analysis:

The Environmental Requirements

CAIR, the Clean Air Interstate Rule (40 CFR Part 96 (final)), is designed to limit SO₂ and NO_x emissions that hinder attainment of ozone and fine particulate matter National Ambient Air Quality Standards in the Eastern United States. The rule limits emissions of SO₂ and NO_x in two stages, and provides for the trading of emission allowances to meet the rule's requirements. The first emission reduction stage of the rule calls for a 50% reduction in NO_x emissions by 2009, and a 50% reduction in SO₂ emissions by 2010. The second stage requires a 66% reduction in emissions by 2015 for both NO_x and SO₂.

CAMR, the Clean Air Mercury Rule (40 CFR Part 60 (final); Chapter 62-204 F.A.C., Chapter 62-210 F.A.C., and Chapter 62-296 F.A.C. (proposed)), is designed to reduce mercury emissions from coal-fired power plants. It establishes a cap and trade program similar to CAIR, and similarly limits mercury emissions in two stages. The first stage requires a 30% reduction in mercury emissions by 2010, and the second stage requires a 70% reduction in emissions by 2018. Gulf reports that CAMR will require continuous monitoring and reporting of mercury emissions from monitoring systems that must be installed, certified, and operational by January 2009.

CAVR, the Clean Air Visibility Rule (40 CFR Part 51 (final)), is designed to improve natural visibility conditions in certain areas of the country -- primarily national parks and wilderness areas. The rule requires application of Best Available Retrofit Technology (BART) to facilities built between 1962 and 1977 and the application of additional emissions reductions to achieve reasonable progress toward natural conditions by 2018. Gulf mentions that additional requirements may be imposed, and CAVR compliance will require specific retrofit equipment to establish compliance, because CAVR does not provide for the trading of emission allowances.

Gulf's Compliance Plan

Gulf's CAIR/CAMR compliance plan -- which includes plans for compliance with CAVR because projects for compliance with the three rules are in many instances interrelated -- contemplates implementation of the plan from 2007 through 2018. Gulf explains that the plan for the later years "remains flexible." Gulf estimates that the overall capital costs and recurring operation and maintenance costs incurred will approach 1.4 billion dollars. Overall, the plan includes the addition of several retrofit applications at Plant Crist, Plant Daniel, Plant Smith and Plant Scholz, and additional emission allowance purchases necessary to meet compliance limits. The specific projects identified under the plan consist of the following:

a. Crist Units 4 through 7 Flue Gas Desulfurization system (scrubber). Gulf has determined that a scrubber for Units 4 through 7 is the best, most cost-effective means of removing SO₂ and mercury. Construction of the Crist scrubber is scheduled to take place from 2007 through 2009 at an estimated capital cost of approximately \$528 million. Based upon plant specific circumstances, Gulf has chosen the Chiyoda technology for the Plant Crist scrubber. This installation will reduce SO₂ emissions by approximately 43,000 tons per year and mercury emissions by approximately 3,800 ounces per year. Even with this retrofit, Gulf anticipates that it will have to manage compliance through reliance on its bank of allowances and the purchase of additional allowances from the market.

b. Crist Unit 6 Selective Catalytic Reduction system (SCR). Gulf has determined that a SCR for Crist Unit 6 is necessary to meet not only required NO_x reductions, but also to assure that Pensacola maintains attainment with the new 8-hour ozone standard. The Crist Unit 6 SCR will also serve to mitigate significant local pressure to continue NO_x reductions from the plant. The Crist Unit 6 SCR will be constructed between 2007 and 2011 and is forecasted to have a total capital cost of approximately \$84 million. The Crist Unit 6 SCR will help assure CAIR compliance as well as CAMR compliance.

c. Crist Units 4 through 7 CAIR and Mercury Monitors. CAIR will require a continuous emission monitoring system for the scrubber. CAMR will require continuous mercury emission monitoring of all four Crist units and the scrubber. The current projected capital cost for these monitoring systems is approximately \$4.6 million.

d. Daniel Units 1 and 2 Flue Gas Desulfurization system (scrubber). Gulf and Mississippi Power have determined that a scrubber for Daniel Units 1 and 2 is needed to meet the requirements of CAIR, CAMR and CAVR. Construction of this scrubber is scheduled for 2007-2011 at an estimated capital cost of approximately \$187 million (Gulf's ownership share). Based upon plant-specific circumstances, Gulf and Mississippi Power have chosen the Advatech single tower technology for the Plant Daniel scrubber. This scrubber will reduce SO₂ emissions by approximately 18,000 tons per year and mercury emissions by approximately 2,000 ounces per year. Even with this retrofit, Gulf and Mississippi Power anticipate that they will have to manage compliance through reliance on their bank of allowances and the purchase of additional allowances from the market.

e. Daniel Units 1 and 2 Selective Non-catalytic Reduction systems (SNCRs) and Low NO_x Burners (LNBs). Gulf and Mississippi Power have determined that to meet CAIR annual and seasonal NO_x requirements and possibly to avoid 8-hour ozone nonattainment, the installation of SNCRs and LNBs are necessary. The SNCRs will be installed between 2009 through 2011 at an estimated capital cost of approximately \$7.5 million, and the LNBs are

scheduled to be installed between 2007 and 2010 at an estimated cost of approximately \$7.8 million.

f. Daniel Units 1 and 2 CAIR and Mercury Monitors. CAIR will require a continuous emission monitoring system on the Plant Daniel scrubber and CAMR will require continuous mercury emission monitoring of both Plant Daniel coal units and the scrubber. The current projected capital cost for these monitoring systems is approximately \$877,000.

g. Smith Units 1 and 2 Selective Non-catalytic Reduction systems (SNCRs). Gulf has determined that SNCRs for Smith Units 1 and 2 are the best means of meeting CAIR annual and seasonal NO_x caps and that such installations should also help maintain local compliance with the 8-hour ozone standard. The SNCR projects for Smith Units 1 and 2 will be constructed between 2007 and 2009 and are forecasted to have a total capital cost of approximately \$10 million.

h. Smith Units 1 and 2 CAIR and Mercury Monitors. CAIR will require a parametric emission monitoring system on the Smith combustion turbine and a continuous emission monitoring system on the Smith scrubber. CAMR will require continuous mercury emission monitoring of both Smith coal units and the scrubber. The current projected capital cost for these monitoring systems is approximately \$2 million.

i. Scholz Units 1 and 2 Mercury Monitors. CAMR will require mercury monitoring of both coal units at Plant Scholz. The current projected capital cost for these monitoring systems to be installed in 2007 and 2008 is approximately \$1 million.

j. Daniel Units 1 and 2 Selective Catalytic Reduction systems (SCRs). Gulf and Mississippi Power have determined that SCRs for Daniel Units 1 and 2 are necessary to help meet CAIR, CAMR and possibly 8-hour ozone nonattainment. The Daniel Units 1 and 2 SCRs will be constructed between 2012 and 2017 and are forecasted to have a total capital cost of approximately \$153 million.

k. Smith Units 1 and 2 Flue Gas Desulfurization system (scrubber). Gulf has determined that a scrubber for Smith Units 1 and 2 will likely be needed to meet CAVR requirements by 2017. The current estimated cost for this scrubber project is \$251 million, which would be expended from 2013 through 2018. The compliance plan for Plant Smith remains very flexible.

l. Smith Unit 2 Baghouse. Gulf anticipates that the construction of a baghouse at Smith Unit 2 will be required to meet CAMR requirements by 2018. Gulf's Compliance Plan includes a capital cost estimate of approximately \$55.6 million for construction of this baghouse during 2015 through 2018.

m. Market Purchase of Additional Emission Allowances. In addition to the retrofit applications described above, Gulf will still have to manage compliance through reliance on its bank of emission allowances and the purchase of additional emission allowances from the market. Estimates of the costs of additional emission allowances is quite speculative because of the nature of the markets, but Gulf provided estimates of the levels and costs of emission allowances to be purchased in Table 5.5-1 of Gulf's Compliance Plan.

The Stipulation

In their stipulation, appended to this recommendation as Attachment A, the parties agree that Gulf's March 29, 2007, supplemental filing provides an appropriate basis to conclude that Gulf's CAIR/CAMR/CAVR Compliance Plan is a reasonable and sufficient means to comply with the environmental requirements. The parties state that they will not contest the reasonableness and prudence of Gulf's decisions to implement the following components of the Compliance Plan now or in the future:

- a. Crist Units 4 through 7 Scrubber;
- b. Crist Unit 6 SCR;
- c. Crist Units 4 through 7 CAIR and Mercury Monitors;
- d. Daniel Units 1 and 2 Scrubber;
- e. Daniel Units 1 and 2 SNCRs and Low NO_x Burners;
- f. Daniel Units 1 and 2 CAIR and Mercury Monitors
- g. Smith Units 1 and 2 SNCRs;
- h. Smith Units 1 and 2 CAIR and Mercury Monitors; and
- i. Scholz Units 1 and 2 Mercury Monitors.

With respect to component (m) of Gulf's compliance plan described at page 6 above, the parties agree that it is reasonable for Gulf to use its accumulated bank of emission allowances and to procure additional allowances from existing and potential markets when necessary to comply with CAIR/CAMR/CAVR environmental requirements.

These parts of Gulf's compliance plan, (a) through (i), and (m), are identified by the parties as the "stipulated components" of Gulf's plan. The parties agree that the projected and actual costs of the stipulated components will be submitted for recovery through the normal course of the projection and true-up filings of the ECRC proceedings. The projected and actual costs remain subject to the normal audit, true-up and review process that takes place in the ECRC, unless and until the costs are included in Gulf's base rates in a subsequent rate

proceeding. Under the stipulation, the parties retain their right to review the actual or projected costs of the stipulated components of Gulf's plan for reasonableness or prudence in ECRC proceedings, or in a subsequent base rate proceeding if the costs are to be included in base rates and reasonableness and prudence has not previously been addressed in the ECRC stipulation.

The remaining components of Gulf's proposed compliance plan, (j), (k), and (l), are still in the planning phase for possible implementation after 2011 and, as Gulf puts it, "remain flexible." These components include the Plant Daniel Units 1 – 2 SCRs, the Plant Smith Units 1 -2 scrubber, and the Plant Smith Unit 2 baghouse. The parties state in their stipulation that since Gulf has not yet made its decision whether to implement these three components, there is no agreement at this time regarding their reasonableness or prudence. The stipulation provides that once Gulf makes a decision to proceed with implementation, Gulf agrees to make a supplementary filing in the ECRC docket similar to the filing it made here that will identify the timing of the planned implementation and updated estimates prior to incorporating them in the normal projection or true-up filings under the ECRC. The parties state that it is their intent that the supplementary filing would contemplate a period during which all parties to the ECRC would have the opportunity to conduct discovery and to object to the filing within time periods similar to those established in compliance with the stipulation the Commission approved in Order No. PSC-06-0972-FOF-EI.

Review of Compliance Options and Activities Included in Stipulation

The utility presents the ongoing and proposed emission control activities as the most reasonable, cost-effective means of complying with the environmental requirements and argues that the units remain economically viable as a source of energy to Gulf's retail customers with the addition of the controls. Staff considered whether Gulf's specific compliance activities included in the stipulation (those activities in the process of being implemented and which would be initially operational in 2007 to 2011) are reasonable and necessary.

Tables 5.2-1 through 5.2-4 of Gulf's supplemental petition (included here as Attachment B) compare the projected CAIR and CAMR allowance allocations to Gulf's projected emissions both with and without Gulf's proposed emission controls. The difference between emissions with controls and emissions without controls is shown in the tables. These differences are shown in the tables as the benefits of the controls. Each of the controls which are scheduled to become operational from 2007 through 2011 are expected to reduce the utility's shortfall of allocations significantly. Gulf's shortfall of allowances (tons) for SO₂ in 2010 decreases from 58,553 to 13,378 with the addition of the Plant Crist Units 4-7 Scrubber in late 2009. The following year, with the addition of the Plant Daniel Unit 1 and 2 Scrubber, Gulf's expected shortfall of 52,402 allowances without controls is reversed to a banking of 1,309 allowances. The utility expects reductions in shortfalls of allowances for mercury, annual NO_x, and ozone seasonal NO_x emissions. Gulf does not anticipate that its shortfalls for annual and seasonal NO_x emissions will be completely eliminated through 2015. Thus, even with the proposed controls, Gulf anticipates having to purchase some emission allowances each year during the 2007 through 2015 period. The Utility provided annual forecasted allowance cost information as part of its supplemental petition.

Gulf reviewed a range of compliance options including: 1) allowance purchases; 2) fuel switching; 3) retrofit environmental emission controls to existing generating units; and 4) retirement of existing generating units and replacement with new or purchased generation. The utility stated that combinations of these options were also considered.

Gulf believes that the exclusive use of the allowance markets to comply with CAIR and CAMR would not be reasonable or cost effective. Gulf based its elimination of consideration of a pure allowance compliance program on the unpredictability of SO₂ allowance pricing and the historically low trading volumes in the SO₂ market. The allowance markets for annual NO_x and mercury emissions have yet to be established, so their stability cannot be verified at this time.

While Gulf has utilized the fuel switching option as a cost effective means of complying with the acid rain program, Gulf states that the magnitude of the requirements of CAIR, CAMR, and CAVR are such that fuel switching is not a viable compliance option.

Gulf assessed its remaining options, retrofit versus replacement of generating units, based upon a financial assessment of which option is expected to be the most reasonable, cost effective alternative. The financial assessment was conducted using a screening methodology that compared the cost of power from the existing generating units, inclusive of the costs of retrofitting the units with emission controls, to the costs of replacing the power with peaking capacity, where the energy is priced at the Southern electric system's marginal cost of energy. A second methodology was conducted based on a comparison of unit generating costs to an equivalent amount of combined cycle capacity replacing the unit that would be retired. The utility performed a net present value assessment on a \$/KW basis of the two cost streams over the period 2006 until the current planned retirement date for each generating unit. The screening methodology results indicated there is savings expected to be achieved by continuing to operate each generating unit as opposed to replacing it with new or purchased capacity and system energy purchases.

Upon staff inquiry, Gulf indicated that its screening methodology does not include the cost impact of potential carbon capture requirements for electric utilities in Florida. In Executive Order No. 07-127 issued July 13, 2007, Governor Crist ordered the Secretary of Environmental Protection to immediately develop rules to require electric utilities in Florida to achieve three greenhouse gas reduction milestones: 1) by 2017, reduce emissions to 2000 levels; 2) by 2025 reduce emissions to 1990 levels; and 3). by 2050, reduce emissions to 20 percent of 1990 levels. The utility said that the ultimate outcome of the Governor's proposed initiatives is not known at this time, but the requirements of CAIR, CAMR, and CAVR are clear and certain. The utility also indicated that, if the Governor's proposed climate change initiatives become law in their current form, Gulf expects it would have to shut down 600 MW of its coal fired fleet in Florida. Due to the critical importance of Plant Crist generating Units 6 and 7 as a baseload unit, Gulf anticipates that this reduction in coal-fired capacity would primarily occur at Plant Smith and Plant Sholz, and possibly Plant Crist Units 4 and 5. However, it would not be cost effective for Gulf to change the scope of the Plant Crist Scrubber project to exclude Plant Crist Units 4 and 5 because of the relatively minor capital costs to install the scrubber on those specific units compared to the costs to change the design of the Plant Crist scrubber project. Gulf reported that the impact of Governor Crist's proposed CO₂ emissions levels to Gulf's CAIR/CAMR/CAVR

Compliance Plan would primarily be felt in the later years (2013 to 2017), when commitments to retrofit projects for Plant Smith would need to be firmly made. At that time, those projects will be re-evaluated based on the latest regulatory drivers, including those resulting from state, regional, or national initiatives.

Gulf has chosen specific technologies to achieve the CAIR/CAMR/CAVR emission reductions referenced in Attachment B. The total estimated capital costs for all activities included in the stipulation is \$831 million. The most expensive activities included in the stipulation are the Plant Crist and Plant Daniel Flue Gas Desulfurization (FGD or scrubber) Projects. The total estimated capital costs for Plant Crist Units 4 - 7 scrubber is \$528, and the total estimated capital cost for the Plant Daniel Units 1-2 scrubber is \$187 million. Gulf reported that the Plant Crist scrubber capital costs (\$544/kw) are relatively high compared to the most recent estimate of an ongoing installation of Chiyoda scrubbers at Georgia Power Company's Plant Bowen Units 1 - 4 (\$339/kw). The reported reasons for the higher costs of installations at Plant Crist relative to Plant Bowen are: 1) site specific issues, such as restrictive land space and plant configuration, causing the relocation of the Unit 7 cooling tower and several sections of transmission lines and replacement of the Unit 7 induced draft fan; 2) inflation of costs for commodities, equipment, and labor during the past few years (Plant Bowen installations began in 2005 and will be operational in 2008); and 3) economies of scale, wherein Plant Bowen is a much larger power plant than Plant Crist (two scrubbers will be installed on 3,160 MW at Plant Bowen, versus a single scrubber on 970 MW at Plant Crist). By comparison, Plant Daniel Unit 1 - 2 scrubber costs are \$358/kw. The Plant Daniel scrubber is based on a different wet scrubber technology (Advatech) than the wet scrubber technology selected for Plant Crist (Chiyoda).

Eligibility For Cost Recovery Through The ECRC

As stated above, section 366.8255, Florida Statutes, authorizes the Commission to review and decide whether a utility's environmental compliance costs are recoverable through an environmental cost recovery factor. Environmental compliance costs include ". . . all costs or expenses incurred by an electric utility in complying with environmental laws or regulations. . . ." Section 366.8255(1)(d), Florida Statutes. 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." Section 366.8255(1)(c), Florida Statutes. Only prudently incurred environmental compliance costs may be recovered through the clause.

In Order No. PSC-94-0044-FOF-EI, issued January 12, 1994, the Commission identified three criteria for eligibility for cost recovery through the ECRC: 1) the costs must have been incurred after April 13, 1993; 2) the activity is legally required to comply with a governmentally imposed environmental regulation which was enacted, or became effective, or whose effect was triggered after the company's last test year upon which rates are based, and; 3) the costs are not recovered through some other cost recovery mechanism or through base rates.

As the parties have agreed in their stipulation, Gulf's CAIR/CAMR/CAVR compliance plan is clearly eligible for recovery of the costs associated with compliance under the ECRC statutes and Commission precedent.

Conclusion

Staff agrees with the signatories to the stipulation that Gulf's CAIR/CAMR/CAVR compliance plan is eligible for recovery of the costs associated with compliance under the ECRC statutes and Commission precedent. Staff believes that the selected compliance activities included in the stipulation reasonably reduce the anticipated allowance shortfall to levels which may be economically addressed by allowance markets. Staff also believes that Gulf's screening methodology for the activities included in the stipulation credibly predicts positive savings for retrofitting its power plants for emission controls compared to purchasing replacement power. Finally, staff believes that the relatively high anticipated capital costs associated with the ongoing Plant Crist Units 4 - 7 scrubber installation compared to other recent installations of the Chiyoda scrubbers may be warranted due to the reasons cited by Gulf and the basic requirements of CAIR, CAMR, and CAVR. Staff notes that the stipulation provides for ongoing review of such costs within the annual review process. Staff supports the stipulation, including the agreement to review the parts of Gulf's plan still in a "flexible" planning stage at a later date. As the parties have agreed, only prudently incurred costs will be recoverable through the clause. Staff recommends that the Commission approve the stipulation.

Docket No. 070007-EI
Date: August 3, 2007

Issue 2: Should this docket be closed?

Recommendation: No. This docket should remain open to address other issues. (Brown)

Staff Analysis: This docket should remain open to address other issues.

ORIGINAL

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

IN RE: Environmental Cost)
Recovery Clause.)
_____)

Docket No. 070007-EI
Filed: June 22, 2007

COMMISSION
CLERK

07 JUN 22 PM 3:30

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R. V. N.

STIPULATION REGARDING PORTIONS OF GULF POWER COMPANY'S
CAIR/CAMR/CAVR ENVIRONMENTAL COMPLIANCE PROGRAM AND
JOINT REQUEST FOR APPROVAL

The Citizens of the State of Florida, through the Office of Public Counsel ("OPC"), the Florida Industrial Power Users Group ("FIPUG"), and Gulf Power Company ("Gulf Power", "Gulf", or "the Company"), (collectively, the "Parties") through their respective undersigned counsel, hereby jointly petition the Florida Public Service Commission ("Commission") for entry of an order approving this stipulation regarding portions of Gulf's plan to achieve and maintain compliance with the Clean Air Interstate Rule ("CAIR"), the Clean Air Mercury Rule ("CAMR") and the Clean Air Visibility Rule ("CAVR"). The Parties represent that this stipulation fairly and reasonably balances the various positions of the Parties and serves the best interests of the customers they represent and the public interest in general and, therefore, is fully consistent with and supportive of the Commission's long standing policy of encouraging

CMP _____ the settlement of contested proceedings in a manner that benefits the ratepayers of
COM 5 utilities subject to the Commission's regulatory jurisdiction and thereby avoid the need
CTR _____ for costly, time-consuming and inefficient litigation of matters before the Commission.
ECR _____

BACKGROUND

GCL 1 (diskette)

OPC _____ On March 29, 2007, Gulf petitioned the Commission for approval of the
RCA 1 Company's plan to achieve and maintain compliance with the CAIR, CAMR and CAVR.
SCR _____
SGA _____ Exhibit A to Gulf's supplemental petition is a document entitled "Gulf Power Company

SEC _____
OTH _____

DOCUMENT NUMBER-DATE
05021 JUN 22 07

FPSC-COMMISSION CLERK

Environmental Compliance Program for the Clean Air Interstate Rule, Clean Air Mercury Rule and Clean Air Visibility Rule” (“Compliance Plan”). Gulf’s petition explicitly stated that the petition, with the related Compliance Plan, was submitted specifically for the purpose of obtaining the Commission’s review and approval of the reasonableness and prudence of Gulf’s compliance plan. The petition, with the related Compliance Plan, constitutes the supplementary filing made to comply with the Company’s obligations under the terms of a stipulation negotiated between Gulf and the Office of Public Counsel that was subsequently approved by the Commission as set forth at page 9 of Order No. PSC-06-0972-FOF-EI issued November 22, 2006, in Docket No. 060007-EI. The full text of the stipulation, as approved by the Commission, is set forth below:

We approve the following stipulation regarding Gulf’s request for recovery of compliance costs relating to the Clean Air Interstate Rule and the Clean Air Mercury Rule as a project that qualifies for recovery through the ECRC:

Gulf’s reasonable and necessary, prudently incurred costs for compliance with the Clean Air Interstate Rule (CAIR) and Clean Air Mercury Rule (CAMR) are appropriate for recovery through the ECRC as provided for in F.S. 366.8255 and past Commission orders implementing the ECRC. The costs impacting 2007 ECRC revenue requirements as outlined in Gulf’s petition, testimony and exhibits are appropriately incorporated in the Company’s cost recovery factors for 2007 which have been submitted for approval in this proceeding, subject to the normal evaluation and true-up process that takes place in the ongoing ECRC proceedings. Given the magnitude and the scope of Gulf’s ongoing CAIR/CAMR Compliance Program, Gulf agrees to make a supplementary filing in the ECRC docket during the first quarter of 2007 that will identify the timing and current estimates of costs for specific projects planned by the Company in order to comply with CAIR/CAMR requirements along with information regarding the relative value of the planned projects compared to other viable compliance alternatives, if any. This supplemental filing will include a description of the evaluation process used and the results of that process that lead Gulf to conclude that the chosen control technology is both cost effective and that the affected generating units remain economically viable as a source of energy to Gulf’s retail customers

with the addition of the controls. The parties to the ECRC (including the Commission Staff) will be allowed to submit normal requests for discovery in connection with the supplemental filing in order to determine whether there is any objection to any components of the CAIR/CAMR program with regard to the reasonableness or prudence of the proposed action. If there are any objections, the objecting party shall give notice to the Company before the end of the second quarter of 2007 such that testimony and exhibits addressing the resulting issue(s) can be filed in the normal time frame for the 2007 ECRC hearing and the issue(s) can be resolved by the Commission in the normal course of the ongoing ECRC proceedings. The deadlines set forth in this stipulation can be extended for good cause by mutual agreement of the parties. In the event the parties are unable to reach an agreement regarding a request for extension of a deadline, the request may be presented to the prehearing officer for resolution by motion showing good cause why the deadline should be extended.

The first three sections of Gulf's Compliance Plan (Exhibit A to the Petition) provide: (a) an executive summary, (b) a discussion of the requirements of CAIR, CAMR and CAVR, and (c) a discussion of the planning process utilized by Gulf to select the most reasonable and prudent strategy for compliance with environmental laws and regulations in general, and in particular the requirements of CAIR, CAMR and CAVR. Section 4 of Gulf's Compliance Plan is devoted to a discussion of the actual program planning evaluation for CAIR, CAMR and CAVR. Section 5 of the Compliance Plan is a discussion of Gulf's current plan for compliance with CAIR, CAMR and CAVR on a plant- and/or unit-specific basis.

Overall, Gulf's Compliance Plan identifies the timing and current estimates of costs for specific projects planned by the Company in order to comply with CAIR/CAMR/CAVR requirements along with information regarding the relative value of the planned projects compared to other viable compliance alternatives, if any. Gulf's Compliance Plan also includes the description and results of the evaluation process that

lead Gulf to conclude that the chosen means of compliance is the most reasonable, cost-effective alternative and that the affected generating units remain economically viable as a source of energy to Gulf's retail customers with the addition of the controls.

As discussed in Section 5 of Gulf's Compliance Plan, the Company's CAIR/CAMR/CAVR Compliance Program includes the addition of several retrofit applications at Plant Crist, Plant Daniel¹, Plant Smith and Plant Scholz and additional emission allowance purchases necessary to meet compliance limits:

a. Crist Units 4 through 7 Flue Gas Desulfurization system (scrubber).

Gulf has determined that a scrubber for Units 4 through 7 is the best, most cost-effective means of removing SO₂ and mercury. Construction of the Crist scrubber is scheduled to take place from 2007 through 2009 at an estimated capital cost of approximately \$530 million. Based upon plant specific circumstances, Gulf has chosen the Chiyoda technology for the Plant Crist scrubber. This installation will reduce SO₂ emissions by approximately 43,000 tons per year and mercury emissions by approximately 3,800 ounces per year. Even with this retrofit, Gulf anticipates that it will have to manage compliance through reliance on its bank of allowances and the purchase of additional allowances from the market.

b. Crist Unit 6 Selective Catalytic Reduction system (SCR). Gulf has determined that a SCR for Crist Unit 6 is necessary to meet not only required NO_x reductions, but also to assure that Pensacola maintains attainment with the new 8-hour ozone standard. The Crist Unit 6 SCR will also serve to mitigate significant local pressure to continue NO_x reductions from the plant. The Crist Unit 6 SCR will be constructed between 2007 and 2011 and is forecasted to have a total capital cost of approximately \$84 million. The Crist Unit 6 SCR will help assure CAIR compliance as well as CAMR compliance.

c. Crist Units 4 through 7 CAIR and Mercury Monitors. CAIR will require a continuous emission monitoring system for the scrubber. CAMR will require continuous mercury emission monitoring of all four Crist units and the scrubber. The current projected capital cost for these monitoring systems is approximately \$4.6 million.

d. Daniel Units 1 and 2 Flue Gas Desulfurization system (scrubber). Gulf and Mississippi Power have determined that a scrubber for Daniel Units 1 and 2 is needed to meet the requirements of CAIR, CAMR and CAVR. Construction of this scrubber is scheduled for 2007-2011 at an estimated capital cost of approximately \$187 million (Gulf's ownership share). Based upon plant-specific

¹ Plant Daniel Units 1 and 2 are co-owned by Gulf and its sister company, Mississippi Power Company.

circumstances, Gulf and Mississippi Power have chosen the Advatech single tower technology for the Plant Daniel scrubber. This scrubber will reduce SO₂ emissions by approximately 18,000 tons per year and mercury emissions by approximately 2,000 ounces per year. Even with this retrofit, Gulf and Mississippi Power anticipate that they will have to manage compliance through reliance on their bank of allowances and the purchase of additional allowances from the market.

e. Daniel Units 1 and 2 Selective Non-catalytic Reduction systems (SNCRs) and Low NO_x Burners (LNBs). Gulf and Mississippi Power have determined that to meet CAIR annual and seasonal NO_x requirements and possibly to avoid 8-hour ozone nonattainment, the installation of SNCRs and LNBs are necessary. The SNCRs will be installed between 2009 through 2011 at an estimated capital cost of approximately \$7.5 million, and the LNBs are scheduled to be installed between 2007 and 2010 at an estimated cost of approximately \$7.8 million.

f. Daniel Units 1 and 2 CAIR and Mercury Monitors. CAIR will require a continuous emission monitoring system on the Plant Daniel scrubber and CAMR will require continuous mercury emission monitoring of both Plant Daniel coal units and the scrubber. The current projected capital cost for these monitoring systems is approximately \$877,000.

g. Smith Units 1 and 2 Selective Non-catalytic Reduction systems (SNCRs). Gulf has determined that SNCRs for Smith Units 1 and 2 are the best means of meeting CAIR annual and seasonal NO_x caps and that such installations should also help maintain local compliance with the 8-hour ozone standard. The SNCR projects for Smith Units 1 and 2 will be constructed between 2007 and 2009 and are forecasted to have a total capital cost of approximately \$10 million.

h. Smith Units 1 and 2 CAIR and Mercury Monitors. CAIR will require a parametric emission monitoring system on the Smith combustion turbine and a continuous emission monitoring system on the Smith scrubber. CAMR will require continuous mercury emission monitoring of both Smith coal units and the scrubber. The current projected capital cost for these monitoring systems is approximately \$2 million.

i. Scholz Units 1 and 2 Mercury Monitors. CAMR will require mercury monitoring of both coal units at Plant Scholz. The current projected capital cost for these monitoring systems to be installed in 2007 and 2008 is approximately \$1 million.

j. Daniel Units 1 and 2 Selective Catalytic Reduction systems (SCRs). Gulf and Mississippi Power have determined that SCRs for Daniel Units 1 and 2 are necessary to help meet CAIR, CAMR and possibly 8-hour ozone nonattainment. The Daniel Units 1 and 2 SCRs will be constructed between 2012

and 2017 and are forecasted to have a total capital cost of approximately \$153 million.

k. Smith Units 1 and 2 Flue Gas Desulfurization system (scrubber). Gulf has determined that a scrubber for Smith Units 1 and 2 will likely be needed to meet CAVR requirements by 2017. The current estimated cost for this scrubber project is \$251 million, which would be expended from 2013 through 2018. The compliance plan for Plant Smith remains very flexible.

l. Smith Unit 2 Baghouse. Gulf anticipates that the construction of a baghouse at Smith Unit 2 will be required to meet CAMR requirements by 2018. Gulf's Compliance Plan includes a capital cost estimate of approximately \$55.6 million for construction of this baghouse during 2015 through 2018.

m. Market Purchase of Additional Emission Allowances. In addition to the retrofit applications described above, Gulf will still have to manage compliance through reliance on its bank of emission allowances and the purchase of additional emission allowances from the market. The projected levels and costs of emission allowances to be purchased are shown on Table 5.5-1 of Gulf's Compliance Plan.

STIPULATION

WHEREAS the Parties agree that Gulf's Compliance Plan satisfies the requirement to submit a supplementary filing as set forth on page 9 of Order No. PSC-06-0972-FOF-EI, issued November 22, 2006 in Docket No. 060007-EI;

WHEREAS the Parties agree that Gulf's Compliance Plan sets forth Gulf's plan to meet the requirements of CAIR/CAMR/CAVR over the 2007 thorough 2018 timeframe; and

WHEREAS the Parties agree that Gulf's supplemental filing provides an appropriate basis on which to conclude that Gulf's CAIR/CAMR/CAVR Compliance Plan is a reasonable and sufficient means for complying with these environmental requirements;

NOW THEREFORE, based on the foregoing recitals, each Party's review of Gulf's supplementary filing as described in the background, and discussions among the Parties, the Parties agree that:

1. The components of Gulf's Compliance Plan that are currently in the process of being implemented and which will be initially operational in the 2007 through 2011 timeframe (each of which is specifically enumerated below) appear to be reasonable and necessary activities for Gulf to pursue in order to meet the CAIR/CAMR/CAVR environmental requirements and therefore, the Parties will not object to, or contest, the reasonableness and prudence of Gulf's decisions to implement the following components of the Compliance Plan now or in the future:

- a. Crist Units 4 through 7 Scrubber;
- b. Crist Unit 6 SCR;
- c. Crist Units 4 through 7 CAIR and Mercury Monitors;
- d. Daniel Units 1 and 2 Scrubber;
- e. Daniel Units 1 and 2 SNCRs and Low NO_x Burners;
- f. Daniel Units 1 and 2 CAIR and Mercury Monitors
- g. Smith Units 1 and 2 SNCRs;
- h. Smith Units 1 and 2 CAIR and Mercury Monitors; and
- i. Scholz Units 1 and 2 Mercury Monitors.

The Parties acknowledge that the Commission has the authority to review and approve these programs.

Along with implementation of the foregoing, Gulf's Compliance Plan calls for the Company to manage compliance through the use of emission allowances both from Gulf's accumulated bank of emission allowances and from the purchase of additional emission allowances from existing and potential markets. The Parties recognize that in accordance with the Compliance Plan, Gulf may be required to use its accumulated bank of emission allowances and to procure additional allowances from existing and potential markets.²

2. The projected and actual costs of the stipulated components of the Compliance Plan enumerated or discussed in the immediately preceding paragraph will be submitted for recovery through the ECRC as provided for in F.S. 366.8255 and past Commission orders through the normal course of the projection and true-up filings of the ongoing ECRC proceedings. Such projected and actual costs remain subject to the normal audit, true-up and review process that takes place in the ongoing ECRC proceedings, unless and until such costs are included in Gulf's base rates in a subsequent rate proceeding as provided for in F.S. 366.8255(5). The Parties' right to review the actual or projected costs of the stipulated components of the Compliance Plan for reasonableness or prudence in the normal course of the ongoing ECRC proceeding (or in a subsequent base rate proceeding if the costs are to be included in base rates and reasonableness and prudence has not previously been addressed in the ECRC proceedings) is not limited by this stipulation.

3. Gulf's Compliance Plan shall become the basis for future filings in the ECRC relating to CAIR/CAMR/CAVR.

² The components of the Compliance Plan enumerated or discussed in this paragraph may be collectively referred to elsewhere in this document as the "stipulated components."

4. The Parties specifically acknowledge and agree that the remaining components identified in Gulf's Compliance Plan (items j, k and l from the enumerated list set forth in the "Background" section of this document) are still in the planning phase for possible implementation after 2011 and are therefore excluded from the stipulated components of the Compliance Plan enumerated or discussed in paragraph number 1 above. Since Gulf has not yet made its decision whether to implement these three components, there is no agreement between the Parties at this time regarding the reasonableness or prudence of any of these three components or any components that may be added by the Company in the future to the Compliance Plan.

5. With regard to the implementation of these three remaining components of the Compliance Plan (or any new components to the Compliance Plan Gulf may add in the future), once a decision to proceed with implementation is made by the Company, Gulf agrees to make a supplementary filing in the ECRC docket that will identify the timing of the planned implementation and updated estimates regarding the costs for such components prior to incorporating such components in the normal projection or true-up filings that will impact the cost recovery factors applied to customer bills under the ECRC. It is the intent of the Parties that such supplementary filing initiate a period during which all parties to the ECRC (including the Commission Staff, FIPUG and OPC) may submit requests for discovery in connection with the supplementary filing in order to determine whether there is any objection to any such components with regard to the reasonableness or prudence of the proposed action, and the filing of notice regarding any such resulting objections, under time limits similar to what has been afforded as a result

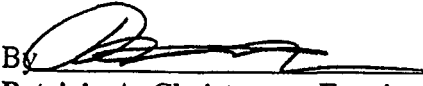
of the stipulation approved by the Commission as set forth at page 9 of Order No. PSC-06-0972-FOF-EI.

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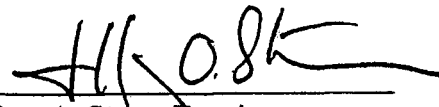
WHEREFORE, the Parties respectfully request that the Commission undertake its review of this stipulation and act upon the above stated request for its approval at the earliest practicable date in order to allow for the orderly implementation of the Agreement and to provide certainty to the Parties and their respective constituents and customers with respect to the outcome of this proceeding.

Respectfully Submitted,

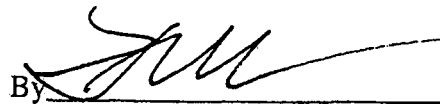
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CERTIFICATE OF SERVICE

I HEREBY CERTIFY that a copy of the foregoing has been furnished to the following individuals via U. S. Mail (or by *hand delivery) this 22nd day of June, 2007:

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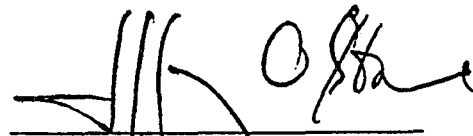
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5.2 GULF POWER'S CAIR AND CAMR EMISSION REDUCTIONS

The initial step in Gulf's development of a compliance plan to meet CAIR and CAMR was to compare projected total emissions against the projected CAIR and CAMR allowance allocations. Tables 5.2-1 through 5.2-4 compare Gulf's projected emissions to projected CAIR and CAMR allowance allocations for sulfur dioxide, annual nitrogen oxides, seasonal nitrogen oxides for ozone, and mercury. In summary, Gulf is projected to have an annual shortfall of up to 58,553 SO₂ allowances, 5,443 mercury allowances, 12,952 annual NO_x allowances, and 5,598 ozone seasonal NO_x allowances, in Phase I of CAIR and CAMR. The allowance allocations decrease by an additional 17 to 61% in Phase II of CAIR and CAMR.

Table 5.2-1
Gulf's CAIR, CAMR, and CAVR Compliance Plan
Plants Crist, Scholz, Smith, and Daniel
SO₂ Emission Program

	Allocations (SO ₂ Tons)	Shortfall without Controls	Shortfall with Controls	Delta (Benefit of Controls)	Control Added
2009	56,710	43,650	43,650	0	
2010	28,070	58,553	13,378	45,175	Crist FGD*
2011	28,070	52,402	(1,309)	53,711	Daniel FGD
2012	28,070	48,304	(10,296)	58,600	
2013	28,070	51,791	(10,205)	61,996	
2014	28,070	51,774	(10,551)	62,325	
2015	19,633	57,958	(4,617)	62,575	
2016	19,633	56,395	(4,533)	60,928	
2017	19,633	56,380	(6,101)	62,481	Smith FGD*

Notes: Emissions results sourced from 2007 Energy Budget.

* Crist FGD start up scheduled for December 2009. Smith FGD scheduled for startup in December 2017.

Table 5.2-2
Gulf's CAIR, CAMR, and CAVR Compliance Plan
Plants Crist, Scholz, Smith, and Daniel
Mercury Emission Program

	Allocations (Hg Ounces)	Shortfall without Controls	Shortfall with Controls	Delta (Benefit of Controls)	Control Added
2010	5,997	4,606	2,111	2,495	Crist FGD*
2011	5,997	4,559	30	4,529	Daniel FGD, Crist 6 SCR*
2012	4,871	5,012	393	4,619	
2013	4,871	5,443	540	4,903	
2014	4,871	5,426	453	4,973	
2015	4,871	5,110	128	4,982	
2016	4,871	4,933	(520)	5,453	
2017	4,871	4,985	(1,203)	6,188	Smith FGD*
2018	2,338	8,146	610	7,536	Smith 2 Baghouse

Notes: Emissions results sourced from 2007 Energy Budget.

* Crist FGD start up scheduled for December 2009. The Crist 6 SCR is projected to be completed during December 2010. Smith FGD scheduled for startup in December 2017.

Table 5.2-3
Gulf's CAIR, CAMR, and CAVR Compliance Plan
Plants Crist, Scholz, Smith, and Daniel
Annual NO_x Emission Program

	Allocations (NO _x Tons)	Shortfall without Controls	Shortfall with Controls	Delta (Benefit of Controls)	Control Added
2009	9,688	12,952	6,057	6,895	Smith SNCR, Daniel LNB
2010	9,688	12,247	5,678	6,569	Daniel 1 SNCR
2011	9,688	11,731	2,176	9,555	Crist 6 SCR*, Daniel 2 SNCR
2012	9,688	10,358	972	9,386	
2013	9,680	10,559	1,358	9,201	
2014	9,680	10,253	1,228	9,025	
2015	8,069	11,197	2,239	8,958	
2016	7,682	11,293	1,705	9,588	Daniel 1 SCR
2017	7,682	11,034	877	10,157	Daniel 2 SCR

Notes: Emissions results sourced from 2007 Energy Budget.

* The Crist 6 SCR is projected to be completed during December 2010.

**Table 5.2-4
 Gulf's CAIR, CAMR, and CAVR Compliance Plan
 Plants Crist, Scholz, Smith, and Daniel
 Ozone Seasonal NO_x Emission Program**

	Allocations (NO _x Tons)	Shortfall without Controls	Shortfall with Controls	Delta (Benefit of Controls)	Control Added
2009	4,556	5,598	2,476	3,122	Smith SNCR, Daniel LNB
2010	4,556	5,255	2,266	2,989	Daniel 1 SNCR
2011	4,556	5,008	607	4,401	Crist 6 SCR*, Daniel 2 SNCR
2012	4,556	4,368	276	4,092	
2013	4,596	4,223	195	4,028	
2014	4,596	4,270	219	4,051	
2015	3,367	5,190	1,258	3,932	
2016	3,212	5,526	1,153	4,373	Daniel 1 SCR
2017	3,212	5,456	732	4,724	Daniel 2 SCR

Notes: Emissions results sourced from 2007 Energy Budget.

* The Crist 6 SCR is projected to be completed during December 2010.

5.3 GULF POWER'S COMPLIANCE OPTIONS

In order to address the projected emissions allowance shortfall, Gulf Power conducted an assessment of the various options available to assure compliance. Fuel switching, allowance purchases, emission control retrofit, and retirement and replacement were all evaluated in order to develop a cost-effective strategy for assuring compliance. Fuel switching and relying solely on allowance purchases to maintain compliance were evaluated on a company-wide basis. Emission control retrofits and retirement and replacement options were considered on a plant-by-plant basis. Ultimately, Gulf Power identified a plan that consisted of retrofits on most units with supplemental allowance purchases and either allowance purchases or retirement for two units.

5.3.1 Fuel Switching Option

Fuel switching is a compliance option to lower emissions by switching fuels. For example, SO₂ emissions can be lowered by switching to a fuel that contains less sulfur. During the 1990s, Gulf switched several plants to low-sulfur coal to achieve compliance with the Acid Rain program, and this proved to be very cost-effective for reducing emissions of SO₂.