BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In re: Petition for authority to implement Good Cents Conversion Program by Gulf Power Company.	DOCKET NO. 981591-EG ORDER NO. PSC-00-0400-FOF-EG ISSUED: February 24, 2000

The following Commissioners participated in the disposition of this matter:

J. TERRY DEASON
SUSAN F. CLARK
E. LEON JACOBS, JR.

Pursuant to Notice, a hearing was held in this docket on October 12, 1999.

APPEARANCES:

JEFFREY A. STONE, ESQUIRE, and RUSSELL A. BADDERS, ESQUIRE, Beggs & Lane, 700 Blount Building, 3 West Garden Street, P.O. Box 12950, Pensacola, Florida 32576-2950
On behalf of Gulf Power Company (GULF).

ANSLEY WATSON, JR., ESQUIRE, Macfarlane Ferguson & McMullen, Post Office Box 1531, Tampa, Florida 33601
On behalf of Peoples Gas System (PGS).

TIFFANY R. COLLINS, ESQUIRE, Florida Public Service Commission, 2540 Shumard Oak Boulevard, Tallahassee, Florida 32399-0850
On behalf of the Commission Staff (STAFF).

FINAL ORDER DENYING PETITION TO IMPLEMENT
GOOD CENTS CONVERSION PROGRAM

BY THE COMMISSION:

I. CASE BACKGROUND

On November 10, 1998, Gulf Power Company (Gulf) petitioned for approval of its proposed Good Cents Conversion Program (Program). Gulf's petition requests approval to recover Program expenses through the Energy Conservation Cost Recovery (ECCR) clause. The proposed Program offers participating customers a one-time $200 rebate, as well as a $50 rebate for qualifying heating/cooling contractors, to install high-efficiency electric heat pump systems as a replacement for existing air conditioning units and natural gas, fuel oil, or propane heating systems. All heat pumps installed under the proposed Program must have a minimum Seasonal Energy Efficiency Rating (SEER) of 11.0.

All residential customers in Gulf's service territory whose homes have an existing combustion furnace fueled by natural gas, fuel oil, or propane would be eligible to participate in the proposed Program. Customers whose homes have existing electric strip heat or heat pumps would not be eligible to participate. Gulf plans to target, for program participation, customers with existing equipment that is 10 to 15 years old with an average SEER of 7.0. Gulf will require that an on-site energy audit be performed on the residence prior to payment of applicable rebates.

We denied the proposed Program as Proposed Agency Action by Order No. PSC-99-0684-FOF-EG, issued April 7, 1999. On April 28, 1999, Gulf petitioned for a formal proceeding on the Proposed Agency Action. On August 19, 1999, Peoples Gas System (Peoples) was granted intervention in this docket. The hearing was held on October 12, 1999, and the parties filed post-hearing briefs on November 9, 1999.

II. SUMMARY OF DECISION

Having considered the evidence and argument of the parties, we find that the proposed program should be denied. The evidence shows that when appropriate assumptions are used, the Program would have an excessively long payback period, would increase winter peak demand, and would increase energy consumption. Moreover, the impacts on energy consumption, winter peak demand, and summer peak demand are exacerbated when Gulf's free water heater program is considered. For these reasons, we believe the program is inconsistent with the Florida Energy Efficiency and Conservation Act (FEECA), and therefore, should be denied.

III. DECISION

Gulf estimates that the proposed Program will have a total of 5000 participating customers by the year 2004. Participating customers are expected to spend an average of $3000 minus a $200 rebate, or a net total of $2800, to install new electric HVAC equipment. Gulf's base-case analysis shows that Program participants will not see present worth savings on their investment for thirteen years, until the year 2012. Given the long customer payback period, we believe that the $200 rebate amount is too small to encourage customers to change out functioning HVAC equipment sooner than absolutely necessary, such as when existing equipment fails.

Gulf currently offers a non-ECCR funded program which provides a free electric water heater, or a $140 rebate to purchase one, as a replacement for an existing, functioning gas water heater. We are concerned that Gulf may use the free electric water heater program as a marketing tool to encourage participation in the Good Cents Conversion Program. The mere fact that customers can get a free electric water heater from Gulf may soften the blow of spending $2800 for new HVAC equipment. It appears reasonable that unless the free electric water heater program is marketed to customers in concert with the proposed Program, Gulf will not get much response to a stand-alone Good Cents Conversion Program with a thirteen year payback.

If Gulf markets the proposed program in concert with the free gas-to-electric water heater conversion program, winter peak demand, summer peak demand, and annual energy consumption would increase because of additional water heater load.

A gas furnace and a gas water heater are the two appliances which consume the greatest amount of natural gas in a typical home. By specifying an all-electric HVAC equipment replacement, Gulf's proposed Program would eliminate the gas furnace. Gulf's non-ECCR free gas-to-electric water heater conversion program could eliminate the gas water heater as well. We conclude that these two programs, when combined, are an attempt by Gulf to reduce natural gas-consuming appliances from the homes in its service area. As Gulf witness Spangenburg noted, the Commission can not effectively insure that the free water heater program is not being marketed in concert with the proposed Program.

The record shows that the Program, as proposed, is cost-effective to Gulf's all-electric customers, which are those customers who do not receive natural gas service. Under Gulf's base-case assumptions, the proposed Program has a benefit-cost ratio of 1.74 under the Rate Impact measure (RIM), 1.65 under the

Participants test, and 2.20 under the Total Resource Cost (TRC) test.

It is not clear if the proposed Program is also cost-effective to Gulf's dual-fuel customers, which are those customers who receive electric service from Gulf and natural gas service from another company such as Peoples. The irony of the proposed Good Cents Conversion Program is that some gas customers located in Gulf's service territory would have to pay two ECCR factors for conflicting purposes: one to Gulf for a DSM program that decreases gas load; and, one to natural gas companies such as Peoples for existing programs which increase gas load.

Gulf's base-case assumption is that customers will remove functioning, though inefficient (7.0 SEER) equipment and install new, energy-efficient (11.0 SEER) equipment. Florida's building code requires that heating, ventilating, and air conditioning (HVAC) equipment installed in new construction must meet a minimum rating of 10.0 SEER. Because of the building code requirement, new HVAC units less efficient than 10.0 SEER are rarely available. Gulf Witness Spangenburg testified that "99% of the units that go in are 10 SEER or higher."

We believe that the $200 rebate amount is too small to encourage customers to replace functioning HVAC equipment sooner than absolutely necessary. When existing equipment fails, the most readily available new HVAC equipment is rated at or above 10.0 SEER. Therefore, we conclude that Gulf's proposed Program truly captures only the demand and energy savings associated with upgrading from 10.0 SEER to 11.0 SEER. This is a more realistic assumption.

Gulf's base-case assumptions rely on a mid-1980's study of over 400 customers who replaced existing HVAC systems with new heat pumps. The study shows that 27.3% of these customers gave "needed major repairs" as the reason for equipment replacement. However, this study used a small sample size and was performed nearly 15 years ago. As recently as 1998, Gulf monitored 843 installations, in its own service area, of high-efficiency HVAC equipment as a replacement for existing air conditioners or heat pumps. However, Gulf did not investigate why these customers replaced their old equipment.

Table 1 illustrates how the differences in SEER assumptions affect the proposed Program's estimated demand and energy savings.

TABLE 1: DEMAND AND ENERGY SAVINGS FOR PROPOSED PROGRAM		
	Gulf's Base-Case Assumptions (7.0 to 11.0 SEER)	**Appropriate Assumptions (10.0 to 11.0 SEER)**
Winter Peak Demand	***INCREASE*** 22 MW Total 4.4 KW per part.	***INCREASE*** 22 MW total 4.4 KW per part.
Summer Peak Demand	DECREASE 9.5 MW total 1.9 KW per part.	DECREASE 1.5 MW total 0.3 KW per part.
Annual Energy Consumption	DECREASE 5,150,000 KWh total 1,030 KWh per part.	***INCREASE*** 6,950,000 KWh total 1,390 KWh per part.

As shown in Table 1, there is no change in the forecasted winter peak demand ***increase*** between Gulf's base-case assumptions and the more appropriate assumptions. Both cases identically assume that a natural gas heating system is replaced with an electric heat pump. For its base-case analysis, Gulf believes that efficient air conditioning will create energy savings during summer months that more than offset increased energy consumption during winter months from a new electric heater. However, based on realistic assumptions, summer peak demand savings are expected to drop to 1.5 MW total (0.3 KW per participant) and total annual energy consumption is estimated to ***increase*** by 6,950,000 kWh (1,390 kWh per participant). This table does not consider the additional energy and demand usage associated with replacing gas water heaters with electric water heaters.

Given our decision to evaluate the proposed Program's demand and energy savings based on upgrading from 10.0 SEER to 11.0 SEER equipment, it is also appropriate to evaluate cost-effectiveness on this basis. Table 2 illustrates how the differences in SEER assumptions affect the proposed Program's cost-effectiveness.

TABLE 2: COST-EFFECTIVENESS RESULTS OF PROPOSED PROGRAM		
	Gulf's Base-Case Assumptions (7.0 to 11.0 SEER)	**Appropriate Assumptions (10.0 to 11.0 SEER)**
Rate Impact Measure (RIM)	1.74	1.41
Total Resource Cost (TRC)	2.20	1.32
Participants	1.65	1.14

Under the more reasonable 10.0 SEER to 11.0 SEER assumption, Program participants will have an even longer (22-year) payback period. The longer payback period gives a greater incentive to Gulf to use the free gas-to-electric water heater conversion program as a marketing tool to encourage participation in the proposed Good Cents Conversion Program.

As discussed above, Program participants are expected to have 22-year payback period to recover their $2800 investment. Given this fact, we believe that the $200 rebate amount is too small to encourage customers to change out functioning HVAC equipment sooner than absolutely necessary, such as when existing equipment fails. Gulf's proposed Program would target existing HVAC equipment that is nearly 15 years old. These facts suggest that customers would not replace their existing equipment unless it is at or near the end of its useful life.

As a stand-alone program or when combined with Gulf's free gas-to-electric water heater conversion program, the proposed Good Cents Conversion program competes with natural gas because it encourages fuel switching. Gulf witness Spangenburg testified that the proposed Program encourages electricity to compete with natural gas. We believe that the use of conservation programs as a competitive tool was not intended by the legislature in enacting FEECA or consistent with the Commission's decisions implementing FEECA.

FEECA places emphasis on reducing the growth rates of weather-sensitive peak demand, reducing and controlling the growth rates of electricity consumption, and reducing the consumption of expensive resources such as petroleum fuels. Sections 366.80-366.85, Florida Statutes. FEECA does not specify any particular test to measure the cost-effectiveness of Demand Side Management programs.

As discussed above, under realistic assumptions, the proposed Program is expected to increase annual energy consumption for Program participants. As also discussed above, the proposed Program is expected to increase winter peak demand under base-case ***and*** realistic assumptions. The record evidence does not indicate exactly how much Gulf's free gas-to-electric water heater conversion program will further increase winter peak demand, summer peak demand, or annual energy consumption. However, it is reasonable to conclude that all three would increase if gas appliances are replaced with electric ones.

IV. CONCLUSION

This is a somewhat unique situation. The Program, using realistic assumptions, still meets the cost-effectiveness tests incorporated in Rule 25-17.008, Florida Administrative Code. We note these criteria are not mandatory "pass/fail" tests but are for use in evaluating proposed programs. As discussed in this Order, the record demonstrates that Gulf's proposed Good Cents Conversion Program is expected to increase winter peak demand and, under realistic assumptions, increase annual energy consumption as well. This is contrary to the intent of FEECA. Further, when combined with Gulf's free electric water heater conversion program, additional increases in demand and energy are likely. Finally, Program participants are not expected to see present worth benefits for 22 years under realistic assumptions. For these reasons, we deny the proposed Good Cents Conversion Program, including cost recovery through the ECCR clause.

Based on the foregoing, it is

ORDERED by the Florida Public Service Commission that Gulf Power Company's Petition for Approval of its Good Cents Conversion Program is denied. It is further

ORDERED that this docket shall be closed.

By ORDER of the Florida Public Service Commission this 24th day of February, 2000.

BLANCA S. BAYÓ, Director
Division of Records and Reporting

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NOTICE OF FURTHER PROCEEDINGS OR JUDICIAL REVIEW

The Florida Public Service Commission is required by Section 120.569(1), Florida Statutes, to notify parties of any administrative hearing or judicial review of Commission orders that is available under Sections 120.57 or 120.68, Florida Statutes, as well as the procedures and time limits that apply. This notice should not be construed to mean all requests for an administrative hearing or judicial review will be granted or result in the relief sought.

Any party adversely affected by the Commission's final action in this matter may request: 1) reconsideration of the decision by filing a motion for reconsideration with the Director, Division of Records and Reporting, 2540 Shumard Oak Boulevard, Tallahassee, Florida 32399-0850, within fifteen (15) days of the issuance of this order in the form prescribed by Rule 25-22.060, Florida Administrative Code; or 2) judicial review by the Florida Supreme Court in the case of an electric, gas or telephone utility or the First District Court of Appeal in the case of a water and/or wastewater utility by filing a notice of appeal with the Director, Division of Records and reporting and filing a copy of the notice of appeal and the filing fee with the appropriate court. This filing must be completed within thirty (30) days after the issuance of this order, pursuant to Rule 9.110, Florida Rules of Appellate Procedure. The notice of appeal must be in the form specified in Rule 9.900(a), Florida Rules of Appellate Procedure.