

State of Florida



**Public Service Commission**

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

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

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**DATE:** July 8, 2004

**TO:** Director, Division of the Commission Clerk & Administrative Services (Bayó)

**FROM:** Division of Economic Regulation (Haff, Colson, Sickel)  
Office of the General Counsel (Vining)

**RE:** Docket No. 040034-EG – Petition for approval of numeric conservation goals by Florida Public Utilities Company.

**AGENDA:** 07/20/04 – Regular Agenda – Proposed Agency Action – Interested Persons May Participate

**CRITICAL DATES:** New conservation goals must be set by January 1, 2005

**SPECIAL INSTRUCTIONS:** Take up recommendations for Docket Nos. 040029-EG, 040030-EG, 040031-EG, 040032-EG, 040033-EG, 040034-EG, and 040035-EG consecutively

**FILE NAME AND LOCATION:** S:\PSC\ECR\WP\040034.RCM.DOC

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**Case Background**

Section 366.82, Florida Statutes, part of the Florida Energy Efficiency and Conservation Act (FEECA), requires the Commission to adopt goals to increase the efficiency of energy consumption, increase the development of cogeneration, and reduce and control the growth rates of electric consumption and weather-sensitive peak demand. Pursuant to Section 366.82(2), Florida Statutes, the Commission must review a utility's conservation goals not less than every five years. These statutes are implemented by Rules 25-17.001 and 25-17.0021, Florida Administrative Code.

The Commission first established numeric goals for Florida Public Utilities Company (FPUC) in Order No. PSC-96-1120-FOF-EG, issued September 4, 1996, in Docket No. 930552-EG, In Re: Adoption of Numeric Conservation Goals and Consideration of National Energy Policy Act Standards (Section 111) by Florida Public Utilities Company. These goals were

based on measures that were cost-effective under the participant and rate impact measure (RIM) tests.

The Commission set numeric goals for FPUC a second time in Order No. PSC-00-1029-PAA-EG, issued May 24, 2000, in Docket No. 990721-EG, In Re: Adoption of Numeric Conservation Goals and Consideration of National Energy Policy Act Standards (Section 111) by Florida Public Utilities Company. Again, FPUC's numeric goals were based on measures that passed the participant and RIM tests.

The instant docket, opened on January 13, 2004, represents the third time that the Commission will set numeric conservation goals for FPUC. On June 1, 2004, FPUC timely filed its new numeric goals.

Rule 25-17.0021(4), Florida Administrative Code, requires that within 90 days of a final order establishing goals, a utility shall submit a demand-side management (DSM) plan which contains conservation and DSM programs designed to meet its numeric goals. As part of its numeric goals filing, FPUC filed its DSM Plan. FPUC also filed testimony and exhibits in support of its proposed numeric goals and DSM Plan.

This recommendation addresses FPUC's petition for approval of its numeric conservation goals and approval of its DSM Plan. The Commission has jurisdiction over this matter pursuant to Sections 366.81 and 366.82, Florida Statutes.

### **Discussion of Issues**

**Issue 1:** Should the Commission approve Florida Public Utilities Company's numeric conservation goals for the 2005-2014 period?

**Recommendation:** Yes. The programs, assumptions, and evaluation methodology used by FPUC to develop its proposed numeric goals are reasonable and adequately meet the requirements of Rule 25-17.0021, Florida Administrative Code. FPUC appropriately used the RIM and participant tests to determine the cost-effectiveness level of achievable demand and energy savings. (Haff, Colson, Sickel)

**Staff Analysis:** FPUC developed its numeric conservation goals by evaluating all cost-effective DSM programs included in FPUC's current DSM Plan, plus four promising new programs. These programs are discussed in Issue 2. The seasonal demand and annual energy savings associated with these cost-effective programs were summed by market segment to arrive at FPUC's proposed goals. These goals are as follows:

#### PROPOSED CONSERVATION GOALS - CUMULATIVE

Year	Residential			Commercial / Industrial		
	Summer MW	Winter MW	Annual GWh	Summer MW	Winter MW	Annual GWh
2005	0.08	0.11	0.16	0.15	0.09	0.40
2006	0.16	0.22	0.32	0.29	0.17	0.80
2007	0.24	0.34	0.49	0.44	0.26	1.20
2008	0.32	0.48	0.67	0.60	0.36	1.62
2009	0.41	0.64	0.87	0.75	0.45	2.05
2010	0.51	0.84	1.10	0.93	0.56	2.51
2011	0.62	1.06	1.36	1.10	0.67	2.97
2012	0.74	1.32	1.63	1.28	0.78	3.45
2013	0.87	1.60	1.94	1.48	0.91	3.97
2014	1.00	1.92	2.26	1.69	1.04	4.51

According to its most recent FEECA report, FPUC has successfully surpassed all six of its current numeric demand and energy conservation goals that were set by the Commission in 2000. FPUC's proposed numeric goals are comparable to, and in some instances higher than, the current goals. A comparison of FPUC's current and proposed conservation goals is shown on the next page.

## COMPARISON OF CURRENT AND PROPOSED CONSERVATION GOALS

Year	Residential			Commercial / Industrial		
	Summer MW	Winter MW	Annual GWh	Summer MW	Winter MW	Annual GWh
Current ( <i>cumulative 2000-2009</i> )	1.26	1.50	2.73	1.22	0.73	3.02
Proposed ( <i>cumulative 2005-2014</i> )	1.00	1.92	2.26	1.69	1.04	4.51

Staff has reviewed the programs, assumptions, and evaluation methodology used by FPUC and believes they are reasonable. The DSM measures evaluated are based on an adequate assessment of the market segments and major end-use categories in accordance with Rule 25-17.0021(3), Florida Administrative Code. In addition, as required by the rule, FPUC's analysis adequately reflects consideration of overlapping measures, rebound effects, free riders, interactions with building codes and appliance efficiency standards, and FPUC's latest monitoring and evaluation of conservation programs and measures. FPUC appropriately used the RIM and participant tests to determine the cost-effective level of achievable DSM goals. Therefore staff recommends that FPUC's proposed conservation goals should be approved.

**Issue 2:** Should the Commission approve Florida Public Utilities Company's Demand-Side Management Plan, including approval for cost recovery?

**Recommendation:** Yes. The programs contained in FPUC's DSM Plan meet the policy objectives of Rule 25-17.001, Florida Administrative Code, and FEECA. The programs are cost-effective and are expected to allow FPUC to meet its Commission-prescribed conservation goals. Consistent with past Commission practice, staff should be allowed to administratively approve the program participation standards at a later date if FPUC's DSM Plan is approved. (Haff, Colson, Sickel)

**Staff Analysis:** FPUC's DSM Plan contains five residential programs, three commercial and industrial (C/I) programs, two educational programs, and a research and development program. Of these eleven programs, seven are existing programs approved by the Commission in 2001 as part of FPUC's current DSM Plan. The four new programs are the Residential Heating & Cooling Efficiency Upgrade program, the Residential Ceiling Insulation Upgrade program, the Commercial Indoor Efficient Lighting Rebate program, and the Conservation Demonstration and Development program. The Geothermal Heat Pump program, an existing program, is included in the proposed DSM plan, although any demand and energy savings were not used to develop FPUC's numeric goals due to uncertainty over future customer participation. A summary of all programs is contained in Attachment A. Tables illustrating each DSM program's projected demand and energy savings and contribution towards FPUC's numeric conservation goals are also included in Attachment A. Demand and energy savings from FPUC's DSM Plan are expected to meet or exceed the summer demand, winter demand, and energy savings goals shown in Issue 1 for both the residential and commercial/industrial segments.

Pursuant to Order No. 22176, issued November 14, 1989 in Docket No. 890737-PU, In Re: Implementation of Section 366.80-.85, F.S., Conservation Activities of Electric and Natural Gas Utilities, the Commission stated that conservation programs will be evaluated using the following criteria:

- Whether the program advances the policy objectives of Rule 25-17.001, Florida Administrative Code, and Sections 366.80 through 366.85, Florida Statutes, also known as the "Florida Energy Efficiency and Conservation Act" (FEECA);
- Whether the program is directly monitorable and yields measurable results; and
- Whether the program is cost-effective.

The programs contained in FPUC's DSM plan appear to meet the policy objectives of Rule 25-17.001, Florida Administrative Code, and FEECA. FPUC's measurement plan to evaluate assumed demand and energy savings appears reasonable. Each program included in FPUC's DSM plan is cost-effective under the RIM, Total Resource Cost (TRC), and participant tests and is expected to allow FPUC to meet its Commission-prescribed conservation goals. However, it must be emphasized that staff is not addressing the prudence of expenditures for the programs contained in FPUC's DSM plan; such a review is performed annually in the Energy Conservation Cost Recovery Clause docket.

FPUC's DSM plan includes program standards which clearly state the requirements for participation in each program, customer eligibility requirements, details on how rebates or incentives will be processed, technical specifications on equipment eligibility, and necessary reporting requirements. In the past, the Commission has allowed the staff to administratively approve program participation standards if they conform to the description of the programs contained in a utility's DSM Plan. Staff recommends that it be allowed to administratively approve FPUC's program participation standards at a later date if FPUC's DSM Plan is approved.

Staff believes that the programs contained in FPUC's DSM Plan meet the policy objectives of Rules 25-17.001, Florida Administrative Code, and FEECA. Therefore, staff recommends that the Commission approve FPUC's DSM Plan, including approval for cost recovery.

**Issue 3:** Should this docket be closed?

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

**Staff Analysis:** If no person whose substantial interests are affected by the proposed agency action files a protest within 21 days of the issuance of the order, this docket should be closed upon the issuance of a Consummating Order.

## **ATTACHMENT A**

### **FLORIDA PUBLIC UTILITIES COMPANY / DEMAND-SIDE MANAGEMENT PLAN**

#### **RESIDENTIAL DEMAND-SIDE MANAGEMENT PROGRAMS**

**Geothermal Heat Pump:** Promotes the installation of advanced and emerging geothermal systems. Participants in single-family dwellings are guaranteed heating and cooling costs for two years. Multi-family installations receive a \$500 rebate. New unit must have a Seasonal Energy Efficiency Ratio (SEER) of 13.0 or higher. Due to uncertainty over future customer participation, FPUC does not plan for this program to contribute towards its DSM goals.

**Heating & Cooling Efficiency Upgrade:** Promotes the installation of high-efficiency heat pump systems (SEER of at least 12.0). Offers two types of equipment replacements: replacement of resistance-heating systems (Type 1) and replacement of lower-efficiency heat pump systems (Type 2). FPUC pays rebates to the customer (\$100) and dealer (\$25-75).

**GoodCents Home / Energy Star:** Promotes the design and construction of energy-efficient homes. Certification requires the installation of measures with efficiencies higher than required by the current building code. Homes may also qualify to receive the nationally recognized Energy Star efficiency label.

**GoodCents Energy Survey:** Residential walk-through energy audit program. Company auditor examines home and makes recommendations on energy-saving practices and measures, including identification potential duct leakage. FPUC intends to study the potential of expanding this program to include internet audits in the future.

**Ceiling Insulation Upgrade:** Encourages customers who have electric central air conditioning to add ceiling insulation. FPUC pays \$100 to customer for adding an amount of ceiling insulation equal to or greater than R-11.

## RESIDENTIAL DEMAND-SIDE MANAGEMENT PROGRAMS

DSM PROGRAM	Summer Peak Demand		Winter Peak Demand		Annual Energy Consumption		Benefit / Cost Ratio (RIM)
	Savings (MW)	% of Goal	Savings (MW)	% of Goal	Savings (GWh)	% of Goal	
Geothermal Heat Pump	0.000	0.0%	0.000	0.0%	0.000	0.0%	N/A
Heating & Cooling Efficiency	0.175	17.5%	0.447	23.3%	0.523	23.1%	1.02
GoodCents Home / Energy Star	0.300	30.0%	0.540	28.1%	0.557	24.6%	1.29
GoodCents Energy Survey	0.385	38.5%	0.216	11.3%	0.759	33.6%	N/A
Ceiling Insulation Upgrade	0.140	14.0%	0.715	37.2%	0.424	18.8%	1.17
TOTAL SAVINGS	1.000	100.0%	1.918	99.9%	2.263	100.1%	
GOAL	1.00		1.92		2.26		



**COMMERCIAL / INDUSTRIAL DEMAND-SIDE MANAGEMENT PROGRAMS**

**GoodCents Commercial Buildings**: Efficiency program that certifies commercial buildings meeting efficiency requirements higher than Florida Model Energy Code standards. Includes both HVAC efficiency and thermal envelope standards.

**Technical Assistance Audit**: Interactive program that assists commercial customers in identifying energy conservation opportunities. Customized to meet individual needs of large customers. FPUC evaluates customer's facility operation, equipment, and energy usage pattern.

**Indoor Efficient Lighting Rebate**: Promotes efficient lighting retrofit applications having demand savings of at least 1000 watts per lighting source (lamp and ballast). FPUC pays cash allowance of 10 cents per watt reduced.

**COMMERCIAL / INDUSTRIAL DEMAND-SIDE MANAGEMENT PROGRAMS**

DSM PROGRAM	Summer Peak Demand		Winter Peak Demand		Annual Energy Consumption		Benefit / Cost Ratio (RIM)
	Savings (MW)	% of Goal	Savings (MW)	% of Goal	Savings (GWh)	% of Goal	
GoodCents Commercial Buildings	0.558	33.0%	0.043	4.1%	1.040	23.1%	1.66
Technical Assistance Audit	0.640	37.9%	0.640	61.5%	2.355	52.2%	N/A
Indoor Efficient Lighting Rebate	0.492	29.1%	0.358	34.4%	1.118	24.8%	1.27
TOTAL SAVINGS	1.690	100.0%	1.041	100.1%	4.513	100.1%	
GOAL	1.69		1.04		4.51		

## **EDUCATIONAL AND RESEARCH DEMAND-SIDE MANAGEMENT PROGRAMS**

**Low Income:** Provides basic energy education on low cost or no cost energy conservation measures. Informs customers of other services provided by FPUC, including energy surveys.

**Affordable Housing Builders and Providers:** Provides educational seminars to affordable housing contractors in FPUC's territory. FPUC works with the Florida Energy Extension Service and other seminar sponsors to offer a minimum of two seminars per year. Seminar topics include energy efficient construction, retrofit programs, and financing programs.

**Conservation Demonstration and Development (CDD):** Umbrella program for the identification, development, demonstration, and evaluation of promising new end-use energy efficiency and conservation technologies. Program expenses are capped at \$30,000 per year, with a \$15,000 annual cap on expenditures for any single project. FPUC will not count any kW and kWh savings from the CDD program towards meeting its numeric conservation goals.