

FLORIDA PUBLIC SERVICE COMMISSION
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MEMORANDUM

October 23, 1997

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FPSC - Records/Reporting

TO: DIRECTOR, DIVISION OF RECORDS AND REPORTING (BAYO)

FROM: DIVISION OF ELECTRIC & GAS (DUDLEY) *LD. TR*
DIVISION OF LEGAL SERVICES (KEATING) *WCK RVE* **JDJ**

RE: DOCKET NO. 970539-BG - FLORIDA POWER & LIGHT COMPANY -
PETITION FOR APPROVAL OF MODIFICATION OF RESIDENTIAL
AIR CONDITIONING PROGRAM

AGENDA: 11/04/97 - REGULAR AGENDA - PROPOSED AGENCY ACTION -
INTERESTED PERSONS MAY PARTICIPATE

CRITICAL DATES: NONE

SPECIAL INSTRUCTIONS: S:\PSC\EAG\WP\970539EG.RCM

CASE BACKGROUND

In November 1995, the Commission approved Florida Power & Light's (FPL) Residential Air Conditioning program as part of FPL's demand side management (DSM) plan in Order Numbers PSC-95-1343-S-EG, and PSC-95-1343A-S-EG. The program is designed, through the use of incentives, to reduce FPL's summer and winter coincident peak demand and energy attributable to central and room heating, ventilating, and air conditioning equipment. All residential customers installing room air conditioners are eligible to receive incentives. However, those residential customers installing central units must make an installation at a residence occupied for at least one year to be eligible.

In staff's first set of interrogatories in Docket No. 960002-EG, FPL was asked to evaluate each of its approved DSM programs using its most recent planning assumptions. The results showed that several of FPL's DSM programs, including its Residential Air Conditioning program (RIM = 0.81), failed the Rate Impact Measure (RIM) test. FPL stated that the requested analyses were not sufficient to assess whether the programs should continue to be offered. FPL agreed at that time to reevaluate each of the failing programs to determine whether potential program modifications may restore cost-effectiveness.

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On May 6, 1997 FPL filed a petition seeking Commission approval of modifications to its Residential Air Conditioning Program. These modifications consist of revising eligible program conservation measures and restructuring the incentives to be paid for eligible measures.

DISCUSSION OF ISSUES

ISSUE 1: Should the Commission approve Florida Power & Light Company's (FPL) Modifications to its Residential Air Conditioning Program for conservation cost recovery?

RECOMMENDATION: Yes. However, the proposed modifications indicate that the revised program will result in a marginally cost-effective Demand-Side Conservation measure for FPL's ratepayers. For this reason, FPL should reassess the cost-effectiveness of the program and report, in its November, 1998 true-up filing in Docket No. 980002-EG, the resulting cost-effectiveness ratios using the most current assumptions at the time the analysis is performed. FPL should also report to staff the results of its planned evaluation of the Residential Air Conditioning program.

STAFF ANALYSIS: FPL's existing Residential Air Conditioning Program has been modified to include ground source heat pumps as a potential measure, exclude commercial and industrial customers with room air conditioners, and revise the program's incentive structure. FPL currently projects that these revisions will result in reducing an average participant's peak demand and energy consumption by 0.386 kW summer demand, 0.039 kW winter demand, and 744 annual kWh, respectively. This level of demand and energy savings results in a 1.02 RIM and 2.03 Participants cost-effectiveness ratio.

FPL's Residential Air Conditioning Program began in January 1995. Since inception FPL has tracked the progress of this program, reporting the results in its 1996 Demand Side Management Annual Report. When compared to the 1996 report findings, FPL has projected that its program modifications will result in an average participant's summer demand savings at the meter increasing from 0.29 to 0.386 kW. Similarly, winter demand savings are projected to increase from 0.01 kW to 0.039 kW. However, the program modifications are expected to decrease energy savings from 1,292 kWh to 744 kWh. Nonetheless, the current estimated impacts exceed those used as the basis for the program's original approval: 0.26 kW summer, 0.0004 kW winter, and 664 kWh annual energy reduction. Current projections are substantiated by various surveys as well as

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results from end-use monitoring.

The increase in projected demand savings is attributable to a projected increase in installments of higher Seasonal Energy Efficiency Rating units as well as the exclusion of commercial and industrial customers' room air conditioners as eligible equipment under the program. These additional demand savings serve to increase the overall cost-effectiveness of the program through the avoidance of capacity expenditures. However, with the in-service date of the avoided unit advancing to the year 2001, the opportunity for program participation has decreased. In addition, the decline in avoided cost also works against the program's cost-effectiveness.

The incentives to be paid under FPL's program have been revised from a previous availability of \$336 to \$384 per kW to a range not to exceed \$182 to \$303 per kW of summer demand reduction. This reduction in overall cost is coupled with an increased weighting toward the higher efficiency measures. Each factor is designed to promote the cost-effectiveness of the program.

In response to a data request from staff, FPL has indicated that each of its major DSM programs will have an updated evaluation performed every year through 1999. FPL has further indicated that specific programs will be the target of focused attention with an expanded data collection effort. The expanded data collection will include end-use metering, site surveys, participant surveys, and trade ally surveys. During 1997-1998, FPL's Residential Air Conditioning program will be the subject of such an expanded focus. During this time, FPL's current DSM Evaluation Plan indicates that it will make use of end-use metering from 90 sites with central units and 50 sites with room air conditioning during 1997, and from 90 sites with central units in 1998 to verify the impact of its Residential Air Conditioning program to reducing peak load. Staff recommends that FPL be required to report to staff the results of its planned evaluation efforts.

FPL's modifications to its Residential Air Conditioning Program are projected to result in a 1.02 RIM cost-effectiveness ratio. Given this marginal level of cost-effectiveness, the program may be susceptible to becoming not cost-effective if avoided costs drop slightly or assumed demand and energy savings are less than projected. Because of the risk to FPL's ratepayers of a marginally cost-effective program, staff recommends that FPL be required to reassess the cost-effectiveness of the program and file the resulting cost-effectiveness ratios with its November 1998 true-up filing in Docket No. 980002-EG. The reassessment should

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include the most current assumptions at the time the analysis is performed.

A reduction in avoided cost appears to be the primary reason for the decline in cost-effectiveness of FPL's programs. As modified, the Residential Air Conditioning program meets Commission requirements for cost-effectiveness. However, because the program is only marginally cost-effective, FPL should be required to monitor and evaluate the program as planned to insure continued cost-effectiveness.

ISSUE 2: Should Florida Power & Light Company be required to submit detailed program participation standards for its Residential Air Conditioning Program?

RECOMMENDATION: Yes. Florida Power & Light Company should file program participation standards within 30 days of the issuance of the order in this docket. These standards should be administratively approved.

STAFF ANALYSIS: FPL should file program standards that clearly state its requirements for participation in the program, customer eligibility requirements, details on how rebates or incentives will be processed, technical specifications on equipment eligibility, and necessary reporting requirements. Staff recommends that it be allowed to administratively approve these program participation standards if they conform to the description of the program contained in FPL's petition.

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ISSUE 3: Should this docket be closed?

RECOMMENDATION: Yes, if no protest is filed within 21 days of the issuance of this order.

STAFF ANALYSIS: Pursuant to Rule 25-22.029(4), Florida Administrative Code, any person whose substantial interests are affected by the Commission's proposed agency action shall have 21 days after issuance of the order to file a protest. If no timely protest is filed, the docket should be closed.