

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

December 26, 1996

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

FROM: DIVISION OF ELECTRIC & GAS (DUDLEY, ^{KD}FUTRELL) ^{TJB}
DIVISION OF LEGAL SERVICES (WAGNER) ^{RUE For LW} ^{JDJ}

RE: DOCKET NO. 961198-EI - FLORIDA POWER AND LIGHT COMPANY -
PETITION FOR APPROVAL OF COMMERCIAL/INDUSTRIAL NEW
CONSTRUCTION RESEARCH PROJECT

AGENDA: 01/07/97 - REGULAR AGENDA - PROPOSED AGENCY ACTION -
INTERESTED PERSONS MAY PARTICIPATE

CRITICAL DATES: NONE

SPECIAL INSTRUCTIONS: S:\PSC\EAG\WP\961198EI.RCM

CASE BACKGROUND

In Order No. PSC-94-1313-FOF-EG issued on October 25, 1994, the Commission set numeric demand-side management (DSM) goals for the four largest investor-owned electric utilities (IOUs), including Florida Power and Light Company (FPL). In setting FPL's goals, the Commission acknowledged that research and development (R&D) efforts may produce additional savings which could contribute to FPL exceeding its goals.

By Order No. PSC-95-0691-FOF-EG issued June 9, 1995, the Commission approved the DSM plans of the four largest investor-owned electric utilities. Included in FPL's DSM plan were four existing R&D programs, four new R&D programs, and its Conservation Research and Development program. This program serves as an umbrella program to research developing technologies for possible inclusion in future DSM programs.

On October 4, 1996 FPL filed a petition seeking Commission approval of a Commercial/Industrial (C/I) New Construction Research Project. This project will investigate a wide variety of activities designed to increase the energy efficiency of commercial and industrial buildings within Florida's three climate zones.

DOCUMENT NUMBER-DATE
13672 DEC 23 1996
FPSC-RECORDS/REPORTING

DOCKET NO. 9611198-EI
DATE: December 26, 1996

FPL anticipates that the site selection, equipment installation, monitoring, and analysis of the proposed research project will take approximately 22 to 30 months at a projected cost of \$1,525,000. Therefore, FPL has requested a tentative research period lasting for no longer than 30 months from the date of Commission approval and a proposed budget of \$1,525,000 which will include any incentives that may be offered to customers.

DISCUSSION OF ISSUES

ISSUE 1: Should the Commission approve Florida Power and Light Company's (FPL) Commercial/Industrial (C/I) New Construction Research Project, including approval for conservation cost recovery?

RECOMMENDATION: No. Preliminary information indicates that the proposed research project will not yield a cost-effective result. Furthermore, the proposed research project appears to be repetitious of an existing DSM program currently offered by Florida Power Corporation. In addition, FPL's petition contains no clear proposal as to how results from sample points will be extrapolated to the whole system nor does the petition state whether any kW or kWh savings from the research will count toward meeting goals.

STAFF ANALYSIS: As discussed below, staff does not believe that FPL's proposed project will ultimately result in a cost-effective conservation program. Staff recommends that FPL's C/I New Construction Research project be denied for the following reasons:

- **Prior R&D indicates a non-cost-effective result**

FPL's current portfolio of DSM research efforts includes several projects that FPL believes are relevant to its proposed C/I New Construction Research Project. Specifically, FPL completed the C/I Cold Air Distribution System for Air Conditioning R&D project, the C/I Heat Pipes R&D project, and the C/I Central Chiller System R&D project in mid-1994. In addition, FPL is currently researching a C/I Dehumidification project which FPL believes will provide additional support for the C/I New Construction project's cost-effectiveness. The projects completed in mid-1994, were found to be cost-effective based on an avoided cost of \$392/KW. However, FPL's current avoided cost has dropped to \$285/KW. In response to Staff's First Set of Interrogatories in Docket No. 960002-EG, FPL has indicated that six of its eight existing C/I DSM programs are no longer cost-effective since their approval just two years ago. This leads staff to two conclusions. First, the research projects which FPL believes provide relevant information for its proposed project may no longer prove to be cost-effective under today's lower avoided cost. Secondly, if these programs truly provide an indication of the expected performance of its proposed C/I New Construction Research Project as FPL believes, then it stands to reason that the proposed C/I research project may not prove to be cost-effective.

- FPL's project appears to be similar to a program currently offered by Florida Power Corporation that is not cost-effective

The objective of FPL's C/I New Construction Research Project is to identify opportunities in the C/I new construction market which would provide cost-effective measures beyond that required by the Florida Energy Efficiency Code. FPL will initially investigate past and current new construction programs and projects to assist in formulating a general direction for FPL's future efforts. FPL will then provide input for the design of the building and conclude the project by assessing actual vs. designed performance of each measure. FPL's project will evaluate commercially available conservation measures, equipment, and construction techniques, and their combination in commercial buildings. However, FPL indicated that the specific equipment to be marketed has not been determined.

FPL plans to approach potential program participants on an individual basis. It is expected that incentives such as cost sharing of equipment or facility repairs may be required to obtain customer participation. Additionally, FPL may elect to allow the measures installed during the course of the project to remain in the customer's facilities after the research project is complete as an additional incentive. FPL currently expects to hire a contractor to assist in its research efforts. The research contractor will be required to submit quarterly progress reports indicating interim and final estimates of market potential and energy and demand reduction attributed to the C/I New Construction project. At the conclusion of the research project, FPL will prepare a Project Summary Report to be submitted to the Commission.

Not unlike FPL's proposal, Florida Power Corporation (FPC) is currently offering a Commission approved C/I New Construction Demand-Side Management Program to foster the design and construction of energy efficient buildings. Where FPL has elected to research such a program first, FPC chose to offer a full-fledged program from the onset. FPC's program provides incentives for installing energy efficient HVAC equipment, motors, heat recovery units, and properly sealed ductwork. FPC is also offering information and awards for energy efficient building designs.

Staff believes that both FPL and FPC are striving to achieve the same objective. Furthermore, staff believes that both C/I New Construction projects, as described, contain more similarities than differences. For example, both utilities are attempting to foster the efficient design of commercial buildings. Both utilities expect to achieve this objective by targeting the incorporation and interaction of energy efficient equipment. Both utilities will

DOCKET NO. 9611198-EI
DATE: December 26, 1996

perform follow-up inspections to confirm efficiency results. Lastly, both utility's are attempting to develop conservation measures which exceed the current building code. Staff believes that these similarities tends to support that FPL's C/I New Construction Research project will achieve much the same results as FPC's ongoing program. And as discussed later, FPC's program has been shown to be non-cost-effective.

- **Current avoided costs of the two utilities are comparable**

Though FPC's and FPL's C/I New Construction programs are more similar than different, staff realizes that a higher avoided cost might make FPL's project cost-effective where FPC's is not. However, FPC's and FPL's current avoided costs are not significantly different. In fact, they are almost equivalent, \$242/KW and \$285/KW respectively. This leads staff to believe that FPL's program may in fact achieve much the same results as FPC's program. Based on the responses to Staff's First Set of Interrogatories in Docket No. 960002-EG, FPC's C/I New Construction program does not appear to be cost-effective with a RIM value of 0.86. Therefore, staff recommends that FPL should not pursue research efforts which have to some extent proven to be non-cost-effective.

- **FPL's petition contains no clear proposal as to how results from sample points will be extrapolated to the whole system**

FPL has indicated that it will target developers and owners of new commercial buildings, architects, engineers, and others in the building and design community. However, FPL has not indicated how these individuals will be randomly selected to ensure statistically valid results. FPL has not indicated how it plans to translate or interpolate whatever information is obtained to be representative of the remaining commercial and industrial customers on FPL's system.

- **FPL's petition needs to clarify whether any kW or kWh savings are to count toward meeting goals**

Most FPL programs serve to reduce demand (kW). However, these kW saving programs may result in a kWh increase. An off-peak thermal storage program is one example. This leads staff to question that if the kW savings are counted toward the utility's DSM goals, should corresponding increases in kWh also be included? FPL's petition does not address this issue.

DOCKET NO. 9611198-EI
DATE: December 26, 1996

In a meeting with FPL, the above question was posed to which staff verbally received an unclear response. We understand that FPL wants to include kW and any kWh savings toward meeting its goals irrespective of whether a cost-effective program ever results.

● Status of FPL's DSM Goals

Staff recently asked the electric IOU's, in Docket No. 960002-EG, to evaluate each DSM program using the Commission's cost-effectiveness tests and each company's most recent planning assumptions. FPL stated that currently, 13 of its 15 DSM programs fail the Rate Impact Measure (RIM) test. FPL maintains that additional analyses would be necessary in order to determine whether any or all of the programs should continue to be offered. FPL states that it is in the process of reanalyzing all of its DSM programs, and that program modifications, changes to FPL's DSM goals, or other actions may be necessary when FPL has completed its work.

Competition at the wholesale level has lowered generation costs. The permanence of these lowered costs appear to be long lasting in the time frame of DSM programs and the time to which the goals are re-set. All things being equal, lower avoided generation cost makes DSM less cost-effective. Despite lower avoided costs, and the anticipated restructuring of the electric utility industry, FPL is faced with meeting its DSM goals. If FPL does not believe it can meet its goals with cost-effective programs, staff believes FPL should request that its goals be modified.

The fundamental issue is that the goals may need re-setting, particularly for FPL. If 13 of FPL's 15 DSM programs remain non cost-effective, staff plans to recommend that FPL's goals be re-set before 1999. Programs are proving to be too inflexible to respond to dramatically changing prices on the wholesale market.

In conclusion, staff agrees with the Commission's acknowledgment that R&D efforts may produce additional savings which could contribute to FPL exceeding its DSM goals. However, several sources of cost-effectiveness information relevant to FPL's proposed project are currently available and do not appear to indicate that the proposed research project would result in a cost-effective program. Therefore, staff recommends that FPL's petition be denied.

DOCKET NO. 9611198-EI
DATE: December 26, 1996

ISSUE 2: If the Commission approves Florida Power and Light Company's (FPL) Commercial/Industrial (C/I) New Construction Research project, should FPL allocate individual research project cost to the rate class(es) to which research projects are targeted?

RECOMMENDATION: Yes. Allocation of individual research project cost to the rate classes to which the research project is targeted, will diffuse the impact of the C/I New Construction Research project being used as a competitive tool.

STAFF ANALYSIS: In September 1996, the Commission's Division of Research and Regulatory Review published its "Review of Commercial/Industrial Demand-Side Management Programs of Six Florida Utilities." This report in part analyzed the C/I DSM programs of four electric, including FPL, and two gas IOUs. The report also examined the effect of C/I DSM programs on the competitive relationship between the electric and gas industries. One of the conclusions from the study is that the promotion, advertising, and operation of C/I DSM programs play significant roles in the competition between the electric and natural gas utilities examined. It was concluded that FPL takes an aggressive stance that counters the gas industry's marketing of newly developed natural gas appliances. The fact that electricity and natural gas compete for certain customer end-uses is apparent, Page 79 of the report states in part:

In staff's opinion, it is unrealistic to expect DSM programs to have no effect on the competitive balance, or to expect such programs would not be used as marketing tools...However, the customers targeted by commercial/industrial DSM programs are frequently well-informed energy consumers who are capable of evaluating the claims made by competing energy providers. Many of these customers rely upon the expertise of an on-staff facilities engineer or outside energy services company to control energy-related costs, and are less likely to be confused or misled by an energy providers proposal.

Page 11 of the RRR report states:

The Commission's policy on fuel neutrality was addressed in FPSC order Nos. 9974 and 12179, issued in 1981 and 1983. In order No. 9974, the Commission raised concerns about the lack of "source neutrality" of certain DSM program incentives. Specifically, the Commission wanted to ensure that customers who choose alternative fuel sources would be eligible to receive financial incentives offered through DSM programs.

An additional concern was raised in order No. 12179 where Commission staff were instructed to examine each utility's fuel source neutrality policies and practices. In that order, the Commission concluded that 'any program that contains rebates or subsidies having the objective of avoiding or eliminating (new or existing) electrical resistance space or water heating should be implemented in a manner that is consistent with the conservation goal of promoting the use of natural gas as a substitute or a replacement for electrical energy where to do so is cost effective.'

In other words, in order to achieve the ultimate goal of 'increasing the efficiency of the electric systems in Florida', DSM programs should be promoted and implemented in a fuel source neutral mode. Alternative fuels should be considered when deemed cost effective. However, the competitive environment of the 1990's has increased the difficulty for both electric utilities and gas utilities to achieve a 'fuel neutral approach' to demand side management.

Page 40 of the RRR report states:

Staff believes that some of the competitive advertising by FPL is not fuel neutral. FPL appears to believe some gas competitors have misled customers while switching them to gas applications. Though the advertisements cited may have some educational value, they also imply to customers that gas is not a viable alternative to electricity. Rather than specifically comparing costs and performance differences, the debate pits one fuel against another. Staff believes this use of conservation programs as a competitive tool was not intended by FEECA or the Commission.

The advertisements cited by the RRR report are contained in Attachment 1 and serve as an example of what has taken place under the current regulatory environment. Conservation ads for which cost recovery is sought should be objective and factual both in content as well as overall context. We agree with the staff of RRR that the ads contained in Attachment 1 contain no facts but instead suggest that the customer consider all of his options before making a choice. This highlights the difficulty in determining if an advertisement is promoting conservation, competing with the "opposite" fuel, or both. While the Commission may never be able to achieve a scenario in which a customer can receive unbiased advice from either an electric or natural gas utility, staff does

DOCKET NO. 9611198-EI
DATE: December 26, 1996

believe that program costs that are recovered through the ECCR should not be used as marketing tools or position a utility for competition in a retail access environment. The incentive to use DSM and the associated cost recovery for these purposes is lessened by allocating program costs to the customer class that is eligible to participate in the program. Allocating cost recovery of programs to rate classes with "at-risk" customers reduces the incentive for utilities to use DSM for competitive purposes because doing so raises the rates of the "at-risk" customers. If no changes are made to DSM program cost recovery approval requirements, these same types of actions will continue in to the future.

Staff is concerned about the use of DSM for competitive purposes. Staff believes the use of DSM programs as a competitive tool was not intended by the Florida Energy Efficiency and Conservation Act or the Commission. One method of ensuring that DSM is not being used solely as a competitive tool is to allocate the costs of the program to the class of customers who are eligible to participate. By allocating costs to the customer class eligible to participate in the program, non-eligible customers are protected from funding a competitive posturing program.

There has also been an increase in the number of R&D programs being offered by utilities. These programs do not require a RIM analysis, yet the costs of these programs are paid by all customers. Several of these have been granted extensions in time, sometimes increasing the total time period to twice that originally proposed. Many R&D installations provide benefits to the participating customer for several years, even if the measure turns out not to be cost-effective to the general body of ratepayers under a RIM analysis. Also, R&D programs offer a short term marketing tool to secure customers for the long term. For these reasons, staff recommends that if the program is approved, the costs for FPL's C/I New Construction Research project be allocated to the customer class eligible to participate in the program or to the actual participating customers.

DOCKET NO. 9611198-EI
DATE: December 26, 1996

ISSUE 3: Should this docket be closed?

RECOMMENDATION: Yes. If no person whose substantial interests are affected by the Commission's proposed agency action, files a protest within twenty-one days of the issuance of this order, this docket should be closed.

STAFF ANALYSIS: If no person whose substantial interests are affected, files a request for a Section 120.57, Florida Statutes, hearing within twenty-one days of the issuance of this order, no further action will be required and this docket should be closed.

OTHER ENERGY SOURCES MAY CLAIM
 THAT THEY ARE SAVING YOU MONEY, BUT
 WHAT ARE THEY REALLY COMPARING?

Before you consider switching to gas-fired air conditioning equipment, be sure you are comparing apples to apples. What you're hearing from the gas company may sound good, but it may not be the whole story.

So before you make a decision, call us. We'll analyze the real energy and money-saving potential in your current proposal. Or develop an alternate for you, including how your facility can qualify for our conservation incentives. We'll review your energy usage patterns, month-by-month load, cooling requirements, and load profiles by time of day. We'll calculate comparable capital improvement, financing and operating costs. If their proposal is sound, we'll tell you so. Either way, you'll know you're making a fair comparison.

To schedule an appointment, or to learn whether your facility qualifies for any of our incentives for making energy-saving improvements, call your FPL account manager or 1-800-FPL-5566.

**THE POWER TO IMPROVE
 YOUR BUSINESS™**



NG TO GAS, TARY ADVICE: P.

A lot of companies might claim to offer a more cost-efficient alternative to electric power. What you're hearing may sound good, but it may not be the whole story. Before you consider switching, we offer the following advice: Call us.

We'll analyze the real energy and money-saving potential in your current proposal. Or develop an alternate for you, including how your facility can qualify for our conservation incentives. We'll review your energy usage patterns, month by month load, cooling requirements, and load profiles by time of day. We'll calculate comparable capital improvement, financing and operating costs. If their proposal is sound, we'll tell you so. Either way, you'll know you're not jumping to the wrong conclusion.

To schedule an appointment, or to learn whether your facility qualifies for any of our incentives for making energy-saving improvements, call your Florida Power & Light account manager or 1-800-FPL-5566.

**THE POWER TO IMPROVE
YOUR BUSINESS™**



FPL

an FPL Group company