

FLORIDA PUBLIC SERVICE COMMISSION
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M E M O R A N D U M

September 26, 1996

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

FROM: DIVISION OF ELECTRIC & GAS (FUTRELL) *MF*
DIVISION OF LEGAL SERVICES (WAGNER) *W R V E RJ*

RE: DOCKET NO. 960817-EG - FLORIDA POWER AND LIGHT COMPANY -
PETITION FOR APPROVAL OF COMMERCIAL/INDUSTRIAL DAYLIGHT
DIMMING RESEARCH PROJECT *JS*

AGENDA: 10/08/96 - REGULAR AGENDA - PROPOSED AGENCY ACTION -
INTERESTED PERSONS MAY PARTICIPATE

CRITICAL DATES: NONE

SPECIAL INSTRUCTIONS: S:\PSC\EAG\WP\960817EG.RCM

CASE BACKGROUND

In Order No. PSC-95-0691-FOF-EG, issued June 9, 1995, the Commission approved the Demand Side Management (DSM) Plans of the four largest investor-owned electric utilities, including Florida Power and Light Company (FPL). Included in FPL's approved DSM Plan were several research and development (R&D) programs. These programs are intended to produce actual field data for specific energy consuming technologies. The data will allow FPL to determine the potential for full scale program development. FPL also received approval for its Conservation Research and Development (CRD) Program. The CRD program allows FPL to perform less formal research on a variety of technologies and energy efficiency measures.

On July 10, 1996, FPL filed its petition for approval, including approval for conservation cost recovery, of its Commercial/Industrial Daylight Dimming Research Project. The purpose of this research project is twofold: 1) to field test the performance of daylight dimming technology, particularly with respect to electrical energy and demand savings; and 2) to research the potential acceptance of the technology by end-users.

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In Order No. 22176, issued November 14, 1989, the Commission stated that conservation programs will be judged by the following criteria:

1. Does each component program advance the policy objectives set forth in Rule 25-17.001, Florida Administrative Code, and the FEECA statute (Section 386.801, Florida Statutes)?
2. Is each component program directly monitorable and yield measurable results?
3. Is each component program cost-effective?

Because the purpose of the research project is to determine the demand and energy savings attributable to the daylight dimming equipment, no cost-effectiveness determination is necessary. Staff therefore based its review of FPL's Commercial/Industrial Daylight Dimming Research Project on the first two criteria.

DISCUSSION OF ISSUES

ISSUE 1: Should the Commission approve Florida Power and Light Company's Commercial/Industrial Daylight Dimming Research Project, including approval for conservation cost recovery?

RECOMMENDATION: Yes. Expenses should be limited to no more than \$377,000 over the twenty months from the date of Commission approval. FPL should file a project summary report after the conclusion of the project detailing the research findings.

STAFF ANALYSIS: Daylight dimming systems constantly adjust the electric lighting level based on the amount of daylight available. In theory, electrical demand and energy may be saved by reducing the electrical input into the lighting fixture. Savings may also occur from reduced air conditioning load as a result of lower heat gain from the controlled lighting equipment.

The purpose of the research project is to collect data on the performance and market potential of the daylight dimming technology. FPL will use the data and information to determine whether to incorporate a permanent daylight dimming measure into FPL's commercial and industrial DSM programs. FPL also seeks approval to conduct a market survey to determine customer acceptance, potential target markets, and expected penetrations.

FPL anticipates the research to conclude twenty months from the date of Commission approval. The projected cost of the research project is \$377,000. FPL provided staff with a breakdown of costs by the categories used in the Energy Conservation Cost Recovery (ECCR) filings. The majority of costs (\$323,570) are projected for outside services. FPL plans to contract for the daylight dimming research, and the market research study.

Two office buildings will be selected for installation and research of the daylight dimming equipment. The electrical power usage of the lighting system and the air conditioning system, and the light levels at the desktop level will be monitored. The research will produce measurable results allowing FPL to evaluate the technology. FPL will require the contractor performing the research to submit monthly, interim, and final progress reports.

FEECA and Commission Rule 25-17.001, Florida Administrative Code, in part state that a priority is increasing the efficiency of the end-use consumption of electricity to the extent cost-effective. The proposed research will allow FPL to determine whether the daylight dimming technology is cost-effective and can contribute to this policy.

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Staff believes the Commercial/Industrial Daylight Dimming Research Project advances the policy objectives of FEECA and Commission rules, and the project is monitorable and will yield measurable results. Expenses should be limited to \$377,000 over the 20 months from the date of Commission approval. Staff also recommends that the Commission direct FPL to file a project summary report after the conclusion of the project detailing the research findings. Staff recommends the project be approved, including approval for conservation cost recovery for reasonable and prudent expenses.

ISSUE 2: 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 proposed agency action shall have 21 days after the issuance of the order to file a protest. If no timely protest is filed, the docket should be closed.