



Public Service Commission

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DATE: MAY 31, 2001

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

FROM: DIVISION OF SAFETY AND ELECTRIC RELIABILITY (COLSON) *AK*
DIVISION OF LEGAL SERVICES (WALKER) *kaw RUE*

RE: DOCKET NO. 010715-EI - PETITION FOR MODIFICATION OF FLORIDA POWER & LIGHT COMPANY'S PHOTOVOLTAIC RESEARCH, DEVELOPMENT AND EDUCATION PROJECT. *JDJ*

AGENDA: JUNE 12, 2001 - REGULAR AGENDA - PROPOSED AGENCY ACTION INTERESTED PERSONS MAY PARTICIPATE

CRITICAL DATES: NONE

SPECIAL INSTRUCTIONS: NONE

FILE NAME AND LOCATION: S:\PSC\SER\WP\010715.RCM

CASE BACKGROUND

On May 10, 2001, Florida Power & Light Company (FPL) petitioned the Commission for approval of a modification to its Photovoltaic Research, Development and Education (PVRD&E) Project. The Commission approved the PVRD&E Project as part of FPL's 2000 Demand-Side Management (DSM) Plan in Docket No. 991788-EG, Order No. PSC-00-0915-PAA-EG. Photovoltaic (PV) roof-tile systems are a relative new technology which directly replaces existing roofing materials, such as shingles and standing-rib roofing, with PV materials. The PVRD&E project is limited to residential homes. FPL is working with homebuilders to install five to ten PV roof systems in new single family homes. Each roof system will be 2 kW (dc) each, resulting in 10 to 20 kW (dc) PV arrays in total. If approved, the PVRD&E Project Modification will allow FPL to include in the roof top PV systems Project, commercial, industrial and governmental buildings.

DOCUMENT NUMBER-DATE

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DISCUSSION OF ISSUES

ISSUE 1: Should the Commission approve Florida Power & Light Company's Petition for Modification of its Photovoltaic Research, Development and Education Project.

RECOMMENDATION: Yes. The proposed modification will allow PV roof top installations for commercial, industrial and governmental customers as well as for residential customers. This change will not add any additional cost to the program and will not delay its completion. (Colson)

STAFF ANALYSIS: According to the petition, FPL's PVRD&E Project was developed to analyze the feasibility of replacing existing roofing material with photovoltaic roofing materials. As currently approved, the PVRD&E Project is limited to the installation of PV roof systems on five to ten single family homes. FPL expects that the development and analysis phase of the project will take at least three years, with total project cost of \$471,000. The Commission approved these expenditures in Docket No. 991788-EG, Order No. PSC-00-0915-PAA-EG. To date FPL has three residences where this PV roofing material is being installed. At the time FPL entered into its stipulation with the Legal Environmental Assistance Foundation, Inc. (LEAF) and later when FPL proposed the Project, FPL believed that PV roof top systems were suitable only for residential applications. However, as FPL has learned more about these products, FPL now believes that they may be suitable for commercial, industrial and governmental customers as well.

FPL has found several such customers who desire to participate in this research effort. Specifically, Florida Gulf Coast University and St. Thomas University have requested to be included in the PVRD&E Project. Since one of the primary purposes of the PVRD&E Project was to increase local building officials' awareness, understanding and acceptance of the PV roofing technology, FPL believes that modification of the Project to allow installations on commercial, industrial and governmental sites is appropriate. FPL's participating customers will own the roof top PV systems, and each system will be interconnected into FPL's electrical system.

There is no cost-effectiveness analysis required for the PVRD&E Project because research is needed to determine the cost-effectiveness of the installation of the PV roof top systems. The proposed modification to the Project would not increase the budget of the project. Also, FPL does not propose to modify its original

monitoring plan. The modified PVRD&E Project is directly monitorable and will yield measurable results. FPL and LEAF have agreed to this change. Staff believes that FPL will gain valuable information on the performance of this technology in the commercial, industrial and governmental sectors. If this project demonstrates that PV roof top systems can be offered cost-effectively, then FPL plans to add such a measure to its DSM plans. Therefore, staff recommends that the Commission approve FPL's Petition including the recovery through the Energy Conservation Cost Recovery clause of all reasonable and prudent expenditures for the modified PVRD&E Project.

ISSUE 2: 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. (Walker)

STAFF ANALYSIS: At the conclusion of the protest period, if no protest is filed, this docket should be closed upon the issuance of a consummating order.