State of Florida

Public Service Commission

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RECORDS AND REPORTING

DATE: NOVEMBER 18, 1999

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

FROM: DIVISION OF ELECTRIC AND GAS (DRAPER) EJD DPW RVE
DIVISION OF LEGAL SERVICES (JAYE) JDJ

RE: DOCKET NO. 991317-EI - PETITION BY GULF POWER COMPANY FOR APPROVAL OF OPTIONAL RATE RIDER PV (PHOTOVOLTAICS)

AGENDA: 11/30/99 - REGULAR AGENDA - TARIFF FILING - INTERESTED PERSONS MAY PARTICIPATE

CRITICAL DATES: 60-DAY SUSPENSION DATE WAIVED BY GULF POWER COMPANY

SPECIAL INSTRUCTIONS: NONE

FILE NAME AND LOCATION: S:\PSC\EAG\WP\991317.RCM

CASE BACKGROUND

On August 6, 1997, the Commission opened Docket No. 971006-EG to set numeric demand-side management (DSM) goals for Gulf Power Company (Gulf). On June 11, 1999, Gulf and the Legal Environmental Assistance Foundation (LEAF), an intervenor in the docket, filed a Joint Motion to Approve Stipulation (stipulation). The Commission approved the stipulation between Gulf and LEAF in Order No. PSC-99-1381-FOF-EG, issued July 19, 1999.

In the stipulation LEAF agreed to withdraw from the docket and take no position on Gulf's proposed numeric DSM goals. In return, Gulf agreed to investigate and, if feasible, develop various energy-efficiency measures such as green pricing. Specifically, in the stipulation Gulf agreed to file by September 1, 1999, a Photovoltaic (PV) rate rider. Prior to entering into the stipulation with LEAF, Gulf had already participated in a green energy research project that explored the market potential for green energy and tested the response to a PV rate rider. The research project was conducted by the Georgia Institute of Technology Photovoltaics Research and Education Center of Excellence (Georgia Institute) and the Southern Company. As required by the stipulation, Gulf filed a Petition for optional Rate Rider PV (Photovoltaics) on August 31, 1999.

On September 16, 1999, LEAF filed comments as an interested party in this docket and expressed a desire to discuss the filing with Gulf. Gulf waived the 60-day tariff suspension deadline to give Gulf and LEAF additional time to discuss the filing. Gulf and LEAF recently notified staff that LEAF's concerns have been satisfied.

ISSUE 1: Should the Commission approve Gulf's Petition for approval of optional Rate Rider PV (Photovoltaics)?

RECOMMENDATION: Yes. The proposed Rate Rider PV is consistent with language in the stipulation between Gulf and LEAF in Docket 971006-EG and should therefore be approved with an effective date of November 30, 1999. (DRAPER)

STAFF ANALYSIS: The proposed Rate Rider PV (rider) is designed to allow residential, commercial, and industrial customers to purchase photovoltaic (PV) energy at an additional charge. The PV energy will be generated at a photovoltaic generating facility, where solar radiation converts light energy into direct current (DC) electricity.

Customers will be able to purchase one or more 100-Watt blocks of PV energy at a price of $6.00 per 100-Watt block per month. The rider has an initial term of five years and may be terminated by either party following two years' written notice which may be given at any time following year three of the initial term.

The PV project is a collaborative project among the operating companies within the Southern system. The Southern Company operating companies will be sharing customer commitment and energy produced. The plan is to construct a one Megawatt (MW) PV facility. Construction of a PV facility will begin upon the attainment of sufficient commitments from all participants across the Southern Company. The construction of a one-MW PV facility requires that at a minimum 10,000 100-Watt blocks be purchased. If the Southern Company has more subscribers than required to build a PV facility, the subscribers will be billed on a first come, first served basis. Participating customers would not begin paying for the PV energy until the second month following the date the PV facility begins commercial operation. The additional charge will appear as a line item on the customer's bill. Gulf states that the building site has not yet been determined.

To notify its customers of this optional rider, Gulf intends, upon Commission approval, to use its monthly news letter or a separate bill insert. Customers will also be mailed an agreement stating the terms of the PV rider. Customers choosing to sign up for the rider must sign the agreement and return it to Gulf.

<u>Calculation</u> Gulf used information provided by the Georgia Institute to develop the monthly charge of $6.00 per 100-Watt block of PV energy. Information provided by the Georgia Institute shows that a one meter square PV plate produces 0.1 kW or 100 Watts of electricity. It is estimated that this PV plate will produce 15 kWh per month.

The monthly cost of a PV generating facility is $6.66 per one meter square PV plate. These costs include area related cost (structure, land), inverter cost, and the cost of the PV module. Inverter costs are the costs of converting solar energy, which is generated in DC voltage, to the AC voltage used by the electric system.

The next step in the calculation determines a monthly credit for the cost of displaced generation. Since the PV energy is designed to displace power that would have otherwise been produced from traditional generation facilities, Gulf subtracted the cost of traditional generation from the $6.66 charge. Gulf calculated the cost of traditional generation by dividing the 1998 revenues for the residential, commercial, and industrial classes by the 1998 kWh sales for the three classes. The 1998 year-to-date average cost for customers was $0.05404 per kWh. According to the Georgia Institute, one meter square PV plate will generate 15 kWh per month. The resulting credit for the sale of displaced generation is $0.81 (15 times $0.05404). Gulf subtracted the $0.81 from the monthly cost of the PV system ($6.66) and arrived at a final monthly charge of $6.00 (rounded) for 100 Watts of PV energy.

The stipulation between Gulf and LEAF states that Gulf will recover only the incremental cost to provide PV energy to its customers. Staff believes that the above described calculation is a cost-based charge for the incremental cost of PV energy and therefore is consistent with language in the stipulation. Staff notes that at this point Gulf is not requesting recovery of any of the program costs through the Energy Conservation Cost Recovery Clause.

Staff believes that the proposed rider is consistent with language in the stipulation and should therefore be approved with an effective date of November 30, 1999.

ISSUE 2: Should this docket be closed?

RECOMMENDATION: Yes, if Issue 1 is approved, this tariff should become effective on November 30, 1999. If a protest is filed withing 21 days of the issuance of the order, this tariff should remain in effect with any increase held subject to refund pending resolution of the protest. If no timely protest is filed, this docket should be closed upon the issuance of a consummating order. (JAYE)

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.