BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

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| In re: Petition for determination of need for DeBary-Winter Springs 230 kV transmission line by Florida Power Corporation | DOCKET NO. 910578-EI<br>ORDER NO. 24993<br>ISSUED: 8/29/91 |

The following Commissioners participated in the disposition of this matter:

THOMAS M. BEARD, Chairman
J. TERRY DEASON
BETTY EASLEY
MICHAEL McK. WILSON

**ORDER GRANTING PETITION FOR DETERMINATION OF NEED**

By the Commission:

Pursuant to the provisions of Section 403.537, Florida, Statutes (Supp. 1990), and Rules 25-22.075 and 25-22.076, Florida Administrative Code, Florida Power Corporation (FPC) filed a petition on June 3, 1991, to determine the need for a proposed Debary-Winter Springs 230 kV Transmission Line (the "Project"). The Project would connect FPC's Winter Springs substation with its DeBary generating facility.

A public hearing was held on July 8, 1991. Notices of the hearing and the filing of the petition were given in accordance with applicable statutes and rules and were provided to persons requesting notice, to counties and regional planning councils in whose jurisdiction the transmission line could be placed, by publication in the Florida Administrative Weekly, and in newspapers of general circulation no later than forty-five (45) days prior to the date of the hearing. There were no intervenors.

Florida Power Corporation (FPC) presented the testimony of Michael B. Foley and John E. Odom in support of the petition for the Project. Mr. Foley directs generation and transmission facility planning for FPC and described the reliability and strategic benefits the Project will provide to FPC and its customers. Mr. Odom is FPC's area planner responsible for evaluating the transmission system within FPC's Mid-Florida Division, including interconnections with other divisions and utilities. Mr. Odom described FPC's reliability criteria and planning process and sponsored the comparison of alternatives to the proposed Project with estimated cost for each alternative.

We find that the Project is needed by December, 1995 to maintain single contingency reliability on FPC's transmission system. Unless the line is in-service by December, 1997, single

contingency criteria will be violated for an additional contingency. The Project will also address a double contingency in this time frame.

Section 403.537(1)(b), Florida Statutes (Supp. 1990) states "the commission shall take into account the need for electric system reliability and integrity, the need for abundant, low-cost electrical energy to assure the economic well-being of the citizens of this state, the appropriate starting and ending point of the line, and other matters within its jurisdiction deemed relevant to the determination of need."

Members of the Florida Electric Power Coordinating Group (FCG), guided by the regional criteria set forth by the Southeastern Electric Reliability Council (SERC), have determined that bulk power system in the State of Florida shall be planned to meet the more probable contingency situations without loss of load. More probable contingencies are events likely to occur such as sudden loss of any single generating unit, or any single transmission line, or any single transformer bank. This is sometimes referred to as single contingency planning.

FPC has identified two situations where the single contingency planning criteria would be violated. First, by December of 1995, a loss of the Sanford-North Longwood 230 kV line will cause the Sanford-Sylvan-North Longwood line to overload and exceed its emergency rating. FPC estimates that service to approximately 95,000 customers could be affected by this single contingency. With the proposed Project, FPC has an alternate 230 kV line to temporarily redistribute load carried by the lost Sanford-North Longwood line.

Second, by December 1997, a loss of the North Longwood-Winter Springs line would cause the Stanton-Rio Pinar line to reach its emergency rating. Conversely by December 1997, FPC demonstrated that loss of the Rio Pinar-Stanton line will cause the North Longwood-Winter Springs line to exceed its normal rating affecting service to approximately 8,000 customers.

In addition to these single contingency violations, an outage of the Sanford-Altamonte and Sanford-North Longwood lines, which share common structures for approximately 12 miles, will cause a severe overloading of the Sanford-Sylvan-North Longwood line. This is a "double" contingency since two lines would be lost at the same time. FCG's and SERC's reliability planning criteria consider loss of any two transmission lines on the same double-circuit tower to be a "less probable contingency"--not as likely to occur. Less probable contingencies may cause loss of some load and/or instability of some localized generation, but systems should be designed to avoid cascading failures (one line loss after another)

throughout the bulk power system. FPC's testimony indicated that this double contingency could totally separate the generation at DeBary and at FPL's Sanford Plant from the Greater Orlando Area and has the potential to impact service to approximately 500,000 customers as the result of a single event. The proposed Project is not expected to totally alleviate the overloading, but to reduce it down to the level where dispatchers can intervene and prevent a cascading failure.

We find that the proposed project is needed for abundant, low-cost electrical energy to assure the economic well-being of the citizens of this state. Compared to the presented alternatives, the proposed Project is the most cost-effective means of satisfying FPC's single and double contingency requirements. Of the alternatives, only one single line alternative, a Debary - Winter Park East line, had the same benefits. This alternative is basically a longer and more expensive version of the proposed project. Other combinations of lines had higher costs due to required upgrades at various substations.

In addition, the proposed Project provides additional flexibility to FPC's generation expansion plans. Should FPC's load forecasts be wrong, their 500 kV transmission line to Georgia be delayed, or any of the recently signed cogeneration projects default or lag to any significant degree, FPC will have to fall back on its own ability to construct capacity quickly to make up the shortfalls. The DeBary acreage provides such a site for FPC. The proposed Project will create the additional transmission capability necessary to dispatch the generation. Even if capacity is not added at the Debary site, the proposed Project will facilitate power flow from generation north of Debary to load centers south of Debary.

The proposed Project is designed to provide the ability to reliably transfer more power from the electrical sources at DeBary and FPL's Sanford Plant into the Greater Orlando Area. The result is a more strongly interconnected utility system in this area and greater ability to dispatch power from generation in the north to the load it serves in the south. The proposed Project adds another line along which energy to supply load in the south can be dispatched from sources of power generation in the north.

FPC's proposed Project is also designed to make the Winter Springs Substation a base to support a 230 kV extension to the south and east. The extension in turn will provide a new source for the underlying 69 kV network which the area will need in the near future. FPC's witness testified that another 230 kV line into the North Longwood substation would jeopardize reliability by overloading that station. The Winter Springs substation, however, is not currently overloaded. It's also more centrally located

between FPL's Sanford plant and OUC's Stanton. As such it is an ideal location to begin to tie 230, 115, and 69 kV lines into the grid as load expands in the easterly direction.

We find that the major transmission alternatives have been adequately addressed. FPC evaluated 8 alternatives to the proposed project including one alternative suggested by staff. Four alternatives would correct the 1995 single contingency violations; help control a double contingency violation--should it occur; and support additional generation at the DeBary site. However, three of the four alternatives would not correct the 1997 single contingency violations. The fourth alternative, which would correct the 1997 single contingency violation, was longer and more expensive than the proposed Project. FPC also evaluated four other alternatives, including the one offered by staff, which would correct the 1997 single contingency violations. None of these alternatives addressed the other needs of the Project. Combinations of the alternatives could provide the same benefits as the proposed Project, however, all would be longer, hence more expensive, than the proposed Project.

We find that the DeBary Plant in Volusia County and the Winter Springs Substation in Seminole County are the appropriate starting and ending points for the Project. By showing the proposed Project is the most appropriate alternative for its transmission needs, FPC has proven the DeBary Plant in Volusia County and the Winter Springs Substation in Seminole County are the appropriate starting and ending points for the Project.

Based on the foregoing, it is

ORDERED by the Florida Public Service Commission that the Petition for Determination of Need for DeBary-Winter Springs 230 kV transmission line is GRANTED. It is further

ORDERED that if no Motion for Reconsideration or Notice of Appeal is timely filed, this docket shall be closed.

By ORDER of the Florida Public Service Commission, this 29th day of AUGUST, 1991.

STEVE TRIBBLE, Director
Division of Records and Reporting

( S E A L )
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NOTICE OF FURTHER PROCEEDINGS OR JUDICIAL REVIEW

The Florida Public Service Commission is required by Section 120.59(4), Florida Statutes, to notify parties of any administrative hearing or judicial review of Commission orders that is available under Sections 120.57 or 120.68, Florida Statutes, as well as the procedures and time limits that apply. This notice should not be construed to mean all requests for an administrative hearing or judicial review will be granted or result in the relief sought.

Any party adversely affected by the Commission's final action in this matter may request: 1) reconsideration of the decision by filing a motion for reconsideration with the Director, Division of Records and Reporting within fifteen (15) days of the issuance of this order in the form prescribed by Rule 25-22.060, Florida Administrative Code; or 2) judicial review by the Florida Supreme Court in the case of an electric, gas or telephone utility or the First District Court of Appeal in the case of a water or sewer utility by filing a notice of appeal with the Director, Division of Records and Reporting and filing a copy of the notice of appeal and the filing fee with the appropriate court. This filing must be completed within thirty (30) days after the issuance of this order, pursuant to Rule 9.110, Florida Rules of Appellate Procedure. The notice of appeal must be in the form specified in Rule 9.900 (a), Florida Rules of Appellate Procedure.

**M E M O R A N D U M**

August 29, 1991

TO: DIVISION OF RECORDS AND REPORTING

FROM: DIVISION OF LEGAL SERVICES (ELIAS) RVE

SUBJECT: DOCKET NO. 910578-EI - PETITION FOR DETERMINATION OF NEED FOR DEBARY-WINTER SPRINGS 230 KV TRANSMISSION LINE BY FLORIDA POWER CORPORATION

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Attached is a Order Granting Petition for Determination of Need to be issued in the above-referenced docket.

RVE
attachment/Order

xc: Division of Electric and Gas Regulation (Floyd, Ballinger and Brady)