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June 19, 1991

ORIGINAL
FILE COPY

BY HAND-DELIVERY

Mr. Steve C. Tribble, Director
Division of Records and Reporting
Florida Public Service Commission
101 East Gaines Street
Tallahassee, Florida 32301

Re: Docket No. 910578-EI

Dear Mr. Tribble:

Enclosed for filing on behalf of Florida Power Corporation are the original and fifteen copies each of the direct testimony of:

1. Michael B. Foley, Jr.

2. John E. Odom, Jr.

Very truly yours,

Cheryl G. Stuart

Cheryl G. Stuart

ACK _____
AFA _____
APP _____
CAF _____
CMU _____
CTR _____
EAG _____
LEG 1
LIN Ltr only
OPC _____
RCH _____
SEC 1
WAS _____
OTH _____

CGS/cla
Enclosure
cc (w/encl.): Bob Elias
Roland Floyd
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/cla:TribbleFP

RECEIVED & FILED
SS 6/19/91
FPSC BUREAU OF RECORDS

Odom, Jr.
DOCUMENT NUMBER-DATE
06156 JUN 19 1991
FPSC-RECORDS/REPORTING

Foley, Jr.
DOCUMENT NUMBER-DATE
06155 JUN 19 1991
FPSC-RECORDS/REPORTING

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BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

PREPARED DIRECT TESTIMONY OF

MICHAEL B. FOLEY, JR.

ON BEHALF OF FLORIDA POWER CORPORATION

DOCKET NO. 910578-EI

June 19, 1991

Introduction and Qualifications

Q. Please state your name, business address and occupation.

A. My name is Michael B. Foley, Jr. My business address is 3201 34th St. South, St. Petersburg, Florida 33711. I am the Director of System Planning for Florida Power Corporation.

Q. What are your duties and responsibilities in that position?

A. My duties and responsibilities are to direct generation and transmission facility planning for Florida Power Corporation.

Q. Please summarize your educational background.

A. I have a Bachelor of Science in Mechanical Engineering degree from the University of South

Florida and a Master of Business Administration degree from the Florida Institute of Technology.

Q. Please summarize your professional experience.

A. I have over twenty-four years of experience in the utility industry, with twenty of those years at Florida Power Corporation. My professional experience includes approximately 14 years in power plant engineering, design, operations and maintenance and 7 years in system planning, with the remainder of my career in corporate staff positions.

Q. Are you a member of any professional organizations?

A. Yes, I am a registered Professional Engineer in the State of Florida.

Q. Have you previously testified before this Commission?

A. Yes. I have previously testified for Florida Power Corporation in both rate cases and generating performance incentive factor (GPIF) hearings.

Purpose of Testimony

Q. What is the purpose of your testimony?

A. The purpose of my testimony is to explain why the Commission should determine that FPC has a need for the proposed DeBary-Winter Springs 230 kV transmission line (the "Project") as the first step in licensing under the Transmission Line Siting Act ("TLSA"). In explaining the need for the Project, I will give an overview of FPC and will describe the reliability and strategic benefits that the Project will provide to FPC and its customers. Mr. Odom will provide more details on the technical analysis of the Project and the potential alternatives that we examined and rejected.

Q. Are you sponsoring any exhibits as part of your testimony?

A. Yes. A map showing the general location of the Project is attached to my testimony as Exhibit ____ (MBF-1).

Overview of FPC and Project

Q. Please provide a brief description of FPC.

A. Florida Power Corporation (FPC) is Florida's second largest investor-owned electric utility. FPC provides electric service to more than 1.1 million customers in 32 Florida counties. FPC's service territory extends along Florida's West Coast, from St. Petersburg in the south to the Florida-Georgia border in the north and the Appalachicola River in the west.

Q. Please describe the transmission line for which FPC is seeking a determination of need in this docket.

A. The DeBary-Winter Springs 230 kV transmission line will be approximately 18 to 22 miles in length. It will begin at FPC's DeBary Generating Plant near DeBary, in Volusia County, and will end at FPC's existing Winter Springs Substation in Winter Springs, in Seminole County. Engineering for the line is expected to begin in October, 1992 to support a December, 1995 in-service date. Exhibit ____ (MBF-1) shows the generalized location of the Project. The final length and

routing of the line will depend on the result of further proceedings under the TLSA.

Q. Why is FPC asking the Commission to approve the need for the Project?

A. FPC identified the Project as the best alternative to meet the twin needs of maintaining transmission reliability in the Greater Orlando Area and supporting future combustion turbine siting at the DeBary generating site in Volusia County. To meet these needs in a timely fashion, the licensing activity for the Project must begin now.

Reliability and Strategic Benefits of Project

Q. Please describe the reliability need for the Project.

A. The Project is needed by December, 1995 to enable FPC to continue to meet its reliability criteria for service to the Greater Orlando Area. The Project also provides a number of other reliability benefits. Specifically, the needs the Project satisfies and the benefits it provides are as follows:

1. The Project is needed by 1995 to maintain single contingency reliability in the event

of the outage of the Sanford-North Longwood 230 kV line. In its simplest terms, single contingency reliability means that FPC's transmission system must be able to operate without overloads in the event that any single transmission line is out of service. If this planning criteria is violated, then a single transmission line outage could result in loss of customer load.

2. By 1997, the Project is needed to maintain single contingency reliability in the event of the outage of the North Longwood-Winter Springs 230 kV line.

3. The Project reduces the severe overloading which would occur in the event of an outage of the double circuit segment of the Sanford-North Longwood and Sanford-Altamonte 230 kV lines.

4. The Project improves the power transfer capability into the Greater Orlando Area.

5. The Project provides an additional 230 kV source to the Winter Springs Substation that will support future extension of the transmission system in the eastern portion of FPC's service territory.

Mr. Odom will provide more detail about these reliability needs and benefits, and about the alternatives that FPC studied before concluding that the Project is the best solution for meeting these needs.

Q. Please describe the strategic need for the Project.

A. FPC needs to maintain the ability to add generating capacity to its system on short notice to respond to a number of planning contingencies. A study of FPC's combustion turbine siting (CT) options led to the decision to construct additional CTs at the DeBary Generating site in 1992 and at the Intercession City Generating site in 1993. Once the 1992 CTs are added at DeBary, the transmission system at that site will be fully utilized. This means that the addition of any further CT capacity at DeBary without additional transmission would cause FPC to violate its transmission reliability criteria. The DeBary site is a back-up site to Intercession City for the 1993 CTs, and is a leading candidate to serve as a location for future CTs. Because the licensing and construction lead time for

transmission lines subject to the TLSA is longer than the licensing and construction lead time for CTs, it is prudent to add transmission that will overcome the DeBary site's transmission limitations. The Project will address this need by reliably supporting up to 450 MW of additional CTs at the DeBary site beyond those planned for 1992.

Mr. Odom will explain in more detail the Project's impact on overcoming this transmission limitation. I will address the strategic benefits of being able to use the DeBary site for additional CT capacity on short notice.

Q. Why is having the ability to add CT capacity at the DeBary site on short notice important to FPC?

A. The ability to add CT capacity at the DeBary site on short notice is important to FPC because it allows FPC to add new capacity in response to circumstances that may change unexpectedly. While most capacity additions are planned well in advance of construction, it is prudent for FPC to have a useable power plant site, such as DeBary,

that is acceptable for presently unplanned CT additions.

Q. What contingencies might require the addition of such CT capacity?

A. There are several contingencies that could require the addition of such CT capacity. A few examples are:

1. Contracted QF capacity may fail to come on line as expected. In order to maintain system reliability, the addition of CT capacity may be the only available option.
2. FPC's load growth may be higher than anticipated, resulting in the need for additional capacity.
3. It may not be possible to construct CT capacity at Intercession City in December, 1993, due to unforeseen problems in obtaining permits at that site. In that event, a back-up site would be required.
4. The 500 kV tie line from Florida to the Southern system may be delayed from its planned in-service date. If this occurred, FPC might have to add CTs to maintain system reliability.

Q. Will the Project have any impact on Peninsular Florida's ability to import power from the Southern System or other neighboring utilities outside the state?

A. No, this Project will have no impact on Peninsular Florida's ability to import power from Southern Company or other utilities outside Florida. It will, however, improve the power transfer capability into the Greater Orlando Area by providing a third transmission path from generation in the northern part of the area to load in the South.

Q. Please summarize your testimony.

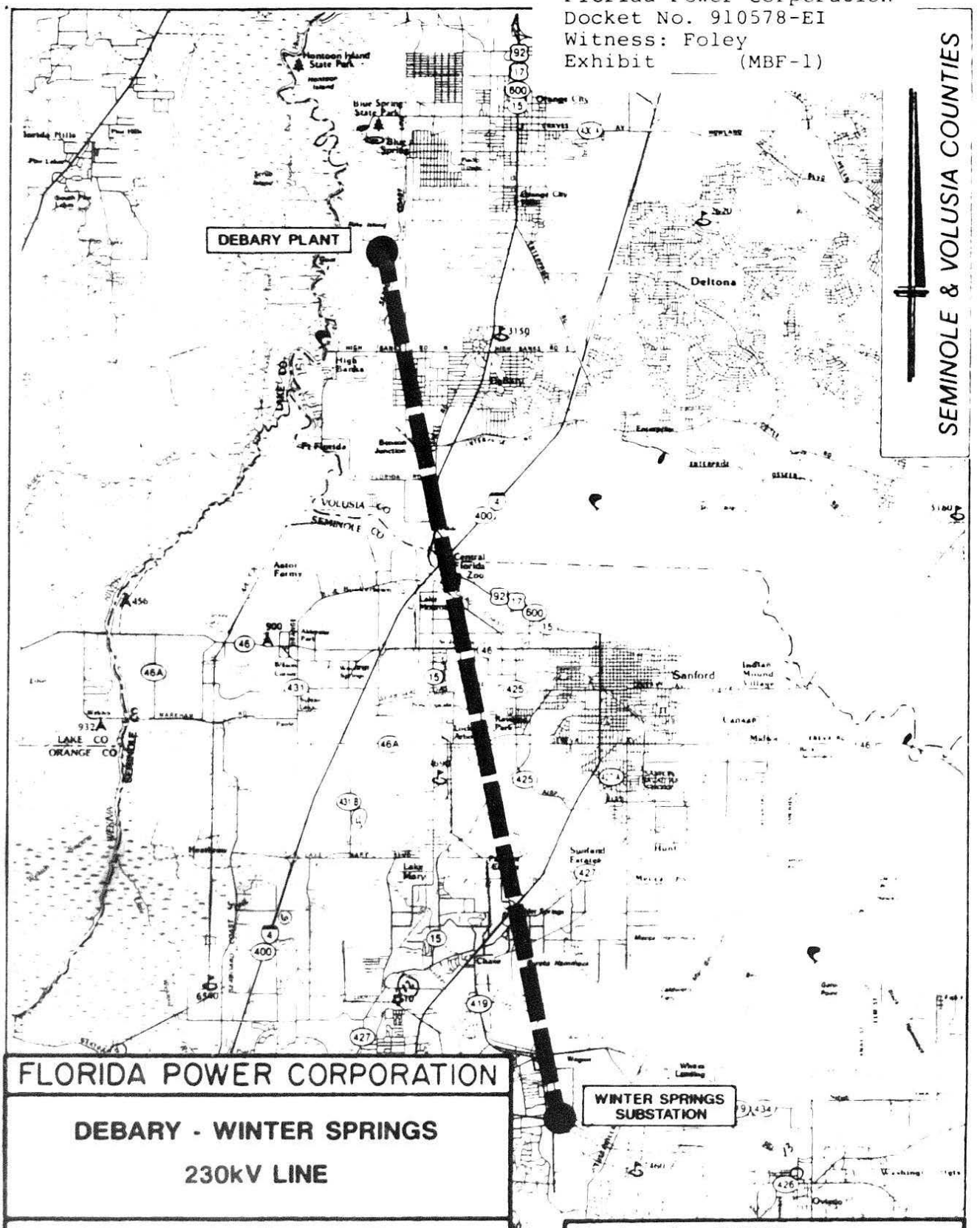
A. The DeBary-Winter Springs transmission line is needed by December, 1995 to maintain the ability of FPC's 230 kV transmission system to reliably withstand single contingency transmission outages. The Project also avoids another single contingency violation that would otherwise occur by December, 1997. In addition, the line enhances transmission reliability by minimizing the effect of outages of double-circuit transmission lines in the Greater Orlando area; improves the power transfer capability into that load center; supports the

future growth and extension of the transmission grid; and overcomes the transmission limitations at the DeBary site by supporting the installation of 450 MW of additional CT capacity at that site. The Project is the best alternative available to FPC to meet the needs of FPC's customers for transmission system reliability and integrity in the Greater Orlando Area, and to assure the availability of abundant, low-cost electrical energy to customers in our Eastern and Mid-Florida Divisions. We respectfully urge the Commission to make an affirmative determination of need for the proposed line as the first step in the licensing process under the TLSA.

Q. Does that conclude your testimony?

A. Yes.

Florida Power Corporation
Docket No. 910578-EI
Witness: Foley
Exhibit ____ (MBF-1)



FLORIDA POWER CORPORATION

DEBARY - WINTER SPRINGS

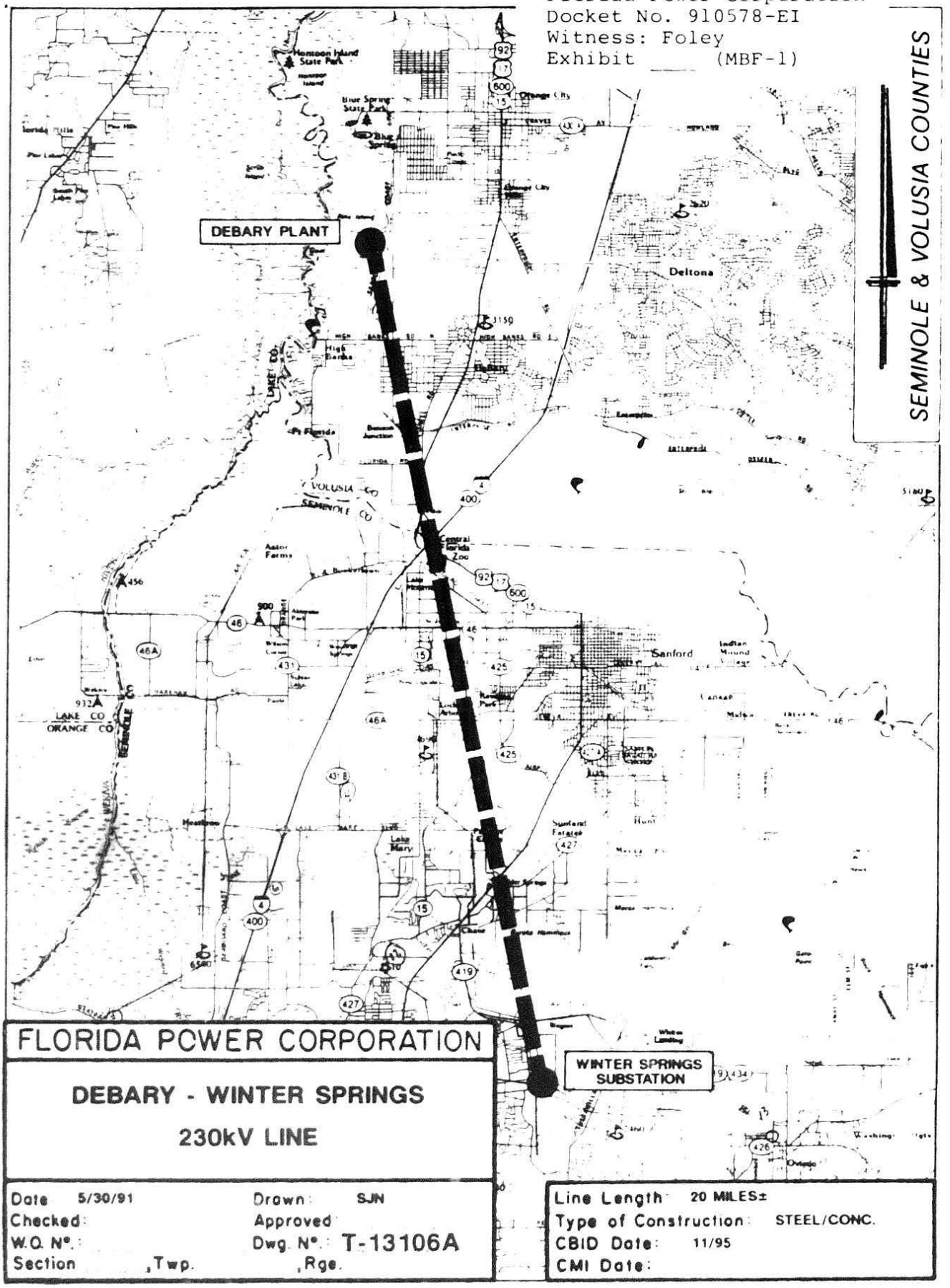
230kV LINE

Date 5/30/91
Checked:
W.O. N°.:
Section ,Twp. ,Rge.

Drawn: SJN
Approved
Dwg. N°.: T-13106A

Line Length: 20 MILES±
Type of Construction: STEEL/CONC.
CBID Date: 11/95
CMI Date:

Florida Power Corporation
Docket No. 910578-EI
Witness: Foley
Exhibit ___ (MBF-1)



FLORIDA POWER CORPORATION

DEBARY - WINTER SPRINGS

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