BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

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In Re: Investigation into the adequacy of the electrical transmission grid in North Florida. DOCKET NO. 890779-EU ORDER NO. 23460 ISSUED: 9-11-90

Pursuant to Notice a Prehearing Conference was held on August 27, 1990 before Commissioner Gerald L. Gunter, Prehearing Officer.

APPEARANCES:

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JOHN T. ALDERSON, Esquire, Assistant Counsel, 1300 City Hall, Jacksonville, Florida 32202 On behalf of Jacksonville Electric Authority

KENNETH A. HOFFMAN, Esquire, Messer, Vickers, Caparello, French, Madsen & Lewis, P.A., Post Office Box 1876, Tallahassee, Florida 32302 On behalf of City of Tallahassee

G. EDISON HOLLAND, JR., Esquire and JEFFREY A. STONE, Esquire, Beggs and Lane, 700 Blount Building, 3 West Garden Street, Post Office Box 12950, Pensacola, Florida 32576-2950 On behalf of Gulf Power Company

JOHN H. HASWELL, Esquire, Chandler, Gray, Lang & Haswell, P.A., 211 Northeast First Street, Gainesville, Florida 32601 On behalf of Seminole Electric Cooperative Inc. and Alabama Electric Cooperative, Inc.

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PREHEARING ORDER

Background

The Florida Public Service Commission is responsible under Section 366.04(2)(c), Florida Statutes, for ensuring the planning, development, and maintenance of a coordinated electric power grid throughout Florida. Further, under Section 366.05(8), Florida Statutes, if the Commission determines that there is probable cause to believe that inadequacies exist with respect to the energy grids developed by the electric utility industry, the Commission may initiate proceedings to ascertain the exact nature of the deficiency and to determine how that deficiency is best corrected.

Based on studies performed by the Florida Electric Power Coordinating Group (FCG), Florida's transmission grid currently has the capability of reliably transferring 3200 MW of generation and purchase power from north Florida to load centers in south and central Florida. However, it appears that for the period January 1, 1993 through May 31, 1994, Florida utilities have entered into contracts with the Southern Company and with cogenerators located in north Florida for firm capacity purchases which, in aggregate, exceed the states's 3200 MW transfer limit. Thus, it appears that unless steps are taken to increase transmission capacity in north Florida, otherwise cost-effective energy and capacity purchases from the Southern Company and from Florida cogenerators may be unavailable to southern and central Florida during this period.

For this reason, through procedural Order No. 21457, issued June 27, 1989, this docket was opened to determine whether the existing and currently planned transmission grid in Florida is sufficient to transfer existing and planned generation and purchased power from north Florida to load centers in central and To the extent that additional transmission south Florida. existing facilities are being needed or facilities are inefficiently utilized, the Commission is required by statute to pursue appropriate actions to ensure the cost-effective development and utilization of generation and cogeneration resources in Florida.

Use of Prefiled Testimony

All testimony which has been prefiled in this case will be inserted into the record as though read after the witness has taken the stand and affirmed the correctness of the testimony and exhibits, unless there is a sustainable objection. All testimony remains subject to appropriate objections. Each witness will have the opportunity to orally summarize his testimony at the time he or she takes the stand.

Use of Depositions and Interrogatories

If any party seeks to introduce an interrogatory or a deposition, or a portion thereof, the request will be subject to proper objections and the appropriate evidentiary rules will govern. The parties will be free to utilize any exhibits requested at the time of the depositions, subject to the same conditions.

Order of Witnesses

for Staff)

1.

The witness schedule is set forth below in order of appearance by the witness' name, subject matter, and the issues which will be covered by his or her testimony.

<u>Witness</u> (Direct)	Subject Matter	<u>Issues</u> 1
Ken Wiley (Florida Electric Power Coordinating Group,	Existing Florida Transmission Grid	

> Witness (Direct)

P.G. Para (JEA)

5.

Subject Matter

Issues

1-3 Existing high voltage 2. Theresa G. Walsh transmission system in (Staff) Florida; possible nearterm transmission capacity shortfall; possible solutions to these shortfalls. 1-3 The current capacity Samuel Nixon, Jr. 3. limitations of Florida (FPC) Power's transmission system to deliver power from northern Florida to load centers in central Florida; alternatives for alleviating these limitations; plans to construct a new 500 KV transmission line. The purposes of, and the 1-3 4. K. Adjemian (FPL)

planning for, transmission systems/facilities; the major transmission facilities in North Florida and their capabilities; the method used to establish such capability; and the adequacy of such facilities.

JEA's transmission system.

1-3

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Witness (Direct)

Subject Matter

Issues

1-3

 Gary S. Brinkworth (Tallahassee)

7. W.F. Pope (Gulf)

- Timothy S. Woodbury (SEC)
- 9. B. Roy Clausen (AEC)
- Robert C. Williams (FMPA)

Tallahassee's transmission system; adequacy of transmission system in peninsular Florida; Tallahassee's plans to enhance peninsular Florida's transmission system.

Gulf Power transmission 1-2 planning.

Additional transmission 1-3 facilities are needed and SEC should participate in planning and construction.

Additional transmission facilities are needed and AEC should participate in planning and construction.

Large power imports into 1-3 peninsular Florida affect all utilities connected to the statewide grid, including nonparticipating utilities.

1-3

> <u>Witness</u> (Direct)

(Rebuttal) 11. K. Adjemian (FPL)

Additional transmission improvements necessary to safely and reliably achieve the increase in State import capability described by FPC's witness, Samuel F. Nixon, Jr.

Subject Matter

Rebuttal to direct testimony of witnesses Clausen, Nixon, Walsh, Williams and Woodbury.

ownership and access.

Brinkworth All issues and the assee) City's general position regarding transmission 1-3

1-3

Issues

1-3

EXHIBIT LIST

EXHIBITWITNESSDESCRIPTIONWalshSouthern/Florida 500KV Transmission
Grid, Existing SystemTGW-1(Staff)TGW-2Transmission Interconnections Owned by
Florida Utilities
Florida UtilitiesTGW-3Transmission Interconnection Agreement Among

Interface Allocation Agreement Among Florida Power & Light Company, Florida Power Corporation, Jacksonville Electric Authority, and City of Tallahassee, Florida

 Gary S. Brinkworth (Tallahassee)

12. P.G. Para (JEA)

11.



EXHIBIT LIST

EXHIBIT	WITNESS	DESCRIPTION
TGW-4		Southern/Florida Transmission Interface, Allocations Resulting from Interface Agreement
TGW-5		Comparison of Peninsular Florida's Transmission Import Capability and Planned and Proposed Power Purchases
TGW-6		North Florida Qualifying Facility Purchases
SFN-1	Nixon (FPC)	Comparison of prices paid to QFs to prices paid for purchases from Southern Company
KA-1	Adjemian (FPL)	Florida Transmission Map showing existing and projected transmission facilities
KA-2		Effect of 500 kV transmission facility additions on State import capability
KA-3		Comparison of State import capability with present and planned committed purchases
КА-4		Copy of Federal Energy Regulatory Commission (FERC) order approving the Florida-Southern transmission allocation agreement.
TSW-1	Woodbury (SEC)	SEC's motion to intervene in the FERC Docket ER90-399-000
TSW-2		FERC's order granting intervention in Docket No. ER90-399-000
TSW-3		The NRECA transmission access report of June, 1990

Parties Statements of Basic Positions

STAFF: Prior to 1988, FPL and JEA has been contracts with Southern for the purchase of 2400 MW of firm power through 1992. Beginning in 1993, FPL and JEA's firm power purchases from Southern were to ramp down. Since the total Florida/Southern transfer limit was assumed to be 3200 MW during this period, there remained an 800 MW "cushion" of transmission capacity in north Florida.

In 1988, however, Southern made available additional power purchases, and FPC, FPL, and JEA each bought additional firm Under these new contracts, if all options for the capacity. purchase of additional firm capacity from Southern are exercised, it appears that the Florida/Southern transfer limit of 3200 MW will In addition to these purchases from Southern, both be exceeded. FPC and FPL have existing contracts with north Florida Qualifying Further, additional Qualifying Facilities have Facilities. When these expressed the intention to locate in north Florida. planned and proposed purchases from Qualifying Facilities are added to the purchased power available from Southern, it appears that the individual allocation of transmission capacity of FPC and FPL will be exceeded.

Additional transmission lines appear to be needed. Florida's electric utilities should be required to identify the specific additional transmission lines which are needed to economically accomplish the following goals:

- Fully utilize existing contracts with the Southern Company and north Florida Qualifying Facilities.
- Encourage the further development of Qualifying Facilities in north Florida.
- Enhance reliability in central and south Florida by increasing the ability to purchase emergency power from utilities in north Florida and outside Florida during emergencies.
- 4. Provide the opportunity for additional firm and non-firm economic purchases from utilities in north Florida and outside Florida.

<u>Florida Power Corporation (FPC)</u>: Florida Power takes the position that current transmission capacity limitations in northern Florida prevent Florida Power from utilizing new sources of QF generation. These limitations should be alleviated by Florida Power constructing a new 500 KV transmission capacity. QFs must bear the costs of current and future transmission capacity that they utilize.

Florida Power and Light Company (FPL): The existing transmission facilities are adequate to supply the State utilities with their present and planned generating resources and committed purchases. However, there are other considerations, such as reliability and/or economy purchases, that amy suggest an additional need for transmission capacity. These cases must be carefully evaluated before decisions to construct additional transmission facilities are reached which involves a review that cannot be conducted at this hearing.

Jacksonville Electric Authority (JEA): The existing and planned transmission system in Florida is sufficient to transfer existing and planned generation and firm purchased power from north Florida to load centers in central and south Florida. The transmission system is not an unlimited resource. Multiple generating unit outages in south Florida may limit the maximum safe transfer of power. There may also be times when all of the available non-firm economy energy can not be transferred south.

City of Tallahassee (CITY): The CITY's basic position is that under certain circumstances of dispatch and transmission network availability in the integrated electric system of Florida, there are times when the capacity to move power within the State of Florida is inadequate. It is the CITY's position that detailed studies are necessary to identify the proper capability, timing and location of future transmission network additions and improvements in the State of Florida. The CITY currently operates one 230 kV transmission tieline linking the CITY's Hopkins Generating Station with a 230 kV substation at South Bainbridge owned and operated by Georgia Power Company. The CITY is committed to expanding and improving its transmission tieline capability by the addition of interconnections with the operating companies of the Southern Electric System; improving existing interconnections with Florida Power Corporation; and, pursuing the establishment of new

interconnections and transmission facilities with the abovementioned utilities as well as other electric utilities. The City's primary objective in pursuing these transmission network options is to maximize the availability of least cost bulk power opportunities for the benefit of the customers of the CITY and other electric utilities in the State of Florida.

<u>Gulf Power Company (Gulf)</u>: It is the basic position of Gulf Power Company that the transmission system in north Florida, as it presently exists or is planned, is adequate to meet the needs of the electric utilities serving the region. Gulf Power's transmission system allows it to transport generated power from its generating units or from power imported into Gulf's territory to the Company's load at the most economic cost to Gulf's customers. There are ongoing studies by Florida electric utilities which will assist the utilities in planning and developing any necessary and cost effective improvements to the transmission grid of the state.

Seminole Electric Cooperative, Inc. (SEC): SEC has included no statement of basic position in its prehearing statement.

Alabama Electric Cooperative, Inc. (AEC): AEC has included no statement of basic position in its prehearing statement.

Florida Municipal Power Agency (FMPA): All electric utilities in the state should be, or have the opportunity to be, involved in statewide transmission system planning and operation. Access to a jointly planned, developed, coordinated and operated transmission grid should be made available to all electric utilities without discrimination. The Florida Public Service Commission should insure that transmission services are property planned and available to all electric utilities.

Falcon Seaboard Power Corporation (Falcon): It is Falcon's position that the proposal presented by Florida Power Corporation in the testimony of Samuel F. Nixon, Jr. to assess QFs all or a portion of the cost represented by the cost of purchasing transmission capacity and/or constructing a new transmission line should not be adopted. Such a proposal attempts to attribute costs to QFs which they have not caused. This imposition of additional costs would result in QFs being treated as "second class" citizens and would deter the development of cogeneration in Florida contrary to Commission policy.

Timber Energy Resources, Inc. (Timber): It is Timber Energy's position that the proposal presented by Florida Power Corporation in the testimony of Samuel F. Nixon, Jr. to assess QFs all or a portion of the cost represented by the cost of purchasing transmission capacity and/or constructing a new transmission line should be rejected. Provision of adequate transmission capacity is Florida Power Corporation's responsibility and has nothing to do with the location of Timber Energy on the transmission grid.

Tampa Electric Company (TECO): Tampa Electric could be substantially affected depending upon the issues which are developed in this proceeding and the manner in which they are resolved. Accordingly, Tampa Electric will attend the hearing scheduled to commence on September 12, 1990 and will participate to the extent necessary to defend its interests and those of its customers.

Statement of Issues and Positions

- ISSUE 1: Is the existing and currently planned transmission grid sufficient to transfer existing and planned purchase power from north Florida to load centers in central and south Florida?
- STAFF: No.
- FPC: While Florida Power's existing transmission capacity from northern Florida to central Florida is insufficient to transfer additional purchased power, Florida Power plans to construct a 500 kV tie-line and associated facilities between a new interconnection with the Southern Company transmission system and Florida Power's Central Florida substation. This additional transmission capacity will be sufficient to transfer additional future purchased power to Florida Power load in central Florida. However, there may be other facilities required by other utilities to transfer existing and additional future purchased power to other load in central and southern Florida.
- FPL: The existing transmission facilities are adequate to supply the state utilities with their present and planned generating resources and committed purchases. However,

> there are other considerations such as reliability and/or economy purchases, that may suggest an additional need for transmission capacity. These must be carefully evaluated before decisions to construct additional facilities are reached.

JEA:

Yes, However, the transmission system is not an unlimited resource. Multiple generating unit outages in south Florida may, at times, limit the maximum safe transfer of power. There may also be times when all of the available non-firm economy energy can not be transferred south. Witness: Para.

Under certain circumstances of dispatch and transmission CITY: network availability in the integrated electric system of Florida, there are times when the existing transmission system in Florida is not sufficient to transfer power from north Florida into load centers in central and south The CITY is currently involved with other Florida. Electric member utilities of the Florida Electric Power Coordinating Group ("FCG") in conducting network and Florida Power stability contingency studies to assess the reliability and adequacy of the existing transmission system in the Detailed studies will need to be conducted to State. identify the proper capability, timing and location of future transmission network facilities so that such facilities may be implemented on the most cost-efficient The capability, timing and location of future basis. transmission network facilities should be based, in large part, on the extent of current and planned purchases of

power to be transferred from north Florida to load centers in central and south Florida.

- GULF: Gulf has not performed any specific studies which would indicate that the currently planned transmission grid is inadequate to transfer existing and planned purchased power from north Florida to load centers in central and south Florida. Gulf is additionally not aware of any inadequacies currently with regard to transfers into Peninsular Florida under normal system conditions.
- SEC/AEC: No. The current operation of the Florida transmission grid is based upon separate utilities operating from

> their own self-benefit. That operation currently discourages competition, and it discriminates against those utilities which are not privy to physical interconnection opportunities, thereby allowing for distortion of equitable costs sharing among all electric power users in the state of Florida. The development and operation of an integrated transmission system would allow for maximum coordination and interchange of power between the different utilities, providing resources and corresponding benefits in system capability, reliability, and economics.

- FMPA: Adopts the position of SEC/AEC.
- FALCON: No position; however, Falcon will continue to participate in this docket in order to supply information from the perspective of an energy developer and to help in the development of transmission policy, where appropriate.
- TIMBER: No position.
- TECO: No position at this time.
- ISSUE 2: Are improvements to existing transmission facilities and/or additional transmission facilities needed to increase the import capability and transmission capacity from north Florida to central and south Florida?
- STAFF: Yes. Improvements to existing transmission facilities are needed to economically accomplish the following goals:

1. Fully utilize existing contracts with the Southern Company and north Florida Qualifying Facilities.

2. Encourage the further development of Qualifying Facilities in north Florida.

3. Enhance reliability in central and south Florida by increasing the ability to purchase emergency power from utilities in north Florida and outside Florida during emergencies.

> 4. Provide the opportunity for additional firm and nonfirm economic purchases from utilities in north Florida and outside Florida.

FPC:

Yes. As stated above for Issue 1, Florida Power has determined that improvements are necessary, and plans to construct these facilities.

FPL: FPL is currently evaluating the need for additional facilities for reliability and other benefits.

JEA: Yes. If the Commission finds that the answer to Issue 1 is no, then improvements and/or additions may be needed. However, the Commission should also realize that the dispatch of existing generators and the siting of future generators will significantly impact the ability of the transmission system to reliably transfer power. Witness: Para.

It would appear that in light of current information CITY: regarding existing and planned purchases of power from or through north Florida, additional transmission capacity will be necessary to: (i) fulfill firm purchased power contracts and commitments from the Southern Company and Facilities; (ii) existing north Florida Qualifying enhance reliability in peninsular Florida; and (iii) maximize the availability and opportunity for additional firm and non-firm economic purchases from utilities in north Florida and outside of Florida. Again, detailed studies will need to be conducted through the FCG in order to identify the proper capability, timing and location of future transmission network facilities so that such facilities may be implemented on the most costeffective basis.

GULF:

Gulf would agree that improvements to existing transmission facilities and/or additional transmission facilities would increase the import capability and transmission capacity in north Florida. Gulf is not in a position to determine whether any such improvements are absolutely needed or what factors would drive the need for additional facilities in north Florida. If the results of a study were to indicate that for the purpose

of reliability or economic power purchases, additional transmission facilities were needed, then the most cost effective transmission facilities should be considered for construction.

- Yes. Several restraints of the Florida transmission grid SEC/AEC: and interface capability should be considered for the implementation of adjustments, corrections, and additions to improve transfer capability of the transmission grid. Such a plan should be developed and operated through a coordinated and integrated transmission grid similar to NRECA, CPU model which allows for maximum the economic possibilities for opportunities and transactions, interchanges, and emergency coordination by all Florida utilities.
- FMPA: Adopts the same position as SEC/AEC.
- FALCON: No position.
- TIMBER: No position.
- TECO: No position at this time.
- <u>ISSUE 3</u>: What additional transmission facilities should be evaluated to increase the import capability and transmission capacity from north Florida to central and south Florida?
- STAFF: At a minimum, the following additional transmission lines should be evaluated:

1. An additional 500 KV transmission line or lines from the Southern system at Plant Hatch or the Tifton substation to Florida's Central Florida to Kathleen to Orange River substations.

2. An additional 500 KV transmission line or lines along the east coast from the Southern system to central and south Florida paralleling the existing 500 KV transmission system along the east coast.

> 3. An additional 500 KV transmission line or lines from Carryville plant site in northwest Florida to the Central Florida to Kathleen to Orange River substations.

FPC:

- As discussed in Issue 1, Florida Power intends to construct a 500 KV transmission line. The plans for the construction of this line are the result of an extensive study. Any additional studies "evaluated" pursuant to this docket should presume a transmission system which includes the 500 KV line facilities already studied. However, any studies addressed in this docket should only be addressed in a general fashion. The specific study underlying the 500 KV line, or any other specific studies, can be evaluated only in a need determination docket brought pursuant to Section 403.537, Florida Statutes.
- FPL: At least two additional 500 KV transmission lines should be evaluated to increase transfer capability into Florida. New facilities along the west coast are currently under study. Other lines suggested by Staff or other alternatives proposed by other utilities may be worthy of evaluation.
- JEA: Any evaluation should include the relative value of the benefits expected from each improvement as well as the costs. Studies must be performed to determine what benefits each improvements may provide to the grid. Additional reactive support, additional transmission lines, upgrades to existing facilities, changing the dispatch of existing generators, and strategically locating the sites of future generators could all; increase import capability.
- CITY: The CITY is committed to expanding and improving its transmission capability for the primary purposes of maximizing the availability of electric power at the least cost and providing additional resources and reliability to its own customers, as well as customers of other electric utilities. The CITY believes that these objectives may be accomplished by expanding and improving its existing 230 kV transmission intertie with Georgia Power Company; improving interconnections maintained with Florida Power Corporation; and, working toward

> establishing additional interconnections and joint transmission facilities with operating companies of the Southern Electric System, Florida Power Corporation, and With respect to the other other electric utilities. electric utilities in this docket, the CITY believes it is appropriate for the Commission to evaluate the impact proposed 500 KV tie-line between a new of the interconnection with the Southern transmission system and Florida Power Corporation's Central Florida substation discussed in Mr. Nixon's prefiled direct testimony submitted on behalf of Florida Power Corporation, and the Power proposed 500 KV between Florida circuit Corporation's Kathleen substation and Florida Power & Light Company's Orange River substation discussed in Mr. Adjemian's prefiled rebuttal testimony submitted on behalf of Florida Power & Light Company.

GULF: See the latter part of Gulf's response to Issue No. 2.

The Florida Public Service Commission, should require all SEC/AEC: of the affected electric utilities to evaluate the prospective construction of additional transmission facilities in the northern portion of the Peninsula of Florida and the Florida Panhandle in order to access opportunities for the purchase of economic wholesale power which is currently available from outside Florida. The access to economic wholesale power from outside Florida provides opportunities for competition and for economy provides additional possibilities transactions, interchanges, and emergency capacity. А part of this evaluation should be devoted to the development of criteria and solutions to the following questions:

> (a) Who should plan and construct any new transmission facilities;

> (b) How should access to and the capacity of the transmission facilities be allocated; and

(c) What facilities should be constructed and where?

FMPA: No position at this time.

FALCON: No position.

TIMBER: No position.

TECO: No position.

STIPULATED ISSUES

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The parties have not stipulated to a position on any of the issues.

MOTIONS

At the prehearing conference several issues submitted by the parties were eliminated because they were beyond the scope of this docket. As a result, we instructed the parties to determine amongst themselves whether certain portions of their prefiled testimony should be withdrawn as irrelevant to the remaining issues. The parties were also required to submit to Staff, by Friday, September 7, 1990, information regarding exactly what testimony would be withdrawn as extraneous to the issues.

Several parties have not submitted the requested information to Staff. It would therefore appear that disputes remain concerning the appropriateness of certain prefiled testimony. This matter will be taken up by the panel immediately prior to the hearing in this docket.

OTHER MATTERS

None.

Based on the foregoing, it is

ORDERED by the Florida Public Service Commission that these proceedings shall be governed by this order unless modified by the Commission.