BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In re: Review of Florida Power Corporation's Earnings, Including Effects of Proposed Acquisition of Florida Power Corporation by Carolina Power & Light	DOCKET NO. 000824-EI Submitted for Filing: November 15, 2001

DIRECT TESTIMONY OF SARAH S. ROGERS, P.E.

ON BEHALF OF FLORIDA POWER CORPORATION

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ON BEHALF OF FLORIDA POWER CORPORATION

I. Introduction

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

A. My name is Sarah S. Rogers. I am the Vice President, Transmission, for Florida Power Corporation ("Florida Power" or "the Company"). My business address is 3300 Exchange Place, Lake Mary, Florida.

Q. What are your duties and responsibilities?

A. I am responsible for the management and operation of Florida Power's transmission system including approximately 90 substations and 4,600 miles of line.

Q. Please describe your educational background and work expertise.

A. I attended San Diego State University, obtaining a BS in Electrical Engineering in 1984. I received an MBA from Duke University in 1990. I became employed with Carolina Power & Light Company ("CP&L") in Raleigh, North Carolina in 1984, in System Planning, estimating generation and fuel consumption for the system, designing protective relaying schemes primarily for generating plants, and redesigning the utility's UHF two-way radio system for a 30,000 mile area. In April 1991, I became a Senior Systems Engineer with Teletec Corporation in Wake Forest, North Carolina, designing telecommunications systems for clients in North Africa, the Middle East, and the Pacific Rim.

In December 1991, I became employed again by CP&L as a Supervisor in Telecommunications Support, where I was responsible for designing and implementing a centralized help desk and material repair depot. In June 1995, I became manager for CP&L's Northern Transmission department, responsible for the maintenance and operation of over 130 substations, plant switchyards, and 1,200 miles of transmission lines. I led the restoration effort following Hurricane Fran (which damaged 53 transmission lines in the system), returning service to all delivery points within 54 hours. In July 1997, I was promoted to Vice President, for Transmission. In this capacity, I led efforts to implement asset management software, managed CP&L's participation in regional transmission organization ("RTO") discussions culminating with the formation of GridSouth, improved the company's employee safety record, and led restoration efforts after the devastating floods from Hurricane Floyd. Since December 2000, I have been employed by Florida Power in my current capacity.

I am a registered Professional Engineer in North Carolina and Florida and a member of the National Society of Professional Engineers, the Edison Electric Institute, the Society of Electrical Engineers, and the Electric Power Research Institute.

II. Purpose and Summary of Testimony

Q. What is the purpose of your testimony?

A. I appear on behalf of Florida Power to discuss the Company's commitment to ensuring transmission reliability and to support the reasonableness of transmission costs reflected in the Company's Minimum Filing Requirements ("MFRs") filed with the Commission on September 14, 2001.

Q. Have you prepared any exhibits to your testimony?

A. Yes. SSR-1 describes Transmission Capital and O&M expenditures on planned reliability initiatives.

Q. What schedules in Florida Power's MFRs do you sponsor?

A. I sponsor Schedules C-21, C-57, and C-61 of the Company's MFRs, insofar as they pertain to transmission. These are true and correct, subject to their being updated in the course of this proceeding.

Q. Please summarize your testimony.

A. Having come to Florida Power from CP&L as a result of the merger, I am pleased to state that the Company is prepared not only to maintain historic transmission reliability levels, but to increase its investment in the Florida Power transmission system even further and, consequently, to enhance the reliability of that system. In fact, the Company is taking advantage of the best practices of both CP&L and Florida Power to place renewed emphasis on the importance of moving power throughout our system and to stand ready to serve increasing demands on the Florida grid resulting from new generation from a variety of sources. Our

customer base is growing, and the State's economy is growing, and we must be prepared to anticipate and meet the demands of progress in our State.

Historically, the Florida Power transmission system has benefited from a very robust design, providing exceptional ability to isolate the impact of outages to pocket areas within the system. Nonetheless, the time has come when we must replace deteriorating poles, cross arms, insulators, and other aging facilities because the Company's transmission facilities are the arteries of the utility's electric service system. Therefore, we are budgeting expenditures for 2002 that are reasonably necessary to maintain this system in good working order in future years. We are seeing this trend elsewhere in the country as transmission facilities installed decades ago to meet the demands of dynamic population growth are requiring increased attention. At Florida Power, we have identified a number of areas where we must replace or repair transmission equipment to be prepared fully to meet the demands of the new millennium. But more than that, we are committed to providing proactive maintenance of substation equipment and other facilities to ensure continuing reliability in future years.

To this end, we have developed an O&M budget of $34.3 million that results in a variance from the O&M benchmark of $ 11.7 million, taking into account $1.5 million in merger savings. This will enable Florida Power to achieve a reasonable balance between cost of service and quality of service that is

necessary to ensure reasonable rate levels and reliability for our customers in the coming years.

Q. Please provide an overview of your Capital and O&M expense forecasts for maintaining and upgrading Florida Power's transmission system.

A. We are forecasting total transmission capital expenditures of $42.5 million and O&M expenses of approximately $34.3 million for 2002. The O&M budget includes $1.5 million in merger synergies. This operating budget (Capital and O&M) for 2002 is designed to allow the Company to make necessary repairs to its transmission system and to provide our customers with reliable, high quality electric service through new technologies that will result in fewer outages and improved restoration time.

As I have described, Florida Power's transmission system enjoys a very robust design, enabling us to isolate problems to minimize the number of customers affected by any interruption in service. But, like many other utilities around the country, Florida Power's system was installed in the 1950s, 1960s, and 1970s, and it is now showing signs of age. In addition, our customer base is growing, the State's economy is changing, and our customers' expectations our evolving, as they rely more upon sophisticated technology in their businesses and homes. We must keep up with the demands being placed upon our system by generation and the pace of progress in technology and other areas.

Over the past 18 months, in the course of conducting merger integration studies and then reviewing best practices following the merger, we carefully assessed the needs of Florida Power's transmission system and the challenges we will be facing. We identified opportunities for improving reliability and areas that require attention, including the need to repair or replace some of our substation breakers, defective substation equipment, poles, and other equipment. Based on this assessment, we considered various initiatives for improvement, carefully analyzing associated costs and benefits, and we developed a plan of action, with recommendations for funding to accomplish our objectives.

In general, we are committed to accomplishing needed repairs and replacement of equipment over a three-year time horizon. Stretching the process out over any longer period of time would expose our customers to risk of system failures, and invite complications if we experience severe storms in the interim. Equally important, this plan will enable us to focus on preventive maintenance, rather than merely reactive maintenance, and will enable us to anticipate and satisfy the expectations of our business and residential customers.

Q. Can you describe the reliability initiatives that you propose to undertake?

A. Yes, the reliability initiatives that include an O&M component are detailed in Schedule C-57c of our MFRs. In addition, I have prepared a supplemental description of all planned transmission projects, together with a summary of

budgeted Capital expenditures and O&M expenses by program, in my Exhibit SSR-1.

I will not repeat that description here. I will merely point out that these initiatives include transmission grid facility additions (including diagnostic monitors on critical transformers), substation repairs and upgrades, and transmission line and right-of-way repairs and upgrades.

Q. Are the projected transmission Capital expenditures and O&M expenses for 2002 reasonable?

A. Yes. More than that—they are necessary. With these expenditures, the Company will be able to achieve a reasonable and appropriate balance between cost of service and quality of service. Florida Power has remained committed to this objective over the years. The success of the Company's efforts to control system costs is reflected in the fact that Florida Power has one of the lowest transmission tariffs in the Southeast.

Q. Does this conclude your testimony?

A. Yes, it does.

Florida Power
A Progress Energy Company

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SSR-1
WITNESS: SARAH S. ROGERS, P.E.

#	Project	O&M ($ in 000's) 2002	2003	2004	Total	Capital ($ in 000's) 2002	2003	2004	Total
	Substation Repairs and Upgrades								
1	Replace Transformer Fuses with Circuit Switchers	-	-	-	-	1,200	1,200	1,200	3,600
2	Replace Outdated Circuit Breakers with New Technology Breakers	-	-	-	-	780	780	780	2,340
3	Renovate and Modernize Substations	1,700	1,700	1,700	5,100	600	600	600	1,800
4	Upgrade GE Type-U Bushings	1,700	1,700	1,700	5,100	-	-	-	-
	Transmission Line and ROW Repairs and Upgrades								
5	Increase Transmission Vegetation and Encroachment Management	4,500	4,500	4,500	13,500	-	-	-	-
6	Accelerate Inspection & Repair of Wood Poles	1,000	1,000	1,000	3,000	4,000	4,000	4,000	12,000
7	Replace Corroded Overhead Ground Wires	-	-	-	-	300	600	600	1,500
8	Proactive Repair of Transmission Structures	580	580	580	1,740	-	-	-	-
	Transmission Grid Facility Additions								
9	Install Digital Fault Recorders	-	-	-	-	1,000	1,000	1,000	3,000
10	Install Diagnostic Monitors on Critical Transformers	250	250	250	750	-	-	-	-
11	Purchase Mobile Transformer	-	-	-		900	-	-	900
12	Addition of Line Sectionalization Devices	-	-	-	-	800	800	800	2,400
13	Add lines to loop Radial Substations	-	-	-	-	500	4,500	5,000	10,000
		$ 9,730	$ 9,730	$ 9,730	$ 29,190	$ 10,080	$ 13,480	$ 13,980	$ 37,540

Reliability Initiatives

Transmission Line and ROW = $31.7 million (O&M = $18.2M / Capital = $13.5M)

1. Vegetation and Encroachment Management – O&M = $13.5 million and Capital = $0
This initiative is for trimming and clearing activities for 4,100 miles of transmission right-of-way. The plan calls for danger tree removal, resolution of 840 encroachments, and installation of 875 gates for access and security purposes.

2. Accelerate Pole Replacements – O&M = $3.0 million and Capital = $12.0 million
Hundreds of wood poles are not reaching their expected life span due to woodpecker damage, rot due to high humidity and moisture, corroded hardware, lightning damage, and ground line decay. This program will provide for replacing rotten poles and accelerating inspection of the remainder of the system. This will reduce the risk of rotten poles falling and causing safety risks to the public and FPC employees.

3. Corroded Overhead Ground Wires – O&M = $0 and Capital = $1.5 million
This initiative is for replacement of corroded overhead ground wires. These static wires protect the underlying conductors from direct lightning strikes. These wires are typically steel conductors and with high tensions, and sections of them are deteriorating due to corrosion and wind loading. The repair of such is necessary due to the high probability of lightning strikes within our service region.

4. Transmission Structures – O&M = $1.7 million and Capital = $0
This initiative is for proactive repair of corroding transmission structures. Corrosion of steel towers, connectors, ground rods and insulators has become a growing problem as structures age. Fires also pose a threat to wood structures, especially under dry conditions. This plan provides for regrounding of 4,800 poles, installing a fire protective coating on 1,200 poles, repairing corrosion on 84 steel towers, inspecting and repairing 240 aluminum and Corten structures, and replacing 900 sets of corroded suspension insulators.

Substation Repairs and Upgrades = $18.0 million (O&M = $10.2M / Capital = $7.8M)

1. Replace Transformer Fuses with Circuit Switchers – O&M $0 and Capital $3.6 million
This plan calls for replacing fuses protecting substation transformers with circuit switchers, as well as installing associated devices such as current transformers, relays, and power sources. The new devices will allow for quicker diagnosis of transformer problems and quicker restoration time. The circuit switchers will also provide a higher level of equipment protection, aid in avoiding single phasing of customers, and provide remote status indication of equipment, hence faster dispatch of personnel. The plan calls for replacement at 36 locations serving 125,000 customers.

2. Replace Circuit Breakers - O&M = $0 and Capital = $2.4 million

This initiative is for replacing circuit breakers identified as outdated and unreliable with new, technologically superior breakers that perform better and are more reliable. Replacing this equipment proactively is a best practice within the industry. The plan calls for replacing 6 transmission breakers and 10 feeder breakers per year.

3. **Renovate and Modernize Substations – O&M = $5.1 million and Capital = $1.8 million**
This initiative calls for performing necessary substation renovations beyond what our base plan allows for. Implementation of this plan will improve the performance and operability of FPC substations, enable the Company to improve the level of service required by customers, meet new safety rules, address environmental concerns with SF6 (a greenhouse gas), mitigate corrosion of equipment, and improve the appearance of the facilities to meet the rising expectations of neighbors and communities.

4. GE Type-U Bushings – O&M = $5.1 million and Capital = $0
This initiative calls for a proactive program replace GE Type-U Bushings to eliminate catastrophic failures of power transformers and circuit breakers associated with GE Type-U bushings, which have been recognized for years as an industry wide problem. Faulty GE Type-U bushings lead to equipment failures and downtime and pose a safety hazard to personnel. The program allows for replacement of thirteen 500 kV bushings, one hundred fifteen 230 kV bushings, two hundred twenty six 115 kV bushings, five hundred thirty 69 kV bushings, and two hundred seventeen 25 kV bushings.

Transmission Grid Facility Additions = $17.0 million (O&M = $0.7M / Capital = $16.3M)

1. Digital Fault Recorders – O&M = $0 and Capital = $3.0 million
This initiative is for the installation of additional digital fault recorders along the transmission system. These devices are used to pinpoint the location of a fault along the system so repair crews can be directed to a location instead of having to patrol an entire line to locate a problem, thus shortening the duration of transmission outages. Fault recorders also help detect breakers not operating correctly and defective equipment.

2. Diagnostic Monitors on Critical Transformers – O&M = $0.7 million and Capital = $0
This initiative is for installation of diagnostic transformer monitor systems on selected transformers critical to the system. These devices will enable the Company to monitor, predict problems, and prevent different types of transformer failures. The plan calls for the installation of 10 monitors per year.

3. Mobile Transformer – O&M = $0 and Capital = $0.9 million
This initiative is to purchase one mobile substation transformer of 50MVA size along with the related ancillary equipment. Currently, the Company has only one mobile transformer of this size; adding a second would provide needed insurance for the 75+ transformers on the system of this size should one fail. Adding an additional mobile transformer of this capacity would benefit an average of 465,000 customers if temporary power were needed.

4. Line Sectionalization Devices – O&M = $0 and Capital = $2.4 million

This initiative is for the installation of new line sectionalization devices on transmission lines, particularly line circuit breakers and remotely controlled motor operated switches. This serves to isolate faults and limit the number of customers interrupted when a fault occurs. The program calls for installation of 1 to 2 transmission circuit breakers and 6 motor operated switches per year.

5. **Loop Radial Substations – O&M = $0 and Capital = $10.0 million**

This initiative calls for construction of new transmission lines to provide a second source of power to radially fed substations. A radially fed substation has no back-up source of power. This initiative will impact many rural areas that are often difficult to access and where exposure is the greatest, and also impact safety by preventing maintenance from being performed on energized lines.