BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

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In Re: Petition for Determination of Need for Collier-Orange River 230kV Transmission Line in Collier,) Hendry, and Lee Counties, by Florida Power & Light Company

DOCKET NO. 030084-EI FILED: March 19, 2003

BARRON COLLIER COMPANIES' MOTION FOR LEAVE TO FILE TESTIMONY OUT OF TIME

Barron Collier Companies ("Barron Collier"), pursuant to Rule 28-106.204, Florida Administrative Code, subject to its pending Petition to Intervene, hereby files this Motion for Leave to File Testimony Out of Time and respectfully requests the Commission to accept for filing the attached Direct Testimony of Michel P. Armand, P.E. in the above-styled proceeding.

On information and belief, including inquiry of a Barron Collier consultant who participated in meetings of a Community Advisory Panel convened by FPL, Barron Collier states the following. Barron Collier Companies learned only on March 18, 2003 (yesterday) that Florida Power & Light Company ("FPL") had already filed its petition for determination of need for the subject transmission line. In several meetings with FPL representatives over the past three months, FPL told Barron Collier's representatives that FPL was and is planning to file its site certification application with the Florida Department of Environmental Protection ("DEP") in early April 2003, but never mentioned that it was planning to file, or already had filed, its need determination petition with the Commission. A copy of the

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only schedule furnished by FPL is attached as Exhibit A to this Motion; this schedule shows that the corridor selection process would not even be completed until March 13, 2003, i.e., 15 days after FPL filed its petition for determination of need. This schedule also showed only that FPL would submit its application on April 1, 2003. Reasonably relying on FPL's statements, and reasonably interpreting them as indicating that formal proceedings regarding the line would not begin until FPL filed with the DEP, Barron Collier had no information regarding the need determination filing and no reason to expect otherwise. In fact, Barron Collier only learned that FPL had filed its need petition when its attorney (the undersigned), in conducting preliminary research on the matter, discovered that fact on the evening of March 18th (yesterday). Barron Collier formally retained the undersigned to represent them in this matter today, March 19, 2003.

The Commission has previously granted at least one motion for leave to file testimony out of time in a need determination proceeding. In <u>In Re: Joint Petition for Supplemental</u> <u>Certification of Construction and Operation Including</u> <u>Determination of Need for Electrical Power Plant (Stanton 2) by</u> <u>Orlando Utilities Commission, Florida Municipal Power Agency, and</u> <u>Kissimmee Utility Authority</u>, Docket No. 910382-EM (Fla. Pub. Serv. Comm'n, August 28, 1991), Order No. 24986, the petitioning utility had furnished a copy of its need determination petition

to the Sierra Club, an intervenor in the case, on March 20, 1991. The hearing was scheduled for June 18 and 19, 1991. (The hearing occurred as scheduled.) At the prehearing conference on June 12, 1991, nearly <u>3 months after the need petition had been filed</u> and a mere <u>6 days before the hearing</u>, the Sierra Club moved the Hearing Officer "to allow the filing of prefiled testimony of Dr. John O. Blackburn" and also moved to postpone the hearing dates. Order No. 24986 at 6. <u>The Hearing Officer</u> denied the Sierra Club's request to postpone the hearing but <u>granted the motion for</u> <u>leave to present testimony out of time</u>, <u>Id</u>., and the Commission duly received Dr. Blackburn's testimony at the hearing. <u>Id</u>.

This proceeding is already on an extremely fast timetable, there having been only 3 weeks since FPL filed its petition and associated materials, and the case scheduled to go to hearing beginning on April 8, 2003. Barron Collier is not seeking any change in that timetable. Indeed, Barron Collier is taking the case as it finds it and attempting to put before the Commission meaningful testimony regarding the non-cost-effectiveness of the proposed line, and of the non-applicability of at least one of FPL's major purported justifications for spending an additional \$6 million to \$24 million on FPL's proposed route.

Barron Collier submits that there will be no significant prejudice to FPL's ability to prosecute its case, because Barron Collier hereby stipulates to an appropriate extension of time for FPL to file rebuttal testimony to Mr. Armand's testimony. Barron

Collier would agree to FPL having up to an additional twelve (12) days from today, until March 31, to file any such rebuttal testimony. Barron Collier will also make Mr. Armand available for deposition, if FPL desires it, in a prompt and timely manner (to be coordinated by counsel for Barron Collier and FPL). Though not required to do so, Barron Collier will also make Mr. Armand available for deposition at Barron Collier's expense.

Further, the Commission should recognize that Mr. Armand's testimony will provide significant additional information to the Commission in its consideration of whether the proposed line is the most cost-effective alternative, as alleged by FPL, and whether the significant additional costs of the proposed line are justified.

The undersigned has contacted FPL's counsel of record in this proceeding and represents to the Commission that FPL opposes this Motion. The undersigned has also contacted counsel for the Commission Staff, and represents to the Commission that the Commission Staff take no position on this Motion. Given the short time frames, and given that none of the other statutory parties has filed any pleadings in this docket, the undersigned has not attempted to contact those parties.

WHEREFORE, Barron Collier Companies respectfully moves the Commission to accept for filing in this docket the attached Direct Testimony of Michel P. Armand, P.E., on behalf of Barron Collier Companies.

Respectfully submitted this <u>19th</u> day of February, 2003.

Robert Scheffel Wrig Florida Bar No. 966/21 John T. LaVia, III Florida Bar No. 853666 LANDERS & PARSONS, P.A. 310 West College Avenue (ZIP 32301) Post Office Box 271 Tallahassee, Florida 32302 (850) 681-0311 Telephone (850) 224-5595 Facsimile

Attorneys for Barron Collier Companies

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7	Task Name	Start	Finish	Oct	Nov Dec	Jar	Feb	Mar Ap	r May	Jun	Jul Au	g Sep	Oct Nov	Dec .	lan	Feb N	lar /	٩pr	I
2 88:24AM P1	Corridor Selection	11/6/02	3/13/03		[]											
Aug. 28 200	Application Preparation	1/15/03	4/1/03]											
	Submit Application	4/1/03	4/1/03					•											
	Agency Review	4/1/03	10/17/03			-													FYHTRTT A
	Certification Hearing	12/1/03	12/5/03											0					
	Governor and Cabinet Approval	4/13/04	4/13/04															•	

SCHEDULE OVERVIEW COLLIER-ORANGE RIVER #3 230-KV LINE TLSA LICENSING PROJECT

Source: ECT, 2002.



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BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

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In Re: Petition for Determination) of Need for Collier-Orange River) DOCKET NO. 030084-EI 230kV Transmission Line in Collier,) Hendry, and Lee Counties, by Florida Power & Light Company

) FILED: March 19, 2003

DIRECT TESTIMONY

OF

MICHEL P. ARMAND, P.E.

ON BEHALF OF

BARRON COLLIER COMPANIES

IN RE: PETITION FOR DETERMINATION OF NEED FOR COLLIER-ORANGE RIVER 230KV TRANSMISSION LINE IN COLLIER, HENDRY, AND LEE COUNTIES, BY FLORIDA POWER & LIGHT COMPANY, PSC DOCKET NO. 030084-EI

DIRECT TESTIMONY OF MICHEL P. ARMAND, P.E.

- 1 Q: Please state your name and business address.
- 2 A: My name is Michel Armand, and my business address is
 3 12370 SW 97 Terrace, Miami, Florida.
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5 Q: By whom are you employed and in what position?
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6 A: I am under contract with Navigant Consulting, Inc. as7 an Independent Consultant.

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9 Q: Please describe your duties with Navigant Consulting.

10 A: I am responsible for conducting transmission planning 11 and operations studies for Navigant's clients. These 12 studies cover proposed generating plants and their 13 associated transmission interconnections, actual system 14 performance based on projected seasonal loading conditions, and the determination of potential 15 16 operating constraints necessary to insure reliable operation of the bulk transmission system. 17

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19 QUALIFICATIONS AND EXPERIENCE

20 Q: Please summarize your educational background and
21 experience.

A: I graduated from the City College of the City
 University of New York in June 1968, with the degree of
 Bachelor of Engineering - Electrical. In June 1971, I
 graduated from the Bernard Baruch College of the City
 University of New York with the degree of Master of
 Business Administration.

In 1971, I attended the General Electric 7 Company's one-year course in Advanced Power System 8 Engineering, in Schenectady, New York. In 1978, I 9 attended the one-month Public Utility Executive Program 10 of the Graduate School of Business Administration of 11 the University of Michigan. In 1983, I attended the 12 two-month Executive Program of the Colgate Darden 13 Graduate School of Business Administration of the 14 University of Virginia. 15

Upon graduation, I was employed by the
Consolidated Edison Company of New York. I was
assigned to the Distribution Engineering, Station
Design, and System Planning Departments. My permanent
assignment was in the Transmission Planning Section of
the System Planning Department.

In April 1974, I was employed by Florida Power & Light Company (FPL) in the System Planning Department. In April 1976, I was put in charge of the Reliability and System Security Section, responsible for testing and assessing the dynamic performance of the planned

1 generation and transmission system, and for making recommendations based on our tests and assessments. 2 In 3 June 1984, I was transferred to the Power Supply Department as Manager of Technical Services responsible 4 5 for daily analysis of system performance, monitoring the adequacy of performance of transmission protective 6 7 systems, and coordinating the protection and control settings of FPL's generation, transmission, and 8 9 distribution systems. In May 1991, I became Director of Protection and Control Systems responsible for the 10 11 design, engineering, installation, and maintenance of 12 all protections and control systems for the generation, transmission, and distribution systems of FPL. 13 In 14 October 1993, I took early retirement from FPL.

From December 1994 to December 1996, I was employed as an Energy Consultant in the Office of the Prime Minister of Haiti. In 1997, I assumed the position of Senior Engagement Manager with Navigant and terminated employment as a full time employee on July 2, 2002.

I am a registered professional engineer in the State of Florida, and I am a member of the Institute of Electrical and Electronic Engineers and a member of the Power Engineering Society.

25

26 Q: What is your experience in power plant engineering,

DIRECT TESTIMONY OF MICHEL P. ARMAND, P.E. construction, operations, permitting, and licensing? 1 A: As Supervisor of Reliability and System 2 3 Security, responsible for modeling the dynamic 4 response of the system to disturbances, I was involved with the Power Plant Engineering 5 Department in specifying the electrical 6 parameters of new generators such as power 7 factor, short circuit ratio, high initial 8 response exciter, power system stabilizer, 9 10 generator step-up and auxiliary transformers, tap ratio coordination, and switchyard 11 connections. I also initiated studies to add 12 power system stabilizers and modify relay 13 protection schemes for existing high capacity 14 generating units (600 MW and above) on the FPL 15 16 system.

I was heavily involved in the licensing of FPL's St. Lucie Unit No. 2, a nuclear unit. In this activity, I participated in the Final Safety Analysis Report for the unit's operating license and testified at the evidentiary hearing in Miami, in November 1979, on the issue of grid reliability.

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Q: What is your experience in generation planning,
 transmission planning, transmission design, and load
 flow studies?

A: In my professional work, the size and
 location of generation was always a given.
 My responsibility was the integration of the
 generators in the transmission grid for
 optimum delivery of the power under all
 postulated transmission outages.

I have extensive professional experience in 7 transmission planning. At Consolidated Edison of New 8 York, I was responsible for transmission planning for 9 the borough of Manhattan, representing at that time 10 about 45 percent of ConEd's total system demand. At 11 FPL, I was responsible for transmission planning in 12 Dade and Broward Counties, representing, at that time, 13 about 60 percent of FPL's total system demand. While 14 not involved in the physical design of transmission 15 lines, studies initiated and conducted by me resulted 16 in the partial transposition of the 500 kV transmission 17 corridor on the East Coast of Florida. The deleterious 18 effects of unbalanced, negative sequence currents on 19 the generators along the corridor were considerably 20 reduced. 21

Load flow and transient stability studies were the principal tools used to assess the seasonal, yearly, and long-range performance of the Florida Grid. Such studies were conducted by me and by my section internally for FPL, and in participation with the

1		Florida Electric Power Coordinating Group (FCG). Such
2		tools were also used to update the Florida under-
3		frequency load shedding program and to establish the
4		various remedial action systems on FPL's system to
5		mitigate loss of heavily loaded transmission corridors.
6		
7	Q:	Have you previously testified before regulatory
8		authorities or courts?
9	A:	I have testified before the Atomic Safety and Licensing
10		Appeal Board of the U.S. Nuclear Regulatory Commission,
11		in an evidentiary hearing on the alleged inadequacy of
12		electric power systems for St. Lucie Unit No. 2. The
13		operating license was granted after it was clearly
14		demonstrated that the planned transmission grid would
15		provide adequate and reliable off-site power in an
16		emergency. I have also testified before the Florida
17		Public Service Commission regarding transmission issues
18		in Docket No. 981042-EM, the need determination
19		proceeding for the Duke New Smyrna Beach Power Plant,
20		and in Docket No. 001748-EC, the need determination for
21		the Osprey Energy Center.
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23 Q: Are you a registered professional engineer?

24 A: Yes. I am a registered professional engineer in the25 State of Florida.

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1		SUMMARY AND PURPOSE OF TESTIMONY
2	Q:	What is the purpose of your testimony?
3	A:	I am testifying on behalf of Barron Collier Companies,
4		who have petitioned to intervene in this proceeding. I
5		have been engaged to give my professional opinion
6		regarding FPL's assertions that they need the alternate
7		right of way ("ROW"), despite its potentially
8		significant additional cost, because of concerns
9		regarding terrorist sabotage.
10		
11	Q:	Was this line required as part of the 10-year site plan
12		published by FPL in 2002?
13	A:	Review of the 2002 10-year site plan does not contain
14		reference to this new line. I find it extremely
15		unusual that a major transmission line of this
16		magnitude would not have been identified in FPL's
17		previous ten-year site plans. Reliability needs of
18		this magnitude do not simply appear overnight.
19		
20	Q:	Is not loss of a common corridor an acceptable planning
21		criterion?
22	A:	Loss of a common corridor is an acceptable planning
23		criterion which allows for some loss of load so long as
24		it does not result in a cascading outage and widespread
25		system disturbance.
26		

Is this a new planning criterion for FPL? Q: 1 2 A: Obviously it is, since FPL seems to imply that no loss of load will result from a corridor outage. 3 4 5 Q: Please summarize your testimony. 6 A: FPL's assertions that they need to use the alternate 7 ROW are at best misplaced. Behind my residence in 8 South Florida, I can see an FPL transmission line corridor that contains four 230kV transmission lines. 9 FPL should know that other parts of their bulk power 10 supply system are much more vulnerable to sabotage and 11 other risks than collocated transmission lines. I do 12 13 not believe that this risk or any of the other factors claimed by FPL justify the additional cost - between 14 \$6 million and \$24 million in installed costs, 15 16 according to FPL's figures - of FPL's proposed route over the cost of siting the new line using an existing 17 transmission line corridor. 18 19 Does this conclude your direct testimony? Q: 20

21 A: Yes, it does.

Michel P. Armand 12370 SW 97 Terrace Miami, FL 33186 (305) 274-8771

CAREER SUMMARY

Extensive executive management experience in the planning and operation of Bulk Electric Power System, specifically in the areas of reliability and system security. Expertise in the areas of load flow, short circuit, transient and dynamic stability studies to assess the performance of the High Voltage electrical system. Expertise in the areas of Distribution Planning, Emergency Load Management (both automatic and dynamically controlled), Demand Side Management, and Static Transmission System Reliability Analysis.

PROFESSIONAL EXPERIENCE

NAVIGANT CONSULTING, INC. Sacramento, CA and Orlando, FL 12/97 to 7/02

For the last five years, he has been working as a Senior Executive Consultant in the area of High Voltage Transmission Planning, Merchant Power interconnection study and Electric Industry restructuring. He has consulted with the Transmission Agency of Northern California, the Bonneville Power Administration and the California ISO in assessing the Operating Transfer Capabilities (OTC) for winter, spring and summer seasons across the California Oregon Interconnection (COI). He has performed numerous transmission system impact assessment studies for merchant power projects in Texas, California, and Florida. He has testified in two need determination proceedings before the Florida Public Service Commission.

PRIME MINISTER OFFICE, Port-au-Prince, HAITI 12/94 to 12/96

Spent two (2) years in Haiti as Energy Consultant in the Office of The Prime Minister, State Enterprises Democratization Unit. Formulated a set of policy options for the revitalization of the State-owned electric power company. Negotiated the installation of 20 Mw of emergency power and the addition of another 35 Mw of generating capacity. Reviewed the document for privatization, which was presented to parliament, modified, and approved. Coordinated the energy sector intervention of various International Lending Institutions: The World Bank, The Inter-American Development Bank, The Canadian International Development Agency, The French Fund for International Development.

FLORIDA POWER & LIGHT COMPANY, Juno Beach, FL 3/74 to 10/93

DIRECTOR, PROTECTION AND CONTROL SYSTEMS, 5/91 to 10/93

Reporting to Vice President -Power Delivery and responsible for the reliable performance of all protection and control equipment required for distribution substations, transmission facilities, and generating units protection. Responsibilities include the design, engineering, installation, and maintenance of these systems.

Achievements include: (1) the reduction of maintenance expenses by 39% over a two year period by the application of statistically derived" Quality of service standards " instead of the traditional maintenance interval standard, and (2) the reorganization and streamlining of the decision/responsibility process.

MANAGER, POWER SUPPLY TECHNICAL SERVICES 7/84 to 5/91

Reporting to the Director of Power Supply and responsible for the provision of engineering services to the Power System Operations group of the Power Supply Department. These services included winter and summer studies assessing the performance of the Florida System under various double contingency scenarios and delayed clearing faults that could result in separation of Peninsular Florida from the North American Interconnected System. Responsibility

included the preparation of the Manual Load Shedding schedule and the assignment of new feeders to achieve greater fairness in the allocation process. Also responsible for the Underfrquency Load Shedding program in coordination with the other utilities under the umbrella of the Florida Electric Power Coordinating Group (FCG). Was a member of the Operating Committee of the FCG and an Alternate Member of the Southeastern Electric Reliability Council (SERC) Operating Committee for Florida.

Achievements include the transformation of Technical Services from a low achiever, demotivated engineering group into a highly trained and well-respected center of engineering excellence. Members of the group became in high demand in System Planning, Nuclear Engineering and System Operations Department. Also, as part of our effort to improve customer service reliability I conducted the first statistical analysis of both Transmission and Distribution systems outages. The result was a drastic reduction in the frequency and duration of outages and the establishment of FPL's Transmission Reliability DataBase, as a statistical tool for tracking and continuous improvement.

In February 1991, I was put in charge of the entire Power Supply Department while the Vice President and Director were engaged in very high level consultations dealing with a drastic reengineering project affecting the entire Corporation. In that position, I was responsible for the daily operation of the System Control Center, the coordination of generator clearance and outages with the Power Generation group and the granting of transmission and substation clearances for new construction and maintenance work. In that capacity, I acted as Duty Officer during specific week ends for the entire Power Delivery Group including Nuclear. During this transition period, I worked 21 days straight without time off managing the Power Supply Department as well as staffing the brand new Department of Protection and Control System that I was promoted to manage as Director.

JOB ROTATION PROGRAM 6/83 to 6/84

This Professional Development Program is tailored to provide broadening experience to qualified and nominated middle management employee. My rotation assignment provided exposure to: a) The Marketing Function at FPL including Load Management, Energy Conservation, and an evaluation of the Effectiveness of various conservation measures; b) The strategic Planning Function covering the changing business environment for U.S. utilities and an assessment of FP&L System Losses; and c) The Finance Function and its role in raising capital and in rate cases before the Florida Public Service Commission.

SUPERVISOR, RELIABILITY AND SYSTEM SECURITY 4/76 to 6/83

Reported to Director of System Planning and responsible for performing load flow, short circuit, and dynamic stability studies to assess the performance of the planned electrical system against specific criteria of the Florida Electric Power Coordinating Group (FCG) as a member region of the Southeastern Electric Reliability Council (SERC) of the National Electric Reliability Council (NERC).

Achievements were: a) The certification before the U.S. Nuclear Regulatory Commission (NRC) that the Florida Grid could support the addition of two (2) 870 Mwe Nuclear Generating Units at St Lucie power station; b) The technical analysis of the dynamic performance of the 500Kv Transmission Grid in Florida; and c) The technical analysis of the ability of the Florida Utilities to import up to 3600 Mw of economical, coal-fired energy from the Southern Company System; d) The development of the Breaker Duty Program , whereby all FPL transmission breakers (69 to 500 kV) are systematically evaluated using manufacturer's data for each breaker, the position of the breaker on the system and the various fault currents to which the breaker may be subjected. This program eliminated any possible human error in evaluating each breaker for the next 10 years of the System planning process. Was a member of the System Planning Committee of the FCG .

SENIOR ENGINEER - SYSTEM PLANNING 3/74 to 3/76

Responsible for the development of the FPL transmission system in the Greater Miami area. This involved coordination with Generation Planning for the delivery of power, the Distribution Planning for the future location of distribution substations and Power Supply for the investigation of supply problems resulting from maintenance or forced outages conditions.

CONSOLIDATED EDISON COMPANY OF NEW YORK 9/65 to 3/74

Held several positions of increasing responsibility in the Distribution Engineering Department, the Electrical Engineering Department, and the System Planning Department. He started as a Senior Engineering Technician in the Distribution Engineering Department and left in 1974 as a Senior Engineer in the System Planning Department.

EDUCATION

MBA, Engineering Management	City University of New York	1971
BEE, Electrical Engineering	City University of New York	1968
PROFESSIONAL DEVELOPMENT		

The Executive Program, University of Virginia-Darden School of Management	1983		
Public Utility Executive Program University of Michigan	1978		
Power System Engineering Course General Electric, Co.	1972		
Registered Professional Engineer, Florida			
Member of IEEE Power Engineering Society			

CERTIFICATE OF SERVICE DOCKET NO. 030084

I HEREBY CERTIFY that a true and correct copy of the foregoing has been furnished by hand delivery (*), or U.S. Mail, on this 19^{th} day of March, to the following:

Lawrence Harris, Esq.* William Keating, Esq. Florida Public Service Commission 2540 Shumard Oak Boulevard Tallahassee, FL 32399-0850

Paul Darst Department of Community Affairs Division of Resource Planning/Mgmt. 2555 Shumard Oak Blvd. Tallahassee, FL 32399-2100

Mr. Buck Oven Department of Environmental Protection Siting Coordination Office 2600 Blairstone Road Tallahassee, FL 32301

Mr. Greg Holder, Regional Director Fish & Wildlife Commission 3900 Drane Field Road Lakeland, FL 33811-1299

Mr. Mark Robson, Regional Director Fish & Wildlife Commission 8535 Northlake Boulevard West Palm Beach, FL 33412

Mr. William G. Walker, III Vice President Florida Power & Light Company 215 S. Monroe Street, Suite 810 Tallahassee, FL 32301-1859

R. Wade Litchfield, Esq. Florida Power & Light Company 700 Universe Boulevard Juno Beach, FL 33408-0420 David Burr, Executive Director Regional Planning Council #90 P.O. Box 3455 N. Ft. Myers, FL 33918-3455

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Attorney