1	BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION		
2	In the Matter (
3	PETITION TO DETERMI		
4	AN ELECTRICAL POWER MARTIN COUNTY BY FLO	PLANT IN	
5	LIGHT COMPANY	OKIDA TOMEK Q	
6	PETITION TO DETERMINAN ELECTRICAL POWER		
7	MANATEE COUNTY BY FI		
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9		VERSIONS OF THIS TRANSCRIPT ARE	
10	THE OFF	VENIENCE COPY ONLY AND ARE NOT ICIAL TRANSCRIPT OF THE HEARING,	
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14	PROCEEDINGS:	HEARING	
15	BEFORE:	CHAIRMAN LILA A. JABER COMMISSIONER J. TERRY DEASON	
16		COMMISSIONER BRAULIO L. BAEZ COMMISSIONER MICHAEL A. PALECKI	
17	DATE	COMMISSIONER RUDOLPH "RUDY" BRADLEY	
18	DATE:	Thursday, October 3, 2002	
19	TIME:	Commenced at 8:30 a.m.	
20	PLACE:	Betty Easley Conference Center Room 148	
21		4075 Esplanade Way Tallahassee, Florida	
22	REPORTED BY:	TRICIA DEMARTE	
23		Official FPSC Reporter (850) 413-6736	
24	APPEARANCES:	(As heretofore noted.)	
25			
		DOCUMENT Provides to	

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FLORIDA PUBLIC SERVICE COMMISSION

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1	PROCEEDINGS
2	(Transcript continues in sequence from Volume 4.)
3	CHAIRMAN JABER: Let's go ahead and get back on the
4	record. FPL, you want to call your next witness?
5	MR. NIETO: We call Dennis Brandt.
6	CHAIRMAN JABER: Mr. Brandt, were you sworn?
7	THE WITNESS: No, ma'am, I wasn't.
8	C. DENNIS BRANDT
9	was called as a witness on behalf of Florida Power & Light
10	Company and, having been duly sworn, testified as follows:
11	DIRECT EXAMINATION
12	BY MR. NIETO:
13	Q Could you please state your name and business
14	address, Mr. Brandt.
15	A My name is Dennis Brandt, and my address is 9250 West
16	Flagler Street, Miami.
17	Q And by whom are you employed and in what capacity?
18	A I work for Florida Power & Light, and I'm the
19	director of product development and management.
20	Q Have you prefiled direct testimony consisting of 23
21	pages and prefiled documents DB-1 to DB-5?
22	A Yes, I have.
23	Q Were the testimony and exhibits prepared by you or
24	under your direction and control?
25	A Yes, they were.
	11

1	Q Is the information in your exhibits true and correct?
2	A Yes, they are.
3	MR. NIETO: Madam Chairman, I'd ask that the next
4	exhibit number, which I believe is 21, be assigned to
5	Mr. Brandt's documents DB-1 to DB-5.
6	CHAIRMAN JABER: Okay. Let's insert the testimony
7	first. The prefiled direct testimony of C Dennis Brandt shall
8	be inserted into the record as though read.
9	And hearing Exhibit 21 is identified for DB-1 through
10	DB-5?
11	MR. NIETO: Yes.
12	(Exhibit 21 marked for identification.)
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1	BEI	FORE THE FLORIDA PUBLIC SERVICE COMMISSION
2		FLORIDA POWER & LIGHT COMPANY
3		DIRECT TESTIMONY OF C. DENNIS BRANDT
4		DOCKET NOS. 020262-EI, 020263-EI
5		JULY 16, 2002
6		
7	Q.	Please state your name and business address.
8	A.	My name is C. Dennis Brandt, and my business address is 9250 West
9		Flagler Street, Miami, Florida 33174.
10		
11	Q.	By whom are you employed and what position do you hold?
12	A.	I am employed by Florida Power & Light Company (FPL) as Director
13		of Product Development and Management.
14		
15	Q.	Please describe your duties and responsibilities in that position.
16	A.	I am responsible for the development and life cycle management of
17		FPL's Demand Side Management (DSM) products and services. This
18		includes overseeing the development, implementation, training, and
19		tracking of the various DSM programs offered to residential and
20		business customers.
21		
22	Q.	Please describe your education and professional experience.

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A. I received a Bachelor of Science Degree in Industrial Engineering from the University of Miami in 1978. I also received my Masters Degree in Industrial Engineering from the University of Miami in 1984. I am a certified Professional Engineer in the State of Florida. I was hired by FPL in 1979 in the Materials Management department and have worked in positions of increasing responsibility in the areas of Load Management, Commercial and Industrial Marketing, Residential and General Business Marketing, and Sales & Marketing Product Support. In 1991 I was promoted to the position of Manager of Residential and General Business Marketing Support. I held this 1993. position until when I became the Manager Commercial/Industrial Marketing Support. In late 1996 I became the Manager of Sales & Marketing Product Support, and in 1999 I assumed my current position.

Q. Are you sponsoring an exhibit in this case?

- A. Yes. I am sponsoring an Exhibit that consists of the following documents:
 - Document DB-1, which is Order No. PSC-99-1942-FOF-EG,
 approving FPL's current demand side management goals.
 - Document DB-2, which is FPL's Commission-approved DSM goals for 2000 through 2009 with actual performance through 2001.

1		- Document DB-3, which is my testimony in Docket No. 971004-
2		EG, Adoption of Numeric Conservation Goals
3		 Document DB-4, which is FPL's currently approved Demand Side
4		Management Plan.
5		■ Document DB-5, which is Order No. PSC-00-0915-PAA-EG,
6		approving FPL's current Demand Side Management plan.
7		
8	Q.	Are you sponsoring any part of the Need Study in this proceeding?
9	A.	Yes. I am sponsoring Section VI and Appendix O of the Need Study.
10		
11	Q.	What is the purpose of your testimony?
12	A.	My testimony has five main points. First, I will provide a historical
13		overview of FPL's DSM initiatives. Second, I will discuss the current
14		maturity of DSM and its future potential on FPL's system. Third, I
15		will outline the process used for setting DSM goals. Fourth, I will
16		provide an overview of FPL's current DSM programs and research and
17		development efforts. Fifth, I will provide a conclusion on whether
18		there are any available DSM options that could defer the need for
19		either Martin Unit 8 or Manatee Unit 3.
20		
21	I.	Historical Overview of FPL's DSM Initiatives
22		
23	Q.	How does FPL classify its DSM related activities?

1	A.	FPL's DSM efforts consist of activities in several areas: conservation,
2		load management, energy audits for all classes of customers, and
3		research and development activities.
4		
5	Q.	When did FPL begin its DSM efforts, and how have they
6		progressed over time?
7	A.	FPL has a long history of identifying, developing and implementing
8		DSM resources to avoid or defer the construction of new power plants.
9		FPL first began offering DSM programs in the late 1970's with the
10		introduction of its Watt-Wise Home Program. An increasing number
11		of additional DSM programs were offered throughout the 1980's and
12		1990's. These programs have included both conservation and load
13		management programs, targeting the residential, commercial and
14		industrial markets.
15		
16		FPL's portfolio of DSM programs has evolved over time. FPL
17		continually looks for new DSM opportunities in its research and
18		development activities. When a new DSM opportunity is identified
19		and projected to be cost-effective, FPL attempts either to implement a
20		new DSM program or to incorporate this DSM opportunity into one or
21		more of its existing DSM programs. In addition, FPL has modified
22		DSM programs over time in order to maintain the cost-effectiveness of
23		the programs. This allows FPL to continue to offer the most cost-

effective programs available. On occasion, FPL has also terminated 1 DSM programs that were no longer cost-effective and could not be 2 modified to become cost-effective. 3 4 Q. How effective has FPL been in implementing DSM, and what are 5 the resulting impacts of these efforts? 6 FPL has been very successful in cost-effectively avoiding new power A. 7 plant construction using DSM. Since the inception of our programs, 8 we have achieved 3,076 MW (at the generator) of summer peak 9 demand reduction, 2,680 MW (at the generator) of winter peak 10 demand reduction, 19,713 GWh hours (at the generator) of energy 11 savings and completed more than 1,730,000 energy audits of our 12 customers' homes and facilities. 13 14 This amount of peak demand reduction has eliminated the need for the 15 equivalent to 9 power plants of 400 MW summer capacity each 16 (including the impacts for reserve margin requirements). Most 17 importantly, FPL has achieved this level of demand reduction without 18 penalizing customers who are non-participants in its DSM programs. 19 FPL has been able to avoid penalizing non-participating customers by 20 offering only DSM programs that reduce electric rates for all 21 customers, DSM participants and non-participants alike. 22 23

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Q. How do FPL's DSM efforts compare to those of other utilities?

The U.S. Department of Energy reports on the effectiveness of utility DSM efforts through its Energy Information Administration. DSM is broken down to include both conservation and load management.

Based on the most current data available, which is for the year 2000, FPL is ranked number one nationally for cumulative conservation achievement and number two in load management.

Another important indication of the success of DSM in Florida and FPL's service territory was the outcome of a benchmarking study conducted by the State of Florida Energy Office in 1992, entitled "Electricity Conservation and Energy Efficiency in Florida." That study found that since the early 1980's, FPL had been actively involved in DSM programs and had been an industry leader in DSM application. It further found that: "The Florida utilities have been extremely successful in reducing peak capacity requirements. The Florida utility peak capacity savings are generally higher than those obtained by other utilities. While the Florida utilities have been focusing their efforts on load management, they have been among the leaders in achieving energy savings."

1	II.	Current Level of Maturity for DSM Initiatives
2		
3	Q.	Of the potential markets available to FPL for DSM initiatives
4		which technologies and/or market segments are currently reaching
5		saturation?
6	A.	There are several areas where DSM-related technologies are reaching
7		market saturation. FPL's load management programs are a prime
8.		example. For these types of programs it is critical to determine how
9		much load management is actually "usable" for an individual utility
10		Consideration must be given to the system load shapes and
11		characteristics of load management measures including control
12		strategies (cycling loads versus continuous interruptions), length of the
13		control periods and the payback effects once load control is released
14		Based on FPL's analysis, we are very close to the maximum usable
15		amount of load management and, in fact, our plans for 2002 through
16		2009 show only a modest growth of just 102 MW.
17		
18	Q.	Are there other technologies nearing saturation?
19	A.	Yes, interior lighting for commercial and industrial facilities is another
20		technology nearing saturation. The introduction and quick market
21		acceptance of T-8 fluorescent lighting as a DSM measure resulted in
22		significant market penetration of this technology. However, its rapid

widespread acceptance has limited the potential for future reduction in

this area. FPL has evaluated various other lighting technologies, including daylight dimming and T-5 lamps, neither of which has significant market appeal or penetration. Until there is another breakthrough in lighting technology related to energy efficiency, there will not be another mass-market opportunity in this area.

Yet another area where the market potential continues to decrease over time is installation of ceiling insulation for residential customers. FPL's research has found that for the vast majority of our customers ceiling insulation levels above R-19 provide minimal additional energy savings. In 1982, the State of Florida Energy Code was changed to require all new homes have at least R-19 levels of ceiling insulation. FPL's residential building envelope program has focused on that finite market of homes built prior to this code change. As a consequence, the eligible market shrinks as more pre-1982-built homes participate in our program.

How do other changes in Energy Codes impact FPL's DSM Q. potential?

21 22 23

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A. FPL's heating, ventilating and air conditioning (HVAC) programs for both residential and commercial/industrial customers are designed to encourage customers to install equipment that is typically a minimum of ten percent more efficient than is required by the State Energy

Code. As the minimum efficiency in the Code is raised, the effectiveness of programs like FPL's are diminished. The goal of a utility HVAC program should be to encourage customers to install more efficient equipment than they would without the program. When the Code minimum efficiency level approaches that of the utility's program, then the impact of the utility program is greatly diminished because the baseline energy efficiency level is raised. This results in smaller impacts for incremental efficiency gains for the utility program at a relative increased cost. In many cases this results in programs no longer being cost-effective.

This is exactly what happened to FPL's Watt Wise program. This program was launched in the late 1970's. This program was very successful but was discontinued in 1984 when it became the model for the State's Energy Code.

Q. How would you summarize the overall maturity of FPL's DSM programs?

A. FPL has numerous programs that have been in existence for several years. These programs have continued to be modified based on changing cost-effectiveness, market conditions and feedback from our customers. These programs address the major end-uses of electricity of our customers that can be implemented in a cost-effective manner.

Although FPL continues to be successful in program design and 1 delivery, it is becoming increasingly difficult to meet our DSM 2 3 objectives. 4 III. FPL/FPSC DSM Goal Setting Process 5 6 Q. Why are DSM goals established? 7 FPL establishes DSM annual goals for two major purposes. The first is 8 A. to be responsive to the Florida Administrative Code, Rule 25-17.0021, 9 which states "The Commission shall establish numerical goals for each 10 affected electric utility, as defined by s. 366.82(1), F.S., to reduce the 11 growth rates of weather-sensitive peak demand, to reduce and control 12 the growth rates of electric consumption, and to increase the 13 conservation of expensive resources, such as petroleum fuels." 14 15 The second purpose of establishing annual DSM goals is for use in 16 planning to meet the future capacity needs of our customers. Our 17 18 DSM goals are key inputs into FPL's annual Integrated Resource Planning (IRP) process. 19 20 Q. How frequently are FPL's DSM goals established? 21 Every five years each utility submits for Commission approval goals 22 A. 23 for a ten-year period that address overall residential kW and kWh

1		goals and overall commercial/industrial kW and kWh goals. FPL
2		currently has Commission-approved goals for 2000 through 2009.
3		
4	Q.	When were FPL's current Commission-approved DSM goals
5		established?
6	A.	As shown in Document DB-1, FPL's current goals were approved on
7		August 17, 1999, in FPSC Order No. PSC-99-1942-FOF-EG.
8		
9	Q.	What are FPL's current DSM goals, and how is the Company
10		performing?
11	A.	Document DB-2 shows FPL's current Commission-approved DSM
12		goals and actual cumulative performance through 2001 (at the meter).
13		Although FPL fell short of several goals in 2000, by the end of 2001
14		FPL was successful in meeting all of its FPSC-approved goals.
15		
16	Q.	How did FPL develop its current DSM goals that were approved
17		by the Commission?
18	A.	Document DB-3, which is my testimony in Docket No. 971004-EG,
19		Adoption of Numeric Conservation Goals, details the multi-step
20		process used to develop its DSM goals. A summary of the process is
21		presented here.
22		

The first step was to determine which measures should be evaluated for cost-effectiveness. Based on input from the Commission, the Commission staff, other interested parties and FPL, 169 separate DSM measures were identified for screening. In the next step of the process, all selected measures were then screened for cost-effectiveness utilizing the Rate Impact Measure (RIM) test with an assumption of no incentives. The assumption of no incentives gives each measure the highest probability of passing the RIM test. The RIM passing incentive level was determined for each measure and costeffectiveness was then determined using the Participant test. For those measures that were found to be cost-effective as determined by the RIM and Participant tests, annual market acceptance rates, or the achievable potential, was identified based on cost-effective incentive levels. The results obtained in this phase of the process were further analyzed to identify the most cost-effective DSM portfolio for FPL's customers as part of FPL's IRP process.

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In summary, the goals FPL developed reflected the cost-effective achievable potential projected by FPL for utility program measures analyzed under the RIM and Participant tests.

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Q. How do FPL's DSM goals relate to FPL's FPSC-approved DSM plan?

1	A.	As part of the goal determination just discussed, FPL found 56
2		measures to be cost-effective under the RIM and Participant Cost tests.
3		Those 56 measures were packaged into comprehensive FPL programs
4		as part of the Company's DSM Plan. This DSM Plan, along with the
5		supporting testimony, was submitted to the FPSC on December 29,
6		1999. This Plan was approved in Order No. PSC-00-0915-PAA-EG on
7		May 8, 2000. FPL's approved DSM Plan and the order approving it
8		are included as Documents DB-4 and DB-5, respectively.
9		
10	Q.	What is the expected timing for the next FPSC DSM goal setting
11		process?
12	A.	The Florida Administrative Code requires goals to re-assessed every
13		five years. Our current goals cover the time period 2000 through
14		2009, with 2004 being the fifth year. Based on past experience, FPL
15		expects the goal setting process to be started no later than 2003.
16		
17		
18	IV.	FPL's Current DSM Initiatives
19		
20	Q.	What are FPL's current Commission-approved DSM programs?
21	A.	FPL's current DSM Plan consists of six Residential DSM programs
22		and eight Commercial/Industrial DSM programs.
23		

The residential DSM programs are as follows: 1 Residential Conservation Service: This is an energy audit program 3 which assists residential customers in understanding how to make their homes more energy efficient through the installation of conservation 5 measures/practices. 7 Residential Building Envelope: This program encourages the installation of energy-efficient ceiling insulation in residential 9 dwellings that utilize whole-house electric air conditioning. 10 11 Duct System Testing and Repair: This program encourages demand 12 and energy conservation through the identification of air leaks in 13 whole-house air conditioning duct systems and by the repair of those 14 15 leaks by qualified contractors. 16 Residential Air Conditioning: This is a program which encourages 17 customers to purchase higher efficiency central cooling and heating 18 equipment. 19 20 Residential Load Management (On Call): This program offers load 21 control of major appliances/household equipment to residential 22 customers in exchange for monthly electric bill credits. 23

1	New Construction (BuildSmart): This program encourages the
2	design and construction of energy-efficient homes that cost-effectively
3	reduce coincident peak demand and energy consumption.
4	
5	FPL's current commercial/industrial DSM programs are as follows:
6	
7	Business Energy Evaluation: This program encourages energy
8	efficiency in both new and existing commercial and industrial facilities
9	by identifying DSM opportunities and providing recommendations to
10	the customer.
11	
12	Commercial/Industrial Heating, Ventilating, and Air Conditioning:
13	This program encourages the use of high-efficiency heating,
14	ventilating, and air conditioning (HVAC) systems in
15	commercial/industrial facilities.
16	
17	Commercial/Industrial Efficient Lighting: This program encourages
18	the installation of energy-efficient lighting measures in
19	commercial/industrial facilities.
20	
21	Business Custom Incentive: This program encourages
22	commercial/industrial customers to implement unique energy
23	conservation measures or projects not covered by other FPL programs.

1 Commercial/Industrial Load Control: This program reduces peak demand by controlling customer loads of 200 kW or greater during 2 periods of extreme demand or capacity shortages in exchange for 3 monthly electric bill credits. (This program was closed to new participants in 2000.) 5 6 Commercial/Industrial Demand Reduction: This program (which started in 2001) is similar to the Commercial/Industrial Load Control 8 9 program mentioned above. Its objective is to reduce peak demand by controlling customer loads of 200 kW or greater during periods of 10 11 extreme demand or capacity shortages. In exchange for giving FPL the right to exercise load control, participants receive monthly electric bill 12 credits. 13 14 Commercial/Industrial Building Envelope: This program encourages 15 the installation of energy-efficient building envelope measures such as 16 window 17 treatments and roof/ceiling insulation commercial/industrial facilities. 18 19 Business On Call: This program offers load control of central air 20 21 conditioning units to both small non-demand-billed and medium demand-billed commercial/industrial customers in exchange for 22 monthly electric bill credits. 23

1	Q.	Has FPL continued to refine and improve these DSM programs?
2	A.	Yes, since implementing its latest DSM Plan in 2000, FPL has made
3		changes to existing programs. These include revising incentive
4		schedules for several programs as well as enhancing eligibility
5		requirements to encourage additional participation.
6		
7	Q.	Has FPL continued to look for new DSM opportunities?
8 ·	A.	Yes. Historically, FPL has performed extensive DSM research and
9		development. FPL has continued such activities not only through its
10		Conservation Research and Development Program, but also through
11		individual research projects. These efforts examine a wide variety of
12		technologies, which build on prior FPL research, where applicable,
13		and will expand the research to new and promising technologies as
14		they emerge. FPL's current initiatives are:
15		
16		Conservation Research and Development Program: FPL's
17		Conservation Research and Development Program is designed to
18		evaluate emerging conservation technologies to determine which are
19		worthy of pursuing for program development and approval. FPL has
20		researched a wide variety of technologies and, from that research, has
21		been able to develop new programs such as Residential New
22		Construction, Commercial/Industrial Building Envelope and Business

On Call.

23

Cool Communities Research Project: Cool Communities is a concept developed by American Forests to demonstrate the extent to which strategic tree planting and surface color lightening can cool ambient air temperature and impact energy consumption. This research project is designed to evaluate emerging conservation technologies and practices associated with residential structures to determine which are worthy of pursuing for program development and approval. The project, which consists of data gathering, statistical regression analysis and economic evaluation, will quantify savings from lightened roof color and tree shading of homes. This project was recently completed and is being evaluated as a potential future DSM offering.

Low Income Weatherization Retrofit Project: This R&D project is investigating cost-effective methods of increasing the energy efficiency of FPL's low - income customers. The research project addresses the needs of low - income housing retrofits by providing monetary incentives to various housing authorities, including weatherization agency providers and non-weatherization agency providers. These incentives are used by the housing authorities to leverage their funds to increase the overall energy efficiency of the homes they are retrofitting. FPL conducts a home energy survey, trains housing authority employees to perform FPL home energy surveys, accepts the National Energy Audit Tool (NEAT) (as supplemented to

capture water heating recommendations not included in the NEAT audit), or approves similar FPL-approved audits conducted by weatherization providers to determine the need for energy-efficient retrofit measures for each home. FPL has designed this project so as to minimize extra work for the retrofit housing authorities.

Photovoltaic Research, Development and Education Project:

Photovoltaic (PV) roof-tile systems are a relatively new technology which directly replaces existing roofing materials such as shingles and standing-rib roofing with PV materials. These PV materials have the same waterproofing characteristics as conventional roofing materials. This project is consistent with the Federal Government's Million Solar Roofs initiative. However, based on FPL's research to date, a primary hurdle to the physical installation of PV systems, whether roofing materials or flat plate collectors, is the lack of awareness, understanding and acceptance by local building officials. For the most part, these officials are unclear about how these systems work and how to address these systems as part of the building permitting and inspection process. This creates barriers toward the use of this technology. This project will provide key understanding of the operation, performance, costs, and interconnection issues of this

technology.

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Green Energy Project: FPL completed an R&D project addressing customer acceptance of "green energy," in which donations were used as the funding mechanism for the purchase and installation of utility grid connected PV systems. This project raised in excess of \$89,500 and a 10.1 kW (dc) PV system has been constructed at FPL's Martin power plant site.

FPL is now investigating potential customer acceptance of green pricing rates in its Green Energy Project. Under this project, FPL will

purchase electric energy generated from new renewable resources

including solar-powered technologies, biomass energy, landfill

methane, wind energy, low impact hydroelectric energy or other renewable resources. Participating customers will be charged higher

"green" electric rates for using electric energy derived from these

sources. FPL has performed an evaluation to determine the

availability of renewable supply sources in Florida and customer

acceptance of the program concept. As part of this evaluation, in late

2001, FPL developed an RFP in order to determine the type,

availability and potential costs of renewable energy. FPL received

four bids from this process. Several bids were received from

Qualifying Facilities (QF) at a cost higher than FPL's avoided cost.

FPL currently has pending before the Commission a petition for a

declaratory statement that FPL may, pursuant to a Green Energy

A.

program, pay renewable energy QFs in excess of its avoided cost. If FPL secures its requested declaratory statement, FPL anticipates moving forward with a Green Energy program.

Real-Time Pricing: Although not part of FPL's approved DSM Plan, FPL continues to research new conservation/efficiency options such as Real-Time Pricing. This option is an experimental service offering for large C/I customers designed to evaluate customer load response to hourly, marginal cost-based energy prices provided on a day-ahead basis.

Q. What would FPL's need for additional capacity be without the benefits of post-2001 DSM?

FPL's goals call for an additional 354 incremental MW (at the meter) of summer peak reduction during the 2002 through 2006 time frame. Without this additional DSM, FPL's future capacity needs would have significantly increased. In fact, FPL's capacity needs would have advanced a year from 2005 to 2004 if the incremental DSM MW called for in the Goals were not implemented. This 2004 need would have been approximately 400 MW.

1	V.	Conclusion
2		
3	Q.	Do the Commission-approved goals and FPL's efforts to meet
4		those goals capture FPL's reasonably achievable DSM?
5	A.	Yes. The Commission has previously determined that FPL's current
6		DSM goals represent the reasonably achievable, cost-effective level.
7		This determination was made based on a comprehensive analysis and
8		record. FPL has been successful in meeting or exceeding these goals,
9		while maintaining cost-effectiveness.
10		
11	Q.	Has FPL identified any DSM option that would lead to a
12		significant increase in DSM penetration in sufficient time to defer
12 13		significant increase in DSM penetration in sufficient time to defer capacity identified in this determination of need?
	A.	
13	A.	capacity identified in this determination of need?
13 14	A.	capacity identified in this determination of need? No. FPL has already identified its reasonably achievable DSM
13 14 15	A.	capacity identified in this determination of need? No. FPL has already identified its reasonably achievable DSM potential and used this as input to its reliability assessment that
13 14 15 16	A.	capacity identified in this determination of need? No. FPL has already identified its reasonably achievable DSM potential and used this as input to its reliability assessment that resulted in the need to add 1,722 MW of supply side resources.
13 14 15 16 17	A.	capacity identified in this determination of need? No. FPL has already identified its reasonably achievable DSM potential and used this as input to its reliability assessment that resulted in the need to add 1,722 MW of supply side resources. Therefore, FPL's analysis has already captured the cost-effective DSM
13 14 15 16 17	A.	capacity identified in this determination of need? No. FPL has already identified its reasonably achievable DSM potential and used this as input to its reliability assessment that resulted in the need to add 1,722 MW of supply side resources. Therefore, FPL's analysis has already captured the cost-effective DSM available on FPL's system, and it was determined that FPL still needs
13 14 15 16 17 18	A.	capacity identified in this determination of need? No. FPL has already identified its reasonably achievable DSM potential and used this as input to its reliability assessment that resulted in the need to add 1,722 MW of supply side resources. Therefore, FPL's analysis has already captured the cost-effective DSM available on FPL's system, and it was determined that FPL still needs additional capacity resources. Therefore, there is no available DSM

Even if there were some modest potential for additional DSM on FPL's system, it is totally unrealistic to conclude that FPL could add significant incremental quantities during the next three years to mitigate the need for even Martin Unit 8, the smaller project, on an incremental capacity basis. The Martin conversion will add 789 MW by the summer of 2005. The Commission previously determined that there was only 765 MW of achievable cost-effective DSM for the entire ten years, 2000 to 2009. It is unrealistic to conclude that FPL could achieve an additional 789 MW of DSM in the next three years, above and beyond its existing goals.

Q. Does this conclude your testimony?

A. Yes, it does.

BY MR. NIETO:

Q Could you please summarize your testimony.

A Good afternoon, Madam Chairman, and Commissioners.

I'd like to take a few minutes to update you on FPL's demand side management activities and how they are used in this study to maximize the benefit to our customers.

FPL used a comprehensive analysis to capture all the cost-effective DSM, and this was used as an input to determine FPL's future needs. FPL has a long history of DSM. We started our initial programs in the late 1970s, and we have continued to add additional programs throughout the years.

FPL is a leader in DSM. The most recent Department of Energy study found that FPL was ranked number one among utilities in cumulative conservation, number two in load management. FPL has been very successful in implementing DSM to avoid new power plant construction. We've done more than 1.7 million energy audits. We've deferred more than 3,000 megawatts of peak demand reduction, and this has resulted in the elimination of the need for nine new power plants.

FPL's DSM initiatives are driven by two key complementary drivers. The first is to be responsive to Rule 25-17.0021, which is a rule that sets DSM goals, and the second is a plan to meet the future capacity needs of our customers in the cost-effective manner. A multistep process was used for determining our current Commission-approved DSM goals. The

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first step of that process was to determine which measures to be evaluated.

In FPL's most recent analysis, we looked at more than 160 measures. The selected measure would then screen for cost-effectiveness using the rate impact measure and the participant test, and for those that were found to be cost-effective, annual market acceptance rates where achievable potentials were determined. The cost-effective measures and their achievable potential further analyze to identify the most cost-effective DSM portfolio for FPL's customers. resulting programs that FPL currently has to support these goals are six residential programs and eight commercial/industrial programs. These programs address audits, air-conditioning, duct system testing or repair, building envelope, lighting, new construction, and load management.

In summary, FPL's current Commission-approved DSM goals which include 354 megawatts of additional DSM from 2002 to 2006 capture the reasonably achievable cost-effective potential. This determination was made based on a comprehensive analysis and record. We have been successful in meeting these goals while maintaining cost-effectiveness. Based on our goals and achievement to date, it was determined that FPL still needs the additional capacity resources we're seeking in this proceeding. Thank you very much.

CHAIRMAN JABER: Thank you.

1	MR. NIETO: Thank you. I skipped over one small		
2	housekeeping matter.		
3	BY MR. NIETO:		
4	Q Mr. Brandt, are you sponsoring any portions of FPL's		
5	Need Study in this proceeding?		
6	A Yes, I'm sponsoring Section VI.		
7	Q And are you sponsoring any of the appendices to the		
8	Need Study?		
9	A I'm sponsoring Appendix O.		
10	Q Are the portions of the Need Study and the appendix		
11	that you sponsored true and correct, to the best of your		
12	knowledge and belief?		
13	A Yes, they are.		
14	MR. NIETO: I tender Mr. Brandt for		
15	cross-examination.		
16	CROSS EXAMINATION		
17	BY MR. MOYLE:		
18	Q I have a few questions for you, if I could. DSM,		
19	explain, if you would, what your understanding is with respect		
20	to the goal or the purpose of DSM.		
21	A I believe the purpose of the goal is of the goal		
22	proceeding is to determine what is the reasonably achievable		
23	cost-effective potential for DSM in a utility's service		
24	territory.		
25	Q Would I be wrong in believing that one of the goals		

of DSM would be to do what you could to conserve energy, so you 1 2 could forestall the construction of new power plants? 3 Yes, sir, I believe you are correct. Obviously, a Α 4 key there is making sure what you're doing is cost-effective. 5 And you talked a little bit about your goals. Have 6 you ever exceeded your goals with respect to DSM to date? 7 Some years we've been over your goals, and actually, Α 8 some years we've been below our goals. What years, if you recall, have you been over your 9 10 goals? 11 Well, our most recent goals were for the years 2000 Α 12 through 2009, and in the year 2000 we were under our goal, and 13 the year 2001 we were above our goal. 14 How much were you above your goal in 2001? Q 15 I believe around 40 megawatts. Α 16 0 Four-zero? 17 Four-zero, yes, sir. Α 18 You know, we've had a lot of talk about these 0 15 megawatts and whatnot. To the extent that actual reality 19 20 exceeded what you had forecast, would you take that into 21 account when determining FPL's need? 22 I didn't take that into account in determining FPL's Α 23 Obviously, our achievements to date was an input into 24 how much future capacity might be needed, and obviously, our 25 going-forward goals was considered an input to this process.

1	Q	You said that you had eliminated nine power plants.
2	You saved	enough to represent nine power plants; is that
3	correct?	
4	Α	Yes, sir, that's correct.
5	Q	Is it a goal to either defer or eliminate power
6	plants th	rough a DSM process of FPL's?
7	Α	Yes, that's one of our objectives.
8	Q	Okay. So would you agree that if 15 megawatts could
9	be found	somewhere within FPL's system, an amount that I think
LO	represent	s less than one-tenth of 1 percent of FPL's overall
L1	generatin	g ability, and 15 megawatts could be found to defer
L2	the const	ruction of the Martin unit, that that would be
L3	consisten	t with FPL's DSM goals?
L4	А	It would be consistent to the extent that it was
15	found to	be cost-effective.
16	Q	You were here for the testimony of Mr. Green, were
17	you not?	
18	A	Yes, I was.
19	Q	Okay. And I asked him a question about FPL
20	projectin	g a peak demand that's not adjusted for incremental
21	conservat	ion or load management. And conservation and load
22	managemer	t, that's kind of your area of expertise, is it not?
23	Α	Determining the impacts of conservation and load
24	managemer	it is my area of expertise, yes, sir.
25	l l 0	FPI has the ability does it not to do kind of an

ongoing look at DSM to figure out how it's doing in terms of meeting its goals?

A Yes. sir. we do do that.

Q Okay. Do you believe that there's an additional 15 megawatts of DSM that could be found through conservation and load management or any other thing that's under your purview that could account for 15 megawatts in 2005?

A I think the answer is yes. However, I want to quantify that by saying that if the objective is to defer Martin Unit Number 8 from 2005 to 2006, you know, one of things we'd have to look at is what's the benefit of doing that. And I think several witnesses have already testified to the extent that deferring Martin Unit Number 8 from 2005 to 2006 actually increased the costs to our customers.

So from a DSM perspective, our goal is to try to defer or avoid units. And if we're looking at Martin Number 8, there's really not much benefit there, or any benefit there, by deferring that from 2005 to 2006. So doing incremental DSM above this 15 megawatts that there seems to be a lot of discussion around, all it's really doing is adding additional costs to the overall plan to our customers.

Q And your job responsibilities, you had just described cost-effectiveness and whatnot. That's not part of what you do, is it? That's what others do?

A That's correct. My primary job is to understand the

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FLORIDA PUBLIC SERVICE COMMISSION

determined that there was only 765 megawatts of achievable

cost-effective DSM for the entire ten years, 2000 to 2009.

is unrealistic to conclude that FPL could achieve an additional 789 megawatts of DSM in the next three years, above and beyond its existing goals."

So with respect to that question and answer, you were answering in terms of whether it was realistic to try to find enough DSM to match the Martin capacity megawatt for megawatt, a total of 789: is that correct?

- A Yes, sir, that's correct.
- Q At the time you wrote the testimony, were you aware that it required less than 789 megawatts to defer Martin 8?
 - A No, I did not know that at that time.
- Q When Dr. Green was on the stand, he sponsored testimony indicating that he predicts the load growth on this system will increase in coming years. Do you recall that testimony?
 - A Yes, sir, I remember him saying that.
- Q Would a larger number of customers and increases in the consumption by those customers provide some opportunity for increased DSM levels?
- A It basically -- what that does is increases the potential number of participants. It doesn't necessarily mean you can do more cost-effective DSM.
- Q You have a larger pool of possibilities to work with, do you not?
 - A That's correct.

Q And some of those may provide you candidates for DSM programs?

A They might be candidates, but let me give you an example. We have a load management program that we have -- you know, we basically have a large population of customers that are eligible. Although, that program if you look from a realistic perspective, only so many customers -- there's a fixed number of customers or participants of that program that really make sense. So just because I have more eligible people doesn't necessarily mean I'll automatically imply you'll get more DSM out of them.

Q But in any event, more customers means more candidates that may or may not prove to be good candidates for DSM?

A I can agree with that statement, yes, sir.

Q The question and answer to which I referred in your prefiled testimony, you answered in terms of whether the capacity could be deferred without getting into the additional subject of whether that would be good or bad for customers; is that correct?

A Yes. sir.

Q I'll ask you to answer this question in same mode, looking simply at whether DSM is available to displace otherwise planned capacity. Did I understand you to say to Mr. Moyle that it's your view that it's possible to find

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15 megawatts of cost-effective DSM?

No. I don't believe I said it was cost-effective DSM. I said I thought it's possible to get 15 more megawatts of DSM if cost-effectiveness wasn't a concern.

When you introduce cost-effectiveness, do you have in mind the RIM test which is your gauge, or do you have in mind the questions and answers and the debate about whether it's beneficial to defer Martin 8?

I think the proper way to answer that question would be, first, you would have to understand what is the unit that we're trying to defer or avoid. Without that being clearly specified, I'm not sure I could give you a clear answer. So if your answer was in the context of Martin Unit Number 8, in which case that's the unit we're trying to defer one year, then I would say it would be very difficult to get cost-effective DSM.

Typically, when you analyze DSM programs and apply the RIM test, is that on a unit-specific basis?

Typically -- first of all, let me clarify. I don't Α do that -- I don't pick the avoided user to do that part of the analysis. I am primarily someone that provides inputs to the analysis. But it's my understanding you would have a supply side expansion plan, and then you'd come up with your best guess or estimates of what DSM can do as compared against that supply-side-only plan to determine the benefits of doing DSM.

1	Q If the question were posed in this way, considering
2	only whether the DSM could displace plant capacity such that
3	it's not required in 2005 but it's required in 2006, is it your
4	view that one could find additional 15 megawatts of DSM that
5	would pass a RIM test?
6	A I don't believe so, no, sir.
7	MR. McGLOTHLIN: All right. That's all the questions
8	I have.
9	MR. PERRY: No questions.
10	CHAIRMAN JABER: Mr. Twomey.
11	MR. TWOMEY: Thank you, Madam Chairman.
12	CROSS EXAMINATION
13	BY MR. TWOMEY:
14	Q Good afternoon, Mr. Brandt.
15	A Good afternoon.
16	Q I just have a question or two. At Page 21 of your
17	prefiled direct testimony at Line 14 you answer a question, and
18	you say, "FPL's goals call for an additional 354 incremental
19	megawatts (at the meter) of summer peak reduction during the
20	2002 through 2006 time frame." That's correct, isn't it?
21	A Yes, sir, that's what it says.
22	Q Okay. Now, with respect to that particular time
23	frame, if you measure the 15 megawatts we've been talking about
24	for the last day or two, or however long it's been, that's only
25	about 4.2 percent of the total program, is it not?

1	A I don't have a calculator with me, sir, so I'm not		
2	sure I could actually		
3	Q Just		
4	A It sounds close, sounds reasonable.		
5	Q Subject to check, 4.23 percent. So is it your		
6	testimony that cost-effective DSM couldn't be found in that		
7	time period?		
8	A Yes, sir, it is, assuming that the objective is to		
9	move Martin Number 8 from 2005 to 2006, because we've already,		
10	I think, discussed that there's really no benefit to our		
11	customers from moving Martin from 2005 to 2006. It actually		
12	increases the costs to our customers.		
13	Q Again, that last testimony as Mr. Moyle pointed out,		
14	I think, based upon what you heard the other witnesses say		
15	vis-a-vis the purported savings of building the two units at		
16	the same time; is that right?		
17	A Yes, sir. But remember, you know, before I can		
18	answer a question about cost-effectiveness, we need to		
19	understand what we're shooting at on the supply side.		
20	MR. TWOMEY: Okay. Thank you. That's all.		
21	CHAIRMAN JABER: Thank you, Mr. Twomey.		
22	Staff.		
23	MR. HARRIS: We have no questions.		
24	CHAIRMAN JABER: Commissioners?		
25	Okay. Redirect.		

1	MR. NIETO: I just have one question.
2	REDIRECT EXAMINATION
3	BY MR. NIETO:
4	Q You were asked a series of questions by Mr. Moyle
5	about FPL's past performance with regard to DSM. Going
6	forward, will it be less difficult or more difficult for FPL to
7	meet or exceed its DSM goals?
8	A I believe it's actually going to be more of a
9	challenge going forward. There's lots of things going on in
10	the market that will make hitting our goals more difficult.
11	Examples of those are: Some of our programs have been around
12	for a while and are reaching maturity. We're finding that the
13	efficiencies of air-conditioners, for example, out in the
14	market is accelerating faster than was originally forecast. I
15	talked briefly already about the issue about load management
16	kind of reaching an effective cap. So all those things
17	combined will make it more and more difficult to go forward and
18	meet the goals that we've agreed to with the Commission.
19	MR. NIETO: That's all I have.
20	CHAIRMAN JABER: Thank you. Thank you, Mr. Brandt.
21	I have FPL, you've got one exhibit, 21, DB-1
22	through DB-5. Without objection, Exhibit 21 is admitted into
23	the record.
24	(Exhibit 21 admitted into the record.)
25	CHAIRMAN JABER: Can you call your next witness,

1	please.	
2	MR. HILL: We call Mr. William Avera.	
3	May we have Mr. Brandt excused so that he may leave	
4	the proceedings at this point?	
5	CHAIRMAN JABER: Yes.	
6	MR. HILL: Thank you.	
7	(Witness excused.)	
8	CHAIRMAN JABER: Mr. Hill, are there witnesses here	
9	today that have not been sworn?	
10	MR. HILL: I don't believe Mr. Avera	
11	MR. AVERA: I have been sworn.	
12	CHAIRMAN JABER: Anyone else? Why don't I go ahead	
13	and have you stand and rise your right hand, please.	
14	(Witnesses collectively sworn.)	
15	CHAIRMAN JABER: Thank you.	
16	MR. MOYLE: CPV witness Finnerty is also here but he	
17	was out of the room.	
18	CHAIRMAN JABER: Mr. Moyle, I'm sorry. I couldn't	
19	hear you.	
20	MR. MOYLE: I'm sorry. CPV witness Mr. Finnerty is	
21	also here, but he was out of the room and was not sworn, so	
22	we'll just have to remember to swear him.	
23	CHAIRMAN JABER: Mr. Litchfield, is this your	
24	witness?	
25	MR. LITCHFIELD: Yes, Madam Chairman, it is.	

1	WILLIAM E. AVERA		
2	was called as a witness on behalf of Florida Power & Light		
3	Company and, having been duly sworn, testified as follows:		
4	DIRECT EXAMINATION		
5	BY MR. LITCHFIELD:		
6	Q Dr. Avera, would you state your name and business		
7	address for the record?		
8	A William E. Avera, FINCAP, Incorporated, 3907 Red		
9	River Street, Austin, Texas.		
10	Q And you were engaged by Florida Power & Light Company		
11	for purposes of this proceeding?		
12	A Yes, sir.		
13	Q And you have before you direct testimony dated		
14	July 16th, 2002 prefiled in this docket consisting of 23 pages?		
15	A Yes, sir.		
16	Q And do you have documents WEA-1 and WEA-2 attached to		
17	that testimony before you?		
18	A Yes, sir.		
19	MR. LITCHFIELD: Madam Chairman, I'd ask that the		
20	next exhibit number be assigned to Dr. Avera's documents		
21	WEA-1 and 2 as a composite exhibit.		
22	CHAIRMAN JABER: Hearing Exhibit 22 will be		
23	identified for WEA-1 and WEA-2.		
24	(Exhibit 22 marked for identification.)		
25	BY MR. LITCHFIELD:		

You have previously been sworn, have you not, 1 Q 2 Dr. Avera? 3 Yes. I have. Α 4 Do you have any changes to this prefiled direct 0 5 testimony? 6 Α No. sir. I do not. 7 If I were to ask you the questions that are 0 8 identified here in your prefiled direct testimony, would your answers to those questions be the same as set forth in the 9 10 testimony? 11 Yes, they would. Α 12 0 Would you please summarize your direct testimony. 13 MR. MOYLE: Before we get to that, I just would like 14 to make an objection for the record. I think I made it 15 yesterday as well. But anything related to what Moody's or 16 Standard & Poor's does with respect to the equity penalty, I would maintain is based on hearsay and that it be so noted, so 17 18 long as it's not being used as the primary basis to prove, you know, what equity -- what Moody's or Standard & Poor's does 19 20 with the equity penalty, similar to the letter that 21 Mr. Caldwell wrote that Mr. Guyton objected to. 22 CHAIRMAN JABER: Mr. Moyle, the objection is that the 23 reliance on citing the ratings used for the equity penalty is 24 hearsay.

MR. MOYLE: Yes, ma'am.

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CHAIRMAN JABER: Mr. Litchfield, your response.

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MR. LITCHFIELD: Madam Chairman, I think under the APA in the first instance, there is a slightly wider latitude afforded to information that might otherwise be hearsay under conventional civil rules of procedure. And in this particular case in the APA, these materials are of the nature and type of materials that typically people in Dr. Avera's position, i.e., a financial expert, would rely upon in formulating opinions and conclusions.

I think the reports in fact that are referenced and the statements that are referenced in his testimony come from in some instance the same types of reports that Mr. Maurey is citing in his testimony. And I think if we're going to characterize things like that as hearsay, we're going to spend a long time today arguing about that and in future proceedings as well.

I think this clearly falls within the scope of nonhearsay for purposes of administrative proceedings, and otherwise, it is corroborated by their evidence in this case. But I think I've given you a sufficient basis to rule.

CHAIRMAN JABER: Yeah, the ruling is this, Mr. Moyle: I'm going to allow all of those questions and give you latitude to ask and establish whether the evidence you're concerned with is hearsay.

MR. MOYLE: Okay. Thank you.

CHAIRMAN JABER: And I think, Mr. Litchfield, you were about to ask me to insert the prefiled direct testimony into the record as though read. MR. LITCHFIELD: Yes, I was. Thank you. CHAIRMAN JABER: It shall be inserted into the record as though read.

1		BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION
2		FLORIDA POWER & LIGHT COMPANY
3		DIRECT TESTIMONY OF WILLIAM E. AVERA
4		DOCKET NOS. 020262-EI, 020263-EI
5		JULY 16, 2002
6		
7	Q.	Please state your name and business address.
8	A.	William E. Avera, 3907 Red River, Austin, Texas, 78751.
9		
10	Q.	By whom are you employed and in what capacity?
11	A.	I am a principal in Financial Concepts and Applications, Inc. (FINCAP), a
12		firm engaged in financial, economic, and policy consulting to business and
13		government.
14		
15	Q.	Describe your educational background, professional qualifications, and
16		prior experience.
17	A.	I received a B.A. degree with a major in economics from Emory University.
18		After serving in the U.S. Navy, I entered the Ph.D. program in economics at
19		the University of North Carolina at Chapel Hill. Upon graduation, I joined the
20		faculty at the University of North Carolina and taught finance in the Graduate
21		School of Business. I subsequently accepted a position at the University of
22		Texas at Austin where I taught courses in financial management and
23		investment analysis. I then went to work for International Paper Company,

Inc. in New York City as Manager of Financial Education, a position in which

I had responsibility for all corporate education programs in finance,
accounting, and economics.

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In 1977 I joined the staff of the Public Utility Commission of Texas (PUCT) as Director of the Economic Research Division. During my tenure at the PUCT, I managed a division responsible for financial analysis, cost allocation and rate design, economic and financial research, and data processing systems, and I testified in a number of cases on a variety of financial and economic issues. Since leaving the PUCT in 1979, I have been engaged as a consultant. I have participated in a wide range of analytical assignments involving utility-related matters on behalf of utilities, industrial customers, municipalities, and regulatory commissions. I have testified before the Federal Energy Regulatory Commission (FERC), as well as the Federal Communications Commission (FCC), the Surface Transportation Board (and its predecessor, the Interstate Commerce Commission), the Canadian Radio-Television and Telecommunications Commission, and regulatory agencies, courts, and legislative committees in 28 states.

With the approval of then-Governor George W. Bush, I was appointed by the PUCT to the Synchronous Interconnection Committee to advise the Texas legislature on the costs and benefits of connecting Texas to the national electric transmission grid. Currently, I am serving as an outside director of

Georgia System Operations Corporation, the system operator for electric cooperatives in Georgia.

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I have served as Lecturer in the Finance Department at the University of Texas at Austin and taught in the evening graduate program at St. Edward's University for twenty years. In addition, I have lectured on economic and regulatory topics in programs sponsored by universities and industry groups. I have taught in hundreds of educational programs for financial analysts sponsored by the Association for Investment Management and Research, the Financial Analysts Review, and local financial analysts societies. programs have been presented in Asia, Europe, and North America, including the Financial Analysts Seminar at Northwestern University. I hold the Chartered Financial Analyst (CFA) designation and have served as Vice President for Membership of the Financial Management Association. I was elected Vice Chairman of the National Association of Regulatory Commissioners (NARUC) Subcommittee on Economics and appointed to NARUC's Technical Subcommittee on the National Energy Act. I have also served as an officer of various other professional organizations and societies. A resume containing the details of my experience and qualifications is attached as Document WEA-2.

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Q. What is the purpose of your testimony?

A. As a result of the comprehensive review of Florida Power & Light Company's

(FPL or the Company) capacity alternatives described in the Need Study, FPL recently completed a solicitation for competitive power supplies in order to identify the most cost-effective alternatives for new resources. My firm was retained to consult with FPL regarding financial issues related to the solicitation. The purpose of my testimony is to examine the impact of power purchase contracts on FPL's financial position and present to the Florida Public Service Commission (FPSC or the Commission) the method FPL used to account for these impacts in its economic evaluation of capacity alternatives submitted in response to its Supplemental Request for Proposals (Supplemental RFP).

A.

Q. Please summarize the basis for your conclusions concerning the issues on which you are testifying in this hearing.

To prepare my testimony, I used information from a variety of sources that would normally be relied on by a person in my capacity. I am familiar with the organization, finances, and operations of FPL through the pre-filed testimony that I prepared previously on behalf of the Company in conjunction with the FPSC's recent review of FPL's rates (Docket No. 001148-EI). I also reviewed information relating specifically to my opinions in this proceeding, including bond rating agency reports, and prior regulatory proceedings and orders, and articles in the trade press. These sources, coupled with my experience in the fields of finance and utility regulation, have given me a working knowledge of FPL and are the basis for my conclusions.

- Q. What are your conclusions regarding the impact of purchased power contracts on FPL's financial position?
- Investors regard purchased power contracts as off-balance-sheet obligations A. that increase the financial leverage of the purchaser. To maintain bond ratings and financial flexibility, utilities must offset purchased power obligations with increased equity. This equity requirement has been recognized in past orders of the Commission and bond rating agency reports for FPL. Consideration of the cost of additional equity required when FPL increases its purchased power commitments is consistent with FPSC orders and the treatment afforded these 10 obligations by the major rating agencies. FPL's equity penalty calculation correctly accomplishes this adjustment.

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Q. What portion of FPL's power requirements are met through long-term purchased power contracts?

With a summer 2002 combined capacity of approximately 21,140 megawatts A. (MW), FPL's system capacity consists of 17,860 MW from company-owned facilities and approximately 3,280 MW through firm purchased power contracts. Take-or-pay purchased power contracts with the Jacksonville Electric Authority and with subsidiaries of The Southern Company provide approximately 1,310 MW of power through mid-2010 and 382 MW thereafter through 2021. FPL also has various firm contracts to purchase approximately 900 MW of capacity and energy from certain cogenerators and qualifying facilities. Expiration dates on these agreements range from 2002 through 2026. In addition, during 2001 FPL entered into agreements with several other electricity suppliers to purchase an aggregate of up to approximately 1,300 MW of power with expiration dates ranging from 2003 through 2007. FPL's purchased power resources represent approximately 16 percent of FPL's total capacity resources for 2002.

Q. How do these long-term purchased power commitments impact FPL's financial position?

While purchased power resource strategies do not involve direct capital investment, they nonetheless have financial implications that must be considered to allow for a meaningful comparison between supply alternatives. When a utility contracts for firm, long-term purchased power, the associated fixed cost components imply additional financial risks. FPL's existing power purchase agreements, as well as those proposals submitted in response to its Supplemental RFP, also obligate the Company to make certain capacity and minimum contractual payments. These relatively greater fixed charges associated with purchased power contracts are akin to those associated with other financial obligations, such as long-term debt. As a result, these commitments are equivalent to an off-balance sheet liability, and incorporating the debt equivalent of obligations under purchased power contracts would have the effect of increasing financial leverage.

1	Q.	Have these attributes of purchased power been recognized by the
2		financial community?
3	A.	Yes. The implications of purchased power commitments for a utility's
4		financial risks have been repeatedly cited by major bond rating agencies. As
5		early as 1992 Standard & Poor's Corporation (S&P) observed in a ratings
6		report for FPL that "a utility incurs certain risks when entering into a long-
7		term contract with fixed-cost capacity component" (CreditWeek, April 6
8 ·		1992). As S&P observed in "Buy Versus Build Debate Revisited"
9		(CreditWeek, May 24, 1993):
10		
11		When a utility enters into a long-term purchased power
12		contract with a fixed-cost component, it takes on financial risk.
13		Heavy fixed charges reduce a utility's financial flexibility and
14		long-term contractual arrangements represent - at least in part
15		- off balance sheet debt equivalents. (pp. 1-2)
16		
17		S&P's assessment of purchased power obligations is analogous to investors
18		views of other industries that rely on off balance sheet financing, such as
19		airlines.
20		
21		Moody's Investors Service (Moody's) has also recognized the risk impact of
22		purchased power [Electric Utility Week, October 8, 1990]:

Analysts Thomas Marshella and Julia Doetsch noted that a "presumed" benefit to a utility in contracting to buy power rather than build its own plant "is the apparent avoidance of the detrimental balance sheet and fixed-charge coverage impact that would have resulted had the new capacity been utility built and debt financed." Moody's questioned the "generally accepted accounting practices that usually treat purchased power commitments as off-balance-sheet liabilities. "Clearly, construction risk is often reduced, however, significant operating, financial, and regulatory risks may remain and outweigh perceived benefits," they continued, adding that the commitments typically erode a utility's financial flexibility.

Because the capacity and minimum contractual payment obligations under these agreements are analogous to those associated with traditional debt financing, investors consider these commitments in evaluating FPL's financial risks. Accordingly, incorporating the debt equivalent of FPL's obligations under its purchased power contracts would have the effect of increasing its financial leverage.

- Q. Is it appropriate to consider these financial implications in an economic evaluation of power supply alternatives?
- A. Yes. In order to conduct a meaningful economic comparison between buying

power and self-build options, it is necessary to recognize the financial risks associated with power purchase contracts. Otherwise, the analyses will not reflect the true cost of entering into purchased power agreements and any comparison of the economics between alternative proposals will be flawed. S&P noted that "[u]tilities need to take these 'financial externalities' into account so that buy and build options are evaluated on a level playing field" (*CreditWeek*, May 24, 1993) and emphasized the importance of reflecting the financial realities associated with purchased power commitments in any economic analyses of competitive options (*CreditWeek*, November 1991):

...there are indeed benefits to purchasing power, but there are also risks that are too often overlooked. Only by thoroughly examining the risks – as well as the benefits – can a utility choose correctly.

Q. What implications do relatively greater amounts of purchased power have for a utility's financial flexibility?

A. Because investors perceive additional financial risks with obligations under purchased power contracts, as reliance on these sources increases, the utility must offset the associated debt equivalent by incorporating a higher equity component in the capital structure or through higher returns on equity. As S&P has recognized, because of purchased power, it has been necessary for FPL to maintain a relatively greater proportion of equity capital in order to

1 maintain its credit standing. In a December 3, 1998 report in RatingsDirect, 2 S&P noted that: 3 4 Florida Power & Light has a sizeable amount of fixed payment 5 purchased-power contracts, a portion of which is imputed by Standard & Poor's as an off-balance-sheet obligation, and has 6 7 maintained a higher amount of equity capital on the balance 8 sheet to counter this off-balance-sheet debt obligation. (p. 2) 9 Absent financial policies that recognize the leverage implicit in purchased 10 11 power contracts, the associated investment risks would place downward 12 pressure on utilities' creditworthiness and debt ratings and the greater leverage 13 implied by a lower common equity ratio would increase investors' required rate of return for both debt and equity securities. 14 15 Apart from the immediate impact the debt-equivalent portion of purchased 16 17 power costs has on the utility's financial risk, heavy fixed charges also reduce 18 ongoing financial flexibility and the utility may face other uncertainties, such 19 as potential replacement power costs in the event of supply disruption. 20 Moreover, these risks are magnified as the utility's reliance on purchased 21 power increases. Considering that the 1,700 MW increase in purchased power 22 contemplated under FPL's Supplemental RFP would constitute a greater than

60 percent increase in the Company's firm purchased power capacity,

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1		investors' focus on the financial ramifications and other uncertainties of
2		purchased power would undoubtedly intensify.
3		
4	Q.	Has the financial impact of purchased power been previously recognized
5		by the FPSC?
6	A.	Yes. For example, in connection with Florida Power Corporation's (FPC)
7		petition for approval to construct the Hines Unit 2 power plant, FPC
8		incorporated an adjustment to recognize the debt equivalent associated with
9		purchase alternatives. The FPSC agreed, noting in Order No. PSC-01-0029-
10		FOF-EI (January 5, 2001) that:
11		
12		We find that for long-term debt, we should allow some
13		consideration of imputed debt. Imputed debt is an actual
14		consideration by bond rating agencies. We note that we have
15		allowed limited consideration of imputed debt in past cases.
16		
17		Indeed, in Docket No. 990249-EG, Standard Offer Contract for Florida Power
18		& Light Company, the FPSC concluded that "[w]e find it is appropriate to
19		include an equity adjustment when determining FPL's proposed standard offer
20		contract payments" (Order No. PSC-99-1713-TRF-EG, p. 7, September 2,
21		1999). While the Commission chose not to address the broader policy issue of
22		who should bear the incremental cost of additional equity to compensate for
23		purchased power contracts, the FPSC recognized (<i>Ibid.</i> at p. 7-8) that:

Buying power increases the utility's fixed charges, which, in 1 turn, can reduce financial flexibility. Standard & Poor's (S&P) 2 notes that, "regardless of whether a utility buys or builds, 3 adding capacity means incurring risk." ... In including this. 4 5 equity adjustment, FPL is reflecting the cost, in the form of less financial flexibility, that is imposed on electric utilities with 6 purchased power contracts. 7 8 Rule 25-22.081(7), F.A.C., relating to the contents of a petition for 9 determination of need, also requires the utility to consider the implications of 10 purchased power on its financial position: 11 12 If the generation addition is the result of a purchased power 13 agreement between an investor-owned utility and a nonutility 14 generator, the petition shall include a discussion of the 15 16 potential for increases or decreases in the utility's cost of capital, the effect of the seller's financing arrangements on the 17 utility's system reliability, any competitive advantage the 18 19 financing arrangements may give the seller and the seller's fuel supply adequacy. 20 21 Since 1999, the FPSC has recognized the financial leverage implicit in 22 purchased power contracts in the approach used for surveillance reporting 23

requirements. The current Revenue Sharing Agreement in effect for FPL 1 2 included in Order No. PSC-02-0501-AS-EI, April 11, 2002, incorporates by reference the following provision from the Stipulation and Settlement 3 approved by the Commission in 1999 (Order No. PSC-99-0519-AS-EI, March 4 5 17, 1999): 6 7 [FPL's] adjusted equity ratio equals common equity divided by 8 the sum of common equity, preferred equity, debt and off-9 balance sheet obligations. The amount used for off-balance 10 sheet obligations will be calculated per the Standard & Poor's 11 methodology as used in its August 1998 credit report. 12 13 Q. Would you please comment on the current level of attention given by the investment community to properly considering the financial impacts of 14 15 purchased power commitments? 16 A. S&P noted in 1993 that purchased power can have a debilitating impact on a 17 utility's investment risks (CreditWeek, May 24, 1993): 18 19 Over the past few years, several ratings have been lowered due 20 to purchased power obligations. In other cases, S&P did not 21 raise ratings. Still others are lower than they might otherwise 22 be owing to purchased power liabilities.

In light of investors' recent tribulations with Enron Corporation (Enron), the investment community is likely to be even more sensitive to the impact that off-balance sheet obligations can have on a company's financial position. As the Wall Street Journal reported in a recent article entitled Rating Agencies Crack Down on Utilities (December 19, 2001, p. C1), bond rating agencies are closely scrutinizing debt levels on power company balance sheets in the wake of Enron's collapse. Moody's reportedly launched a comprehensive review to better assess the potential impact of off-balance sheet financing, requesting detailed information from as many as 4,200 companies that the firm rates ("Moody's Trains Eye on Data Off the Sheet", The Wall Street Journal, p. A2, January 21, 2002). As a result of this intensified focus, there is a greater potential that higher financial leverage - whether on or off the balance sheet will lead to ratings downgrades, reduced access to capital, and increased borrowing costs. The Wall Street Journal article went on to note the crucial role that financial flexibility plays in ensuring the utility's wherewithal to meet customers' needs:

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All the belt-tightening spells bad news for continued development of the nation's energy infrastructure. Companies that can borrow more money and stretch their dollars, quite simply, can build more plants and equipment. Companies that are increasingly dependent on equity financing – particularly in a bear market – can do less.

- Q. Please describe the methodology used by S&P to reflect the financial impact of purchased power obligations.
- A. While other rating agencies have expressed similar concerns regarding the financial impacts of purchased power commitments, S&P is largely unique in having a defined quantitative analysis to account for the additional risks associated with these contractual commitments. This methodology begins by quantifying the potential off-balance sheet obligation attributable to long-term power purchase contracts. The first step in this process involves calculating the net present value of the remaining capacity payments over the life of the agreement.

S&P's method also recognizes that power purchase agreements have different characteristics that impact their degree of firmness. Contracts that are relatively more firm in terms of their payment obligations would be considered more debt-like than others. Within the S&P analytical framework, this difference in the relative debt characteristics of purchase power obligations is accommodated using a risk spectrum ranging from 0 to 100 percent.

By evaluating the characteristics of a utility's purchased power contracts, S&P places each agreement on the risk spectrum according to the degree to which payments under the contract resemble the fixed obligations of traditional debt instruments, such as long-term bonds. Obligations on the lower end of the

scale would have fewer debt-like characteristics and would be considered less firm than the obligations placed at the high end of the scale. This risk factor represents the proportion of the obligations' net present value to be considered off-balance sheet debt. For example, if S&P determines that the risk factor for a specific purchased power contract is 50 percent, S&P considers 50 percent of the net present value of the related capacity payments as a debt equivalent and adds this to reported obligations. Thus, the major bond rating agencies look to the nature of the purchased power arrangement to determine the portion of this present value to consider as debt in analyzing relative financial risks.

In determining the risk factor, S&P considers a variety of qualitative factors related to the purchased power contract, including its market, operating, and regulatory risks and the extent to which they are borne by the utility. For example, S&P would view a sale/leaseback of a major generating plant as the virtual equivalent of debt (*i.e.*, risk factor of 100 percent) because of the strategic importance of the facility and the ironclad nature of the payments. Obligations under take-or-pay contracts, which are generally unconditional as to acceptance and availability of power would fall lower down the risk spectrum compared to a sale/leaseback, although unit-specific purchase contracts under a firm take-or-pay agreement may warrant a risk factor of up to 80 percent. Take-and-pay contracts that require capacity payments only if power is available would come next on the scale, with risk factors in the range

of 10 to 50 percent.

A.

Q. Please describe the method FPL used to reflect the greater financial risks associated with purchased power in its economic evaluation of the alternative proposals.

In order to recognize the financial implications associated with the off-balance

sheet debt attributable to purchased power contracts, FPL included an "equity penalty" in its economic evaluation of alternative proposals submitted in response to the Supplemental RFP. Consistent with the fact that investors view some portion of a utility's capacity payment obligations as the equivalent of debt on the balance sheet, FPL's quantitative analyses reflected an adjustment to incorporate the additional costs associated with the greater

equity that would be required to rebalance its capital structure.

For each year under the proposal, the cumulative net present value of the remaining annual demand charges was calculated using a 7.4 percent discount rate reflective of the incremental cost of debt. This cumulative net present value was then multiplied by a risk factor of 40 percent to arrive at the debt equivalent portion of these demand charges in each year. In order to offset the greater financial leverage associated with this obligation, FPL must replace a portion of this off-balance-sheet debt with equity, calculated as the product of the debt equivalent and a 55 percent equity ratio. The incremental cost associated with this rebalancing was then computed by multiplying the

amount of capital implicitly shifted from debt to equity by the difference between the pre-tax cost of the two capital sources. Thus, the equity penalty represents the incremental costs in each year that would be required to hold FPL's financial leverage constant in the face of the higher off-balance-sheet liabilities attributable to the purchased power proposals. These annual costs were then converted to a present value using an 8.5 percent discount rate, computed as the weighted average after-tax cost of debt and equity.

An illustration of the method described above is contained in Document WEA-1, assuming annual fixed capacity charges of \$1,000 over a five-year horizon. As shown there, the first step is to compute the cumulative net present value of the capacity charges remaining in each year using the 7.4 percent debt cost rate. Step 2 converts these cumulative balances to an annual debt equivalent by applying the 40 percent risk factor. In Step 3, the debt equivalent in each year is multiplied by the 55 percent equity ratio to determine the amount of capital rebalanced from debt to equity as a result of the purchased power agreement. The annual equity penalty is calculated in Step 4 by multiplying the rebalanced equity by the 11.6 percent differential between the pre-tax costs of debt and equity. These annual amounts were then discounted at 8.5 percent (the after-tax cost of capital) to arrive at the \$252 net present value of the equity penalty.

Q.	Is the methodology underlying the equity penalty calculation consistent
	with the approach adopted by S&P and in prior FPSC proceedings?

Yes. The equity penalty calculation employed by FPL is directly analogous to the methodology used by S&P in its analyses of FPL's credit standing. While there are distinctions between the details of the calculations due to differences between generic assumptions and FPL specific data, the underlying approach used to develop the debt equivalent portion of the purchase power obligations is the same. S&P's focus is primarily on balance sheet adjustments designed to recognize the credit implications of heightened financial risks associated with purchased power, while FPL's analyses quantifies the implicit costs of rebalancing between debt and equity to offset these risks. Nevertheless, the methodology used by FPL is consistent with S&P's approach. Likewise, the methodology FPL used to make the equity penalty calculations is the same as that approved by the FPSC in Order Nos. PSC-01-0029-FOF-EI and PSC-99-1713-TRF-EG discussed earlier.

Α.

Q. What was the source of the risk factor that FPL assigned to the purchased power proposals?

A. As noted earlier, FPL's analyses of the financial impact of purchased power proposals incorporated a risk factor of 40 percent, indicating the portion of the total net present value of annual capacity charges considered equivalent to debt. This value was based on the bottom of the 40 to 60 percent risk factor range determined independently by S&P based on the rating agency's review

1		and analyses of the specific terms contemplated in FPL's RFP. As S&P
2		concluded in reporting the results of its review:
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4		We evaluated the RFP for purchased power and determined
5		that between 40-60% of the capacity payments would be added
6		to FPL's debt. While this contract is take and pay based on
7		performance, the RFP states that minimal level of performance
8		will be required. This provision increases the likelihood that
9		the payments will be made, making the capacity payment more
10		firm or "debt" like.
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12		This 40 percent risk factor is also identical to that used by FPC to calculate the
13		equity penalty in its economic evaluation of purchased power alternatives to
14		the Hines Unit 2 (Docket No. 001064-EI, Corrected Testimony of John B.
15		Crisp at p. 14).
16		
17	Q.	What capital structure and component costs of debt and equity did FPL
18		assume in calculating the equity penalty?
19	A.	The equity penalty was developed by rebalancing the capital structure to
20		maintain a 55 percent equity ratio. In computing the associated costs implicit
21		in this rebalancing, the equity penalty assumed a rate of return on common
22		equity of 11.7 percent and a debt cost of 7.4 percent.

- Q. Do you believe these assumptions are reasonable for purposes of an economic evaluation of purchased power alternatives?
- A. Yes. The 55 percent common equity ratio incorporated in calculating the equity penalty is consistent with FPL's adjusted 13-month average capital structure for 2001 and 2002, as presented in my prefiled direct testimony before the FPSC in the recent review of the Company's Minimum Filing Requirements (Docket No. 001148-EI). Further, the current Revenue Sharing Agreement arising from the stipulation in that proceeding retained the adjusted capital structure for surveillance reporting requirements specified under the terms of the prior agreement that expired in April 2002. This prior agreement also embodied a 55.83 percent surveillance cap on the common equity ratio.

With respect to the component costs of debt and equity, a 7.4 percent incremental cost of debt is generally consistent with the current yields on public utility bonds. Meanwhile, under the terms of the current Revenue Sharing Agreement, FPL no longer has a benchmark authorized return on equity range for the purpose of addressing earnings levels. Nevertheless, the 11.7 percent cost of equity is generally consistent with other authorized rates of return in Florida, especially when considering the relatively greater risks faced by FPL. Since the 11.7 percent cost of equity rate falls considerably below the required rate of return I estimated for FPL in Docket No. 001148-EI, it almost certainly results in a conservative estimate of the equity penalty

1		associated with the financial obligations inherent in purchased power
2		contracts.
3		
4	Q.	Does the equity penalty calculation incorporate any adjustment to reflect
5		the relative credit quality of the individual counterparties?
6	A.	No. The terms of FPL's Supplemental RFP explicitly contemplated that
7		counterparties would maintain an investment grade bond rating or an
8 .		equivalent guarantee. Accordingly, in conducting the analyses used to
9		quantify the equity penalty, no adjustments were made to incorporate project
10		sponsor risk differences. Nonetheless, the financial wherewithal of the
11		counterparty may impact the risks faced by FPL, especially in extreme
12		instances. As S&P observed [CreditWeek, November 1991]:
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14		[H]ighly leveraged NUGs are inherently less creditworthy than
15		less leveraged NUGs. And their financial health may affect
16		their reliability.
17		
18		The risk spectrum used to calculate the equity penalty reflects the relative debt
19		characteristics of the off-balance sheet liability associated with the terms of a
20		purchased power contract. As such, it is distinct from any assessment of the
21		financial viability of a specific counterparty or that entity's ability to actually
22		meet the provisions of the agreement.

- 1 Q. Does this conclude your direct testimony in this case?
- 2 A. Yes, it does.

1 CHAIRMAN JABER: And, Mr. Avera?

THE WITNESS: Avera, yes.

CHAIRMAN JABER: Summarize your testimony, please.

THE WITNESS: Chairman Jaber, members of the Commission, I'm an economist and financial analyst. I have degrees from Emory University in Atlanta and the University of North Carolina at Chapel Hill. After many years of teaching, I entered the regulatory arena as director of economic research and chief economist for the Texas Public Utility Commission.

Since that time, I've appeared before Commissions in 29 states and federal Commissions in the United States and Canada. As you will see from my resumé, my representations have included appearing on behalf of commissions, on behalf of large industrial customers, independent power producers, as well as utilities.

My testimony today deals with two financial issues.

Number one, the equity penalty and number two, the appropriateness of financial viability as a consideration in screening bidders. First, to the equity penalty. My testimony gives the simple rationale for the necessity of an equity penalty. When a utility enters a long-term power purchase agreement with a power producer, having payments stretching into the future, investors regard those fixed obligations as off-balance sheet liabilities. And they impute a certain amount of debt to the utility when the utility enters into

those arrangements. That has the effect of increasing the leverage of the utility adding debt to the capital structure.

Now, in this case, FPL has evaluated the self-build options assuming that those facilities would be financed with a mix of debt and equity equal to the target capital structure of 55 percent equity, 45 percent debt. The component cost of debt and equity are the incremental investing cost of those sources of funds. So the utility-built option has a neutral effect on the capital structure and capital cost of the utility, but the purchased power options would have a negative effect on the capital structure. So in order to make these two comparisons equal, you have to adjust for the negative effect on the capital structure that occurs because of these long-term commitments.

Now, the logical way to do that is to add equity to the capital structure just enough to offset the extra debt, and that is what the equity penalty does. It adjusts the capital structure effects so that we're looking at the same cost for the purchased power option as we have for the utility-built options.

Now, in my testimony, I describe the four steps that FPL used in calculating the equity penalty. First, getting the present value of the future payment obligations of the contracts that were offered; second, adjusting the present value for the relative risk of those purchased power

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operations; third, figuring out how much equity would be necessary to balance those off-balance sheet obligations; and fourth, calculating the present value extra cost that FPL's customers would pay because of the extra equity. That extra cost is the equity penalty.

In my testimony, I explain why the assumptions and calculations that FPL makes are reasonable, are consistent with the way investors look at these kinds of off-balance sheet obligations and, most importantly, are completely consistent with the same assumptions that FPL uses in evaluating its own self-build options. I also look at the calculations to show that they are consistent with past decisions by this Commission and the Commission's rules regarding financial effects in need case determinations. So the equity penalty is a reasonable and necessary adjustment to equilibrate and make an apples-to-apples comparison between purchased power and self-build.

The financial topic is financial viability. My testimony explains why it's in the customers' interest that FPL consider financial viability in looking at bidders. That, Chairman Jaber, completes my summary.

CHAIRMAN JABER: Thank you.

MR. LITCHFIELD: I would tender the witness for cross-examination, Madam Chairman.

CHAIRMAN JABER: Thank you, Mr. Litchfield.

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Mr. Moyle.

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CROSS EXAMINATION

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BY MR. MOYLE:

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Q Let me take that last point first. You said that your testimony talks about financial viability and why it's important that FPL assure that folks who it may do business

with are financially viable; is that right?

A That's correct.

Q And that was part of your scope of work, to consider financial viability?

A To consider whether financial viability was an appropriate consideration. When we were first retained by FPL, we also were told that we might be asked to be involved in financial viability analysis if the need arose. But as it turned out, we were not called upon for that purpose.

Q So FPL never asked you your expert opinion regarding the financial viability of any bidders who submitted bids?

A No, sir, they did not.

Q And they never asked you the financial viability of any bidders who they decided not to negotiate with further?

A No, sir. In our consultations with FPL, we talked about financial viability. We shared our views as to why it was important, the type of considerations that might be included, but as to the actual application of those considerations to particular builders, we were not involved ---

bidders. we were not involved.

Q Okay. You may have been in the room. You've heard testimony. A couple of folks were eliminated from further consideration, I believe, because of concerns related to financial viability. Just so I'm clear, they never called you and said, Mr. Avera, we're confronted with a decision here about financial viability, and we'd like for you to give us your opinion?

A No, sir, they did not.

Q Okay. Who came up with the term "equity penalty"?

A Not me. The term -- the first earliest use of the term "equity penalty" that I saw was in some testimony that FPL submitted that's actually attached to Mr. Maurey's testimony. I think it was 1991 testimony.

Q Okay. And you used that term throughout your testimony. Based on what you've heard, wouldn't you come to the conclusion that the equity penalty works to penalize folks who have submitted bids in this proceeding, outside bidders who have submitted long-term power bids?

A No, sir, I don't believe it's a penalty. I don't believe it works to penalize. I think it works to equilibrate, to bring into evenness the capital structure effect of the utility-build option with the purchased power arrangements that are being contemplated in the bids. So I don't think it's a penalty. I think it's a necessary adjustment so that you can

look at cost-effectiveness on equal terms.

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And I must say, if I were inventing the term myself, I wouldn't have invented the term "equity penalty," but it's

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the term that I inherited.

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would you view, as you sit here today, who it would penalize

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Okay. Given that, I guess there's two choices. Who more, the bidders or the incumbent utility?

I don't believe it penalizes anyone. I think the calculation of the equity penalty -- sometimes the Commission has called it "equity adjustment." The calculation of the equity adjustment is tied to the specific circumstances of the bid. What are the stream of fixed payments that are associated with a particular offer?

So it's a mathematical calculation of how large the payments are and when they occur in the future. So when you present value them back, how great is the off-balance sheet obligation, and then when you adjust it to make it equivalent to debt, what factor you used to make that adjustment.

- 0 What's CreditWeek?
- CreditWeek is a publication by Standard & Poor's. Α
- Are they reliable, dependable? Q

They are used by investors. We subscribe to Α that publication at my firm. I think in most of my regulatory practice, CreditWeek is usually in the Commission library. And when I go to investment banking or brokerage firms, it's

1 | usually available to investors.

Q Is your opinion here today based in part on things you read in CreditWeek. You cite it in a number of places in your testimony.

A Yes. I think that is one of the sources that investors use. It's one of the sources that experts in a position of evaluating utility investments and utility risk use. So I use it as do other similarly situated experts.

Q Okay. I've noted in your testimony that CreditWeek references appear on Page 7 at Lines 5, 9, and 22. Also, it appears on Page 9 --

A Yes. sir.

Q -- at Lines 7, and 9. 13 -- Page 13 on Line 17, and Page 22, Line 12.

A Yes, sir.

Q Am I correct in reading that the most recent CreditWeek publication that you're relying on was published on May 24th, 1993?

A That's true in my direct. In my rebuttal I come all the way up to 2002.

Q But in your direct, all the references are to stuff that was prior to 1993 or in 1993; correct?

A Specifically as to CreditWeek, I think they're references to other publications that investors use that are more recent. I think those original CreditWeeks are relevant

because that's when Standard & Poor's was originally articulating the method it uses to determine off-balance sheet liability.

Q What are the major credit rating agencies that you rely on for your expert opinion?

A Well, the major credit rating agencies are: Moody's and Standard & Poor's and Fitch, which there was at one time Duff & Phelps, but I believe Duff & Phelps has been taken over and absorbed into Fitch.

Now, that's not the only source of information about credit and risk that I utilize in this case or my other assignments.

Q Is it your testimony that all three of these rating agencies that we just discussed apply the equity penalty in the way you describe in your testimony?

A My testimony is that none of these credit agencies apply the equity penalty. The equity penalty is a regulatory concept, as I explained in my deposition. All credit rating agencies, these three, as well as investment banking firms and financial analysts who look at utilities, impute long-term obligations as off-balance sheet obligations that are debt-like in their effect on the utility.

So credit rating agencies whose job it is to advise investors about the risk of the securities they are purchasing tell investors to consider the off-balance sheet obligations.

And my experience is that investors do consider those off-balance sheet operations. Now, that's the first two steps of the equity penalty, which is to convert the obligations to an off-balance sheet obligation.

The next two steps which we take in the regulatory arena are to adjust that off-balance sheet obligation so that it equilibrates the capital structure effect with what happens to the self-build option. The equity penalty is a regulatory concept, not a bond rating concept.

Q Okay. I appreciate that. Maybe I used the wrong word. Is it your testimony that all three rating agencies view the equity penalty in the same way? Or do you know?

A Again, we have the problem. All three rating agencies, Mr. Moyle, view off-balance sheet obligations associated with long-term power projects. Now, the same way, I can't say. I mean, I think they each view them as off-balance sheet liabilities.

Now, as to how they articulate their opinions and how they reach their opinions and how they might evaluate a particular circumstance, I think there are differences among the rating agencies.

Q How do you know that -- how do you have information as to how the rating agencies regard the equity penalty?
What's it based on? Is it based on conversations with analysts for the people? Is it based on publications that these folks

come out with? What is your opinion based on?

A Again, your question, Mr. Moyle, relates to equity penalty, and I think I've told you, they do not have opinion about equity penalty because that's a regulatory concept.

Q Okay. Imputation of debt?

CHAIRMAN JABER: Hang on a second.

A Imputation of debt. Yes, it is based on all of the above. I have in my career had a number of assignments where I was asked to go to Wall Street and interview the rating agencies. Once for the Public Utilities Commission of Hawaii; once for ELCON, a group of large industrial customers; again for Southwestern Bell, SBC Corporation.

And when I was on the Commission staff in Texas, it was better because the rating agencies would come to me in Austin, and we would talk about the considerations that they used in evaluating utility securities. And in the course of those conversations, I learned that they do pay attention to these off-balance sheet liabilities, and they try to help investors understand the import of these.

Now, also, I have looked at the numerous publications like CreditWeek and the many other similar publications that Moody's and Fitch and Duff & Phelps, when it was a freestanding organization, published both as to general reviews of utilities and then specific reviews of utilities.

I cite several specific reviews of FPL and so does

Mr. Maurey where the rating agencies talk about the relative amount of off-balance sheet obligation that FPL has. So that's the basis for my understanding.

Q Thank you for that.

CHAIRMAN JABER: Mr. Avera, I know some of these questions might sound tedious, but this is a very important issue, and frankly, I want to understand this issue, too. I think Mr. Moyle is asking you very good questions. I want to take a stab at it, too, to make sure that I understand the difference between the regulatory concept as you describe it and what it is with respect to the concern related to the rating agencies. So forgive the repetition here, but walk me through to make sure I understand.

As it relates to how the credit agencies look at purchased power agreements as being debt, that's what you're saying, that they consider it a liability of the company when there's a purchased power agreement.

THE WITNESS: Yes, they do. Although, it's not recorded on the balance sheet, it is an off-balance sheet obligation that has the same characteristics as debt. It's a fixed obligation.

CHAIRMAN JABER: To them it looks like, smells like a debt.

THE WITNESS: That is true. So they think you ought to consider it in evaluating the risk of the securities.

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CHAIRMAN JABER: Okay. And the bottom line effect of them considering it as a debt to evaluate risk for securities is what? It affects your stock prices? It affects how shares are sold at what price? Is that the bottom line effect?

THE WITNESS: All of the above, yes, that when investors see that your capital structure has shifted toward debt because you have undertaken new obligations, then all else being equal, they will require higher returns on your equity securities, and they will require higher returns on your debt securities. And there may -- it may contribute in certain circumstances to an actual downgrade of your bonds.

Now, the way to ameliorate those problems is to add debt to the -- I mean, excuse me, equity to the capital structure to offset the debt. So if you add just enough equity so that you bring your capital structure back into balance, those negative effects on your cost of equity and cost of debt and financial flexibility do not occur.

CHAIRMAN JABER: So as a stockbroker who is trying to advise the investor, that sort of reconciliation between debt and equity gives them a full picture to say, they do have this purchased power agreement, but they have also put in enough equity to make up the difference.

THE WITNESS: That is correct. So they would advise their clients to say -- you look at FPL, for example, and you say, FPL as a utility has a certain capital structure, a

certain equity ratio on its books, but don't take that at face value, Investor, because remember, FPL has a significant amount of purchased power obligations. So in looking at their equity ratio, you need to adjust for those off-balance sheet obligations and realize that FPL's equity ratio is not as high as it seems.

CHAIRMAN JABER: And that tradition of making the off-sheet obligation equal, for lack of a better word, with equity has become to be known as the equity penalty, the equity adjustment, whatever it is you want to call it.

THE WITNESS: That is correct. That --

CHAIRMAN JABER: And that adjustment -- I don't think as quickly as you do. And that adjustment is, obviously, you need to do it for -- in your opinion, for the analysts so that they can advise the investors, but the adjustment is also something that you account for on your books as a regulatory adjustment.

THE WITNESS: Not as a regulatory adjustment. What it is, is when you move to the regulatory arena, where -- it's very common in the regulatory arena to look over the shoulder of investors and see how investors are thinking about the world. We do that when we look at what the required return on equity is, for example, in rate cases.

Well, we also do that when we're looking at a case like this where we're trying to compare the self-build option

with purchased power options. And we say, now, if the utility 1 2 goes this purchased power option and it commits itself to this 3 long stream of firm payments, we know that investors are going 4 to pay attention to that. And in fact, investors are going to 5 say, because of those obligations, this utility has increased its off-balance sheet debt, so the only way that as safe an 6 7 investment as it was before this happened is if they increase 8 their own balance sheet equity just enough to balance off that 9 off-balance sheet liability. 10 11 12 equity penalty or the equity adjustment.

CHAIRMAN JABER: But that increasing the balance sheet has come to be known in the regulatory arena as the

THE WITNESS: That is correct.

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CHAIRMAN JABER: Okay. Is there another way to give those investors comfort to account for that off-sheet obligation?

THE WITNESS: Well, yes. There are some ways to reduce the amount of off-balance sheet obligation. And Mr. Maurey talks about in his testimony how this Commission has, for example, its policy of passing through cost. That helps ameliorate the size of the off-balance sheet obligation.

So investors when they say, here are the payments. What do they equilibrate to in terms of debt? They take into account the regulatory environment because the regulatory environment can make those obligations either scarier to

investors or less scary. So that's one way a regulatory body such as this one has served to lower the impact of these off-balance sheet obligations.

CHAIRMAN JABER: So if there was a clearly delineated mechanism method showing by this regulatory agency that takes care of the perception of an off-sheet debt obligation, would you agree with me that the equity penalty would no longer be necessary?

THE WITNESS: Yes, I would agree if the Commission could do such a thing, but I don't believe the Commission can.

CHAIRMAN JABER: And that's what I need to understand from you. I thought you just said that there were other ways. And my question is this: What are those other ways, and are those other ways items that can be provided by this agency?

THE WITNESS: I think the ways -- the more this agency can do to give investors comfort about the ability of the utility to collect the revenue to balance against these obligations, the less investors will attribute -- you know, the lower factor they will use in moving from the size of the obligations to what that's equal to in terms of debt and, therefore, how much equity you need to offset it. But I think there are limits, and I think this Commission has gone a long way in its past policies along the line of giving investors some comfort, but I don't think this Commission has eliminated investors' concern.

One of the reasons that you can't eliminate investors' concerns is that investors have to think about the future. When they buy stocks and bonds, they are investing for the long term. Now, they might be very comfortable with this Commission, and they may be very comfortable with the legislation under which you operate, but they know that those things are subject to change. In my experience, the Texas Commission, at one point when we first started, we had a very kind of full pass-through of virtually all fuel cost and all purchased power cost. It became a very great political issue in Texas. And in 1982 we passed a law -- the Legislature passed a law that says, no pass-through clauses whatsoever. And immediately investors changed their perception of the risk of investing in Texas utilities very dramatically.

And we had -- at one point, we had a AAA utility, Texas Utilities. Well, after that, they started sliding down. Now, subsequently, the Texas Commission and the Legislature have changed the rules to get back to more pass-through, and you can see the risk going down, and the kind of risk that's attributable to off-balance sheet obligations has a gotten less. But investors know or at least the investors have to worry about the rules changing and the Commission changing. So a Commission can be very constructive, as I believe this one is, and reduce and ameliorate that risk, but I don't think it's within your power to eliminate it.

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CHAIRMAN JABER: Okay. So let's take that a step at a time. If this state had clauses that passed through costs associated with purchased power arrangements, then that would provide certainty to those investors. And I really want yes-or-no answers because I've got a series of questions for you. That would provide certainty to investors.

THE WITNESS: Yes. It would provide more certainty. It does not provide certainty. It is not a rock solid quarantee.

CHAIRMAN JABER: And that's true about everything in life in general, I would imagine; right?

THE WITNESS: It's true about everything in life, but I think it's particularly true in the regulatory arena.

CHAIRMAN JABER: If this agency had long-term revenue-sharing agreements between stakeholders, consumer advocates, and the companies that are regulated, that would provide more certainty to investors.

THE WITNESS: Yes, it could. It depends on the exact circumstances, you know, what the features -- I think investors look into the details because that's often where the devil resides on these kinds of arrangements.

CHAIRMAN JABER: Does your opinion change at all if that purchased power arrangement was between FPL and another regulated IOU?

THE WITNESS: My opinion as to the appropriateness of

the equity penalty would not change. I mean, it is a valid consideration. The assumptions that might go into calculating how big the equity penalty is would likely change as you change the nature of the counterparty.

I would point out that FPL currently has significant power purchase arrangements with public utilities, and those are viewed as significant off-balance sheet obligations by the rating agencies.

CHAIRMAN JABER: I need to understand why the penalty would be different if it was -- one of the bidders in this case I think the record indicates was Florida Power Corporation, and TECO was another bidder. If Florida Power Corporation won the bid and a purchased power agreement had to be executed between the two companies, how would that equity adjustment differ from, let's say, PG&E entering into a purchased power agreement with FPL?

THE WITNESS: It may differ, and I think the place where it would differ is in step two. Remember the four-step process. Step one is looking and discounting the future payments. Step two is where you apply a risk factor to the present value of those payments to get a debt equivalent.

Now, for purposes this analysis, FPL has used a 40 percent adjustment factor, which I think, in my opinion, is representative of the general risk of the kinds of arrangements that would be elicited given the RFP terms.

Now, if -- a concrete example, in the 1999 standard offer case, this Commission determined that a 10 percent factor was appropriate for qualifying facility power because it was not as firm, the commitment was not as strong, and there were lots of outs in the Commission rules. So in that case for qualifying facility power, the 10 percent factor was used. For other situations, a higher factor -- you know, a 50 or 60 or 80 percent factor might be used. Standard & Poor's says that for a lease purchase or a unit lease, you might have a factor as high as 100 percent. So that factor in step two is where you take into account the particular circumstances of the deal.

CHAIRMAN JABER: Thank you. That's very helpful.

And the final question is: To the best of your knowledge, does the RFP indicate clearly what the different adjustments might be under what circumstances?

THE WITNESS: I have read the RFP, and the RFP, you know, has general parameters about what people can bid. I think that you could conceive of -- and we would expect the bids to generally follow those parameters, and there's been a lot of discussion here about to the extent they did or didn't. But I think that sets a general framework that suggests a magnitude of factors. And that's why I believe for the RFP 40 percent is a representative number.

Now, I could conceive of a bidder coming in and structuring an arrangement, and by the nature of the

arrangement and the nature of the bidder, some different factor 1 2 might be appropriate, lower or higher, depending on the 3 circumstances. 4 CHAIRMAN JABER: Thank you. 5 Mr. Moyle. 6 MR. MOYLE: Thank you. BY MR. MOYLE: 7 Just following up briefly on a question. It would be 8 0 9 true, would it not -- you've read the supplemental RFP? 10 Α Yes. sir. 11 0 Okay. And the bidders were never told in advance how 12 the equity penalty was going to be calculated or determined; 13 isn't that correct? 14 I don't recall any discussion of the equity penalty. 15 I mean, I think that's part of the analytics in making a 16 comparison between self-build and purchase. And to the extent it had been used in previous cases, I would assume bidders 17 18 would be aware that it's likely to have been used here. 19 Right. But my question relates to whether the 0 20 bidders were informed as to how the calculation might be done. 21 You talked about the 40 percent level. There was nothing that 22 said FPL was going to use a 40 percent factor in calculating 23 the equity penalty or anything like that in the supplemental 24 RFP. was there?

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No, sir.

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Q Thank you. You answered my question earlier about, I guess, your experience in Texas. You were with the regulatory Commission out there; is that right?

A Yes. sir.

Q And you said that the bond rating agencies would come and talk to you about things like this?

A Yes, sir.

Q Did they ever come and give testimony in front of your Commission?

A No, sir. The -- most rating agencies have a practice that they do not testify before the Commission.

Q All right. Do you know --

A They will from time to time make presentations, informal presentations, to the Commissioners. They did that in Texas, and I would be surprised if they haven't done it here at some point.

Q But it's not your testimony that Moody's or Standard & Poor's has never given testimony to Congress or anyone with respect to issues that were deemed important, is it?

A I do believe the rating agencies testify to Congress. I think they recently testified relating to the Enron debacle. So rating agencies will testify, especially if they're subpoenaed before Congress, but their policy is not to testify before regulatory agencies.

Q Do you know if any of the rating agencies have come

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down to Tallahassee to talk to the staff or the Commissioners about this issue in this proceeding?

Α No, sir, I don't know from my personal knowledge. I know that Mr. Maurey speaks about this issue with some sophistication in his testimony. So he's certainly well-versed on the matter.

Q Following up on a question you were asked by the Chair. You talk about these being off-balance sheet obligations: is that correct?

Α Yes. sir.

So I presume from that -- and I'm not a sophisticated 0 investor. I invest a little. But I presume that that would mean that that information would not be available on the balance sheet that the company would file with the SEC; correct?

Α That is not quite correct. It is not in the body of the balance sheet, but it is required to be disclosed in the footnotes. So to comply with reg X which controls the Form 10K and the other forms that public companies must issue to the investing public, they are required to make disclosures in their footnotes which include the purchased power obligations and a projection of the amount of fixed payments under those. as FPL has done.

Do you know how much off-balance sheet debt related to purchased power agreements that FPL is currently carrying?

1	A Standard & Poor's estimates it at 1.2 billion. Those		
2	numbers appear in Mr. Maurey's testimony, and he has several		
3	exhibits that outline the amount of off-balance sheet		
4	obligations for FPL and a number of other utilities.		
5	Q Now, is this specific to the utility, or is this FPL		
6	Group?		
7	A I believe that's specific to the utility.		
8	Q Do you know what FPL's overall debt is?		
9	A You mean the total dollars of debt?		
10	Q Yes.		
11	A I don't have it on the tip of my tongue. If you want		
12	me to it's in Mr. Maurey's testimony.		
13	Q Okay. I can ask him about it.		
14	A I didn't hear you, Mr. Moyle. Do you want me to look		
15	that up?		
16	Q No. I can ask him about it.		
17	You're familiar with the supplemental RFP. It		
18	contains indication that there will be a regulatory out		
19	provision. Are you familiar with regulatory out provisions?		
20	A Yes, sir, I am.		
21	Q To the extent that a purchased power agreement had a		
22	regulatory out provision, wouldn't that mitigate against the		
23	risk with respect to this equity penalty that you've been		
24	talking about?		

A Yes, it does. It's one of the factors that affects

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the factor that goes between the present value of the off-balance sheet obligations and what their debt equivalent is. So the presence of a regulatory out is something that serves to reduce that factor, and that's been taken into account in the 40 percent factor that's been used here.

- Q Now, don't rating agencies consider a whole wide variety of factors when making judgments about companies?
 - A Yes, sir, they do.
- Q How many would you guess? How many factors? Are they in the dozens, in the hundreds?

A I think the general categories are in the dozens. Now, the individual facts that they might look at about a utility might be in the hundreds, but there are dozens of factors that the rating agencies say are important to them, service area, regulation, obviously, economy, fuel mix, on and on.

Q Is this imputation of debt issue, would that be one of the dozens of factors that agencies consider, or would it be one of the hundreds of facts?

A I think it would be one of the dozens. I think the presence of off-balance sheet obligations and purchased power obligations are usually right there in the first list of considerations.

Q And if I understand the rationale, this would apply -- this concept would apply to any long-term obligation,

would it not, of the company, or any obligation to pay moneys, fixed moneys, over a period of time?

A I think it depends on the firmness of the obligation and the nature. For example, in addition to purchased power obligation, FPL has off-balance sheet equivalents due to its nuclear fuel trust. So any kind of firm obligation that extends over time, investors and the rating agencies who advise them regard part of those obligations as off-balance sheet debt.

Q So if they had a contract to buy a commodity over a number of years, coal, for instance, then that would also similarly be viewed as imputed debt?

A I think it depends on the circumstances. Typically, except for nuclear fuel, the rating agencies and investors generally have not really focussed on long-term fuel contracts. Now, there are some case where they might; in my experience, where you might have commitment to pipeline capacity, for example. But I think the circumstances of the arrangement determine whether -- and to the extent it's viewed as an off-balance sheet liability, there is no question that investors view long-term purchase power agreements from independent power producers as off-balance sheet liabilities.

Q But that wouldn't be the case necessarily with the long-term purchase for fuel, necessarily, or for lease payments? Let's say there were -- FPL I'm sure leases a lot of

property. If you aggregated all the leases that they were obligated to, that wouldn't be something that would be an off-balance sheet issue that would be imputed debt, would it?

A Not generally. There is a recognition of the off-balance sheet obligation when the lease is for a generating facility. I've seen that viewed as an off-balance sheet obligation. So I think the rating agencies look at the particular circumstances, and I think investors following the rating agencies' advice look at the circumstances, but I don't think it's ambiguous with respect to purchased power.

Q Have you seen any FPL documents that have acknowledged that this is a controversial issue, whether you impute this debt, or how it's considered in these proceedings? Are you aware that this is a controversial issue?

A I don't know that I've seen any document. I know it's a controversial issue because it is a fairly significant issue. And sometimes it's kind of hard to -- people find it hard to understand.

MR. MOYLE: I appreciate you helping me understand this a little better. Thank you for your time.

COMMISSIONER PALECKI: I'd like to follow up on one of the Chairman's questions.

CHAIRMAN JABER: Go ahead, Commissioner Palecki.

COMMISSIONER PALECKI: What if this Commission guaranteed a pass-through dollar for dollar on purchased power

contracts? What would that do to your calculation?

THE WITNESS: Commissioner Palecki, I think we would have to see how investors would react and how that would be different from the current arrangements the Commission has.

But I do believe that even if this Commission were to make the strongest possible statement that a particular set of purchased power obligations would be recoverable, I think the investors would still impute some amount of debt because of the inability of this Commission to bind future Commissions or the possibility that some unexpected circumstance, political, economic, could intervene to render that commitment not effective.

COMMISSIONER PALECKI: But that guarantee would have some affect in minimizing the dollar amount that was imputed.

THE WITNESS: Yes, Commissioner Palecki, I think it could. Again, there is already built in, I think, to investors' perception an understanding of the regulatory policy in Florida. That's built into the 1.2 billion, for example, that Standard & Poor's calculates for the off-balance sheet liability for FPL. So I think to reduce that, investors would have to see regulatory changes that are more in the direction of allowing assurance of collection.

COMMISSIONER PALECKI: And what about the assurance of collection for a company-built power plant, a utility-built plant? Is there any imputation of risk on cost recovery there

where you have long-term payments stream over -- or long-term payment for the plant itself for the capital investment that may or may not be recovered based upon any number of factors?

THE WITNESS: Yes, Commissioner, I think there is. I think that is built into the cost of equity and the cost of debt that the firm faces, the possibility that there might be a disallowance or an imprudence finding. So in using the 11.7 percent cost of equity and the 7.4 percent cost of debt, I believe the self-built option has built in investors' expectations of that possibility.

COMMISSIONER PALECKI: And in the year 2002 when we're seeing tremendous technological strides -- I mean, the natural gas combined cycle plant is relatively new technology, but the plants we're seeing today are much more efficient than the plants we saw five or six years ago. I guess we could envision that ten years from now we'll have even newer technology that could antiquate this technology we're seeing today. Wouldn't the fact that a third party is taking that risk and not the investor-owned utility, wouldn't that be a factor that is given some consideration by investors?

THE WITNESS: Well, I think that technological risk is given consideration. I think it is reflected both in the cost of equity of the utility when we discount the utility-built option and calculate its revenue requirements, and I think those kinds of considerations are built into the

risk factor. Some of the risk of unknown future unknowns kind of affect both sides of the equation, so there's no need to adjust for them. And --

COMMISSIONER PALECKI: Well, which utility faces the most risk? The one that's all self-build, the one that is all purchased power contract, or the one that doesn't have its eggs all in one basket but splits it a reasonable amount between self-build and purchased power?

THE WITNESS: Well, I always think diversification is good, but I think you would have to look a little bit further, Commissioner, to look at the nature of the fleet of plants that stand behind the purchased power versus the utility. Purchased power all from one technology and all affected by the same natural disasters might be more risky than a utility fleet. So I think diversification both in terms of sources and other relevant risk factors, fuel, fuel availability, technologies, would be important as well.

COMMISSIONER PALECKI: So some purchased power in the mix would actually reduce risk.

THE WITNESS: I think it's possible that it could. You know, I think to the -- how much it would and so forth would depend on how the purchased power affected the overall match the diversification of the utility fleet.

COMMISSIONER PALECKI: Thank you.

CROSS EXAMINATION

BY MR. McGLOTHLIN:

Q Sir, I'm looking at Page 4 of your prefiled direct testimony. At Line 5, you state, "The purpose of my testimony is to examine the impact of power purchase contracts on FPL's financial position and present to the Florida Public Service Commission the method FPL used to account for these impacts in its evaluation of capacity alternatives." When you say "the impact of power purchase contracts on FPL's financial position," do you refer to the manner in which rating agencies appraise the riskiness of investments in FPL?

A Well, the way that investors generally and rating agencies look at the purchased power as adding to the risk due to off-balance sheet obligations, what we've talked about. So I'm talking about that, and then I'm also talking about the additional consideration that that off-balance sheet obligation doesn't really take into account the financial viability risk that may be attached to a particular vendor. So I think both issues are encompassed in this statement.

- Q But a rating agency's appraisal of financial position is not purely a function of this imputed debt argument, is it?
 - A No. sir.
- Q In fact, as was discussed by Mr. Moyle, isn't it true that rating agencies look at a host of factors when rating a utility?
 - A Yes, sir, they do. But the only factor that's kind

of subject to change in this proceeding is the amount of purchased power obligation.

Q Well, you say you're going to examine the impact of purchases on FPL's financial position. With respect to the manner in which a rating agency rates a utility such as FPL, I think we've established they look at a host of things.

A Yes, sir.

Q Would you expect some to be -- with respect to the impact of power purchase contracts, would you expect some to be favorable and others unfavorable?

A Do you mean that a power purchase agreement may have favorable effects on the utility?

Q Right.

A Yes, I think that's possible. I think that was the gist of my discussion with Commissioner Palecki, that you could conceive of a circumstance where it would be favorable.

Q Well, check me on this. You say your purpose is to examine the impact of power purchase contracts on FPL's financial position. As I look through your testimony, it appears to me that 100 percent of the references you make to the impact of power purchase contracts on FPL are those that are unfavorable; am I correct?

- A Well, what I'm looking at --
- Q I think that's a yes or no.
- A Yes, sir. I'm looking at the unfavorable because

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that's the particular circumstance of why you need to make the equity penalty adjustment and why you need to consider financial viability.

Q You also agreed that the rating agencies take into account far more than just this imputation of debt when they rate a company; is that correct?

A Yes, sir.

Q And would it be possible, for instance, that S&P could go through this exercise of calculating imputed debt but then take into account other things and decide not to change the rating of the utility that entered that power purchase contract?

A They could. I don't believe it's my testimony that the rating agencies would change the rating just because of imputed debt. I think my testimony is that imputed debt has the effect of increasing the risk and cost of the utility from a financial perspective. And you need to offset that with the equity penalty calculation to make an equivalent comparison. So I'm trying to help the Commission understand a necessary adjustment, not all of the possible -- for this case, not all of the possible factors that might increase risk. My rate case testimony did that filed in January.

Q You say it's necessary to make this calculation of imputed debt. Isn't it true that other rating agencies, only S&P has this formula that has been applied in some form in this

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S&P is the only one that has articulated a particularly quantitative technique.

So there are other ways to look at the risk of a 0 power purchase contract and take that into context with the other pros and cons and arrive at a view as to the impact of a PPA on financial position other than this calculation?

Yes. The other rating agencies have uniformly said they consider off-balance sheet obligations, and they impute debt, but none of the other rating agencies have given us a format for a quantitative analysis. The Standard & Poor's format has been used by this Commission a number of times because it is the only one out there that the rating agencies have given us.

At Page 10 of your testimony, beginning at Line 21, 0 you say, "Considering that the 1,700-megawatt increase in purchased power contemplated under FPL's supplemental RFP would constitute a greater than 60 percent increase in the company's firm purchased power capacity, investors focus on the financial ramifications and other uncertainties that purchased power would undoubtedly intensify." To what percentage of purchased power relative to the overall portfolio were you applying the 60 percent?

I was applying the 1,700 to approximately a 3,200 portfolio of purchased power. I might want to check those

numbers. They are in my testimony, but it was an adjustment, and that is assuming that the whole -- I believe it's 1,722-megawatt need was fulfilled with purchased power.

- Q Yes, sir. And my question is this: If you were starting at 3,200, what percentage of the total portfolio, FPL portfolio, does the 3,200 comprise?
 - A Of their total generation, it's about 16 percent.
 - Q Okay. So what's 60 percent of 16?
- A Do you have a calculator? I saw you had one a few minutes ago. I can get mine out.
 - Q It's about 9 percent, isn't it?
- A 9.6.

Q So you believe the investors' focus would undoubtedly intensify if FPL had as much as 25 percent purchased power in its portfolio?

A I think it would if they were under long-term fixed contracts. With the current level of purchased power, there is a lot of discussion about purchased power in analyses that I've seen of FPL by rating agencies, by investment advisory services. Again, the testimony I filed in the rate case in January goes over a number of instances where investors have shown that this is a particular consideration with this company, its level of long-term purchased power commitments right now at a 16 percent level. So if it were to increase through firm contracts, I would expect investors would show

1 | more concern.

Q You told Commissioner Palecki that you think diversity is a good thing. At what point do you regard a portion of power contracts to be towards diversifying?

A That's a hard thing to answer in the abstract. I think I agree with Commissioner Palecki that diversification of generating sources is a good thing. If you achieve diversification through purchased power, that would be a good thing, but that is not to say that all purchased power contributes to diversification.

Q At Pages 16 and 17, beginning at 22, you state, "Take-and-pay contracts that require capacity payments only if power is available would come next on the scale, with risk factors in the range of 10 to 50 percent." Do you see that statement?

A That's correct.

Q And you're recommending in this case that a 40 percent risk factor be applied?

A That is correct, based in part because of the requirements in the supplemental RFP that availability be maintained at high levels. So I think a take-or-pay commitment in an environment where you're obliged to maintain availability increases the firmness of those obligations.

- Q Is high availability a good thing or a bad thing?
- A I think it's generally a good thing in terms of

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reliability of the system. I'd much rather have capacity there when I need it than it being not available when I need it.

So the stronger the requirements placed on an IPP, 0 the riskier the contract becomes in terms of the eyes of the investors?

Α Not necessarily the riskier, but the more firm, the more likelihood that those payments in the future are actually going to have to be made; therefore, from the imputation of off-balance sheet debt, the imputation becomes a higher number. I mean, we're looking at the financial effect in terms of this imputation. That is not to say that there aren't favorable effects on the other -- you know, operating effects and other circumstances. But what I'm saying is that you need to consider the financial effects in making the comparison between self-build and purchase. And that's the narrow focus of my testimony.

At Page 20, beginning at Line 2, you say, "As S&P Q concluded in reporting the results of its review." Now, if I recall correctly, that report from S&P took the form of an e-mail. did it not?

Α Yes, sir.

And the first statement in the quoted portion there Q says, "We evaluated the RFP for purchased power and determined that between 40 to 60 percent of the capacity payments would be added to FPL's debt." So is it fair to say that the 40 to

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60 percent recommendation, if you can call it that, stems from their review of the supplemental RFP document?

That is correct. That is the basis of this e-mail. Α It's not the total basis of my judgment that the 40 percent factor is a reasonable factor, but this is one of the things that I considered.

- 0 Okay. But my question is what S&P looked at. based upon this report and your response, they looked at the four corners of the supplemental RFP document.
 - My understanding --Α
 - Yes or no, please. 0
- I think there were more materials supplied to Α S&P than just the RFP documents.
- Well, based upon what's quoted here, for instance, we 0 don't know to what extent S&P included or excluded such things as Florida's capacity cost recovery clause when it came up with this 40 percent number.

No. we don't know that. But to the extent that S&P and the people at S&P have followed FPL for a long period of time, I think they're very much aware of the regulatory framework here in Florida. Mr. Maurey in his testimony cites comments that Standard & Poor's has made on the regulatory environment here in Florida. So I think in the context of evaluating the risk factor, I would certainly expect they would comprehend the regulatory framework here. And certainly in my

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evaluation of the 40 percent, I took into account the regulatory framework here in Florida.

With respect to S&P -- and this is what my question 0 With respect to what S&P took into account, all we know is that they evaluated the supplemental RFP. You're reading the rest of it into it, aren't you, sir?

I'm not reading into this. I'm telling you my Α understanding of the way S&P operates. It follows utilities very carefully. It has staff members like Ms. Heck (phonetic) assigned to follow specific utilities, and they write up their reports on these utilities and currently, you know, continuously refresh their ratings and understanding of what goes on relevant to the risk of these companies.

You say you think that S&P was supplied more than the 0 supplemental RFP document. Do you know whether, for instance, the draft purchased power agreement that's been discussed in this hearing today was ever provided to S&P as part of that analysis?

As I sit here today, I don't know. I've had Α conversations with people on Mr. Dewhurst's staff about the materials that were supplied, but I cannot remember -- I know there were materials in addition to the four corners of the RFP, as you put it. But as I sit here today, I can't tell the Commission all the things that were included.

If a utility were to undertake a large construction 0

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contract -- a construction project that has not yet been put into rate base, would rating agencies and investors perceive that to be a risky proposition?

They could. It depends on the nature of the Α construction project. Is it -- how large it is relative to the other assets. Rating agencies sometimes worry about something called asset concentration, when you have all of your eggs, as Commissioner Palecki was talking about, in a few baskets. also are concerned when a construction project is troubled or when the utility has a bad record of success in terms of successfully getting construction projects underway.

I think as far as FPL is concerned, in my reading of investor materials about FPL, it's regarded as having a splendid record in terms of its ability to complete construction projects in a timely manner, usually underbudget, even nuclear power projects in the period of time that other utilities were having terrible problems.

But in general, isn't it true that rating agencies 0 and investors perceive large construction projects as something that affects and increases financial risk of the utility?

Yes, they might. Again, it depends on the circumstances, how large, who the utility is, what the record of the utility is, the regulatory environment, all of those factors. So they do consider it. I think rating agencies will tell you they consider everything. Now, whether it affects

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their judgement I think involves the factors that you and I have been talking about.

A large solid IOU on day one has no construction 0 program in place. A day later the same large solid IOU has a 1.900-megawatt construction program that costs a billion dollars. Is one more risky than another?

I think it depends on the circumstances. An IOU that Α is unable to meet its load is regarded as very risky. think investors would regard an IOU taking action to anticipate need to keep the lights on, to keep the Commission happy with their performance, that might be something that investors would view favorably.

Okay. So financial risk really depends on the particular utility involved and the circumstance of that utility: correct?

I think the impact of a particular item, but I think as to these off-balance sheet liabilities, I think it's pretty clear that that is something that investors consider whenever they're looking at a utility, so that in a circumstance like this where we're talking about adding to the off-balance sheet liabilities and comparing that to a scenario where there is a neutral effect on the balance sheet, it is appropriate to make an adjustment like the equity penalty.

But the investors and the rating agencies will take 0 into account such things as the regulatory policy towards

allowing collection of those imputed debt obligations?

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A Yes, sir, they would take that into account. Of course, how they are collected, that's a rate case issue, and

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it depends on, you know, how the Commission treats the balance

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sheet for rate purposes. The settlement that FPL entered into

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in April of this year considered that off-balance sheet

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obligation in adjusting the equity.

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Q One of the functions that a regulatory agency such as this Commission performs is to authorize returns on equity for

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regulated utilities; is that correct?

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A Yes, sir.

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Q And when an agency examines or analyzes the return on

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equity that should be authorized for a particular utility,

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doesn't the agency take into account the financial and business

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risk that should be reflected in the authorized return?

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A Yes, sir, I think they should. And I believe in most cases they do.

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18 0 So doesn't that authorized rate of return already

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have built into it a recognition of the financial risk to which

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the utility is exposed?

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A I think it should, but that is a different issue than

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when we're comparing two options. One of which has no affect

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on the financial risk and one of which has some affect on the

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financial risk. I think you need to take account of that

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difference in financial risk in comparing those options.

Q If a utility has a large investment in a large new generating unit that is not yet operated, do rating agencies and investors perceive an operating risk in that situation?

- A An operating risk?
- Q Yes, sir.

A I mean, I think again as we've discussed before, the amount of concern that investors would have would depend on the circumstances: The type of unit, is it a unique unit, or one the utility has a great deal of experience with? What has been the utility's track record with similar units? What has been the regulatory environment in which the utility is operated? Is there anything to suggest that the project is in trouble? I mean, I think investors would look to the particular facts and circumstances in making an assessment.

Q If I understand your answer, you say yes, but it's a matter of degree. Is that a fair characterization?

A That's right, and it may be a very small degree or a very large degree depending on the circumstances.

Q If a utility is facing a transition to a competitive environment, would rating agencies and investors regard that as increasing risk?

A Yes, they could. Again, I think one thing that investors have become particularly sensitive to in the last several years is that all competitive environments are not equal. So I think that they again look to the rules and how

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they're implemented and whether it is a well thought out regulatory environment.

In the case of Florida, the reviews that I've seen. investors are very positive about the deliberative approach that Florida seems to be taking in terms of allowing competition into the state. And that is superior to states that maybe have rushed in without as much thought. One of which I can think of in California.

If a utility is investing heavily in a technology which can or perhaps is being overtaken by a superior technology, would that present financial risk?

I think it could. Again, in talking to Commissioner Palecki, the technological risk is something that investors are mindful of, and the degree of that depends on the facts and circumstances.

So it appears that if a utility enters a power 0 purchase contract, that's perceived as risky. If a utility builds a power plant, quite possibly investors will perceive that as risky. What's an agency to do?

It's a hard job. Ladies and gentlemen, it's a hard job. I think what the agency tries to do is to account for all the risk that they can reasonably account for. And I think in terms of this equity adjustment and the fact that there is imputation, I think that is something that we know. It's observable. This Commission has recognized it in the past.

I think we ought to adjust for that.

If there are other differences out there that we know about that, if we can quantify them, we ought to quantify them, or I would suggest that the Commission ought to quantify them. And if they can't be quantified, I think they ought to be judgmental factors that are used in evaluating options. So I don't think you can boil all of these risks down to numbers.

I think a lot of judgment is required. I've heard some of the other witnesses talk about the judgment that's required in this process. But I think in this small corner of the world, which is the equity penalty part of the world, we do have an area where there is a clear difference between the utility-built option and its affect on the balance sheet and the purchased power. And we know that occurs, and we can quantify it, and I think it needs to be quantified to make a rational choice about the cost-effective option.

Q If the Commissioners were to do those things necessary to make the rating agencies fully happy, what would electric service cost in Florida do you think?

MR. LITCHFIELD: I'm sorry. I did not hear the end of that question.

Q If the Commissioners were to try to make the rating agencies fully happy, what would electric service cost in Florida?

A I don't know, but I don't believe it's the

Commission's job to make the rating agencies happy. I do believe it's the Commission's job to be mindful of how investors react to the decisions that they make because investors are the source of the money that's necessary to buy the plant and equipment that's necessary to provide the service that the Commission is responsible for making available to the people of Florida.

CHAIRMAN JABER: I thought the customers were the source of the money that allowed the companies to buy the equipment that makes the service available.

THE WITNESS: Well, the customers pay the bills, for sure. But in terms of capital investment and access to capital and financial integrity, I think the Commission has to be mindful of the investor requirements.

Now, I don't think -- the Commission's constituency is the customers, Chairman Jaber, and I don't disagree with that. But I believe it is the Commission's obligation to be mindful of investors' reactions. Now, I don't think that this --

CHAIRMAN JABER: If you ain't got no customers, you ain't got no investors.

THE WITNESS: Absolutely. But I believe this is not an issue, and this is something that Mr. Maurey and I disagree about. This is not an issue, this equity penalty between customers and investors. You don't have to make a choice

between customers and investors in deciding on the equity 1 2 3 4 5 6 7

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penalty. What you're trying to decide is, in comparing options which are most cost-effective for the customers, you shouldn't ignore a cost that you know is out there. And you know, I think you can be reasonably sure that if this company enters into long-term power purchase agreements, that is going to have a financial effect on the utility.

BY MR. McGLOTHLIN:

Sir, you just said that in your view the Commission 0 should not ignore this imputed debt subject. Should they focus on that to the exclusion of other aspects of power purchase contracts, many of which could inure to the benefit of the utility when viewed in terms of its riskiness by the financial community?

No. sir. I don't think the Commission ought to Α ignore any of those factors.

Earlier you and Mr. Moyle were discussing financial viability of a bidder. Isn't it true that many and perhaps most independent power projects are financed with financing that is project specific?

In my experience, many independent power projects are project financed. The sponsor may have some equity position and maybe some debt subordinated position in the project. In my experience, many are funded as independent projects.

And in terms of the ability of an independent power Q

developer to obtain financing for that project, do you believe a power purchase contract with a large utility on sound financial footing would be an important consideration in whether it's able to get money or not?

A I believe that investors do look at the contract and the terms of the contract in assessing the financeability. I think as we've talked there are many, many other considerations, but I think that is a consideration.

Q It's a big one, isn't it?

A It may be a big one depending on the circumstances. I think they do look to the contract and the protections in the contract. They also look at the regulatory environment behind the contract.

COMMISSIONER PALECKI: May I jump in here?

Dr. Avera, I think I heard you testify that the issue of whether there would be an equity penalty is something that is within the sound judgment of this Commission; is that correct?

THE WITNESS: I think it's in the judgment of this Commission whether to do it and how big of an equity penalty there should be. I believe that it is a logical and reasonable adjustment to be made, and I think it's one that this Commission has made in past cases properly. But -- and I think it's consistent with the rules that I've read about having as part of the need case to consider the financial impact of purchased power.

COMMISSIONER PALECKI: Well, let me ask you this question: This RFP process is already over, and we see a situation where the state of Florida needs a power plant or plants to be built. Wouldn't this have been a better issue for us to decide prior to the RFP process so that we're not haggling over this now when whatever we decide may be too late?

THE WITNESS: I don't know if I can help you very much with that. It seems to me that the equity penalty is part of the economic evaluation of alternatives. And presumably, parties in responding to an RFP look at their cost and what they're willing to do, and they put on offer on the table. And that presumably is the best offer they can offer and still meet their profit requirements and risk and whatever else they consider in putting that bid on the table.

Now, that should be their best bid whether there's an equity penalty or not. The equity penalty is part of the process that the company uses, and then the Commission in their oversight of the company make sure is being used correctly to compare the various purchased power options that have been put on the table and the self-build option. So I have a little difficulty seeing how the equity penalty would have made a difference as to, you know, the bids you got. It just makes a difference as to how you evaluate the economics of the bids.

COMMISSIONER PALECKI: So let's say we agree with you that there should be an equity penalty, but we believe that the

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equity penalty in this case was set too high, that it should be 25 percent of where it was actually set at. What analysis would you say this Commission should do at this juncture?

THE WITNESS: Well. if the Commission should believe that, and I certainly believe that the equity penalty assumptions that FPL made were reasonable, but I think as I understand it, you have the equity penalty calculations for the various projects presented to you that are part of the evidence, and you know the magnitude of the equity penalty, and in my testimony, I've laid out the logic and the steps in evaluating it, so if you disagree with any of the assumptions that I have in my testimony, I think it would be possible for you or your staff to figure out what a revised equity penalty would be.

And now, how that would be fed into the economic analysis that Dr. Sim did and the other parts of this equation is beyond my expertise, but certainly as to the equity penalty, Commissioner Palecki, I think in this record you have what you need if you disagree with the assumptions to come up with a different result.

COMMISSIONER PALECKI: Thank you.

BY MR. McGLOTHLIN:

Sir, let me get you to clarify one thing for me. 0n0 Page 20, we were looking at the quoted portion of the S&P e-mail which says, "The RFP states that a minimal level of

performance would be required." And one of your answers to me, you said that the source of the concern was the fact that the contracts require high availability. I'm trying to square this comment with yours.

A Well, I think availability considerations were part of the RFP, and I believe -- my interpretation of when they say "a minimal level" is that there was a level below which you could not go. That's my understanding of what S&P is saying, and I think it's a little clearer if you look at the entire e-mail.

Q So perhaps it should say "a minimal level of performance"?

A Right. There's a statement that says -- and I don't remember if this is in the quote or not. It says, "This provision increases the likelihood that the payments will be made, making the capacity payment more firm or debt-like." I mean, this is different from, say, a QF contract, where QFs are not held to minimal levels of performance. So to the extent to which FPL is obliged to make future payments to a QF is much less certain than the kinds of contracts that are contemplated by the RFP.

MR. McGLOTHLIN: I think I understand. I have no further questions.

MR. PERRY: I have no questions.

MR. TWOMEY: Thank you, Madam Chairman.

CROSS EXAMINATION

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Q Good afternoon, sir.

BY MR. TWOMEY:

Good afternoon, Mr. Twomey. Α

I just have a couple of questions, Dr. Avera. Given 0 your discussion with Commissioner Palecki about the benefits of a purchased power agreement to the IOU, should there be an equity credit in the calculation of these bids, the analysis of these bids?

No. sir. I don't think so. I think to the extent they're benefits, they're not equity benefits. They don't go to the financial risk. They go to the operating risk. So I think if FPL or the Commission thinks a project has a particular advantage in terms of its diversification or some other characteristic. I think that advantage could be taken account of on its own terms. But it's not about the balance sheet the same way this off-balance sheet obligation is about.

So, you know, the equity penalty addresses one particular but very concrete phenomenon, which is when a utility signs a long-term purchased power agreement, it has debt-like characteristics which investors factor into their evaluations of a utility.

Okay. Because of the -- I'm sorry. 0

Because of the fixed obligations. Now, the contract can have all sorts of other beneficial characteristics which

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are either quantifiable or not, and they can be taken into account on their own terms, but they still -- this effect on this balance sheet is still there. So you take account of it, have it equilibrated, and then you can look at operating advantages, technology advantages or whatever in comparing the self-build option to the purchased power opportunity.

0 Because the fact that the long-term contract is equivalent. It's not off-balance sheet debt; right? Your testimony is that it's in the eyes of the investor, the equivalent of off-balance sheet debt?

Α Well, yes. It's the equivalent of off-balance sheet liability. It is an affixed obligation that the utility has to meet every year or every month or at some future date, and investors regard those as an off-balance sheet liability which are equivalent to debt. Now, they don't count them dollar for dollar. That's what you have this risk factor for, but it's still -- investors say, that firm has more debt than what you see on the balance sheet.

Right. And isn't it true or didn't you say earlier 0 to someone that investors view the purchased power contracts as risky in one part because there's the possibility that a Commission could disallow a portion of those payments that are required for the revenue stream to pay off the contract?

Yes, sir, that's one thing the investors have to worry about.

Q Okay. And they would do that as risky?

A Yes, sir. The utility would be in the position of having to make the payments but not being able to get the revenue.

Q To recoup all the revenue?

A Yes, sir.

Q Now, isn't it true that the supplemental RFP that's before this Commission had a regulatory out provision that provided that if FPL had accepted any of the bids, that FPL's payments on the energy contract would be limited to whatever the Commission allowed through the purchased power clause?

A I remember a couple of sentences on regulatory out. I don't remember if it said exactly what you represented, but there was certainly a regulatory out comment, provision in the supplemental RFP.

Q Okay. Well, let's just stay then hypothetically, if you had a situation where the purchased power agreement with the bidder had a contract that said that the IOU, that it entered into the long-term contract, would only be responsible for whatever amount that the regulatory agency approved; then that would be more advantageous to the investor or be seen as being better than a situation where the utility was subject to having to pay the full amount of the purchased power contract but perhaps having lesser payments from the agency?

A Yes, sir. That is a favorable factor, and that's one

of the factors that is incorporated into using a 40 percent adjustment from the present value of the obligation to what the debt equivalent is.

Q Okay. And I think you conceded with Commissioner Palecki, did you not, that a utility could benefit in the eyes of the investment community by having purchased power contracts because it would supply -- it would give you supply diversity?

A Yes, sir. I could certainly conceive, and I think in my experiences, circumstances where purchased power arrangements do increase the diversity for a company.

Q Okay. And I think you've testified as well that the purchased power agreements have benefits that have to be taken into the mix which include the elimination of the risk of having an ongoing large construction project; right?

A Yes, sir, that may be a consideration.

Q Okay. And as well, the appearance of new technology where if there was a five- or ten-year contract, the utility could conclude its contract and then go on to a newer, better, more efficient technology, perhaps. Whereas, at the self-build option, it might be stuck with that technology for 25, 30 more years?

MR. LITCHFIELD: Madam Chairman, may I interject here for a moment? I mean, Mr. Twomey may be going somewhere with this, but at this point, it sounds like he's simply trying to have Dr. Avera summarize questions and answers that have

1 already been asked, and I'm not sure that's terribly 2 productive. 3 CHAIRMAN JABER: So is your objection that some of 4 these are asked and answered? 5 MR. LITCHFIELD: Asked and answered, yes, ma'am. 6 CHAIRMAN JABER: Mr. Twomey. MR. TWOMEY: Well, the -- I was ready to sum up. 7 8 BY MR. TWOMEY: 9 Given those admissions, if you will, isn't it 10 possible that -- isn't it possible that a utility could gain a 11 greater advantage in the eyes of the investment community by 12 entering into a long-term purchased power agreement than self-building? 13 14 It certainly could be possible. I have not examined that in these terms, but I think it is also true even in that 15 16 circumstance utilities or investors would regard those fixed 17 payments as an off-balance sheet obligation, and equity would 18 have to be added to the portfolio to bring it into balance. So 19 all of that is true and -- or may be true, could be true in a 20 circumstance, but the financial impact would still be there. 21 MR. TWOMEY: Okay. Thank you. 22 CHAIRMAN JABER: Thank you, Mr. Twomey. 23 Staff. 24 MR. HARRIS: Yes, thank you. 25 CROSS EXAMINATION

BY MR. HARRIS:

Q Dr. Avera, would it be fair to say that Standard & Poor's did not create the equity penalty adjustment as Florida Power & Light is proposing be recognized in this proceeding?

A I missed the first part of your question, Mr. Harris.

- Q Would it be fair to say that Standard & Poor's did not create the equity penalty adjustment as Florida Power & Light is proposing it be used in this proceeding?
 - A The staff report? I still missed that.
 - O Standard & Poor's.
 - A Standard & Poor's, yes. Okay. I got it.
 - Q Would it be fair to say --
- A Yes, sir, it is fair to say. Standard & Poor's stopped at the level of what is the off-balance sheet obligation. The equity penalty is something that has been developed in the regulatory arena.
- Q Did Florida Power & Light develop this concept as it's being applied today?

A I saw -- the earliest mention of this concept I have seen is in the FPL testimony that's attached to Mr. Maurey's testimony in this case. Although, I have seen references to equity penalty in several Florida Power Corporation cases and the equity adjustment in the FPL standard offer case. So I have seen references to equity penalty in other Commission orders and the equity adjustment, as I cite in my testimony.

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So would that be a "yes or no" for Florida Power & Q Light?

The earliest that I have seen is the Florida Power --Α FPL testimony. I don't know if they invented it. That's the earliest that I have seen.

Thank you. Have you -- as Florida Power & Light is 0 requesting it be applied in this proceeding, have you seen any other states with the same concept or adjustment, any orders from any other state?

No. I have not. I have not been -- seen a regulatory decision framework exactly like this where the purpose is to compare a self-build option to various purchased power options. As we discussed in my deposition, my experience has generally been where you have a number of purchased power options that you're comparing among each other, not against a self-build alternative.

Is it your testimony today that the Commission has 0 explicitly approved the use of the equity penalty adjustment as proposed by Florida Power & Light in this proceeding in prior cases?

I will say yes. I believe that this Commission has approved the framework of the equity penalty. The assumptions that went into the calculation were different. For example, in the standard offer case, a 10 percent risk factor was used instead of the 40 percent. In the Florida Power Corp case, the 1 | 1 | 2 | 3 | 4 | 5 |

Hines 2 case, a 40 percent factor was used but different assumptions were used about the cost of debt, the cost of equity, and the capital structure. But I believe that the framework that FPL used in this case is the same as the framework used in those cases.

Q Am I correct in understanding that your testimony is that there are other ways the company or the Florida Public Service Commission could make investors comfortable with purchased power agreements or contracts other than by using an equity penalty?

A Yes and no. Yes, there are ways that the Commission can make investors more comfortable with purchased power. I don't think they can eliminate the off-balance sheet calculations. They can certainly make them smaller and the risk factor smaller. But I don't think -- and I want to clarify in your question, I don't think the purpose of the equity penalty adjustment is to make investors comfortable. The purpose of the equity penalty adjustment is to make alternatives comparable, recognizing how investors are going to react.

The Commission should look and see how investors regard these off-balance sheet obligations, and the fact that they do regard them as off-balance sheet debt says that a purchased power agreement has a balance sheet effect. So when the Commission is evaluating alternatives, it should consider

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that effect in evaluating alternatives.

Would it be fair to say that without use of the equity penalty adjustment in the comparison of alternatives, other means exist to restore investors' confidence or comfort such that the bond rating or financial position of Florida Power & Light would not be affected by the increase in purchased power agreements?

No. I don't think that it's possible to completely eliminate the affect of a long-term purchased power agreement on investors viewing it at least in some maybe small part as an off-balance sheet liability that would be different from when you are doing a self-build option where your economics are based on a neutral effect on the capital structure. So I don't think you could get to the point where the equity penalty vanishes.

I think certainly this Commission could take actions to make the equity penalty -- well, to make the investors' reaction less, and I think the equity penalty should be based on what the Commission thinks the investors' reaction will be as it goes through the four steps to calculate it.

I think you testified a little while ago that you disagree with Mr. Maurey, and your understanding is Mr. Maurey is saying that you would have make a -- the Commission would have to make a choice between investors and ratepayers; is that correct?

A That's correct. I don't believe -- I think in many occasions the Commission may be in a position of deciding a balance between customers' interest and shareholders' interest, but this is not one of those. I think the Commission is, I believe, in this circumstance trying to identify the most cost-effective option or to make sure that FPL has identified the most cost-effective option. And I believe in doing that exercise, you need to take account of a real cost that is present because of the off-balance sheet obligations that investors will impute to purchased power agreements.

The Commission has caused this a real cost in past decisions, and I think if you are trying to find the least-cost alternative, you can't ignore a real cost.

- Q Does Mr. Maurey state this in his testimony anywhere?
- A I believe Mr. Maurey has a discussion about investors' versus customers' interest. If you want me to find the section, I can look for it.
- Q No. So you're testifying that Mr. Maurey does make this statement clear in his testimony; is that correct?

A My memory is that he talks about there being a division of interest on this issue, and I don't believe there is.

- Q So your answer would be, you believe yes?
- A Yes, I believe he did. And I'll be up here for my rebuttal, and by then I'll certainly know where he said it.

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That's fair. I believe in response to a question by 0 Mr. McGlothlin you made some comments about different risks other than purchased power agreements; is that correct?

Α Yes.

Would the different risks apply equally to -- and my 0 recollection is, there was a discussion of multiple risks and even greater multiples of -- okay. I'd like to withdraw that. I don't think we have any further questions.

CHAIRMAN JABER: Commissioners?

COMMISSIONER BRADLEY: What is the depreciable life of a power plant in terms of years?

THE WITNESS: I believe 25 or 30 years. I don't know what FPL uses, but in my experience, it's something of that nature.

COMMISSIONER BRADLEY: In terms of a purchased power contract, what is the average length of a short-term purchased power contract, and what is the average term in terms of years for a long-term purchased power contract?

THE WITNESS: Well, I think the contracts contemplated by the RFP need to be at least three years long, and I think that's -- most people regard a three-year contract as in the kind of the short-term range and could extend up, I believe, to 25 years. And most people, I think, would consider a purchased power contract to 15 to 25 years a long-term contract, Commissioner.

COMMISSIONER BRADLEY: Okay. So the independent power producers were offering you -- well, a part of their terms-- I mean, they were only offering three years?

THE WITNESS: No, sir. I believe, Commissioner, under the RFP that I reviewed, my memory is that the offer of power in response to the RFP should be at least 3 years and could continue out as many as 25 years.

COMMISSIONER BRADLEY: Could continue out for at least --

THE WITNESS: Yes, sir. I think that's up to the bidder to say how long they're making the power available.

COMMISSIONER BRADLEY: So what ordinarily happens if you all don't agree to extend the contract after the short-term period has expired and the plant has not been depreciated out for 25 years?

THE WITNESS: Well, I think an independent power producer then has to go find another home for their power. In some circumstances, they can find a better home for it. In some circumstances, they can't. I think that's part of the decision that the bidder has to make in terms of what duration of contract they want to put on the table and the circumstance.

COMMISSIONER BRADLEY: Okay. Another question then in terms of terms of agreement. At the -- say, for example, if you all decided to go for three years, that means that you all would renegotiate the terms after three years of the cost of

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THE WITNESS: Well. Commissioner --

COMMISSIONER BRADLEY: I mean, would the price to the consumer go up or would it go down?

THE WITNESS: I'm an outside financial consultant to FPL, so I will answer the questions based on my understanding.

COMMISSIONER BRADLEY: Theoretically.

THE WITNESS: Theoretically, I think if a bidder said three years and then at the end of the three years wanted to renegotiate either with FPL or another utility, I think whether the price would go up or down would depend on the market conditions at that time. I think one thing that we've learned, if anything, over the last 15 or 20 years is that market conditions, the cost of power can change dramatically in a particular region over the course of a few years.

So whether the prices will be higher or lower three years hence or certainly -- really, we're talking three years from 2005. So after 2008, I think it could be dramatically higher. lower, or about the same.

COMMISSIONER BRADLEY: So who basically would have the ability to determine what the cost of power is going to be to the consumer when you all renegotiate?

THE WITNESS: Well, I think that would depend on market conditions. I think if at the time the contract is up for being renegotiated, I think the prices will be determined by market conditions then prevailing. I think the Commission at that time would obviously have regulatory oversight to make sure whatever prices were paid were not out of line with what was required in the marketplace.

COMMISSIONER BRADLEY: So if the independent power

COMMISSIONER BRADLEY: So if the independent power producer did not agree with the decision that was made by the Commission, then they could terminate their agreement and sell that power elsewhere.

THE WITNESS: If they elected to go with a shorter term contract, then they have the ability at a future time to take their chances in the market. And they could be big winners, big losers, or come out about the same.

COMMISSIONER BRADLEY: If they went elsewhere, what type of condition would that create for the consumers in vour --

THE WITNESS: Well, I think it depends on the circumstances, Commissioner.

COMMISSIONER BRADLEY: I guess what I'm trying to get at is, would you then be confronted with a self-build option, another RFP situation, or would you -- I mean, how would you deal with the fact that you no longer have access to this particular source of power?

THE WITNESS: I think the company would build in the fact a contract is disappearing in three years or 2008 or whatever the date is into its capacity planning, and it would

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look for the most cost-effective alternative. And it might turn out the most cost-effective alternative is to renegotiate a contract with the new bidder.

My understanding of the process is there would be -before the company could plan a new unit to meet that need, we would have a determination, something like this. The company would go out for proposals to see if there are other power generators, other independent power producers, or utilities or somebody that would make a better deal. So I think in some ways the customers could get the benefit of new technology. They could get the benefit of a more favorable market condition.

I mean, I think the customers have the protection of FPL looking after their interest and trying to figure out the most cost-effective way to meet the power, and then they have the defense of the oversight of the Commission over FPL to make sure that FPL is doing what is best for the customer.

COMMISSIONER BRADLEY: One other question and I'll be finished.

CHAIRMAN JABER: Go ahead, Commissioner Bradley.

COMMISSIONER BRADLEY: Who determines the terms and the duration of a power purchase contract?

THE WITNESS: My understanding of the process that's contemplated by this RFP is, the bidder initially proposes a term, and then there would be negotiations between -- or could

be negotiations between FPL and the bidder that might change that term, but I think the bidder is initially in the driver's seat of putting on the table what they think a term that makes sense from a business aspect for them.

So I think the seller is in the position to put the term on the table, and then FPL is in the position of saying this is attractive or not. And then the Commission is in the position of saying, was FPL's decision consistent with the least-cost alternative?

COMMISSIONER BRADLEY: So it sounds like you're saying that there would two parties involved in -- well, the Commission would have some regulatory oversight, but Florida Power & Light ultimately would be -- I wouldn't say ultimately, but would also be a partner in the decision as to what the duration of the purchased power contract is going to be.

THE WITNESS: That's right, Commissioner. What would happen is, Florida Power & Light and the bidder would negotiate an agreement, and then that agreement would be subject to regulatory oversight. So I think the customers have kind of two lines of protection. I mean, first Florida Power & Light has the customers' interest in mind in trying to get the least-cost alternative, and then you have regulatory oversight to kind of check the decisions that were made.

COMMISSIONER BRADLEY: Okay.

CHAIRMAN JABER: Commissioners?

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COMMISSIONER DEASON: I have a few questions about Page 21 of your testimony at the bottom of that page. And there you talk about the return on equity utilized by Florida Power & Light in its cost-effectiveness calculation. And you indicate that they use 11.7 percent. I assume they use the 11.7 percent for their own self-build calculations as well as calculating the equity penalty?

THE WITNESS: Yes, Commissioner Deason. They use the same assumptions for the self-build that were used in the equity penalty as to cost of equity, cost of debt, and capital structure.

COMMISSIONER DEASON: Do you believe that 11.7 percent is an adequate return on equity to adequately compensate investors in Florida Power & Light for the risk and costs associated with building the self-build options?

THE WITNESS: No, sir, personally, I don't. I did an assessment of the -- what I thought the cost of equity was to Florida Power & Light in the rate case, and I came up with a higher number. But I do think the 11.7 is in the range of the kinds of returns that Commissions have allowed. It's consistent with the recent practice of this Commission. And in fact, in my rate case testimony, I did an analysis of the average Commission order adjusted for interest rates in the United States over the last 20 years, and the answer was 11.7. So I think it is representative of the kinds of returns that

1	Commissions allow. Personally, I think it is inadequate for
2	FPL.
3	COMMISSIONER DEASON: What was your recommendation in
4	the docket you referenced on Page 21?
5	THE WITNESS: My recommendation was a 12.6 pure cost
6	of equity plus 25 basis points for flotation costs which
7	brought it up to 12.85, and then I also believe the company
8	asked for a management performance incentive of another 30
9	basis points, so the number that was requested was 13.15.
10	(Transcript continues in sequence with Volume 6.)
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STATE OF FLORIDA)
: CERTIFICATE OF REPORTER
COUNTY OF LEON)
I, TRICIA DeMARTE, Official Commission Reporter, do hereby certify that the foregoing proceeding was heard at the time and place herein stated.
IT IS FURTHER CERTIFIED that I stenographically
reported the said proceedings; that the same has been transcribed under my direct supervision; and that this transcript constitutes a true transcription of my notes of said
proceedings.
I FURTHER CERTIFY that I am not a relative, employee,
I FURTHER CERTIFY that I am not a relative, employee, attorney or counsel of any of the parties, nor am I a relative or employee of any of the parties' attorneys or counsel connected with the action, nor am I financially interested in
the action.
DATED THIS 4th DAY OF OCTOBER, 2002.
Inicie DeMarte TRICIA DEMARTE
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