BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

IN RE: JOINT PETITION FOR A DETERMINATION OF NEED FOR THE EXPANSION OF THE OKEELANTA COGENERATION PLANT

DOCKET NO. 04 07ele-EI

DIRECT TESTIMONY & EXHIBIT OF:

STEVEN SCROGGS

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

NEW HOPE POWER PARTNERSHIP

FLORIDA POWER & LIGHT COMPANY

DIRECT TESTIMONY OF STEVEN SCROGGS

DOCKET NO. 040766-EI

July 2004

Q. Please state your name and business address.

A. My name is Steven D. Scroggs, and my business address is 9250 West Flagler Street, Miami, FL, 33174.

Q. By who are you employed and what position do you hold?

A. I am employed by Florida Power & Light Company (FPL) as Manager, Integrated Resource Planning.

Q. Please describe your duties and responsibilities in that position.

A. I manage the Integrated Resource Planning department within the Resource Assessment and Planning Business Unit. The department is responsible for conducting economic and reliability analyses supporting the selection of generation resources for addition to the FPL system.

Q. Please describe your education and professional experience.

A. I graduated from the University of Missouri – Columbia in 1984 with a Bachelor of Science Degree in Mechanical Engineering. From 1984 until 1994 I served in the United States Navy as a Nuclear Submarine Officer. From 1994 to 1996 I was a research associate at The Pennsylvania State University, where I earned a Masters Degree in Mechanical Engineering. In 1996 I joined DAI Management, Inc. as a power industry consultant and manager. In that role I provided economic analysis of power generation facilities supporting financial transactions and managed several small cogeneration facilities on behalf of our clientele. In 2001, I provided turnaround management for a small energy services company resulting in the successful sale of that firm at the end of the year. From January 2002 until April 2003, I was employed by Calpine Corporation as Director of Performance Engineering. In this role I supervised a team of engineers and analysts who conducted performance acceptance testing and performance enhancement analysis on Calpine's fleet of national generating assets. In May 2003, I accepted my current position with FPL.

Q. What is the purpose of your testimony?

A. My testimony addresses four areas. First, I explain FPL's economic need for the proposed purchase of as-available energy from New Hope Power Partnership (New Hope). Second, I show that the proposed purchase is the most cost-effective option available for the purchase of as-available energy for FPL. Third, I explain that there are no demand side management (DSM) or energy conservation measures available to mitigate FPL's need for the proposed purchase. Finally, I set forth the adverse consequences to FPL and its customers if the determination of need in this case is not granted or if the contract between FPL and New Hope is not approved.

Q. Are you sponsoring an exhibit in this proceeding?

A. Yes. I am sponsoring Exhibit ____ (SDS-1), titled New Hope Agreement Analysis, which is attached to my direct testimony.

Q. Please explain the relief FPL seeks in this proceeding.

A. FPL, as the primarily affected utility and as a co-applicant with New Hope, seeks from the Florida Public Service Commission (Commission) an affirmative determination of need for an expansion of New Hope's Okeelanta Plant. The expansion (Project) will add additional steam turbine generator (STG) capability which will be necessary for New Hope to perform obligations under the Agreement For The Purchase Of As-Available Energy From New Hope Power Partnership By Florida Power & Light Company (Agreement) negotiated and executed by FPL and New Hope. The Agreement obligates New Hope to provide seventy percent (70%) of the energy output of its Project on an as-available basis at a discount of one percent to FPL's as-available energy rate for an initial term of five years; the Agreement also provides for renewals of up to three additional five-year terms upon the mutual consent of FPL and New Hope.

Q. Why is the Project needed?

A. The Project will allow FPL's customers access to a source of discounted as-available energy that will lower the cost of electric service. Under the terms of the Agreement, the energy will be purchased by FPL at ninety-nine percent of FPL's as-available energy price. Any purchase of as-available energy at a rate below FPL's tariff rate is cost-effective and will lower the cost of electricity to FPL's customers. Therefore, FPL has an economic need for the energy available under this Agreement.

Q. Will the purchase of discounted as-available energy by FPL under the Agreement improve FPL's system reliability?

A. No. As the Commission has recognized, the purchase of as-available energy, which is non-firm energy provided if and when available, provides no reliability benefit from a planning perspective. This is because FPL cannot rely upon such purchases when computing reserve margin, which is the reliability criterion that currently drives FPL's resource additions. So, in this way the purchases will provide no capacity deferral benefit. However, the existence of the as-available energy source may, under certain operational situations, provide added reliability to the FPL system by increasing the fuel and geographic diversity of generating resources that may be called upon. FPL administers this voluntary supply of as-available generation under its COG-3 tariff. Such a situation would be the result of an urgent need that is voluntarily met by the Project, and as such, could not be relied upon by FPL for system planning purposes. In any event, the purchases under the Agreement will not harm FPL system reliability or the quality of service FPL provides.

Q. Are the projected purchases under the Agreement the most cost-effective alternative to meet FPL's needs for as-available energy?

A. Yes. Each kWh provided pursuant to the Agreement will be provided at a discount to FPL's as-available energy rate. Absent the Agreement, FPL would be obligated to purchase the output of this facility at 100% of its as-available energy rate, which under Rule 25-17.0825, is the measure of FPL's avoided cost for as-available energy. This means that every kWh purchased under the terms of the Agreement is cost-effective and will serve to lower the cost of electric service to FPL's customers. There is no other known source of as-available energy available to FPL at such a discounted price. FPL projects that purchases pursuant to this Agreement will save FPL customers $198,450 (net present value at a discount rate of 7.82 percent) over the initial 5-year term of the Agreement. The analysis supporting the estimate of savings is provided in S. D. Scroggs Exhibit No. 1, attached. The estimates of as-available energy prices are produced using FPL's production costing models, and the assumptions regarding the FPL system are consistent with FPL's Ten Year Power Plant Site Plan (2004 – 2013).

Q. Are there any DSM or energy conservation measures available to avoid or mitigate the need for the Project or for the energy to be purchased pursuant to the Agreement?

A. No. FPL has already captured or identified the reasonably achievable, cost-effective DSM on its system, and FPL's as-available energy tariff assumes the implementation of that cost-effective DSM. Therefore, there is no other DSM available that would mitigate the need for the energy to be purchased pursuant to this Agreement.

In addition, the tariff rate established for FPL's purchase of as-available energy reflects FPL's avoided cost for as-available energy. Since the energy purchases pursuant to the Agreement will be at a discount from that rate, and since the cost-effectiveness of DSM and energy conservation measures is measured against avoided cost, even if there were more DSM available on FPL's system, there is no basis to conclude that it would be more cost-effective than FPL's opportunity to purchase energy at a price that is guaranteed to be below its avoided cost.

Q. What adverse consequences would FPL's customers face if the Agreement between FPL and New Hope were not approved or if an affirmative determination of need were not granted for the Project?

A. FPL's customers would lose the prospect of FPL being able to purchase as-available energy from New Hope's Project for at least five and perhaps as long as twenty years at a discounted price. Absent contract approval and an affirmative determination of need for the Project, the Agreement does not become effective. If the Agreement becomes effective, FPL projects its customers would save $198,450 (net present value at 7.82%) over the initial five years of the Project, with savings that would grow over subsequent terms if the Agreement is extended. In addition, FPL's customers would lose the benefit of having part of their energy requirements provided by this renewable resource and the diversity of supply represented by purchasing from this new resource.

Q. Does this conclude your testimony?

A. Yes.

YEAR	MONTH	BASE CASE Production Cost ($000)	CHANGE CASE (w/o Cogasa) Production Cost ($000)	DIFFERENCE ($000)	TOTAL AS AVAILABLE ENERGY MWH	AS AVAILABLE $/MWH	NEW HOPE ENERGY (MWH)	NEW HOPE TOTAL SAVINGS ($)
NET PRESENT VALUE								$ 198,450
2007	1	$ 256,359	$ 257,275	$ 917	27,138	$ 33.78	0	$
2007	2	$ 242,548	$ 243,499	$ 951	27,138	$ 35.04	0	$
2007	3	$ 223,508	$ 224,367	$ 859	27,138	$ 31.67	7,700	$ 2,438
2007	4	$ 259,335	$ 260,266	$ 932	27,138	$ 34.33	18,000	$ 6,180
2007	5	$ 315,190	$ 316,196	$ 1,006	26,485	$ 37.97	18,600	$ 7,063
2007	6	$ 327,592	$ 328,653	$ 1,061	26,485	$ 40.06	18,000	$ 7,211
2007	7	$ 364,216	$ 365,319	$ 1,103	26,485	$ 41.66	18,600	$ 7,748
2007	8	$ 357,022	$ 358,124	$ 1,102	26,485	$ 41.60	18,600	$ 7,738
2007	9	$ 337,237	$ 338,316	$ 1,078	26,485	$ 40.72	18,000	$ 7,329
2007	10	$ 328,956	$ 330,038	$ 1,082	27,138	$ 39.86	0	$
2007	11	$ 263,829	$ 264,785	$ 955	27,138	$ 35.20	0	$
2007	12	$ 296,590	$ 297,640	$ 1,050	27,138	$ 38.68	0	$
2008	1	$ 260,672	$ 261,575	$ 903	27,138	$ 33.28	0	$
2008	2	$ 246,943	$ 247,858	$ 915	27,138	$ 33.71	0	$
2008	3	$ 236,421	$ 237,263	$ 842	27,138	$ 31.04	7,700	$ 2,390
2008	4	$ 266,863	$ 267,792	$ 929	27,138	$ 34.25	18,000	$ 6,165
2008	5	$ 321,032	$ 322,054	$ 1,022	26,485	$ 38.58	18,600	$ 7,176
2008	6	$ 343,347	$ 344,468	$ 1,121	26,485	$ 42.33	18,000	$ 7,619
2008	7	$ 379,347	$ 380,488	$ 1,141	26,485	$ 43.09	18,600	$ 8,014
2008	8	$ 371,235	$ 372,378	$ 1,143	26,485	$ 43.15	18,600	$ 8,026
2008	9	$ 343,115	$ 344,258	$ 1,143	26,485	$ 43.16	18,000	$ 7,768
2008	10	$ 340,595	$ 341,843	$ 1,248	27,138	$ 45.99	0	$
2008	11	$ 250,433	$ 251,373	$ 939	27,138	$ 34.61	0	$
2008	12	$ 286,509	$ 287,522	$ 1,014	27,138	$ 37.35	0	$
2009	1	$ 276,073	$ 276,986	$ 913	27,065	$ 33.75	0	$
2009	2	$ 264,379	$ 265,344	$ 965	26,178	$ 36.85	0	$
2009	3	$ 262,125	$ 263,085	$ 960	27,252	$ 35.24	7,700	$ 2,713
2009	4	$ 266,356	$ 267,358	$ 1,003	27,138	$ 36.95	18,000	$ 6,652
2009	5	$ 345,421	$ 346,518	$ 1,097	26,393	$ 41.57	18,600	$ 7,733
2009	6	$ 357,940	$ 359,037	$ 1,097	26,586	$ 41.27	18,000	$ 7,428
2009	7	$ 392,990	$ 394,100	$ 1,109	26,485	$ 41.88	18,600	$ 7,790
2009	8	$ 387,917	$ 389,061	$ 1,144	26,485	$ 43.18	18,600	$ 8,031
2009	9	$ 357,390	$ 358,524	$ 1,134	26,485	$ 42.81	18,000	$ 7,707
2009	10	$ 353,968	$ 355,088	$ 1,120	27,065	$ 41.39	0	$
2009	11	$ 264,788	$ 265,767	$ 980	27,264	$ 35.94	0	$
2009	12	$ 299,834	$ 300,850	$ 1,017	27,138	$ 37.46	0	$
2010	1	$ 288,556	$ 289,520	$ 964	26,992	$ 35.71	0	$
2010	2	$ 274,450	$ 275,397	$ 948	26,178	$ 36.21	0	$
2010	3	$ 265,336	$ 266,225	$ 889	27,366	$ 32.49	7,700	$ 2,502
2010	4	$ 287,164	$ 288,152	$ 988	27,138	$ 36.42	18,000	$ 6,556
2010	5	$ 347,967	$ 349,034	$ 1,068	26,393	$ 40.45	18,600	$ 7,524
2010	6	$ 391,987	$ 393,169	$ 1,182	26,586	$ 44.44	18,000	$ 8,000
2010	7	$ 426,023	$ 427,185	$ 1,163	26,412	$ 44.02	18,600	$ 8,188
2010	8	$ 422,453	$ 423,657	$ 1,204	26,597	$ 45.25	18,600	$ 8,417
2010	9	$ 395,852	$ 397,057	$ 1,205	26,485	$ 45.49	18,000	$ 8,189
2010	10	$ 375,412	$ 376,599	$ 1,187	26,992	$ 43.99	0	$
2010	11	$ 308,251	$ 309,363	$ 1,112	27,389	$ 40.61	0	$
2010	12	$ 328,319	$ 329,454	$ 1,135	27,138	$ 41.81	0	$
2011	1	$ 319,406	$ 320,503	$ 1,097	26,992	$ 40.62	0	$
2011	2	$ 311,187	$ 312,284	$ 1,098	26,178	$ 41.93	0	$
2011	3	$ 285,553	$ 286,607	$ 1,054	27,366	$ 38.50	7,700	$ 2,964
2011	4	$ 310,375	$ 311,473	$ 1,098	27,057	$ 40.57	18,000	$ 7,302
2011	5	$ 389,590	$ 390,736	$ 1,147	26,485	$ 43.29	18,600	$ 8,052
2011	6	$ 405,313	$ 406,475	$ 1,162	26,586	$ 43.70	18,000	$ 7,866
2011	7	$ 443,526	$ 444,707	$ 1,180	26,339	$ 44.81	18,600	$ 8,335
2011	8	$ 439,002	$ 440,214	$ 1,212	26,710	$ 45.39	18,600	$ 8,442
2011	9	$ 400,005	$ 401,186	$ 1,182	26,485	$ 44.61	18,000	$ 8,030
2011	10	$ 392,712	$ 393,932	$ 1,220	26,992	$ 45.21	0	$
2011		$ 304,419	$ 305,486	$ 1,066	27,389	$ 38.94	0	$
2011	12	$ 341,287	$ 342,369	$ 1,083	27,065	$ 40.00	0	$