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September 6, 2011

Ms. Ann Cole Division of the Commission Clerk and Administrative Services Florida Public Service Commission Betty Easley Conference Center 2540 Shumard Oak Boulevard, Room 110 Tallahassee, FL 32399-0850

Re: Docket No. 110091-EU - Petition for Approval of Rewewable Energy Tariff and Standard Offer Contract by Florida Power & Light Company

Dear Ms. Cole:

Please find enclosed for filing an original and five (5) copies of Florida Power & Light Company's responses to Staff's Second Data Request in the above-mentioned docket.

Thank you for your assistance. Please contact me should you or your staff have any questions regarding this filing.

William P. Cox Senior Attorney Florida Bar No. 0093531

WPC/bag Enclosures

COM \_\_\_\_\_ APA \_\_\_\_ ECR \_\_\_\_ GCL \_\_\_\_ RAD \_\_\_\_ SRC \_\_\_\_ ADM \_\_\_\_ OPC \_\_\_\_ CLK \_\_\_\_

cc: Charles Murphy, Esq. (w/enc.)

DOCUMENT NUMBER DATE 06400 SEP-6 = FPSC-COMMISSION CLERK

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Year	Total	Wholesale	Retail	Interruptible	Res. Load Management	Residential Conservation	C/t Load Management	C/I Conservation	Net Firm Demand
2001	18,754	169	18.585	0	842	697	489	481	17.423
2002	19,219	261	18,958	0	879	754	489	517	17.851
2003	19,668	253	19,415	0	892	798	577	554	18,200
2004	20,545	258	20,287	0	894	846	588	577	19.063
2005	22,361	264	22,097	0	902	895	600	611	20,858
2006	21,819	256	21,563	0	928	948	635	640	20,256
2007	21,962	261	21,701	0	952	982	716	683	20,295
2008	21,060	181	20,879	0	966	1042	760	706	19,334
2009	22,351	249	22,102	0	981	1097	811	732	20,558
2010	22,256	419	21,837	0	992	1147	840	749	20,424

# Schedule 3.1 History and Forecast of Summer Peak Demand (MW) (Historical)

Historical Values (2001 - 2010):

Col. (2) - Col. (4) are actual values for historical Summer peaks. As such, they incorporate the effects of conservation (Col. 7 & Col. 9), and may incorporate the effects of load control if load control was operated on these peak days. Therefore, Col. (2) represents the actual Net Firm Demand.

Col. (5) - Col. (9) represent actual DSM capabilities starting from January 1988 and are annual (12-month) values except for 2010 values which are August values. Note that the values for FPL's former Interruptible Rate are incorporated into Col. (8), which also includes Business On Call (BOC), CILC, and Commercial/Industrial Demand Reduction (CDR). Historical Residential Load Management MWs reflect the effect of new Measurement and Verification kw/participant factors.

Col. (10) represents a HYPOTHETICAL "Net Firm Demand" as if the load control values had definitely been exercised on the peak. Col. (10) is derived by the formula: Col. (10) 
Col.(2) - Col.(6) - Col.(8).

Schedule 3.1 History and Forecast of Summer Peak Demand (MW) (Projected)									
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
August of Year	Total	Wholesale	Retail	Interruptible	Res. Load Management	Residential Conservation	C/I Load Management	C/I Conservation	Net Firm Demand
2011	21,679	383	21,295	0	1,001	94	854	31	19,698
2012	21,853	385	21,468	0	1,013	163	873	63	19,742
2013	22,155	343	21,812	0	1,024	224	891	95	19,921
2014	23,452	1,129	22,322	0	1,050	290	929	128	21,054
2015	24,172	1,136	23,037	0	1,061	358	948	162	21,643
2016	24,605	1,143	23,463	0	1,072	427	966	196	21,945
2017	25,025	1,150	23,875	0	1,084	495	984	229	22,233
2018	25,266	1,157	24,109	0	1,095	563	1,003	263	22,342
2019	25,690	1,165	24,526	0	1,106	632	1,021	297	22,635
2020	26,193	1,172	25.022	0	1,118	700	1,039	330	23,006

Projected Values (2011 - 2020):

Col. (2) - Col. (4) represent FPL's forecasted peak w/o incremental conservation, cumulative load management, or incremental load management.

Col. (5) - Col. (9) represent cumulative load management, and incremental conservation and load management. All values are projected August values. The 2011 values are based on IRP projections after the 2010 Summer peak and FPL's new DSM Goals for 2011. The projections for 2012 through 2020 are based on FPL's DSM Goals. Res. Load Management and C/I Load Management include MW values of load management capability from Lee County that can be initiated at FPL's request.

Col. (8) represents FPL's Business On Call, CDR, CfLC, and Curtailable programs/rates.

Col. (10) represents a 'Net Firm Demand' which accounts for all of the incremental conservation and assumes all of the load control is implemented on the peak. Col. (10) is derived by using the formula: Col. (10) = Col. (2) - Col. (5) - Col. (6) - Col. (7) - Col. (8) - Col. (9).

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## Schedule 3.2 History and Forecast of Winter Peak Demand:Base Case (Historical)

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Year	Total	Firm Wholesale	Retail	Interruptible	Res. Load Management	Residential Conservation	C/I Load Management	C/I Conservation	Net Firm Demand
2001	18,199	150	18,049	0	749	459	448	183	17,002
2002	17,597	145	17,452	0	768	500	457	196	16,373
2003	20,190	246	19,944	0	802	546	453	206	18,935
2004	14,752	211	14,541	0	813	567	534	227	13,405
2005	18,108	225	17,883	0	816	583	542	233	16,751
2006	19,683	225	19,458	0	823	600	550	240	18,311
2007	16,815	223	16,592	0	846	620	577	249	15,392
2008	18,055	163	17,892	0	868	644	636	279	16,551
2009	20,081	207	19,874	0	881	666	676	285	18,524
2010	24,346	500	23,846	0	905	687	747	291	22,694

### Historical Values (2001 - 2010):

Col. (2) - Col. (4) are actual values for historical Winter peaks. As such, they incorporate the effects of conservation (Col. 7 & Col. 9), and may incorporate the effects of load control if load control was operated on these peak days. Therefore, Col. (2) represents the actual Net Firm Demand.

Col. (5) - Col. (9) for 2001 through 2010 represent actual DSM capabilities starting from January 1988 and are annual (12-month) values for December 31st of the prior year.

Note that the values for FPL's former Interruptible Rate are incorporated into Col. (8), which also includes Business On Call (BOC), CILC, and Commercial /Industrial Demand Reduction (CDR). Historical Residential Load Management MWs reflect the effect of new Measurement and Verification kw/participant factors.

Col. (10) represents a HYPOTHETICAL "Net Firm Demand" as if the load control values had definitely been exercised on the peak. Col. (10) is derived by the formula: Col. (10) = Col.(2) - Col.(6) - Col.(8).

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(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	
January of Year	Total	Firm Wholesale	Retail	Interruptible	Res. Load Management	Residential Conservation	C/I Load Management	C/I Conservation	Net Firm Demand	
2011	21 443	376	21.067	0	908	32	751	14	19 737	
2012	21,440	378	21,113	õ	918	75	764	37	19.697	
2013	21.683	380	21,303	0	932	111	778	60	19.803	
2014	22,584	1.015	21,569	ō	966	149	811	83	20.574	
2015	23,048	1.222	21.826	0	979	191	826	107	20,946	
2016	23,302	1,229	22,073	0	991	234	840	131	21,106	
2017	23,543	1,237	22,306	0	1,004	276	854	155	21,254	
2018	23,794	1,245	22,550	0	1,016	319	869	179	21,412	
2019	24,044	1,252	22,792	0	1,029	361	883	203	21,568	
2020	24,305	1,260	23,045	0	1,042	403	897	227	21,736	

#### Schedule 3.2 History and Forecast of Winter Peak Demand:Base Case (Projected)

Projected Values (2011 - 2020):

Col. (2) - Col.(4) represent FPL's forecasted peak w/o incremental conservation, cumulative load management, or incremental load management.

Col. (5) - Col. (9) represent cumulative load management, and incremental conservation and load management. All values are projected January values. The 2011 values are based on IRP projections after the 2010 Winter peak and FPL's new DSM Goals for 2011. The projections for 2012 through 2020 are based on FPL's DSM Goals. Res. Load Management and C/I Load Management include MW values of load management capability from Lee County that can be initiated at FPL's request.

Col. (8) represents FPL's Business On Call, CDR, CILC, and Curtailable programs/rates.

Col. (10) represents a 'Net Firm Demand" which accounts for all of the incremental conservation and assumes all of the load control is implemented on the peak. Col. (10) is derived by using the formula: Col. (10) = Col. (2) - Col. (5) - Col. (6) - Col. (7) - Col. (8) - Col. (9).

# Schedule 7.1 Forecast of Capacity, Demand, and Scheduled Maintenance At Time Of Summer Peak

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
					Total			Firm					
	Firm	Firm	Firm		Firm	Total		Summer	R	eserve		R	eserve
	Installed	Capacity	Capacity	Firm	Capacity	Peak		Peak	Marg	in Before	Scheduled	Mar	gin After
August of	Capacity	Import	Export	QF	Available	Demand	DSM	Demand	Mai	ntenance	Maintenance	Mai	ntenance
Year	MW	MW	MW	MW	MW	MW	<u>MW</u>	MW	<u>MW</u>	% of Peak	MW	<u>MW</u>	% of Peak
2011	22,474	1,461	0	595	24,530	21,679	1,980	19,699	4,831	24.5	0	4,831	24.5
2012	23,437	1,306	0	650	25,393	21,853	2,111	19,742	5,651	28.6	714	4,937	25.0
2013	24,164	1,306	0	650	26,120	22,155	2,234	19,921	6,199	31.1	826	5,373	27.0
2014	25,467	1,306	0	650	27,423	23,452	2,398	21,054	6,368	30.2	826	5,542	26.3
2015	25,507	1,306	0	740	27,553	24,172	2,529	21,643	5,910	27.3	0	5,910	27.3
2016	26,388	0	0	740	27,128	24,605	2,661	21,944	5,183	23.6	0	5,183	23.6
2017	26,388	0	0	740	27,128	25,025	2,792	22,233	4,895	22.0	0	4,895	22.0
2018	26,388	0	0	740	27,128	25,266	2,924	22,342	4,785	21.4	0	4,785	21.4
2019	26,388	0	0	740	27,128	25,690	3,056	22,634	4,493	19.9	0	4,493	19.9
2020	27,650	0	0	740	28,390	26,193	3,187	23,006	5,384	23.4	0	5,384	23.4

Col. (2) represents capacity additions and changes projected to be in-service by June 1st. These MWs are generally considered to be available to meet Summer peak loads which are forecasted to occur during August of the year indicated.

Col.(6) = Col.(2) + Col.(3) - Col.(4) + Col.(5).

Col. (7) reflects the 2011 load forecast without incremental DSM or cumulative load management.

Col. (8) represents cumulative load management capability, plus incremental conservation, from 1/2011-on intended for use with the 2011 load forecast.

Col. (10) = Col. (6) - Col. (9)

Col. (11) = Col. (0) / Col. (9)

Col. (12) indicates the capacity of units projected to be out-of-service for planned maintenance during the Summer peak period. This value is comprised of:

(i) 714 MW (at St. Lucie 2) of nuclear capacity that will be out-of-service during part of Summer in 2012 due to an extended planned outage as part of the capacity uprates project; and

(ii) an additional 826 MW of fossil-fueled capacity that will be out-of-service in the Summer of 2013 (at Martin 1) and in the Summer of 2014 (at Martin 2) due to the installation of electrostatic precipitators.

Col. (13) = Col. (10) - Col. (12).

Col. (14) = Col.(13) / Col.(9).

# Schedule 7.2 Forecast of Capacity , Demand, and Scheduled Maintenance At Time of Winter Peak

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
January of Year	Firm Installed Capability MW	Firm Capacity Import MW	Firm Capacity Export MW	Firm QF MW	Total Firm Capacity Available <u>MW</u>	Total Peak Demand MW	DSM MW	Firm Winter Peak Demand <u>MW</u>	Rarg Marg Main <u>MW</u>	eserve jin Before ntenance <u>% of Peak</u>	Scheduled Maintenance <u>MW</u>	R Mar Mair <u>MW</u>	eserve gin After ntenance <u>% of Peak</u>
										<b>86</b> /	700	5.040	<u> </u>
2011	23,987	1,494	0	595	26,076	21,443	1,706	19,737	6,338	32.1	726	5,612	28.4
2012	24,386	1,494	0	595	26,475	21,491	1,794	19,697	6,777	34.4	2,392	4,385	22.3
2013	23.967	1.314	0	650	25,931	21,683	1,880	19,803	6,127	30.9	1,539	4,588	23.2
2014	25.528	1.314	0	650	27,492	22,584	2,009	20,575	6,917	33.6	832	6,085	29.6
2015	26.907	1.314	0	650	28,871	23,048	2,102	20,946	7,925	37.8	0	7,925	37.8
2016	26,951	383	0	740	28,074	23,302	2,196	21,106	6,967	33.0	0	6,967	33.0
2017	27.982	0	0	740	28,722	23,543	2,289	21,254	7,467	35.1	0	7,467	35.1
2018	27,982	Ö	0	740	28,722	23,794	2,382	21,412	7,310	34.1	0	7,310	34.1
2019	27 982	Ő	Ō	740	28,722	24.044	2.476	21,568	7,153	33.2	0	7,153	33.2
2020	27,982	õ	Ō	740	28,722	24,305	2,569	21,736	6,986	32.1	0	6,986	32.1

Col. (2) represents capacity additions and changes projected to be in-service by January 1st. These MWs are generally considered to be available to meet winter peak loads which are forecasted to occur during January of the year indicated.

Col. (6) = Col.(2) + Col.(3) - Col.(4) + Col.(5).

Col. (7) reflects the 2011 load forecast without incremental DSM or cumulative load management.

Col. (8) represents cumulative load management capability, plus incremental conservation, from 1/2011-on intended for use with

the 2011 load forecast.

Col. (10) = Col. (6) - Col. (9).

Col. (11) = Col.(10) / Col.(9).

Col. (12) indicates the capacity of units projected to be out-of-service for planned maintenance during the Winter peak period. This value is comprised of:

(i) 726 MW (at St. Lucie 2) of nuclear capacity that will be out-of-service in Winter of 2011 due to an extended planned outage as part of the capacity uprates project; (ii) an additional 1,570 MW (853 MW at St. Lucie 1 and 717 MW at Turkey Point 3) of nuclear capacity that will be out-of-service during part of the Winter of 2012 due to extended planned outages

as part of the capacity uprates project; (iii) 717MW(at Turkey Point 4) that will be out-of-service in Winter of 2013 due to an extended planned outage as part of the capacity uprates project; (iv) an additional 822 MW that will be out-of-service in the Winter of 2012 (at Manatee 2) and in the Winter of 2013 (at Manatee 1) due to the installation of electrostatic precipitators; and (v) an additional 832 MW (at Martin 1) that will be out-of-service during the Winter of 2014 due to the installation of electrostatic precipitators.

Col. (13) = Col. (10) - Col. (12).

Col. (14) = Col.(13) / Col.(9).

Page 1 of 2 Rev: 08/29/2011

Schedule 9

Status Report and	<b>Specifications of Proposed</b>	Generating Facilities

(1)	Plant Name and Unit Number:	Port Everglade	es Modernizatio	n
(2)	Capacity           a. Summer         1,277           b. Winter         1,429	MW MW		
(3)	Technology Type: Combined	Cycle		
(4)	Anticipated Construction Timing a. Field construction start-date: b. Commercial In-service date:	2014 2016		
(5)	Fuel a. Primary Fuel b. Alternate Fuel		Natural Gas Ultra-low sulfu	r distillate
(6)	Air Pollution and Control Strategy		Dry Low No <sub>x</sub> B 0.0015% S. Di	tumers, SCR, Natural Gas, stillate and Water Injection on Distillate
(7)	Cooling Method:		Once-through	cooling water
(8)	Total Site Area:	Existing Site	Acres	
(9)	Construction Status:	Р	(Planned Unit)	
(10)	Certification Status:			
(11)	Status with Federal Agencies:			
(12)	Projected Unit Performance Data: Planned Outage Factor (POF): Forced Outage Factor (FOF): Equivalent Availability Factor (EAF): Resulting Capacity Factor (%): Average Net Operating Heat Rate (/ Base Operation 75F,100%	ANOHR):	3.5% 1.1% 95.4% Approx. 90% 6,330	(First Full Year Base Operation) Btu/kWh
(13)	Projected Unit Financial Data *,** Book Life (Years): Total Installed Cost (2016 \$/kW): Direct Construction Cost (\$/kW): AFUDC Amount (\$/kW): Escalation (\$/kW): Fixed O&M (\$/kW-Yr): (2016 \$) Variable O&M (\$/MWH): (2016 \$) K Factor:		30 948 87 30.00 0.10 1.51	years
	* \$/kW/ values are based on Summ	er capacity		

\* \$/kW values are based on Summer capacity.
 \*\* Fixed O&M cost includes capital replacement.

NOTE: Total installed cost includes gas expansion, transmission interconnection and integration, escalation, and AFUDC.

Page 2 of 2 Rev: 08/29/2011

## Schedule 9 Status Report and Specifications of Proposed Generating Facilities Greenfield 3x1 Combined Cycle (1) Plant Name and Unit Number: (2) Capacity a. Summer 1.262 MW 1,422 MW b. Winter (3) Technology Type: **Combined Cycle** (4) Anticipated Construction Timing a. Field construction start-date: 2018 b. Commercial In-service date: 2020 (5) Fuel a. Primary Fuel Natural Gas Ultra-low sulfur distillate b. Alternate Fuel Dry Low Nox Burners, SCR, Natural Gas, (6) Air Pollution and Control Strategy: 0.0015% S. Distillate and Water Injection on Distillate (7) Cooling Method: **Cooling Tower** Acres (8) Total Site Area: Ρ (Planned Unit) (9) Construction Status: (10) Certification Status: ---(11) Status with Federal Agencies: (12) Projected Unit Performance Data: 3.5% Planned Outage Factor (POF): 1.1% Forced Outage Factor (FOF): Equivalent Availability Factor (EAF): 95.4% Resulting Capacity Factor (%): Approx. 90% (First Full Year Base Operation) Average Net Operating Heat Rate (ANOHR): 6,369 Btu/kWh Base Operation 75F,100% (13) Projected Unit Financial Data \*,\*\* Book Life (Years): 30 years Total Installed Cost (2020 \$/kW): 1,045 Direct Construction Cost (\$/kW): 96 AFUDC Amount (\$/kW): Escalation (\$/kW): 33.00 Fixed O&M (\$/kW-Yr): (2020 \$) 0.64 Variable O&M (\$/MWH): (2020 \$) 1.51 K Factor:

\* \$/kW values are based on Summer capacity.

\*\* Fixed O&M cost includes capital replacement.

NOTE: Total installed cost includes gas expansion, transmission interconnection and integration, escalation, and AFUDC.