

Florida Power & Light Company, 215 S. Monroe Street, Suite 810, Tallahassee, FL 32301 Jessica Cano Principal Attorney Floride Power & Light Company

11 MAR - 4 PM 4: 39

COMMISSION CLERK Jessica Cano Principal Attorney Florida Power & Light Company 700 Universe Boulevard Juno Beach, FL 33408-0420 (561) 304-5226 (561) 691-7135 (Facsimile)

March 4, 2011

VIA HAND DELIVERY

10000-OT

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: Florida Power & Light Company's Ten-Year Site Plan – Data Request Regarding Planned Solar Power Plants

Dear Ms. Cole:

Enclosed for filing on behalf of Florida Power & Light Company ("FPL") are an original and five (5) copies of FPL's responses to Staff's Data Request No. 1 "Regarding Planned Solar Power Plants," along with an introduction to FPL's responses. These responses are being filed today consistent with a 2-day extension for responding allowed by Staff. Please contact me if you or your staff has any questions regarding this filing.

Sincerely,

Jessica A. Cano

Enclosures



DOCUMENT NUMBER-DATE 0 | 4 7 4 MAR-4 = FPSC-COMMISSION CLERK

## Introduction to FPL's Responses to Staff's Data Request No. 1 "Regarding Planned Solar Power Plants"

Included herewith are FPL's responses to Staff's Data Request Number 1 Regarding Planned Solar Plants. Because no legislation supporting utility development of new solar power generation facilities has been passed at this time, FPL has not fully developed specific solar projects at specific power plant sites. Rather, FPL has identified potential sites for solar development and performed initial permitting and due diligence with respect to available solar and other renewable power technologies that may be used depending upon the outcome of supporting legislation. Therefore, FPL is responding to this data request on the basis of this preliminary information. FPL's responses assume a typical 100 megawatt photovoltaic facility and use indicative performance characteristics for solar panels, inverters and other necessary equipment that has been provided to FPL by leading solar manufacturers. This size and solar technology is illustrative of the type of solar power project that FPL might pursue if appropriate supporting legislation is enacted.

It is important to note that the cost assumptions for commodities, labor, etc. should be expected to change between the time of this data request response and the development of an actual solar power project. Similarly, the performance characteristics of various technologies are likely to change over time. In addition, any particular project that may be pursued may have site-specific requirements that vary from the typical solar project assumed in these responses (e.g., different electrical interconnection requirements, environmental mitigation requirements, etc.), each of which would affect the total cost of the project. Finally, please note that FPL is in the process of developing the forecasts that will underlie its 2011 Ten Year Site Plan. Accordingly, inputs and forecasts used to develop these responses may not precisely match the inputs and forecasts ultimately included in FPL's 2011 Ten Year Site Plan (or subsequent data request responses related to solar projects).

Additional solar generation will provide a number of benefits not indicated in the particular responses included herewith, because not called for by the data requests. For example, solar generation projects will provide a number of construction jobs in the state of Florida and substantial tax revenues for local communities. Additionally, solar power will contribute to fuel diversity for FPL's system.

DOCUMENT NUMBER-DATE 0 | 4 7 4 MAR-4 = FPSC-COMMISSION CLERK Florida Power & Light Company Docket No. 2011 Ten-Year Site Plan - Staff's Data Request No. 1 Interrogatory No. 1 Page 1 of 1

Q.

Please complete the table below describing the costs of any planned solar plants.

Α,

As stated in the introduction, FPL is assuming a typical 100 MW greenfield solar photovoltaic plant for its responses. FPL does not expect that its 2011 Ten Year Site Plan will include any new photovoltaic facilities. Cost and performance assumptions are expected to vary over time and vary by site.

	Projected Total	Overnight	Total Installed Costa	Variable O&M
Solar Project	Capital Cost (\$Millions)	Construction Costs (\$/kw)	(\$/kw)	(\$/MWH)
100 MW PV	425	4,250	4,454	0

The total capital cost includes land and transmission interconnection costs. These costs are based on an average of the current land prices and expected interconnection requirements for several projects that FPL is currently assessing for potential future development. Other projects that may be developed further into the future could have land and/or transmission costs that are higher or lower than the costs assumed for this response based on the specific project location (e.g., proximity to transmission and transmission capacity, land values, etc).

Total Installed Costs for this solar case include overnight construction costs plus an assumed cost of capital charge during the construction period. It should be noted that since solar costs are typically recovered during the construction phase, AFUDC is usually not a part of the installation cost.

Please note that, in general, solar photovoltaic projects do not have variable O&M costs, as O&M costs are not a function of the output of the solar PV installation. All O&M costs for solar project are therefore considered as Fixed O&M. Solar project Fixed O&M costs are included in the responses to the subsequent interrogatories Nos. 6, 12 and 13.

Fiorida Power & Light Company Docket No. 2011 Ten-Year Site Plan - Staff's Data Request No. 1 Interrogatory No. 2 Page 1 of 1

Q.

Please complete the table below describing the costs for a typical combustion turbine.

Α.

At this time, FPL does not expect that its 2011 Ten Year Site Plan will include any new combustion turbines. Therefore, FPL's response to this interrogatory uses indicative information based on a typical combustion turbine (CT) facility, not on a specific planned project.

The CT assumed for this response is a simple-cycle combustion turbine, 7FA technology, with a summer rating of 162 MW, located at a greenfield site.

	Projected Total Capital Cost	Overnight Construction Costs	Total Installed Costs (\$/kw)	Variable O&M (\$/MWH)
	(\$Millions)	<u>(\$/kw)</u>		
СТ	144	891	953	0.15

Capital costs include land and transmission interconnection costs. Land costs were based on typical land costs in FPL's service territory. Total installed costs were defined as the sum of overnight capital costs and AFUDC.

Fiorida Power & Light Company Docket No. 2011 Ten-Year Site Plan - Staff's Data Request No. 1 Interrogatory No. 3 Page 1 of 1

Q.

Please complete the table below describing the typical performance characteristics of any planned solar plants.

А.

As stated in the introduction, FPL is assuming a typical 100 MW greenfield solar photovoltaic plant for its responses. FPL does not expect that its 2011 Ten Year Site Plan will include any new photovoltaic facilities. Cost and performance assumptions are expected to vary over time and vary by site.

		Summer Capacity Factor	Winter Capacity Factor	Average Capacity
Solar Project	MWHac/Year	(% on-peak)	(% on-peak)	Factor
New Solar	199,500	32.9%	15.9%	22.8%

1. Summer capacity % on peak is April through October, weekdays 1PM - 9PM.

2. Winter capacity % on peak is January through March, November and December, weekdays 7AM to10AM and 7PM to10PM.

3. Capacity factors assume 100% plant availability.

4. This information is based on projected DeSoto Next Generation Solar Energy Center generation, scaled up to 100 MW, and presented as a 30 year average. The values are based on a SunPower tracker used at DeSoto Next Generation Solar Energy Center. FPL would expect that the generic facility assumed for its responses would perform similarly at this location. Fiorida Power & Light Company Docket No. 2011 Ten-Year Site Plan - Staff's Data Request No. 1 Interrogatory No. 4 Page 1 of 1

Q.

Please complete the table below describing the typical performance characteristics of a typical combustion turbine.

Α.

The annual generation and capacity factor of a typical combustion turbine are shown below. These are average values over a 30 year life.

		Summer Capacity		
		Factor	Winter Capacity Factor	Average Capacity
	MWH/Year	(% on-peak)	(% on-peak)	Factor%
СТ	42,996	5%	0%	3%

The capacity factors provided are for all the summer hours and all the winter hours. It can be assumed that for the combustion turbine most of the operating hours will take place during the on-peak hours.

Summer months are defined as April - October. Winter months are November - March.

Florida Power & Light Company Docket No. 2011 Ten-Year Site Plan - Staff's Data Request No. 1 Interrogatory No. 5 Page 1 of 1

Q.

Please complete the table below describing the timeline of each planned solar plant.

Solar Project	Construction Start Date	Commercial In-Service Date	Technology Type	Capacity

А.

As stated in the introduction, FPL is assuming a typical 100 MW greenfield solar photovoltaic plant for its responses. FPL does not expect that its 2011 Ten Year Site Plan will include any new photovoltaic facilities.

FPL's current best estimate is that construction of a 100 MW solar PV plant could commence within 3 months of receiving all legislative and regulatory approvals to proceed. The commercial in-service date for such a facility would be dictated by a construction timeline that is ultimately dependent on the site location, technology implemented, equipment availability and other factors such as the site specific electrical interconnection requirements. Our current expectation for a typical 100 MW solar PV plant is that construction could be completed in approximately one year. Florida Power & Light Company Docket No. 2011 Ten-Year Site Plan - Staff's Data Request No. 1 Interrogatory No. 6 Page 1 of 2

### Q.

Please provide the levelized cost (in \$/kwh) for various capacity factors for any planned solar plants and for a typical combustion turbine. Please provide the raw data and a chart depicting this information. Please include assumptions used to develop values.

A.

As stated in the introduction, FPL is assuming a typical 100 MW Greenfield solar photovoltaic plant for its responses. FPL does not expect that its 2011 Ten Year Site Plan will include any new photovoltaic facilities

FPL does not believe that the information requested by Staff in this question provides a meaningful comparison between a solar photovoltaic facility and a combustion turbine, FPL is nevertheless providing the requested information in the attached chart and tables (Chart int-6, Table 6-2, Table 6-3a and Table 6-3b). In this response, FPL is also providing what it believes to be a more meaningful comparison. This alternate comparison is shown in the attached tables 6-4a and 6-4b.

The comparison of two very dissimilar resource options as a solar (PV) option and a combustion turbine using a levelized cost of electricity approach as requested cannot provide meaningful information about the relative economics of these two resource options if either were to be added to FPL's system. A levelized cost of electricity approach is useful as a preliminary economic screening tool only if the resource options in question are identical, or virtually identical, in regard to at least the following four attributes: (i) size (MW), (ii) firmness of capacity, (iii) capacity factor, and (iv) operating life. If the resource options in question differ in even one of these attributes, then a levelized cost of electricity approach cannot provide meaningful results even for preliminary analyses. This is because two dissimilar resource options will impact the FPL system in very different ways. These significant system impacts are simply not captured in a levelized cost of electricity approach. PV and combustion turbines are typically dissimilar in regard to all four of these attributes.

For example, the two resource options are completely different in regard to the firmness of their capacity. PV would be a non-firm energy (MWH) source which results in reduction of system fossil fuel use and air emissions. On the other hand, combustion turbine options would represent a firm capacity (MW) source that relies upon fossil fuel. There are also typically differences in regard to size (MW), capacity factor, and operating life as well between these two dissimilar resource options.

Consequently, the levelized cost of electricity approach for analyzing these two options prescribed in this interrogatory <u>does not</u>, and <u>cannot</u>, provide meaningful results. If a comparison of the cost of electricity associated with adding either of two resource alternatives to FPL's system is to provide meaningful information, the comparison must

Florida Power & Light Company Docket No. 2011 Ten-Year Site Plan - Staff's Data Request No. 1 Interrogatory No. 6 Page 2 of 2

reflect all system impacts caused by the addition of each alternative, such as effects to system fuel costs and system environmental costs, as well as capacity deferral effects from resource options that provide firm capacity. In addition, the analysis of the FPL resource portfolio with each of the alternatives must be based on a system simulation that provides a reasonable projection of the generation to be provided by each of the alternative resources, not a pre-determined, unsupported range of assumed capacity factors.

FPL has computed the cost of electricity generated by these two resources on a total cost basis, including all system impacts. This was done by analyzing FPL's portfolio reflecting in one case the addition of a solar photovoltaic installation to FPL's portfolio and, in a second case, the addition of a combustion turbine to FPL's portfolio. For both cases, the system impacts included system savings from avoided fuel, emissions, and O&M costs. For the case with the combustion turbine, which provides firm capacity, the system impacts also include all cost effects from deferring other generating units in FPL's resource plan. Using this approach, FPL computed an annual cost of electricity generated including system effects, for each of the two alternatives. The differential in annual system revenue requirements between each of the two cases, (each of these cases includes one of the resource option being considered) and a base case without either option, is divided by the generation produced by that resource option in that year. This produces a cost, in dollars per MWH, including system effects, attributable to that option. This annual cost per MWH produced by each option can then be levelized over the life of the project to produce one value. This levelized cost of electricity generated including system impacts was determined to be \$123 per MWH for the solar photovoltaic facility and \$655 per MWH for the combustion turbine. Please see tables 6-4a and 6-4b.

# Levelized Costs of Electricity - Solar PV and Combustion Turbine Interrogatory 6



Florida Power & Light Company Docket No. 2011 Ten-Year Site Plan - Staff's Data Request No. 1 Interrogatory No. 6 Table 6-2

	Levelized Cost of E	lectricity \$/MWH
<b>Capacity Factor</b>	Solar PV	СТ
3%	1,702	690
5%	1,021	453
10%	511	275
15%	340	216
20%	255	186
25%	204	168
30%	170	156

#### Notes:

This table is provided at the request of Staff; however, a levelized cost of electricity approach for analyzing these two options does not, and cannot, provide meaningful results. See text of FPL response to Interrogatory #6 for a more detailed explanation.

These levelized costs of electricity include only the costs associated with each of the two facilities as stand alone units. They do not include the costs associated with operating these units as part of the FPL system (i.e. system impacts), which need to be considered in a proper economic analysis.

Florida Power & Light Company Docket No. 2011 Ten-Year Site Plan - Staff's Data Request No. 1 Interrogatory No. 6 Table 6-3a

## Assumptions for levelized cost of electricity Solar PV 100 MW

	Annual Costs, \$millions						
		FOM+capital					
	Capitel	replacement	total				
2011	7	0	7				
2012	51	2	53				
2013	60	2	62				
2014	54	2	56				
2015	50	2	52				
2016	47	2	49				
2017	44	2	46				
2018	42	3	45				
2019	41	3	44				
2020	39	3	42				
2021	38	3	41				
2022	37	3	40				
2023	35	3	39				
2024	34	3	37				
2025	32	4	38				
2026	31	4	35				
2027	30	4	33				
2028	28	4	32				
2029	27	4	31				
2030	25	4	29				
2031	24	4	28				
2032	23	4	27				
2033	21	4	26				
2034	20	5	25				
2035	19	5	23				
2036	17	5	22				
2037	16	5	21				
2038	15	6	20				
2039	14	6	20				
2040	13	7	20				
2041	11	8	20				
2042	4	6	9				

#### Notes:

This table is provided at the request of Staff; however, a levelized cost of electricity approach for analyzing these two options does not, and cannot, provide meaningful results. See text of FPL response to Interrogatory #6 for a more detailed explanation.

These levelized costs of electricity include only the costs associated with each of the two facilities as stand alone units. They do not include the costs associated with operating these units as part of the FPL system (i.e. system impacts), which need to be considered in a proper economic analysis.

Florida Power & Light Company Docket No. 2011 Ten-Year Sile Plan - Staff's Data Request No. 1 Interrogatory No. 6 Table 6-3b

### Assumptions for levelized cost of electricity Combustion turbine

	Annual costs	Fuel cost at various capacity factors (Smillions)							
Capital revenue requirements	FOM + capitel replacement	gas transportation cost	total (not incld. fuel)	5%	10%	15%	20%	25%	30%
0	0	0	0	•	•	-	<u> </u>	•	-
15	1	3	24	2	5	7	10	12	14
25	1	8	39	4		13	17	21	26
24	1	6	38	4	9	13	17	22	26
23	1	6	37	5	9	14	<u>+9</u>	23	28
22	14	6	49	5	10	15	20	26	31
21	1	6	37	6	11	17	22	28	33
21	1	6	36	6	12	18	24	30	36
20	1	6	36	6	13	19	25	32	38
19	1	6	35	7	13	20	27	33	40
18	1	6	35	7	14	21	28	35	42
17	•	6	42	8	15	23	30	38	46
16	1	6	34	8	16	24	32	41	49
15	1	6	34	9	17	26	35	43	52
14	1	6	34	9	18	28	37	48	55
14	2	6	33	9	19	28	38	47	56
13	2	6	32	10	19	29	38	48	\$7
12	•	6	40	10	20	29	39	49	69
12	2	6	32	10	20	30	40	50	00
11	2	6	32	10	20	30	41	51	61
11	2	6	31	10	21	31	41	52	\$2
10	2	8	31	11	21	32	42	53	63
10	2	6	31	11	21	32	43	54	64
9	7	6	36	11	22	33	44	65	66
9	3	6	32	11	22	33	45	56	07
9	2	6	30	11	23	34	45	67	68
8	2	6	30	12	23	35	46	58	69
8	7	6	35	12	24	35	47	59	71
7	4	6	32	12	24	36	48	60	72
7	2	6	30	12	24	37	49	61	73
7	2	6	30	12	25	37	50	62	75
3	3	2	14	5	11	16	21	26	32

#### Notes:

This table is provided at the request of Staff; however, a levelized cost of electricity approach for analyzing these two options does not, and cannot, provide meaningful results. See text of FPL response to Interregatory #6 for a more detailed explanation.

These levelized costs of electricity include only the costs associated with each of the two facilities as sland alone units. They do not include the costs associated with operating these units as part of the FPL system (i.e. system impacts), which need to be considered in a proper economic analysis.

Table 6-4a

122

### 100 MW generic solar photovoltaic facility System annual revenue requirements Differential between base case and solar photovoltaic case

[1]	2	[31]	F49	[5]		<u> </u>	[第]		[10]	<u>[11]</u>	<u>[1</u> ]
	T		I								annual cost e
								1	1		generation
	1										including
Capital Revenue	,	Capital	Fuel transport			System	System		Net revenue		system
Requirements	FOM	replacement	Coel	Total Fand	System Feel	Emissions	verletile O&M	Total verteble	reguirements	Solar generation	imeets
S millions	\$ millions	S millions	S millions	S millions	S millions		1 millions		\$ millions	MWAH	SAMA
6.9	0.0	0.0	0,0	6.9	0.0	0.0	9.0	0.0	6.9	0	0
51 A	1.9	0.0	0.0	\$1.3	-5,0	0,0	0.0	-5.0	48,3	124,550	345
\$9.7	2.0	0.0	00	61,7	-9.0	Q,0	0.0	-9,0	\$2.7	218,190	23
54.1	2.1	0.0	0.0	56.2	-10.0	0.0	9,0	-10.0	46.2	216,770	213
20.2	22	0.0	0,0	52A	12.0	0.0	0.0	-12.0	40.3	215,340	167
44.9	2.1	0.0	0.0	49,2	-11.0	0.0	-1,0	-12.0	37,2	214,400	173
44.1	2.4	0.0	0.0	44,5	-12.0	-\$1	0.0	-16.1	30,4	212,500	143
42.2	2.5	0.0	0.0	44.8	-14.0	-2.9	0.0	-16,9	27.9	211,180	132
40.8	27	0.0	0.0	44.5	-14.0	-14	0.0	-17.4	28.1	209,810	125
38.4	2.8	0.2	0.0	42.5	-16.0	-14	0.0	-19,5	22.9	206,960	109
34.1	3.0	0.0	0.0	41,0	-15.0	-4,1	-1.0	-20.1	20.9	297,100	101
36.7	31	0,0	0,0	39.8	-15.0	-3.6	-1,0	-19.6	20.2	205,790	98
35.3	3.3	0.0	0.0	36.6	-16.0	-4.9	-1.0	-21.0	17.5	294.420	
51.9	3.4	0.0	0.0	37.3	-17.0	-4.6	-1.9	-22.0	15.3	203,570	75
82.5	3.6	0.0	6.0	36.0	-21.0	-4,1	0.0	-25.1	11.0	201,775	54
31.1	3.7	0.0	0.0	34,7	-21.0	-5.2	0.9	-26.2	8,5	200,400	43
29.7	3.8	0.0	0,0	33,4	-23.0	-5.4	0.0	-28.4	5.0	199,100	25
28.3	3.9	0.0	0.0	\$2,1	-20.0	-5.8	0.0	-25.6	6.5	198.340	33
26.9	3.9	0.0	0.0	39.8	-21.0	-5.7	[1,¢	-17.7		196,580	16
25.5	4,0	0.3	0.0	29.8	-18.0	-5.5	0.0	-23.5	6.3	195,300	32
24.1	4.2	0.0	0,0	26.3	-21.0	-\$.5	0.0	-27,5	0,8	194,000	4
22.7	4.3	0.0	0,0	27.9	-20.0		0.0	-26,7	0.3	193,230	
213	4.5	0,0	9.9	25.8	-21.0	-6.6	-1.0	-28.6	-2.8	191,510	-15
18,9	4.7	0.0	0,0	24.6	-20.0	-4.5	0.0	-28.5	1.2	190,200	-10
18,5	4.9	0.0	0.0	<b>Z3.4</b>	-23.0	- 7	0.0	-29.7	-4.2	199,030	-33
17,1	5.1	0.0	0.0	22.2	-22.0	-4.4	0.0	-38.4	-6.2	106.200	-33
15.9	53	0.0	0.0	21.2	-21.0	-4.4	-1.0	-28.4	-7,2	186,580	
14,8	57	9.0	0,0	20.5	-22.0	-4.9	-1,0	-29,9		185,380	-51
13.6	6.3	9.0	0.0	19.9	21.0	-\$2	0.0	-27.2	-7.3	184.180	
12.5	7,1	0.0	9,0	19.7	-22.0	-4.5	-1.0	-24.5	-4,5	183,410	-64
11.4	8.3	0.0	0.0	19.7	-24.0	-11	-1.0	-29,1	-9.5	181,760	-52
4,4	5.0	0.0	0.0		-10.0	0.0	0.0	-19.0	-9,6	78,200	-\$
476	38	0	0	515	-1411	-37	1 4	-221	283		
											\$/86

Notes:

levelized cost of electricity generated including system impacts

Negative annual revenue requirements indicate that the solar photovoltaic facility reduces the cost to the customer.

Revenue requirements shown in this table are for FPL's generating system including the costs and benefits of the solar photovoltaic facility. The solar photovoltaic facility is assumed to have no firm capacity value. It therefore does not have any impact on FPL's generation resource plan.

Table 6-45

### Combustion Turbine System annual revenue requirements Differential between base case and combustion turbine case

	[1]	121	134	140	[5]	開		[10]	[11]	[12]	[13]	
				r				1				cest of
								1	1	[ ]		electricity
												cenerated
										1		including
	Annual Barran		0	E			8		1 1	Net munches		-
	Сарка немение		Garante		Table Flores	Burntum Burnt	Service in the service of the servic	S	Trans		~	Junearte
	Regerements	FON	<b>New Provinsion</b>	<b>CHE</b>	(0.00 70000					Forgen ermernes		
	S millions	S millions	E millions	1.0000	5 636966	3 100000		3 ///////	a manore	3 (100000000	Marvin	
2011	Q	Q	0	ļ9	0		0		<b></b>	0		
2012	31	1	1	3	34		0	0		39	31.430	1,045
2013	\$1	1	1	6	¥		<u> </u>		-2	56	34,930	1,490
2014	48	1	1	6	56	-2	0	-1	-3	53	43,140	1,236
2015	47	1	1	•	54	-2	Q	<u> </u>	-3	51	35,400	1,451
2016	45	9	1	•	53		0	[ -1	-3	50	51,270	\$70
2017	43	1	1	6	51		0	-1	-6	45	<b>69</b> ,770	841
2018	41	1	1	•	49		-1	-1	-	43	72,100	162
2019	39	1	1	6	47	4	-1	-1	-6	42	80,080	522
2020	38	1		6	46	4	-1	0	-5		62,960	854
2021	36	1	1	6	44		Ô	-1	-3	41	40,800	909
2022	34	2	2	6	43	-3	ð	-1	4	38	36,200	1,002
2023	32	1	1	6	41	-2	-1	-1	-4	37	21.00	1,397
2024	21	1	1 1	6	39	-3	0	0	-3	36	38,480	\$23
2025	25	1	1	6	\$7	4	-1	-1	4	29	60,590	447
2026	27	2	2	6	36		-1	1	-8	28	71,890	387
2027	26	2	2	6	34	-4	-1	-1	-4	24	59,130	444
2028	24	3	3	6	37	4	-1	-1	-6	31	57,710	536
2029	-54	-4	-4	-40	-140	2	8	-1	30	-111	60,940	-1,818
2030	-27	2	2	8	-16		1		-6	-22	47,250	-489
2031	30	2	2	8	41	i   <u> </u>	<u>.</u>			3	43,880	733
2032	-55		-\$	-94	-148	1	5	<u> </u>	20	-126	40.170	3.18
2633	-24	2	2	10	-12		1	4	-\$	-18	40,320	-426
2034	36	2	2	10	50		-1	<u> </u>		41	36,780	1,126
2005	36	2	2	10	49		-1	-1		43	35,400	1,207
2036	33	2	2	1 10	47		-1	-1	-\$	42	31,550	1,331
2017	12	2	2	10	46		0	-1	-2	0	25.800	1,676
2036		2	2	10		· · · · · ·	<u>-1</u>	1		42	28.010	1.912
2039	29	2	2	10	44	3	-1	-2			24,780	1,990
2040	-79	-\$	-5	-102	-199	14	4		17	-173	22,700	-7,603
2041	-41	2	2	13	-24	1	2		-10		16,780	-2.019
2042	<b>\$2</b>			13	7	〕 [	<u> </u>		-9	I <b>I</b> ₩		
-	360	13	13	15		ा जन	0	-16	-36	363		
30444				· · · · · · · · · · · · · · · · · · ·			·····	· · · · ·	· · · · · · · · · · · · · · · · · · ·			SAMAN
40178								فمبده المساقسية	af also de la la compañía de la comp	an amount in all and it		
								NAMES OF TAXABLE PARTY	A CHECKLERY		нд зульсян напрассы	

#### Notes:

Incruis. Negative annual revenue requirements indicate that the combustion turbine reduces the cost to the customer. Revenue requirements shown in this table are for FPL's generating system including the costs and benefits of the combustion turbine. The combustion turbine has tirm capacity value. It therefore affect FPL's generation resource plan by deferring the in-service dates

of future resources. The impact of these deferrals can be seen in these results.

Florkia Power & Light Company Docket No. 2011 Ten-Year Site Plan - Staff's Data Request No. 1 Interrogatory No. 7 Page 1 of 1

Q.

Please complete the table below describing the typical summer hourly energy production of each planned solar plant.

Α.

### Generic 100MW

TYPICAL S	UMMER
Time of Day	MWac
12:00 AM	0.0
1:00 AM	0.0
2:00 AM	0.0
3:00 AM	0.0
4:00 AM	0.0
5:00 AM	0.0
6:00 AM	0.0
7:00 AM	7.4
8:00 AM	36.7
9:00 AM	52.3
10:00 AM	60.7
11:00 AM	64.1
12:00 PM	62.6
1:00 PM	62.9
2:00 PM	62.4
3:00 PM	61.7
4:00 PM	56.5
5:00 PM	47.4
6:00 PM	29.3
7:00 PM	5.6
8:00 PM	0.0
9:00 PM	0.0
10:00 PM	0.0
11:00 PM	0.0

As stated in the introduction, FPL is assuming a typical 100 MW greenfield solar photovoltaic plant for its responses. FPL does not expect that its 2011 Ten Year Site Plan will include any new photovoltaic facilities. Cost and performance assumptions are expected to vary over time and vary by site.

The information provided in this response is based on projected DeSoto Next Generation Solar Energy Center generation, scaled up to 100 MW, and presented as a 30 year average. The values are based on a SunPower tracker used at DeSoto Next Generation Solar Energy Center. FPL would expect that the generic facility assumed for these responses would perform similarly at this location. Florida Power & Light Company Docket No. 2011 Ten-Year Site Plan - Staff's Data Request No. 1 Interrogatory No. 8 Page 1 of 1

Q.

Please complete the table below describing the typical winter hourly energy production of each planned solar plant.

Α.

Generic 100 MW

TYPICAL V	<u>VINTER</u>
Time of Day	MWac
12:00 AM	0.0
1:00 AM	0.0
2:00 AM	0.0
3:00 AM	0.0
4:00 AM	0.0
5:00 AM	0.0
6:00 AM	0.0
7:00 AM	0.0
8:00 AM	7.0
9:00 AM	37.9
10:00 AM	50.6
11:00 AM	54.4
12:00 PM	53.8
1:00 PM	52.3
2:00 PM	53.2
3:00 PM	53.1
4:00 PM	49.4
5:00 PM	36.7
6:00 PM	9.6
7:00 PM	0.0
8:00 PM	0.0
9:00 PM	0.0
10:00 PM	0.0
11:00 PM	0.0

As stated in the introduction, FPL is assuming a typical 100 MW greenfield solar photovoltaic plant for its responses. FPL does not expect that its 2011 Ten Year Site Plan will include any new photovoltaic facilities. Cost and performance assumptions are expected to vary over time and vary by site.

The information provided in this response is based on projected DeSoto Next Generation Solar Energy Center generation, scaled up to 100 MW, and presented as a 30 year average. The values are based on a SunPower tracker used at DeSoto Next Generation Solar Energy Center. FPL would expect that the generic facility assumed for these responses would perform similarly at this location. Fiorida Power & Light Company Docket No. 2011 Ten-Year Site Plan - Staff's Data Request No. 1 Interrogatory No. 9 Page 1 of 1

Q.

Please complete the table below describing the typical monthly performance characteristics of each planned solar plant.

Α.												
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Gross Capacity (MA)	100	100	100	100	100	100	100	100	100	100	100	100
Not Capacity (M/M)	100	100	100	100	100	100	100	100	100	100	100	100
Equivalent Availability Factor (1)						98	%					
Net Generation (MAHac) (2) (3)	11,550	13,179	18,017	20,129	21,492	18,827	18,640	17,722	15,782	15,213	13,097	11,895
Resulting Ospecity Fector	16%	20%	24%	26%	29%	28%	25%	24%	22%	20%	18%	16%

As stated in the introduction, FPL is assuming a typical 100 MW greenfield solar photovoltaic plant for its responses. FPL does not expect that its 2011 Ten Year Site Plan will include any new photovoltaic facilities. Cost and performance assumptions are expected to vary over time and vary by site.

- 1. The Equivalent Availability Factor represents the solar facility equipment, not generation availability due to solar resource availability.
- 2. The information provided in this response is based on projected DeSoto Next Generation Solar Energy Center generation, scaled up to 100 MW, and presented as a 30 year average. The values are based on a SunPower tracker used at DeSoto Next Generation Solar Energy Center. FPL would expect that the generic facility assumed for these responses would perform similarly at this location. Actual results will vary depending upon location and weather conditions.
- 3. Net Generation is averaged over a 30 year asset life with the Equivalent Availability Factor applied.

Fiorida Power & Light Company Docket No. 2011 Ten-Year Site Plan - Staff's Data Request No. 1 Interrogatory No. 10 Page 1 of 1

Q.

Please complete the table below describing the typical monthly performance characteristics of typical combustion turbine.

A.

At this time, FPL does not anticipate that its 2011 Ten Year Site Plan will include any new combustion turbines. Therefore, FPL's response to this interrogatory uses indicative information based on a typical combustion turbine facility, not on a specific planned project.

As shown in the table below, the production cost model projections indicate that the combustion turbine would generate mostly during the summer months, primarily June to October. It would produce almost no generation during the winter months.

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Gross Capacity (MW)	184	184	184	165	165	165	165	165	165	165	184	184
Net Capacity (MW)	181	181	181	162	162	162	162	162	162	162	181	181
Equivalent Availability Factor	95%	95%	95%	95%	95%	95%	95%	95%	95%	95%	95%	95%
Net Generation (MWH)	172	0	17	415	2134	4545	8413	13117	9439	6135	40	0
Resulting Capacity Factor	0.1%	0.0%	0.0%	0.4%	1.8%	3.9%	7.0%	10.9%	8.1%	5.1%	0.0%	0.0%

Values provided are an average over the 30 year life of the project.

Fiorida Power & Light Company Docket No. 2011 Ten-Year Site Pian - Staff's Data Request No. 1 Interrogatory No. 11 Page 1 of 1

Q.

Please complete the table below describing the avoided emissions and avoided fossil fuel usage for each planned solar plant.

Α.

As stated in the introduction, FPL is assuming a typical 100 MW greenfield solar photovoltaic plant for its responses. FPL does not expect that its 2011 Ten Year Site Plan will include any new photovoltaic facilities. Cost and performance assumptions are expected to vary over time and vary by site.

The attached table shows the emissions (CO2, SO2, and NOx) avoided as well as the fuel use (gas and oil) avoided by a 100 MW Solar PV facility. These values represent the difference in emissions and fuel use between two system simulations: one which represents the base case, and a second one that adds a 100 MW solar PV facility. The PMAREA production costing model was used for these simulations.

Florida Power & Light Company Docket No. 2011 Ten-Year Site Plan - Staff's Data Request No. 1 Interrogatory 11 Page 1 of 1

					NOx
	Natural Gas				emissions
	Avoided by Solar	Oil Avoided by	CO2 emissions	SO2 emissions	avoided by
	Project	Solar Project	avoided by solar	avoided by solar	solar project
Year	MMBTU	Barrels	project lons	project ions	lons
2012	958,000	4,000	60,600	19	46
2013	1,711,000	0	99,900	2	
2014	1,460,000	14,000	107,000	67	60
2015	1,383,000	29,000	108,000	108	45
2016	1,727,000	3,000	101,000	1	67
2017	1,696,000	9,000	\$5,000	8	66
2018	1,653,000	9,000	112,000	35	72
2019	1,817,000	13,000	97,000	28	74
2020	1,568,000	11,000	106,000	45	63
2021	1,420,000	12,000	105,000	48	36
2022	1,350,000	4,000	110,000	24	40
2023	1.585,000	0	88,000	6	32
2024	1.540.000	4,000	91,000		46
2026	1.621.000	8,000	\$3,000	4	45
3020	1,633,000	10,000	79,000	3	46
9097	1.883.000	8,000	\$4,800	3	51
2027	1,399,000	10.000	91,000	19	36
2020	1 683,000	4.000	85,000	15	40
2000	1 350,000	1.000	83,600	7	33
2030	1 536 600	3.000	78,000	•	40
2001	1 367 000	3,000	90,000	32	28
	1 415,000	4.000	00,000	3	37
2000	1 346,000	2,000	87,000	1	23
	1,630,000	2,000	84,000	•	24
	1,419,000	4.000	84,000	3	24
	1 231 600	2.000	78,000	28	14
2037	1 430,000	0	77,000	6	21
2036	1 345 000	1,000	80,000	4	21
7430	1,071,000	1,009	71.000	10	11
2040	1.491.000		72.000	1	27
2041	678.000		34,000	1	•
2042	5/6,000				

#### Note:

This table shows the emissions (CO2, SO2, and NOx) avoided as well as the fuel use (gas and oil) avoided by the 100 MW Solar PV facility. These values represent the difference in emissions and fuel use between two system simulations: one which represents the base case, and a second one that adds the 100 MW solar PV facility. The PMAREA production costing model was used for these simulations.

Florida Power & Light Company Docket No. 2011 Ten-Year Site Plan - Staff's Data Request No. 1 Interrogatory No. 12 Page 1 of 1

Q.

Please complete the table below describing the CPVRR of each planned solar plant.

A.

As stated in the introduction, FPL is assuming a typical 100 MW greenfield solar photovoltaic plant for its responses. FPL does not expect that its 2011 Ten Year Site Plan will include any new photovoltaic facilities. Cost and performance assumptions are expected to vary over time and vary by site.

Please see the attachment.

Florida Power & Light Company Docket No. 2011 Ten-Year Site Plan - Stalf's Data Request No. 1 Interrogatory 12 Page 1 of 1

### System Annual Revenue Requirements - with and without Solar Project (Includes all Projects Costs and System Impacts)

	[1]	[2]	[3]	[4]	(5)
Vaar	Annuel System Total Revenue Requirements with Solar Project & Millione	Annual System Total Revenue Requirements without Solar Project S Milliona	Differential in Annual System Total Revenue Requirements {1] - [2] \$ Millions	Differential in Customer Bill \$/ 1000 kWH	Differential in Customer Bill \$/ 1200 kWH
2011	7	0	7	0.068	0.081
2012	3.484	3.436	48	0.471	0.565
2013	3,505	3,453	53	0.506	0.607
2014	3.757	3.710	46	0.433	0.519
2015	4.084	4.043	40	0.372	0.447
2016	4.982	4.945	37	0.338	0.406
2017	5.566	5,533	34	0.274	0.328
2018	7.255	7.227	28	0.248	0.298
2019	7.844	7.817	27	0.230	0.276
2020	8,503	8,479	24	0.197	0.237
2021	9,367	9,346	22	0.177	0.212
2022	9,909	9,889	20	0,167	0.201
2023	9,922	9,904	18	0.142	0.170
2024	10,580	10,565	16	8.121	0.145
2025	11,596	11,598	12	0.065	0.101
2026	12,363	12,363	11	0.065	0.077
2027	13,407	13,400	6	0.037	0.045
2028	14,270	14,263	7	0.048	0.957
2029	15,279	15,284	-4	0.022	0.027
2030	16,546	18,541	5	0.044	0.053
2031	17,250	17,248	2	0.005	0.008
2032	18,843	18,847	-4	0.002	0,003
2033	20,979	20,963	-4	-0,019	-0.023
2034	22,107	22,106	-1	-0.013	-9.015
2035	23,181	23,188	-5	-0.041	-0.049
2036	25,494	25,499	-6	-0,040	-0.046
2037	26,610	26,614	-5	-0.033	-0.040
2038	27,564	27,672	-8	-0.059	-0.070
2039	28,926	28,933	-7	-0.045	-0.054
2040	\$0,057	30,069	-11	-0.047	-0.057
2041	31,394	31,408	-14	-0.056	-0.068
2042	32,696	32,005	-8	-0.003	-0.004

#### Notes:

Negetive indicates a reduction in the customer bill for the 100 MW solar project.

The annual revenue requirements include system capital costs, O&M costs, emission costs and fuel costs as well as the solar project costs in the "with solar" case.

The bill impact computation is based on dividing the differential in revenue requirements between the two cases and dividing by the system retail sales. As such it represents a system average rate impact, not specific to any one rate class.

Florida Power & Light Company Docket No. 2011 Ten-Year Site Plan - Staff's Data Request No. 1 Interrogatory No. 13 Page 1 of 1

Q.

Please complete the table below for each planned solar plant.

**A**.

As stated in the introduction, FPL is assuming a typical 100 MW greenfield solar photovoltaic plant for its responses. FPL does not expect that its 2011 Ten Year Site Plan will include any new photovoltaic facilities. Cost and performance assumptions are expected to vary over time and vary by site.

Please see the attachment.

Florida Power & Light Company Docket No. 2011 Ten-Year Sile Plan - Staff's Data Request I Interrogatory 13 Page 1 of 1

	[1]	[2]	[3]	[4]	[5]	<b>is</b> ]	[7]	[8]	<u>I¥1</u>	[10]	[11]
	Enissio	Emission Rolated Revenue Requirements Costs				n Related Rover	we Requiremen				
	with Scier Project					without Sc	ler Project	[4]- [8]			
									Differential in	Differentiat in	
	<b>~~~</b>	em2	NOw	Total	602	\$07	NCar	Tetal	Requirements	Customer Bill	Conterensities in
	(S millions)	(\$ millions)	(\$ millions)	(\$ millions)	(\$ millions)	(\$ millions)	(5 millions)	(\$ millions)	(\$ millions)	\$/1,000 kmh	\$/1,200 heh
2011	0.000	0.000	0.000	0.000	0.900	0.000	0.000	0.000	9,000	0.000	0.000
2012	0.000	-13,196	-8.230	-19.428	0,000	-13.194	-4.296	-19,402	-0.024	0,900	0.000
2913	8,000	-14.400	-8.943	-33.20	0.000	-14,390	-8.811	-23,210	-0.033	0.000	0.000
2914	0.000	-7,186	-0,320	-16.506	0.000	-7,182	-1,210	-16.472	-0.034	0,000	0.000
2015	0.000	-7.312	-7.287	-14,599	9.000	-7.305	-7.203	-14.589	-0,080	0.000	0.000
2916	0.000	-7,765	-4,441	-16.207	8,000	-7.7%5	-8,405	-16.171	-0,036	-0.009	-0.011
2017	9,900	-7.920	-8.091	-16.621	9.990	-7.930	-8.855	-16,565	-0,636	-0.028	-0.033
2018	1,280,480	-8,150	-\$.227	1,243.072	1,263,472	-4.148	-9,187	1,246,135	-3.065	-8.625	-0.031
2019	1,401,137	-8,335	-9,521	1,363,261	1,403,974	-8,333	-9,479	1,386,162	-2.861	-0.030	-0.036
2029	1,525,091	-8.544	-10,058	1,509,489	1,531,450	-8,541	-10.021	1,512,889	-3,399	-0.031	-0.038
201	1,700.112	-4.753	-10.784	1,680,575	1,703,718	-8.750	-10,762	1,684,205	-3.631	-0.643	-0.052
2922	1,804,365	-4,994	-13,456	1,781.913	1.808,459	-6.992	-13,429	1,786,037	-4.124	-0.038	-0.045
2923	1,824,452	-9,235	-14,413	1,809,804	1,828,082	-9.235	-14,383	1,804,374	-3,570	-0.040	-0.049
2024	1,983,183		-14,676	1,965.664	1.907.161	-8,443	-14,646	1,973,972	-4,008	-0.039	-0.047
2025	2,194,795	-\$.705	-12,767	2,172.229	2.188.897	-9,769	-12.737	2,178,191	-3.962	-0,0\$1	-0.038
2035	2,378,190	-10,413	-12.831	2.362.846	2,349,217	-18,412	-12,899	2,355,995	-4.089	-8.039	-0_047
2027	2.531,394	-10.681	-13,748	2,606,967	2,636.563	-10.681	-13,712	2,612,161	-5.194	-0.040	-9.048
2028	2.878.278	-10,943	-13,140	2,854,194	2,863,652	-10.942	-12,113	2,859.597	-5,403	-0.041	-0.049
2020	3.146.662	-11,226	-13,902	3,121,865	3.152.275	-11,225	-13.872	3,127.178	-5.623	-0.048	-0.958
2030	3,496,996	-11,498	-14.375	3,461,063	3,442,633	-11,486	-14.350	3,496,784	-5,701	-0.039	-0.047
2031	3,639,637	-11.784	-15,884	3,003.250	3,636,106	-11,784	-15.573	3,606,749	-5,499	-0.945	-0,054
2032	3,855,413	-12.075	-16.330	3,837.007	3.871.889	-12.072	-16,308	3.843.600	-4,403	-0.046	-0.955
2033	4,318,951	-12.252	-16.584	4,291.015	4,326,580	-12,352	-16,553	4,297.674	4.860	-0,061	-0.061
2094	4,587.850	-12,314	-18.974	4.537.401	4,\$74,418	-12.314	-18.055	4,544.049	-6.586	-0.043	-0.952
2035	4,748.678	-12.618	-18.068	4,717.300	4,755,176	-12,619	-18.647	4,723,910	-6.520	-8,044	-0,062
2036	5,190,310	-12.916	-18,893	5,158,501	5.196.973	-12.915	-18,868	\$,185,180	-4.885	-0.041	-0.049
2037	5,435,357	-13,231	-19,517	5.402.999	5,441,600	-13.224	-19,504	5,406.961	-6.352	-4.034	-0.041
2036	5,048,101	-13.982	-20,356	5,614.243	5,654,578	-13,561	-20.337	5,620.680	-6,437	-0.049	-0.059
2038	5,920.006	-13.894	-20.973	5,895,191	5,926.892	-13,894	-20.953	5,882.845	-8,854	-0.038	-0.046
2040	6,149,643	-14.238	-22,114	6.104.292	6,148,380	-14,230	-22,103	6,110.518	-6.225	-0.033	-0,040
2041	8.200.635	-14.561	-22.543	6,363,471	6,307.007	-14.581	-22.556	6,259.959	-6.498	-0.025	-0,090
2042	6,701.538	-14,932	-23,009	6.063.506	6.704.685	-14,192	-23,900	6,006.733	-3.137	0.000	0.000

#### Annual Emission Costs - with and without Solar Project

#### Mates:

Negative indicates a reduction in the customer bil for the 100 MW solar project.

The annual costs include only the system emission costs.

The bill impact computation is based on dividing the differential in revenue requirements between the two cases and dividing by the system retail sales. As such it represents a system average rate impact, not specific to any one rate class. Florida Power & Light Company Docket No. 2011 Ten-Year Site Plan - Staff's Data Request No. 1 Interrogatory No. 14 Page 1 of 1

Q.

Please complete the table below for each planned solar plant.

Α.

As stated in the introduction, FPL is assuming a typical 100 MW greenfield solar photovoltaic plant for its responses. FPL does not expect that its 2011 Ten Year Site Plan will include any new photovoltaic facilities. Cost and performance assumptions are expected to vary over time and vary by site.

Please see the attachment.

Florida Power & Light Company Docket No. 2011 Ten-Year Site Plan - Staff's Data Request No. 1 Interrogetory 14 Page 1 of 1

### Capital and O&M Costs of the Solar Project (do not include system henefite)

o not nicione sastem pensito	9
------------------------------	---

	Capital Revenue Requirements (\$ millions)	Fixed O&M and Capital Replacement Costs (\$ millions)	Total (\$ millions)	Impact on Customer Bill of 1,000 kwh (\$)	Impact on Customer Bill of 1,200 kwh (\$)
2011	7	0	7	0.066	0.082
2012	51	2	53	0.520	0.624
2013	60	2	62	0.593	0.711
2014	54	2	56	0.527	0.632
2015	50	2	52	0.483	0.580
2015	47	2	49	0.448	0.537
2017	44	2	46	0.418	0.502
2018	42	3	45	0.398	0.478
2019	41	3	44	0.383	0.459
2020	39	3	42	0.367	0.440
2021	38	3	41	0.347	0.417
2022	37	3	40	0.329	0.395
2023	35	3	39	0.312	0.374
2024	34	3	37	0.294	0.353
2025	32	4	36	0.278	0.333
2026	31	4	35	0.263	0.315
2027	30	4	33	0.248	0.296
2028	28	4	32	0.234	0.281
2029	27	4	31	0.221	0.265
2030	25	4	29	0.210	0.252
2031	24	4	26 ·	0.196	0.236
2032	23	4	27	0.185	0.222
2033	21	4	26	0.174	0.208
2034	20	5	25	0.163	0.198
2035	19	5	23	0.153	0.184
2036	17	5	22	0.143	0.171
2037	16	5	21	0.134	0.161
2038	15	6	20	0.128	0.153
2039	14	6	20	0.123	0.147
2040	13	7	20	0.119	0.143
2041	11	8	20	0.117	0.141
2042	4	5	9	0.055	0.066

### Notes:

Negative indicates a reduction in the customer bill for the 100 MW solar project.

As requested, the capital revenue requirements and the O&M requirements shown in this table only include the costs of the solar project. System impacts are not included.

The bill impact computation is based on dividing the differential in revenue requirements between the two cases and dividing by the system retail sales. As such it represents a system average rate impact, not specific to any one rate class.

Fiorida Power & Light Company Docket No. 2011 Ten-Year Site Plan - Staff's Data Request No. 1 Interrogatory No. 15 Page 1 of 1

Q.

Please complete the table below for each planned solar plant.

Α.

As stated in the introduction, FPL is assuming a typical 100 MW greenfield solar photovoltaic plant for its responses. FPL does not expect that its 2011 Ten Year Site Plan will include any new photovoltaic facilities. Cost and performance assumptions are expected to vary over time and vary by site.

Please see the attachment.

Parkia Power & Light Company Docket No. 2011 Ten-Year She Plan - Staff's Data Request No. 1 Interrupatery 15 Page 1 of 1

#### System Variable O&M and System Fuel Costs - With and Without Solar Project

	<u>m</u>		면	141		<u> </u>	71	<u> </u>		D		112	<u>h\$1</u>	<u></u>	115
	Bystem Costs will star Project						System	n Conta velo Jolar	Project		Citienensis in annun eners (20-05				
	Variable Calif. (5	Feel (5 millions)	Yakaf coaks (13+ \$2) @ millions)	impadi en Custamer SII S71000 1004	import of Customer BIT 34200 10404	Verlahle Calabi (S militang)	Pust (8 millions)	Tatal costs (M+(7) (5 critigrat)	Imposit on Contactor BE \$1999 18961	impeel en Cuelemer (M) S/1000-1000-1	Variable Citial (5 milliona)	Funi (5 millioni)	Total Revenue Requirements (S colligne)	Impair of Customer SH of 1,000 lunk S11000 10001	Ingest of Cuthellor Bill of 1,200 June 9/1200 10091
2011	•	•		<u> </u>		•	•			8.8				<b>1.00</b>	
	191	1.539	1.480	24.7		191	3,224		<b></b>	45		<u> </u>			
2013	127	3,349	2.417	24.3	38.9	127	3,300	2/75	_35A	46.0		-4	•	-4.696	-4.144
2014	140	3,617	3,717	24.8	41.8	140	197	1107	X.9	41,9	•	-11	-+4	-4.894	4.112
2945	149		4,646	773	44.4	149	3.000	4,993	71		B	-12	-12	4.111	-0.133
	161	4.31	4.69	13		112	4.3	4,964	41,4	4.7		-11	-12	-4,190	-4.131
	198	4.0	<b></b>	63		100		\$,	44.4	54.5		-13	-13	-4,117	-
262	197	5,230			38.6	157		5.490		<u> </u>		- 14	-14	-6128	<u>8.149</u>
2019	1	\$,728		31.8	<b>42.1</b>			<u> </u>	31.3	<b>6</b> .3		- 14	-34	-1123	
	175			<u> </u>		1/10			83	<b>66.</b> /		-76	-76	-9.73	12.19
	. 10			3/.3		1 178						•13	-19	-9.129	-9.792
	100		7.444	17.6	<u></u>	106		7,000	617			- 13		A 197	
	199	2,490	7.657	P1.0	71		144	7.000				-17			A 57
		8.462	6.000 9.447		19.1	246	1.977	3,498		1997		.94	- (*	4 192	
		4.665	6,444		Planet a	784	175	2.001	67.7	84.5					
2007	200	6 145	0.126		81.5	345	1.130	0.700	<b>69</b> 7	63.7					
	100	9,448	9,779	71.0	16.2	201	1.44	1.741	71.1	<b>11</b>				4 144	4 173
100	-	1.00	10,112	73.6	87.1	390	1.535	10.454	72.8	<b>17</b> 3		-21	-372	-4.12	
3000	336	16.306	10,700	76.5	10.5	226	18.362	19.718	75.6	99.7	1 0	-18	-t <b>i</b>	4.127	4.952
2001	261	10.001	11.10	77.5	13.4	381	38,452	13,545	77.7	8.2		-21	41	-1.146	-0.175
2002	362	11,417	11.000		M.		11,407	11.000	<b>M.</b> 0	97.1		- 24	-	-4.137	4.164
2000		12.832	13.0%	\$7.3	1964	<b>4</b>	12,045	12.005	R.J	146.6	-1	41	-32	-6.146	-1.171
2004	451	11.305	13,736	<b>B</b> 1.3	198.4	461	13.365	13,756	*1.3	168.5	0	-30	-28	-4.133	4.15
3895	480	12,793	94,273	8.2	111.2		13,014	14,388	<b>84</b>			-43	-48	-4.130	4.18
2025	530	14.995	15.446	84	1111		14,948	15,446	11.5	1184		4		4.142	4.174
<b>27</b>		15,006	16,121	110.2	122.6	964	11.117	18,141	112.3	122.7	1	- বা		-4.127	-4.182
2004	504	16,114	16,494	184.2	125.0	145	V6.976	16,721	184.4	125.2	-4	-32	-41	4.144	4172
233	012	16.011	17.43	197,1	138.5			17.444		UR.7	L	-91	-21	-1,129	-8.416
		17.344	10,000	199.0	138.5	464	17,376	18,000	100,1	121.0	1	-31	31	4.127	-0.130
2001		17,999	18,005	1112	138.5	997	17,505	18,442	1114	133.7	-1	-45	-34		4.58
2642	777	18,724	19,491	154.3	197.1	727	18,744	18,471	114,3	137,2	0	-10	-10	-0.000	-4.079

#### Notes:

Negative indicates a reduction in the outerner bill for the 100 MW solar project.

The bill impact computation is based on dividing the differential in revenue requirements between the two cases and dividing by the system retail sales. As such it represents a system average rate impact, not specific to any one rate class. Florida Power & Light Company Docket No. 2011 Ten-Year Site Pian - Staff's Data Request No. 1 Interrogatory No. 16 Page 1 of 1

Q.

Please complete the table below describing the avoided emissions and avoided fossil fuel usage for all planned solar plants.

Α.

Please see response to Question No. 11 above.

Florida Power & Light Company Docket No. 2011 Ten-Year Site Pian - Staff's Data Request No. 1 Interrogatory No. 17 Page 1 of 1

Q.

Please complete the table below describing the CPVRR of all planned solar plants.

**A**.

· Please see response to Question No. 12 above.

Florida Power & Light Company Docket No. 2011 Ten-Year Site Plan - Staff's Data Request No. 1 Interrogatory No. 18 Page 1 of 1

Q.

Please complete the table below for all planned solar plants.

A.

Please see response to Question No. 13 above.

Fiorida Power & Light Company Docket No. 2011 Ten-Year Site Plan - Staff's Data Request No. 1 Interrogatory No. 19 Page 1 of 1

Q.

Please complete the table below for all planned solar plants.

A.

Please see response to Question No. 14 above.

Florida Power & Light Company Docket No. 2011 Ten-Year Site Plan - Staff's Data Request No. 1 Interrogatory No. 20 Page 1 of 1

Q.

Please complete the table below for all planned solar plants.

A.

Please see response to Question No. 15 above.