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STATE OF FLORIDA



OFFICE OF THE GENERAL COUNSEL S. CURTIS KISER TE. CE. V.E.L. - FPSC GENERAL COUNSEL (850) 413-6199 11 FEB 10 PM 3: 05

COMMISSION CLERK

Public Service Commission

February 10, 2011

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John T. Butler, Esq. Florida Power & Light Company 700 Universe Boulevard Juno Beach, Florida 33408-0420 STAFF'S DATA REQUEST NO. 1

Re: Ten-Year Site Plan - Data Request Regarding Planned Solar Power Plants

Dear Mr. Butler:

By this letter, the Commission staff requests that Florida Power and Light Company provide responses to the following data requests.

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

Solar Project	Projected Total Capitol Cost (\$Millions)	Overnight Construction Costs (\$/kw)	Total Installed Costs (\$/kw)	Variable O&M (\$/MWH)	

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

	Projected Total Capitol Cost (\$Millions)	Overnight Construction Costs (\$/kw)	Total installed Costs (\$/kw)	Variable O&M (\$/MWH)
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3. Please complete the table below describing the typical performance characteristics of any planned solar plants.

Solar Project	MWH/Year	Summer Capacity Factor (% on-peak)	Winter Capacity Factor (% on-peak)	Average Capacity Factor
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4. Please complete the table below describing the typical performance characteristics of a typical combustion turbine.

	MWH/Year	Summer Capacity Factor (% on-peak)	Winter Capacity Factor (% on-peak)	Average Capacity Factor
СТ				

5. 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

- 6. 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.
- 7. Please complete the table below describing the typical summer hourly energy production of each planned solar plant.

Time of Day	(MW)	Time of Day	(MVV)
12:00 AM		12:00 PM	
1:00 AM	·	1:00 PM	· <u> </u> ,
2:00 AM		2:00 PM	
3:00 AM		3:00 PM	
4:00 AM		4:00 PM	
5:00 AM		5:00 PM	· · · · · · · · · · · · · · · · · · ·
6:00 AM		6:00 PM	
7:00 AM		7:00 PM	
8:00 AM		8:00 PM	
9:00 AM		9:00 PM	
10:00 AM		10:00 PM	
11:00 AM		11:00 PM	

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

Time of Day	(MW)	Time of Day	(MW)
12:00 AM		12:00 PM	
1:00 AM		1:00 PM	
2:00 AM		2:00 PM	
3:00 AM		3:00 PM	
4:00 AM		4:00 PM	
5:00 AM		5:00 PM	
6:00 AM		6:00 PM	
7:00 AM		7:00 PM	
8:00 AM		8:00 PM	
9:00 AM		9:00 PM	
10:00 AM		10:00 PM	
11:00 AM		11:00 PM	

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

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Gross Capacity (MW)												
Net Capacity (MW)												
quivalent Availability Factor	' '											
Net Generation (MWH)									.	- ,		
Resulting Capacity Factor		-										

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

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Gross Capacity (MW)												
Net Capacity (MW)												
Equivalent Availability Factor												
Net Generation (MWH)									<u> </u>			4
Resulting Capacity Factor											-	

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

Year	Avoided Natural Gas with Solar Project (MMBtu)	Avoided Oil with Solar Project (Barrels)	Avoided CO2 with Solar Project (Tons)	Avoided NOX and SO2 with Solar Project (Tons)
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12. Please complete the table below describing the CPVRR of each planned solar plant.

Year	Annual Total Revenue Requirements (\$millions, Nominal \$) with Solar Project	Annual Total Revenue Requirements (\$millions, Nominal \$) without Solar Project	Differential in Annual Total Revenue Requirements (\$millions, Nominal \$)	Differential in Customer Bill of 1,000 kwh (\$)	Differential in Customer Bill of 1,200 kwh (\$)
2008					
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13. Please complete the table below for each planned solar plant.

	Emission R	elated Revenue Rec	uirements Costs w	Solar Project	Emission Re	lated Revenue Req	uirements Costs w/e	o Solar Project		
	CO2 (\$)	Nox (\$)	SO2 (\$)	Total (\$)	CO2 (\$)	Nox (\$)	SO2 (\$)	Total (\$)	Differential in Revenue Requirements (\$)	Differential in Customer Bill of 1,200 kwh (\$)
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14. Please complete the table below for each planned solar plant.

!	Solar	Project		
	Capital Revenue Requirements (\$)	Fixed O&M and Capital Replacement Costs (\$)	Total (\$)	Impact on Customer Bill of 1,200 kwh (\$)
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15. Please complete the table below for each planned solar plant.

	T	System C	osts w/Solar Project			System Co	osts w/o Solar Project		7	
	Variable O&M (\$)	Fuel (\$)	Total Revenue Requirements (\$)	Impact on Customer Bill of 1,200 kwh (\$)	Variable O&M (\$)	Fuel (\$)	Total Revenue Requirements (\$)	Impact on Customer Bill of 1,200 kwh (\$)	Differential in Revenue Requirements (\$)	Impact on Customer Bill of 1,200 kwh (\$)
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2017	<u> </u>				<u> </u>			<u> </u>		<u> </u>
2018	<u> </u>					<u> </u>				
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2040	†					 				

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

<u> </u>				
Year	Avoided Natural Gas with Solar Projects (MMBtu)	Avoided Oil with Solar Projects (Barrels)	Avoided CO2 with Solar Projects (Tons)	Avoided NOX and SO2 with Solar Projects (Tons)
2009				
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17. Please complete the table below describing the CPVRR of all planned solar plants.

Year	Annual Total Revenue Requirements (\$millions, Nominal \$) with Solar Projects	Annual Total Revenue Requirements (\$millions, Nominal \$) without Solar Projects	Differential in Annual Total Revenue Requirements (\$millions, Nominal \$)	Differential in Customer Bill of 1,000 kwh (\$)	Differential in Customer Bill of 1,200 kwh (\$)
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18. Please complete the table below for all planned solar plants.

	Emission R	elated Revenue Rec	uirements Costs w/S	Solar Projects	Emission Rel	lated Revenue Regu	irements Costs w/c	Solar Projects	Differential in Revenue Requirements (\$)	Differential in Customer Bitl of 1,200 kwh (\$)
	CO2 (\$)	Nox (\$)	SO2 (\$)	Total (\$)	CO2 (\$)	Nox (\$)	SO2 (\$)	Total (\$)		
2009	·									
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19. Please complete the table below for all planned solar plants.

	Solar	Projects		
	Capital Revenue Requirements (\$)	Fixed O&M and Capital Replacement Costs (\$)	Total (\$)	Impact on Customer Bill of 1,200 kwh (\$)
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20. Please complete the table below for all planned solar plants.

	1	System C	osts w/Solar Project			System Co	osts w/o Solar Project]
	Variable O&M (\$)	Fuel (\$)	Total Revenue Requirements (\$)	Impact on Customer Bill of 1,200 kwh (\$)	Variable O&M (\$)	Fuel (\$)	Total Revenue Requirements (\$)	Impact on Customer Bill of 1,200 kwh (\$)	Differential in Revenue Requirements (\$)	Impact on Customer Bill of 1,200 kwh (\$)
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John T. Butler, Esq. Page 15 February 10, 2011

Please file the original and five copies of the requested information by Wedneday, March 2, 2011, with Ms. Ann Cole, Commission Clerk, Office of Commission Clerk, 2540 Shumard Oak Boulevard, Tallahassee, Florida, 32399-0850. Please feel free to call me at (850) 413-6191 if you have any questions.

Sincerely,

Charles W. Murphy

Senior Attorney

Office of the General Counsel

CWM/sh

cc: Office of Commission Clerk

Data-Request-Letter.doc