



William P. Cox
Senior Attorney
Florida Power & Light Company
700 Universe Boulevard
Juno Beach, FL 33408-0420
(561) 304-5662
(561) 691-7135 (Facsimile)

June 16, 2017

STAFF'S FIRST DATA REQUEST

-VIA ELECTRONIC FILING-

Ms. Carlotta Stauffer, Commission Clerk
Office of the General Counsel
Florida Public Service Commission
2540 Shumard Oak Blvd.
Tallahassee, FL 32399-0850

Re: Docket No. 170122-EI - Florida Power & Light Company's Petition to Request Exemption under Rule 25-22.082(18), F.A.C, from Issuing a Request for Proposals for the Modernization of the Lauderdale Plant

Dear Ms. Stauffer:

Please find enclosed for filing a copy of Florida Power & Light Company's ("FPL") responses to Staff's First 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.

Sincerely,

s/ William P. Cox

William P. Cox
Senior Attorney
Florida Bar No. 0093531

WPC/msw
Enclosures

cc: Takira Thompson, Traci Matthews, Phillip Ellis, Division of Engineering
Charles Murphy, Office of the General Counsel

QUESTION:

Please provide the projected system annual revenue requirement costs for capital, O&M, fuel, and environmental emissions with and without the Project. Please provide all requested data electronically in MS Excel format with all formulae intact.

RESPONSE:

The projected annual revenue requirements for the two scenarios are provided in Attachment No. 1 to this response. The annual revenue requirement values are presented in five categories: the four categories requested and a fifth category that presents the projected annual costs from continuing to operate the currently existing Lauderdale Units 4 & 5.

In the "With the Modernization" scenario, the existing Lauderdale Units 4 & 5 are assumed to be retired in the 4th Quarter of 2018, and the planned new 2x1 combined cycle (CC) unit is added in mid-2022. In the "Without the Modernization" scenario, the existing Lauderdale Units 4 & 5 are assumed to remain in operation. The projected cost difference in cumulative present value of revenue requirements (CPVRR) is \$406 million.

Projected System Annual Revenue Requirements

	Without Modernization Project						With Modernization Project						col (12) - col (6)	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)		(13)
	System Capital Costs (Millions)	System Net Fuel (Millions)	System O&M Costs (Millions)	System Emission Costs (Millions)	Lauderdale 4&5 Operational Costs (Millions)	Total Annual Costs (Millions)	System Capital Costs (Millions)	System Net Fuel (Millions)	System O&M Costs (Millions)	System Emission Costs (Millions)	Lauderdale 4&5 Operational Costs (Millions)	Total Annual Costs (Millions)		Total Plan Cost Difference (Millions)
2017	0	2,187	39	2	16	2,244	0	2,187	39	2	13	2,241	(3)	
2018	17	2,068	28	1	15	2,131	17	2,068	28	1	5	2,120	(11)	
2019	49	2,380	35	1	49	2,514	44	2,380	35	1	(2)	2,458	(55)	
2020	47	2,353	35	1	74	2,510	42	2,353	35	1	(2)	2,429	(80)	
2021	45	2,541	33	1	72	2,691	40	2,541	33	1	(2)	2,613	(78)	
2022	43	2,415	32	1	70	2,562	126	2,400	36	1	(1)	2,561	(1)	
2023	41	2,572	33	1	69	2,716	183	2,547	37	1	(1)	2,767	51	
2024	40	2,724	34	1	67	2,865	177	2,696	40	1	(1)	2,912	48	
2025	75	2,864	37	1	66	3,043	215	2,831	44	1	(1)	3,090	46	
2026	79	3,019	36	1	69	3,205	231	2,982	44	1	(1)	3,258	53	
2027	258	3,110	42	1	68	3,479	249	3,107	47	1	(1)	3,403	(76)	
2028	351	3,218	49	120	66	3,804	374	3,205	62	119	(1)	3,758	(45)	
2029	402	3,396	51	145	65	4,059	524	3,360	64	143	0	4,090	31	
2030	469	3,570	57	260	63	4,418	540	3,537	63	255	0	4,395	(22)	
2031	435	3,626	59	342	70	4,533	535	3,592	76	336	0	4,539	7	
2032	437	3,595	72	426	79	4,609	525	3,563	76	420	0	4,585	(23)	
2033	564	3,837	83	583	78	5,145	639	3,805	92	575	0	5,111	(33)	
2034	742	3,986	83	735	77	5,623	798	3,953	103	727	0	5,582	(41)	
2035	868	4,169	83	905	75	6,100	932	4,137	100	894	0	6,063	(37)	
2036	1,107	4,522	86	1,105	71	6,892	1,154	4,489	100	1,096	0	6,838	(54)	
2037	1,213	4,656	85	1,250	84	7,288	1,267	4,622	101	1,237	0	7,227	(61)	
2038	1,278	4,819	104	1,425	81	7,707	1,339	4,783	105	1,409	0	7,637	(70)	
2039	1,323	4,986	100	1,614	79	8,101	1,380	4,950	128	1,597	0	8,054	(47)	
2040	1,397	5,112	108	1,805	76	8,498	1,453	5,078	120	1,790	0	8,442	(56)	
2041	1,439	5,279	110	1,980	73	8,881	1,497	5,243	128	1,961	0	8,828	(53)	
2042	1,524	5,471	114	2,162	80	9,351	1,581	5,437	132	2,147	0	9,297	(54)	
2043	1,699	5,766	114	2,435	76	10,090	1,743	5,730	130	2,423	0	10,027	(64)	
2044	1,852	5,988	129	2,688	71	10,727	1,905	5,953	136	2,673	0	10,667	(60)	
2045	1,905	6,187	128	2,944	72	11,236	1,967	6,149	155	2,919	0	11,189	(47)	
2046	1,979	6,347	148	3,186	96	11,756	2,038	6,310	145	3,165	0	11,659	(97)	
2047	2,043	6,531	152	3,465	122	12,313	2,078	6,493	176	3,444	0	12,190	(123)	
2048	1,992	6,662	136	3,730	129	12,649	2,045	6,623	155	3,706	0	12,529	(119)	
2049	1,971	6,795	154	4,014	126	13,060	2,020	6,755	171	3,989	0	12,935	(124)	
2050	1,940	6,931	156	4,320	121	13,467	1,982	6,891	154	4,293	0	13,321	(147)	
2051	1,911	7,070	156	4,536	118	13,791	1,978	7,028	187	4,508	0	13,702	(89)	
2052	1,883	7,211	156	4,757	114	14,120	1,949	7,169	167	4,727	0	14,012	(108)	
2053	1,874	7,355	174	4,982	127	14,513	1,934	7,312	190	4,951	0	14,387	(126)	
2054	1,833	7,502	171	5,212	129	14,847	1,899	7,459	177	5,179	0	14,714	(134)	
2055	1,803	7,652	183	5,445	123	15,207	1,865	7,608	210	5,411	0	15,093	(113)	
2056	1,784	7,805	171	5,681	122	15,564	1,845	7,760	185	5,646	0	15,435	(128)	
2057	1,736	7,962	189	5,920	118	15,923	1,796	7,915	206	5,883	0	15,800	(123)	
2058	1,699	8,121	169	6,161	115	16,265	1,755	8,073	189	6,123	0	16,141	(124)	
2059	1,653	8,283	195	6,404	123	16,659	1,707	8,235	213	6,364	0	16,520	(139)	
2060	1,620	8,449	179	6,648	116	17,012	1,673	8,400	194	6,607	0	16,874	(137)	
2061	1,570	8,618	197	6,893	109	17,388	1,618	8,568	214	6,850	0	17,250	(138)	
CPVRR	6,678	47,843	839	10,037	904	66,301	7,426	47,561	939	9,960	9	65,896	(406)	

Assumptions:

- The two resource plans included several common capacity additions including: the solar additions (2017-2023), the 2019 Okeechobee CC, Turkey Point 6 in 2031, and Turkey Point 7 in 2032. - Because the fixed costs for these projects are identical in the two resource plans, those fixed costs were not included in the analyses. However, the variable costs for those projects might differ in the two resource plans. Therefore, the variable costs for these projects were included in the analyses.
- The plan with the modernization assumes that the existing Lauderdale 4 and 5 units will retire in the 4th quarter of 2018. The plan without the modernization assumes the Lauderdale units 4 and 5 continue to run.
- The plan with the modernization project assumes the 2x1 modernization will be in service by June 2022.

Notes:

- Col. (1) and Col. (7) Capital Costs include: Generation Capital, Transmission Interconnection, Transmission Integration, Pipeline, Capital Replacement Costs, Firm Gas Transportation Cost, Lauderdale Net Book Value, and Short Term PPA
- Col. (3) and Col. (9) includes: Fixed O&M, Variable O&M and Startup Costs
- Col. (5) and Col. (11) includes: Lauderdale 4&5 Fixed O&M and Capital Replacement Costs. The negative values in Col. (11) represent credits from equipment that is projected to be sold over an amortized 10 year period.

QUESTION:

Please provide an estimate of the time that would be saved by avoiding the Request for Proposals process.

RESPONSE:

In FPL's last generation capacity RFP (issued in March of 2015), the timeline provided in the RFP document projected a schedule that extended from the RFP Pre-Issuance Discussion Meeting on March 9, 2015 to the Selection Announcement (on or before) July 31, 2015. This would suggest an RFP timeline that encompasses approximately five months. However, that timeline included a "TBD" (To Be Determined) designation. The TBD designation encompassed the time needed for evaluating bids and clarifying bid information, then obtaining and evaluating best and final offers from bidders. The TBD designation also indicated that it is not possible to accurately project the length of time for completing the RFP process because it is not possible in advance to know either the number of bids, or the complexity of bids, that will be received in response to the RFP. Thus, although the timeline projected in FPL's last generation capacity RFP was approximately five months, that time frame is only an estimate and is not necessarily indicative of the timeline for any future RFP, which could be a longer time period. Further, any legal challenges to the RFP document once it is released, to decisions made during the RFP analysis process (such as a decision not to short list a particular proposal), or to the final selection decision filed by a losing bidder could extend the time required for completion of the RFP. As a result, an RFP process could easily extend for one year or longer, but the precise timeline remains uncertain.

Delays of this duration would impact the project by requiring FPL, prior to obtaining the required need determination approval from the Commission, to proceed at risk on development, permitting and procurement for a longer period to maintain the proposed project schedule and cost. An extended RFP duration would increase permitting risk by delaying the site certification approval for the project by the Florida Department of Environmental Protection (DEP) and Siting Board, as the Commission's need determination order is a prerequisite to the issuance of the project analysis report by DEP as required by the Power Plant Siting Act siting process. In addition, with the planned retirement of Lauderdale Units 4 & 5 in late 2018, FPL would need to move forward with the retirement of these Units at risk or incur additional unplanned fixed O&M costs and capital replacement estimated costs in excess of \$40 million. If the RFP process was extended such that the in-service date for the project slipped to 2023, please refer to FPL's response to Staff's First Data Request No. 5 for the impact to the project. As noted in that response, the CPVRR cost is projected to be \$10 million CPVRR higher if the in-service date for the planned new 2x1 CC unit were delayed from mid-2022 to mid-2023.

QUESTION:

Paragraph 7 of Florida Power & Light Company's (Utility) May 22, 2017, Petition (Petition) references a target date of June 2022, for the Project; however, paragraph 8 of the Petition only references a capacity need in 2024, and a transmission need in 2025. Please explain why the target date for the Project is two years prior to the capacity need.

- a. If using a method other than Loss of Load Probability and a 20 percent planning reserve margin, please specify how the capacity need was determined.

RESPONSE:

As indicated in FPL's petition, the planned 2x1 combined cycle (CC) unit addition in 2022 is not driven by a need for new resources in that year, *i.e.*, a capacity need. The new addition is being planned because it provides an economic advantage for FPL's customers (currently projected at approximately \$406 million CPVRR). The new 2x1 CC unit will defer/avoid capacity additions in later years and this is accounted for in the projected CPVRR savings.

In regard to the timing of the modernization, there are two reasons for the 2022 in-service date for the new 2x1 CC unit. First, with the planned retirement of the existing Lauderdale Units 4 & 5 in the 4th Quarter of 2018, FPL has a window of opportunity in which to add replacement capacity. From an FPL system perspective, FPL will not meet either of its reserve margin criteria beginning in mid-2024 as shown in FPL's response to Staff's First Data Request No. 4. This means that FPL will need to add new generation, either inside or outside of the Southeastern Florida region, by mid-2024. From a Southeastern Florida (Miami-Dade and Broward Counties) perspective, if this new generation is not added in Southeastern Florida, then FPL will also need to add new transmission import capability into the Southeastern Florida region no later than mid-2025. These two projections define the end of the window of opportunity.

However, both of the projections described above are based on FPL's current load forecast and current projections for existing unit capacities and availabilities as reflected in its 2017 Ten year Site Plan. If, for example, FPL's load growth is greater than currently forecast, the window of opportunity could shorten. Therefore, FPL believes that adding the new 2x1 CC unit by mid-2022 is advisable from a planning perspective given the possibility that the window of opportunity could be shorter than is currently forecasted.

Second, as indicated in FPL's response to Staff's First Data Request No. 5, FPL's analysis has shown that it is more economic to construct the planned new 2x1 CC unit for commercial operation beginning in mid-2022 than it is to delay the project beyond mid-2022. Consequently, FPL believes that it is in the best interest for FPL and its customers to add the new 2x1 CC unit by mid-2022.

- a. If using a method other than Loss of Load Probability and a 20 percent planning reserve margin, please specify how the capacity need was determined.**

In projecting the timing and magnitude of its future resource needs, FPL utilizes its three reliability criteria: (i) a Loss-of-Load-Probability (LOLP) criterion of 0.1 day/year; (ii) a total reserve margin criterion of a minimum of 20%, and (iii) a generation-only reserve margin criterion of a minimum of 10%. FPL's projected resource needs are currently driven by the two reserve margin criteria, not by the LOLP criterion.

Attachment No. 1 to FPL's response to Staff's First Data Request No. 4 provides the projections for the years 2017 through 2026 using both of FPL's reserve margin criteria. Without the planned 2x1 CC unit (see page 2 of 2 of Attachment No. 1 to Staff's First Data Request No. 4), FPL has a need for new resources that begin in 2024 and increase thereafter as shown in Columns (17) and (18) under both of FPL's reserve margin criteria (total reserve margin of 20% and generation-only reserve margin of 10%). Thus, the projected timing and magnitude of FPL's resource needs are consistent using both of the reserve margin criteria.

QUESTION:

Please provide the Forecast of Capacity, Demand and Scheduled Maintenance at Time of Summer and Winter Peak Demand (Schedule 7.1 and 7.2 Ten Year Site plan equivalents) with and without the Project.

RESPONSE:

Please see Attachment No. 1 to this response for the requested information. The first page (page 1 of 2) of Attachment No. 1 provides projections with both the planned retirement of the existing Lauderdale Units 4 & 5 and the new 2x1 combined cycle (CC) unit. The second page (page 2 of 2) of Attachment No. 1 to this response provides projections with the planned retirement of the existing Lauderdale Units 4 & 5, but without the new 2x1 CC unit. In this second projection, no replacement capacity for the planned 2x1 CC unit is assumed in order to show the projected resource needs for FPL's system in Columns (17) and (18).

**Schedule 7.1 : With the Modernization
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)	(15)	(16)	(17)	(18)
August of Year	Firm Installed Capacity MW	Firm Capacity Import MW	Firm Capacity Export MW	Firm QF MW	Total Firm Capacity Available MW	Total Peak Demand MW	DSM MW	Firm Summer Peak Demand MW	Total Reserve Margin Before Maintenance MW	% of Peak	Scheduled Maintenance MW	Total Reserve Margin After Maintenance MW	% of Peak	Generation Only Reserve Margin After Maintenance MW	% of Peak	MW's Needed 20% Reserve Margin	MW's Needed 10% Gen. Only Reserve Margin
2017	26,058	492	0	334	26,884	24,009	1,851	22,157	4,727	21.3	0	4,727	21.3	2,875	12.0	(295)	(475)
2018	26,357	492	0	334	27,182	24,297	1,906	22,391	4,791	21.4	0	4,791	21.4	2,885	11.9	(313)	(455)
2019	27,011	110	0	4	27,125	24,496	1,950	22,547	4,578	20.3	0	4,578	20.3	2,629	10.7	(69)	(179)
2020	27,320	110	0	4	27,433	24,605	1,994	22,612	4,822	21.3	0	4,822	21.3	2,828	11.5	(299)	(367)
2021	27,479	110	0	4	27,592	24,717	2,038	22,679	4,914	21.7	0	4,914	21.7	2,876	11.6	(378)	(404)
2022	28,889	110	0	4	29,002	24,967	2,083	22,883	6,119	26.7	0	6,119	26.7	4,035	16.2	(1,542)	(1,539)
2023	29,133	110	0	4	29,246	25,338	2,130	23,209	6,037	26.0	0	6,037	26.0	3,908	15.4	(1,396)	(1,374)
2024	29,290	110	0	4	29,404	25,756	2,177	23,579	5,825	24.7	0	5,825	24.7	3,648	14.2	(1,109)	(1,072)
2025	29,286	110	0	4	29,400	26,137	2,224	23,914	5,486	22.9	0	5,486	22.9	3,263	12.5	(704)	(649)
2026	29,283	110	0	4	29,396	26,552	2,271	24,281	5,115	21.1	0	5,115	21.1	2,844	10.7	(259)	(189)

**Schedule 7.2 : With the Modernization
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)	(15)	(16)	(17)	(18)
January of Year	Firm Installed Capacity MW	Firm Capacity Import MW	Firm Capacity Export MW	Firm QF MW	Total Firm Capacity Available MW	Total Peak Demand MW	DSM MW	Firm Winter Peak Demand MW	Total Reserve Margin Before Maintenance MW	% of Peak	Scheduled Maintenance MW	Total Reserve Margin After Maintenance MW	% of Peak	Generation Only Reserve Margin After Maintenance MW	% of Peak	MW's Needed 20% Reserve Margin	MW's Needed 10% Gen. Only Reserve Margin
2017	27,578	499	0	334	28,411	20,361	1,390	18,971	9,440	49.8	0	9,440	49.8	8,050	39.5	(5,646)	(6,014)
2018	27,800	499	0	334	28,633	20,673	1,437	19,236	9,397	48.9	0	9,397	48.9	7,960	38.5	(5,550)	(5,893)
2019	26,954	499	0	334	27,787	20,828	1,461	19,367	8,420	43.5	0	8,420	43.5	6,959	33.4	(4,547)	(4,876)
2020	28,497	110	0	4	28,611	20,978	1,486	19,492	9,119	46.8	0	9,119	46.8	7,633	36.4	(5,221)	(5,535)
2021	28,558	110	0	4	28,672	21,172	1,512	19,660	9,011	45.8	0	9,011	45.8	7,500	35.4	(5,079)	(5,383)
2022	28,558	110	0	4	28,672	21,113	1,538	19,575	9,096	46.5	0	9,096	46.5	7,559	35.8	(5,181)	(5,448)
2023	29,794	110	0	4	29,908	21,289	1,565	19,724	#####	51.6	0	#####	51.6	8,619	40.5	(6,239)	(6,490)
2024	29,874	110	0	4	29,988	21,452	1,592	19,860	#####	51.0	0	#####	51.0	8,536	39.8	(6,156)	(6,391)
2025	29,874	110	0	4	29,988	21,591	1,621	19,970	#####	50.2	0	#####	50.2	8,397	38.9	(6,024)	(6,238)
2026	29,874	110	0	4	29,988	21,773	1,649	20,124	9,864	49.0	0	9,864	49.0	8,215	37.7	(5,839)	(6,038)

**Schedule 7.1 : Without the Modernization
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)	(15)	(16)	(17)	(18)
August of Year	Firm Installed Capacity MW	Firm Capacity Import MW	Firm Capacity Export MW	Firm QF MW	Total Firm Capacity Available MW	Total Peak Demand MW	DSM MW	Firm Summer Peak Demand MW	Total Reserve Margin Before Maintenance MW	% of Peak	Scheduled Maintenance MW	Total Reserve Margin After Maintenance MW	% of Peak	Generation Only Reserve Margin After Maintenance MW	% of Peak	MW's Needed 20% Reserve Margin	MW's Needed 10% Gen. Only Reserve Margin
	2017	26,058	492	0	334	26,884	24,009	1,851	22,157	4,727	21.3	0	4,727	21.3	2,875	12.0	(295)
2018	26,357	492	0	334	27,182	24,297	1,906	22,391	4,791	21.4	0	4,791	21.4	2,885	11.9	(313)	(455)
2019	27,011	110	0	4	27,125	24,496	1,950	22,547	4,578	20.3	0	4,578	20.3	2,629	10.7	(69)	(179)
2020	27,320	110	0	4	27,433	24,605	1,994	22,612	4,822	21.3	0	4,822	21.3	2,828	11.5	(299)	(367)
2021	27,479	110	0	4	27,592	24,717	2,038	22,679	4,914	21.7	0	4,914	21.7	2,876	11.6	(378)	(404)
2022	27,726	110	0	4	27,839	24,967	2,083	22,883	4,956	21.7	0	4,956	21.7	2,872	11.5	(379)	(376)
2023	27,970	110	0	4	28,083	25,338	2,130	23,209	4,874	21.0	0	4,874	21.0	2,745	10.8	(233)	(211)
2024	28,127	110	0	4	28,241	25,756	2,177	23,579	4,662	19.8	0	4,662	19.8	2,485	9.6	54	91
2025	28,123	110	0	4	28,237	26,137	2,224	23,914	4,323	18.1	0	4,323	18.1	2,100	8.0	459	514
2026	28,120	110	0	4	28,233	26,552	2,271	24,281	3,952	16.3	0	3,952	16.3	1,681	6.3	904	974

**Schedule 7.2 : Without the Modernization
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)	(15)	(16)	(17)	(18)
January of Year	Firm Installed Capacity MW	Firm Capacity Import MW	Firm Capacity Export MW	Firm QF MW	Total Firm Capacity Available MW	Total Peak Demand MW	DSM MW	Firm Winter Peak Demand MW	Total Reserve Margin Before Maintenance MW	% of Peak	Scheduled Maintenance MW	Total Reserve Margin After Maintenance MW	% of Peak	Generation Only Reserve Margin After Maintenance MW	% of Peak	MW's Needed 20% Reserve Margin	MW's Needed 10% Gen. Only Reserve Margin
	2017	27,578	499	0	334	28,411	20,361	1,390	18,971	9,440	49.8	0	9,440	49.8	8,050	39.5	(5,646)
2018	27,800	499	0	334	28,633	20,673	1,437	19,236	9,397	48.9	0	9,397	48.9	7,960	38.5	(5,550)	(5,893)
2019	26,954	499	0	334	27,787	20,828	1,461	19,367	8,420	43.5	0	8,420	43.5	6,959	33.4	(4,547)	(4,876)
2020	28,497	110	0	4	28,611	20,978	1,486	19,492	9,119	46.8	0	9,119	46.8	7,633	36.4	(5,221)	(5,535)
2021	28,558	110	0	4	28,672	21,172	1,512	19,660	9,011	45.8	0	9,011	45.8	7,500	35.4	(5,079)	(5,383)
2022	28,558	110	0	4	28,672	21,113	1,538	19,575	9,096	46.5	0	9,096	46.5	7,559	35.8	(5,181)	(5,448)
2023	28,618	110	0	4	28,732	21,289	1,565	19,724	9,008	45.7	0	9,008	45.7	7,443	35.0	(5,063)	(5,314)
2024	28,698	110	0	4	28,812	21,452	1,592	19,860	8,952	45.1	0	8,952	45.1	7,360	34.3	(4,980)	(5,215)
2025	28,698	110	0	4	28,812	21,591	1,621	19,970	8,842	44.3	0	8,842	44.3	7,221	33.4	(4,848)	(5,062)
2026	28,698	110	0	4	28,812	21,773	1,649	20,124	8,688	43.2	0	8,688	43.2	7,039	32.3	(4,663)	(4,862)

QUESTION:

Please refer to paragraph 7 of the Petition and provide the analysis indicating that delaying the Project beyond 2022 will result in higher costs to the Utility's customers.

RESPONSE:

The results of the requested analysis are provided in Attachment No. 1 to this response. The information is presented in the same format used in FPL's response to Staff's Data Request No. 1. This analysis examines a "With the Modernization" in 2022 scenario with a "With the Modernization in 2023" scenario, a one-year delay in the timetable.

In the "With the Modernization in 2023" scenario, FPL assumed that the retirement of the existing Lauderdale Units 4 & 5 was delayed a year to the 4th Quarter of 2019 in order to keep the number of months that FPL would not have the 884 MW of capacity from the existing Lauderdale Units 4 & 5 consistent with the number of months assumed in the "With the Modernization in 2022" scenario. In regards to the projected change in the cost from the delay of the new 2x1 combined cycle (CC) unit, a simple assumption was used that the capital costs for the new unit would be increased solely by an annual escalation rate of 2.5%. FPL believes that this simple assumption is conservative and that it is likely that capital costs for the 2x1 CC unit would increase by more than 2.5% if a one-year delay were to occur.

The result of this scenario analysis is that the CPVRR cost is projected to be \$10 million CPVRR higher if the in-service date for the planned new 2x1 CC unit were delayed from mid-2022 to mid-2023.

(Note that this analysis was performed approximately a month earlier than the analysis discussed in FPL's response to Staff's First Data Request No. 1. Three changes in assumptions occurred in the month after this earlier analysis was completed. The changes are: (i) including the Turkey Point 6 & 7 units in both resource plans, (ii) changing the discount rate from 7.58% to 7.57%, and (iii) accounting for firm gas transportation costs. As a result of these changes, the total CPVRR values presented in FPL's response to Staff's First Data Request No. 1 are significantly lower than what is shown in this earlier analysis. However, because these changes affect both resource plans, the changes do not alter the basic result of this earlier scenario analysis: a delay in the in-service date of the planned new 2x1 CC unit from mid-2022 to mid-2023 would result in higher CPVRR costs for FPL's customers.)

Projected System Annual Revenue Requirements

	With Modernization Project in 2022						With Modernization Project in 2023						col (6) - col (12)
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
	System Capital Costs (Millions)	System Net Fuel Costs (Millions)	System O&M Costs (Millions)	System Emission Costs (Millions)	Lauderdale 4&5 Operational Costs (Millions)	Total Annual Costs (Millions)	System Capital Costs (Millions)	System Net Fuel Costs (Millions)	System O&M Costs (Millions)	System Emission Costs (Millions)	Lauderdale 4&5 Operational Costs (Millions)	Total Annual Costs (Millions)	Total Plan Cost Difference (Millions)
2017	0	2200	56	1	13	2269	0	2200	56	1	16	2272	(3)
2018	17	2087	53	1	5	2164	17	2087	53	1	16	2174	(10)
2019	44	2408	54	1	(2)	2505	44	2408	54	1	11	2517	(12)
2020	42	2383	58	1	(2)	2482	42	2383	58	1	4	2487	(5)
2021	41	2583	64	1	(2)	2686	41	2583	64	1	3	2691	(5)
2022	126	2437	65	1	(1)	2628	39	2458	61	1	3	2562	66
2023	184	2587	67	1	(1)	2837	127	2601	68	1	3	2800	37
2024	177	2735	73	1	(1)	2985	186	2735	73	1	3	2998	(13)
2025	180	2860	77	1	(1)	3116	181	2860	75	1	3	3120	(4)
2026	319	2984	80	1	(1)	3383	328	2984	82	1	3	3397	(14)
2027	415	3094	84	1	(1)	3593	422	3094	84	1	2	3604	(11)
2028	396	3219	92	123	(1)	3828	402	3219	87	123	2	3832	(4)
2029	374	3397	96	149	0	4016	381	3397	98	149	0	4025	(10)
2030	510	3542	97	262	0	4411	517	3542	99	262	0	4420	(9)
2031	609	3734	107	365	0	4814	610	3734	106	365	0	4815	(1)
2032	663	3993	112	503	0	5272	671	3993	113	503	0	5280	(8)
2033	880	4351	123	702	0	6056	881	4351	122	702	0	6057	(1)
2034	1057	4532	126	887	0	6603	1058	4532	118	887	0	6596	7
2035	1107	4738	130	1094	0	7068	1113	4738	136	1094	0	7081	(13)
2036	1271	5087	135	1312	0	7805	1276	5087	135	1312	0	7810	(6)
2037	1458	5251	149	1490	0	8349	1464	5251	150	1490	0	8356	(7)
2038	1478	5430	137	1689	0	8734	1484	5430	139	1689	0	8743	(8)
2039	1566	5592	156	1907	0	9221	1572	5592	154	1907	0	9225	(4)
2040	1710	5746	152	2140	0	9748	1710	5746	150	2140	0	9746	2
2041	1736	5927	167	2341	0	10170	1743	5927	171	2341	0	10182	(12)
2042	1828	6115	164	2541	0	10649	1828	6115	157	2541	0	10642	7
2043	1990	6436	175	2860	0	11462	1997	6436	184	2860	0	11476	(15)
2044	2014	6680	174	3146	0	12015	2011	6680	173	3146	0	12010	5
2045	2087	6868	205	3423	0	12583	2093	6868	196	3423	0	12580	3
2046	2162	7064	180	3717	0	13123	2167	7064	190	3717	0	13138	(15)
2047	2112	7206	198	4000	0	13515	2117	7206	197	4000	0	13519	(5)
2048	2064	7350	190	4305	0	13909	2070	7350	190	4305	0	13914	(6)
2049	2037	7497	220	4633	0	14387	2043	7497	219	4633	0	14392	(4)
2050	2018	7647	205	4987	0	14856	2023	7647	208	4987	0	14864	(7)
2051	1989	7799	211	5236	0	15235	1969	7799	209	5236	0	15213	22
2052	1961	7955	212	5491	0	15619	1968	7955	213	5491	0	15628	(9)
2053	1938	8115	247	5751	0	16051	1945	8115	247	5751	0	16057	(7)
2054	1905	8277	212	6016	0	16410	1903	8277	212	6016	0	16407	3
2055	1849	8442	228	6285	0	16804	1856	8442	229	6285	0	16811	(7)
2056	1821	8611	251	6557	0	17241	1826	8611	251	6557	0	17245	(4)
2057	1777	8783	238	6833	0	17631	1781	8783	237	6833	0	17634	(3)
2058	1718	8959	231	7112	0	18020	1723	8959	229	7112	0	18023	(3)
2059	1668	9138	257	7392	0	18455	1673	9138	260	7392	0	18464	(8)
2060	1624	9321	251	7674	0	18871	1630	9321	252	7674	0	18877	(7)
2061	1564	9508	242	7957	0	19270	1570	9508	243	7957	0	19276	(7)
CPVRR	8,076	50,552	1,351	11,637	9	71,625	8,018	50,576	1,348	11,637	56	71,635	(10)

Assumptions:

- The two resource plans included several common capacity additions including: the solar additions (2017-2023), and the 2019 Okeechobee CC. Because the fixed costs for these projects are identical in the two resource plans, those fixed costs were not included in the analyses. However, the variable costs for those projects might differ in the two resource plans. Therefore, the variable costs for these projects were included in the analyses.
- The plan with the modernization in 2022 assumes that the existing Lauderdale 4 and 5 units will retire in the 4th quarter of 2018. The plan with the modernization in 2023 assumes that the existing Lauderdale 4 and 5 units will retire in the 4th quarter of 2019.

Notes:

- Col. (1) and Col. (7) Capital Costs include: Generation Capital, Transmission Interconnection, Transmission Integration, Pipeline, Capital Replacement Costs, Lauderdale Net Book Value, and Short Term PPA
- Col. (3) and Col. (9) includes: Fixed O&M, Variable O&M and Startup Costs
- Col. (5) and Col. (11) includes: Lauderdale 4&5 Fixed O&M and Capital Replacement Costs. The negative values in Col. (5) represent credits from equipment that is projected to be sold over an amortized 10 year period.

QUESTION:

Please refer to paragraph 21 of the Petition, provide the total number of sites that the Utility investigated, and explain why they were not economically viable.

RESPONSE:

FPL interprets the question to be asking for the number of potential sites for fossil generation in the Southeastern Florida region (Miami-Dade and Broward Counties) that were considered as part of FPL's analysis that led to the decision to modernize the Lauderdale/Dania Beach site.

There were four such potential sites located in this two county region that were evaluated. Two of the potential sites were in Miami-Dade, and two were in Broward. One of the sites in Broward was the existing Lauderdale/Dania Beach site, and FPL evaluated both a 2x1 combined cycle (CC) unit and a 3x1 CC unit at that site. With a 2x1 CC unit at the existing Lauderdale/Dania Beach site, no new natural gas pipeline would be needed because the existing natural gas pipeline into the site is sufficient for the gas requirements of the fuel-efficient 2x1 CC unit.

However, the existing natural gas pipeline into the site would not be sufficient for the larger 3x1 CC unit so a new natural gas pipeline would be needed for a 3x1 CC at the Lauderdale/Dania Beach site. In addition, either a new 2x1 CC or 3x1 CC unit at any of the other three sites in Miami-Dade or Broward would also require a new natural gas pipeline. A new pipeline would be at least 75 miles in length and result in significant expense.

Similarly, with the retirement of existing Lauderdale Units 4 & 5, there is sufficient existing transmission at the site with which to incorporate a 2x1 CC unit. This would not be the case if a 3x1 CC unit were to be installed at that site. This would also not be the case if either a 2x1 CC or a 3x1 CC unit were to be installed at the other three sites. New transmission facilities would need to be built for any of those alternatives, and those costs would be significant.

Therefore, due to projected costs for a new natural gas pipeline and new transmission facilities, a 2x1 CC unit at the existing Lauderdale/Dania Beach site was determined to be the most economic way to replace the 884 MW of capacity in the Southeastern Florida region that would be removed with the retirement of the existing Lauderdale Units 4 & 5.

QUESTION:

Please refer to paragraph 23 of the Petition and describe the studies that were completed supporting the Utility's transmission constraint concerns.

RESPONSE:

FPL's studies regarding transmission constraint concerns consisted of load flow analyses which examined the projected transmission import capabilities into the Southeastern Florida region given forecasted load growth and various potential sites for new generation additions. The overall objective of these analyses was to help ensure that FPL maintains a balance between load, generation, and transmission import capability in the Southeastern Florida region.

The results of the studies identified when/where transmission constraints were projected to occur. Then transmission solutions (*i.e.*, new transmission additions) were identified with which to address these constraints. As discussed in FPL's response to Staff's First Data Request No. 3, with the retirement of existing Lauderdale Units 4 & 5, and without new generation sited in the Southeastern Florida region, additional transmission import capability into the region would have to be added by mid-2025.