

ORIGINAL

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In re: Review of Florida Power Corporation's Earnings, Including Effects of Proposed Acquisition of Florida Power Corporation by Carolina Power & Light

DOCKET NO. 000824-EI

Submitted for Filing: January 14, 2002

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FLORIDA POWER CORPORATION'S RESPONSE TO THE FLORIDA INDUSTRIAL POWER USERS GROUP'S SECOND SET OF INTERROGATORIES TO FLORIDA POWER CORPORATION

Pursuant to § 350.0611(1), Fla. Stat. (2000), Fla. Admin. Code R. 28-106.206, and Fla. R. Civ. P.1.340, Florida Power Corporation ("FPC") responds to The Florida Industrial Power Users Group's (FIPUG) Second Set of Interrogatories (Nos. 24-34) subject to the previously filed general and specific objections and states as follows:

INTERROGATORIES

- 24. Provide the Company's projection of its summer and winter peak reserve margins and its total interruptible/curtailable load for each year of the period 2002 through 2011.

Please see the Florida Power Corporation Ten-Year Site Plan (April 2001), pages 15, 18, and 70-71.

- 25. Provide a calculation of the break-even point, in terms of hours of operation, between the installation of incremental peaking vs. baseload generation capacity on the Company's system, based on the Company's forecast of capital and operating costs for such units. Explain in detail all assumptions.

The calculation of the break-even point, in terms of hours of operation, between the installation of incremental peaking vs. baseload generation capacity on the

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Company's system, based on the Company's generic supply option forecast for such units, is shown below:

Levelized Busbar Cost (\$/kW) =

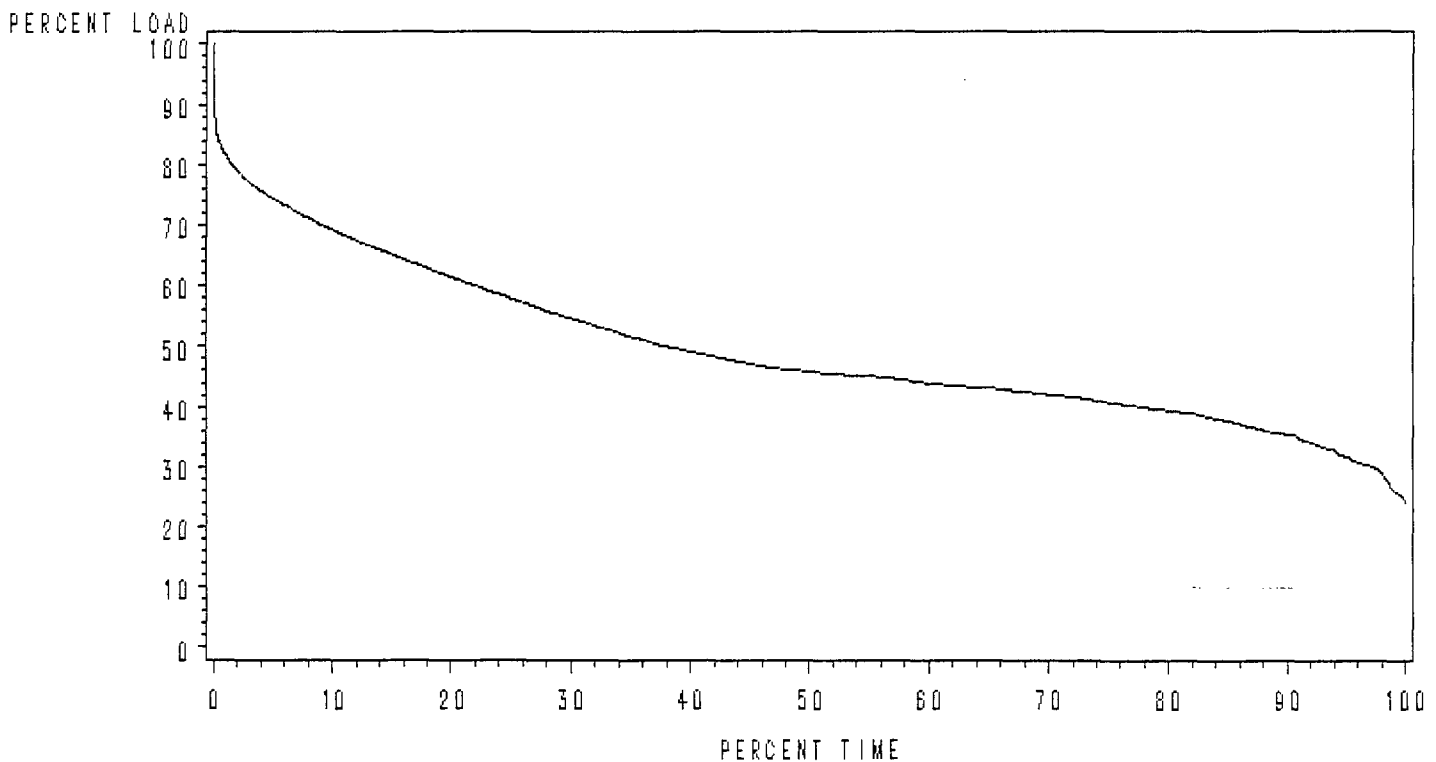
$$\begin{aligned} & ((\text{Charge Rate} * (\text{Capital Cost} + \text{Levelized Fixed O\&M}) / \text{Capability Ratio}) + \\ & ((\text{Capacity Factor} * 8760) * (((\text{Levelized Fuel} * \text{Full-Load Heat Rate}) / 1000000) + \\ & (\text{Levelized Variable O\&M} / 1000)))) \end{aligned}$$

A graph of the viable technologies for FPC and the assumptions for the generic technology supply options are included response to production request number 34.

26. Provide the Company's total system load duration curve for the 2002 test year.

The Company's total system load duration curve for the 2002 test year is shown below.

**TOTAL SYSTEM LOAD DURATION CURVE
2002 TEST YEAR
FLORIDA POWER CORPORATION**



27. Provide the monthly system firm peak demands on the Company's system for each month of the 2002 test year and for each month of the period January 1996 through December 2000.

See table below. For 1996 through 2000, firm peak demands are estimated as system recorded peaks less interruptible (IS) and curtailable (CS) service loads. The 2002 test year projected firm peak demands subtract all direct load control.

FLORIDA POWER CORPORATION					
MONTHLY SYSTEM FIRM PEAK DEMANDS - MW					
System			System		
Year	Month	Less IS & CS	Year	Month	Less IS & CS
1996	1	8364	1999	1	8910
1996	2	8762	1999	2	7162
1996	3	6921	1999	3	5989
1996	4	5307	1999	4	6412
1996	5	6034	1999	5	6922
1996	6	6462	1999	6	7270
1996	7	6855	1999	7	7868
1996	8	6492	1999	8	8054
1996	9	6711	1999	9	7302
1996	10	5209	1999	10	6531
1996	11	4796	1999	11	5406
1996	12	6987	1999	12	7097
1997	1	7776	2000	1	9068
1997	2	5448	2000	2	7853
1997	3	4684	2000	3	5601
1997	4	4781	2000	4	5640
1997	5	6458	2000	5	7875
1997	6	6642	2000	6	7881
1997	7	7189	2000	7	8142
1997	8	6972	2000	8	8223
1997	9	6596	2000	9	7746
1997	10	6085	2000	10	7454
1997	11	4908	2000	11	7317
1997	12	6359	2000	12	8982
1998	1	5874			
1998	2	5825			
1998	3	6567	Year	Month	System Firm Peak
1998	4	5293	2002	1	8529
1998	5	6723	2002	2	7457
1998	6	7535	2002	3	6325
1998	7	7713	2002	4	5886
1998	8	7523	2002	5	6960
1998	9	6939	2002	6	7391
1998	10	6739	2002	7	7693
1998	11	5023	2002	8	7751
1998	12	5588	2002	9	7121
			2002	10	6380
			2002	11	5784
			2002	12	7218

- 28. For each customer class in the Company's filed cost of service studies, provide the Company's projected monthly class coincident peak demands for each month of the 2002 test year.**

Since the Company's production cost allocations were based on weightings of the average of the twelve monthly coincident peaks, it was not necessary to calculate individual monthly class coincident peak demands. However, calculations were performed for the coincident maximum winter month peak and the coincident summer month peak for purposes of fulfilling the information required and shown in MFR Schedule E-12. These calculations were prepared by determining from the Load Research Data shown in MFR Schedule E-20 the monthly ratio of the class maximum winter and summer coincident peak loads to the 12 coincident peak average. These class monthly ratios then were applied to the projected 12 coincident peak average for the 2002 test period to derive the respective coincident maximum winter and summer peaks.

The Company is responding to the request by performing on the attached table the same type calculations as described above for all months of the projected 2002 test period.

- 29. For each customer class in the Company's filed cost of service studies, provide the actual monthly class coincident peak demands for each month of the year 2000.**

The Company has made no such analysis of its actual class coincident peak demands for each month of the year 2000.

- 30. Provide the Company's monthly system reserve margins for each month of the period January 1996 through December 2000. Provide the data both before and after planned and scheduled plant maintenance outages.**

Monthly system reserve margins are not available on an historical basis. FPC provides planned reserve margins at the time of summer and winter peaks for future years in the Ten-Year Site Plan (April 2001), pages 70-71.

31. Explain in detail the basis for the Company's allocation of credits associated with non-firm service in its proposed cost of service study.

As the Company understands the question, credits associated with non-firm service are not considered a cost for inclusion in the cost of service study since the cost of service study includes only those costs recoverable as base rate charges. Alternatively, the Company seeks the cost of these credits to be recovered from customers through the Energy Conservation Cost Recovery Clause. The Company believes the credits or payments to customers for reducing load are analogous to purchasing generation capacity, and therefore supports the Commission practice of allocating the costs of credits to rate classes on the basis of their respective production capacity cost responsibility. The Company also supports the Commission practice of employing the same production capacity cost methodology for allocating these costs to rate classes in the Energy Conservation Cost Recovery Clause as is relied upon for establishing base rates in a rate proceeding. This position is consistent with the direct testimony of W.C. Slusser, Jr. on page 18, wherein he states that the charges in both the Capacity Cost Recovery Clause and the Energy Conservation Cost Recovery Clause should reflect the production cost methodology that the Commission chooses to rely on in this proceeding when they are next revised.

32. Referring to Schedule A-5, page 3 of 5, explain in detail the Company's rationale for reducing the demand charges and increasing the energy charges for interruptible service.

The Company's primary rationale was to establish all general service rates with the same base rate billing demand charges. Charges based on maximum demand are intended to especially recover the cost of transmission and distribution delivery. The Company does not believe there is any reason to differentiate firm and non-firm service customers for the recovery of primarily delivery costs.

Although the Company's proposed modifications to the interruptible demand and energy charges shift significant amounts of costs from demand charges to energy charges, the effect of this is actually contrary to what one might expect. Typically, one would expect this type of shift to burden customers more as their load factor increases. As the attached table shows, the percentage increase to most interruptible service customers actually decreases with higher load factor usage. Contributing to this result is the proposed change in the method of applying the customer's demand credit to his bill. Most interruptible service customers are under the IS-1 type method of payment of interruptible credit which is fixed regardless of the customer's load factor. The proposed interruptible credits are factored by the customer's load factor. Therefore, the higher the customer's load factor, the more interruptible credit the customer receives which off-sets the higher level of proposed energy charges.

33. Provide the Company's average fuel and variable operation and maintenance expenses for the 2002 test year, segregated by on-peak and off-peak hours.

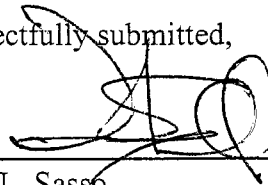
FPC does not segregate average fuel and variable operation and maintenance expenses by on-peak and off-peak hours.

34. Provide the average annual forced outage rates of the Company's generation fleet for each year of the period 1996 through 2000. For the same time period, provide similar average data disaggregated by peaking units, intermediate units, and baseload units.

The average annual forced outage rates of the Company's generation fleet for each year of the period 1996 through 2000 are shown below.

FLORIDA POWER CORPORATION					
AVERAGE ANNUAL FORCED OUTAGE RATES (%)					
	1996	1997	1998	1999	2000
Fossil	1.8	3.5	4.6	3.9	4.4
Nuclear	52.7	100.0	11.2	1.9	0.2
Peaker	25.3	29.7	23.3	26.7	18.0
Combined Cycle	n/a	1.0	28.7	5.7	3.1
System	5.9	13.5	5.3	3.7	3.9

Respectfully submitted,



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CERTIFICATE OF SERVICE

I HEREBY CERTIFY that a true copy of foregoing has been furnished via U.S. Mail to the following this 14th day of January, 2002.

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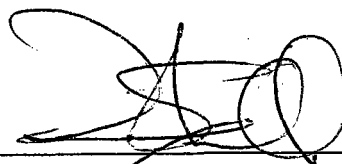
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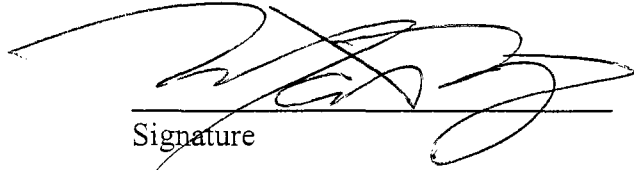
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A handwritten signature in black ink, appearing to read "Michael B. Twomey", is written over a horizontal line. The signature is stylized and somewhat cursive.

Attorney



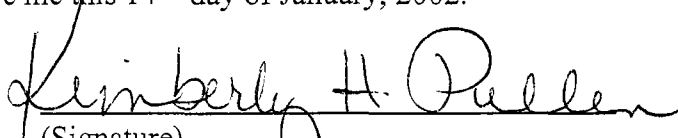
Signature

STATE OF FLORIDA

COUNTY OF LEON

BEFORE ME, the undersigned authority, duly authorized to administer oaths, personally appeared MARK A. MYERS, to me well known, on behalf of Florida Power Corporation, as its Vice President, Finance, and who, after first being duly sworn, deposes and says that he executed the above and foregoing.

.. SWORN TO and subscribed before me this 14th day of January, 2002.

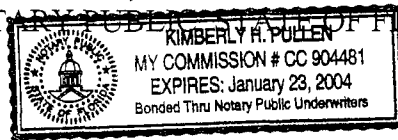


(Signature)

Kimberly H. Pullen

(Printed Name)

NOTARY PUBLIC STATE OF FLORIDA



(Commission Expiration Date)

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TABLE F1PUGZ-28
DEVELOPMENT OF PROJECTED MONTHLY CLASS CP DEMANDS (MW)
FOR EACH MONTH OF 2002 TEST YEAR

	<u>RESIDENTIAL</u>			<u>GEN. SERVICE NON-DEM</u>			<u>GENERAL SERVICE 100% LF</u>		
	LR Data	Calc. Mo.	Ratio applied	LR Data	Calc. Mo.	Ratio applie	LR Data	Calc. Mo.	Ratio applied
	<u>E-20</u>	<u>Ratio</u>	<u>2002 12 CP</u>	<u>E-20</u>	<u>Ratio</u>	<u>2002 12 CP</u>	<u>E-20</u>	<u>Ratio</u>	<u>2002 12 CP</u>
Jan	5302.8	1.3512	5906.6	264.9	1.3523	272.9	N/A	1.0000	9.3
Feb	4084.1	1.0406	4549.1	169.7	0.8663	174.8	N/A	1.0000	9.3
Mar	3030.5	0.7722	3375.6	125.6	0.6412	129.4	N/A	1.0000	9.3
Apr	2568.4	0.6544	2860.8	176.0	0.8985	181.3	N/A	1.0000	9.3
May	3618.9	0.9221	4030.9	212.2	1.0833	218.6	N/A	1.0000	9.3
June	3809.4	0.9706	4243.1	223.4	1.1405	230.1	N/A	1.0000	9.3
July	3956.6	1.0081	4407.1	223.1	1.1389	229.8	N/A	1.0000	9.3
Aug	4073.6	1.0380	4537.4	196.2	1.0016	202.1	N/A	1.0000	9.3
Sept	4019.8	1.0242	4477.5	220.9	1.1277	227.6	N/A	1.0000	9.3
Oct	3430.4	0.8741	3821.0	194.3	0.9919	200.2	N/A	1.0000	9.3
Nov	4600.8	1.1723	5124.6	151.3	0.7724	155.9	N/A	1.0000	9.3
Dec	<u>4600.4</u>	<u>1.1722</u>	<u>5124.2</u>	<u>193.0</u>	<u>0.9853</u>	<u>198.8</u>	N/A	1.0000	<u>9.3</u>
Avg 12CP	3924.6	1.0000	4371.5	195.9	1.0000	201.8	N/A	1.0000	9.3

	<u>GENERAL SERVICE DEMAND</u>			<u>CURTAILABLE SERVICE</u>			<u>INTERRUPTIBLE SERVICE</u>			<u>LIGHTING SERVICE</u>		
	LR Data	Calc. Mo.	Ratio applied	LR Data	Calc. Mo.	Ratio applie	LR Data	Calc. Mo.	Ratio applied	LR Data	Calc. Mo.	Ratio applied
	<u>E-20</u>	<u>Ratio</u>	<u>2002 12 CP</u>	<u>E-20</u>	<u>Ratio</u>	<u>2002 12 CP</u>	<u>E-20</u>	<u>Ratio</u>	<u>2002 12 CP</u>	<u>E-20</u>	<u>Ratio</u>	<u>2002 12CP</u>
Jan	1776.2	0.9335	1968.1	17.5	0.9986	18.4	270.5	1.0000	288.9	20.0%	2.1145	14.2
Feb	1585.7	0.8334	1757.0	19.5	1.1127	20.5	290.0	1.0721	309.7	4.5%	0.4758	3.2
Mar	1533.9	0.8062	1699.6	8.3	0.4736	8.7	294.7	1.0894	314.7	5.0%	0.5286	3.5
Apr	1921.7	1.0100	2129.3	17.8	1.0157	18.7	307.3	1.1360	328.2	0.0%	0.0000	0.0
May	2097.4	1.1023	2324.0	16.2	0.9244	17.0	265.2	0.9804	283.2	0.0%	0.0000	0.0
June	2282.5	1.1996	2529.1	10.1	0.5763	10.6	303.3	1.1212	323.9	0.0%	0.0000	0.0
July	2194.0	1.1531	2431.0	18.9	1.0785	19.8	229.2	0.8473	244.8	0.5%	0.0529	0.4
Aug	2170.3	1.1407	2404.7	23.9	1.3638	25.1	245.8	0.9087	262.5	0.0%	0.0000	0.0
Sept	2180.0	1.1458	2415.5	18.2	1.0385	19.1	285.9	1.0569	305.3	0.0%	0.0000	0.0
Oct	2170.1	1.1406	2404.5	21.4	1.2211	22.5	234.1	0.8654	250.0	0.0%	0.0000	0.0
Nov	1543.9	0.8114	1710.7	22.6	1.2896	23.7	315.7	1.1671	337.2	40.0%	4.2291	28.3
Dec	<u>1376.3</u>	<u>0.7234</u>	<u>1525.0</u>	<u>15.9</u>	<u>0.9073</u>	<u>16.7</u>	<u>204.4</u>	<u>0.7556</u>	<u>218.3</u>	<u>43.5%</u>	<u>4.5991</u>	<u>30.8</u>
Avg 12CP	1902.7	1.0000	2108.2	17.5	1.0000	18.4	270.5	1.0000	288.9	9.5%	1.0000	6.7

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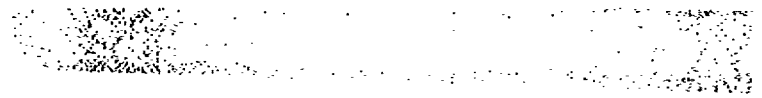
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TABLE FIPUG2-32
 COMPARISON OF DEMAND AND ENERGY COMPONENTS OF IS RATE CHARGES
 Based on Monthly Billing for 1 KW at Range from 0 to 100% Load Factor

***** PRESENT INTERRUPTIBLE SERVICE RATE (IS-1) *****

Load Factor:	(1)	(2)	(3)	Per Cent	(4)	Per Cent	(5a)
	Base Demand Charge	Interruptible Demand Credit	Net Demand Charge (1) + (2)	of Total Charge (3)/(5)x100%	Base Energy Charge	of Total Charge (4)/(5)x100%	Total D & E Charges (3) + (4)
0%	\$ 5.18	\$ (2.86)	\$ 2.32	100%	\$ -	0%	\$ 2.32
10%	\$ 5.18	\$ (2.86)	\$ 2.32	82%	\$ 0.52	18%	\$ 2.84
20%	\$ 5.18	\$ (2.86)	\$ 2.32	69%	\$ 1.05	31%	\$ 3.37
30%	\$ 5.18	\$ (2.86)	\$ 2.32	60%	\$ 1.57	40%	\$ 3.89
40%	\$ 5.18	\$ (2.86)	\$ 2.32	53%	\$ 2.09	47%	\$ 4.41
50%	\$ 5.18	\$ (2.86)	\$ 2.32	47%	\$ 2.61	53%	\$ 4.93
60%	\$ 5.18	\$ (2.86)	\$ 2.32	43%	\$ 3.14	57%	\$ 5.46
70%	\$ 5.18	\$ (2.86)	\$ 2.32	39%	\$ 3.66	61%	\$ 5.98
80%	\$ 5.18	\$ (2.86)	\$ 2.32	36%	\$ 4.18	64%	\$ 6.50
90%	\$ 5.18	\$ (2.86)	\$ 2.32	33%	\$ 4.70	67%	\$ 7.02
100%	\$ 5.18	\$ (2.86)	\$ 2.32	31%	\$ 5.23	69%	\$ 7.55

***** PROPOSED INTERRUPTIBLE SERVICE RATE (IS-2) *****

Load Factor:	(1)	(2)	(3)	Per Cent	(4)	Per Cent	(5b)	(6)	Increase
	Base Demand Charge	Interruptible Demand Credit	Net Demand Charge (1) + (2)	of Total Charge (3)/(5)x100%	Base Energy Charge	of Total Charge (4)/(5)x100%	Total D & E Charges (3) + (4)	Increase \$ (5a) - (5b)	Increase %
0%	\$ 3.80	\$ -	\$ 3.80	100%	\$ -	0%	\$ 3.80	\$ 1.48	64%
10%	\$ 3.80	\$ (0.28)	\$ 3.52	79%	\$ 0.95	21%	\$ 4.46	\$ 1.62	57%
20%	\$ 3.80	\$ (0.56)	\$ 3.24	63%	\$ 1.89	37%	\$ 5.13	\$ 1.76	52%
30%	\$ 3.80	\$ (0.85)	\$ 2.95	51%	\$ 2.84	49%	\$ 5.79	\$ 1.90	49%
40%	\$ 3.80	\$ (1.13)	\$ 2.67	41%	\$ 3.78	59%	\$ 6.46	\$ 2.05	46%
50%	\$ 3.80	\$ (1.41)	\$ 2.39	34%	\$ 4.73	66%	\$ 7.12	\$ 2.19	44%
60%	\$ 3.80	\$ (1.69)	\$ 2.11	27%	\$ 5.68	73%	\$ 7.78	\$ 2.33	43%
70%	\$ 3.80	\$ (1.97)	\$ 1.83	22%	\$ 6.62	78%	\$ 8.45	\$ 2.47	41%
80%	\$ 3.80	\$ (2.26)	\$ 1.54	17%	\$ 7.57	83%	\$ 9.11	\$ 2.61	40%
90%	\$ 3.80	\$ (2.54)	\$ 1.26	13%	\$ 8.51	87%	\$ 9.78	\$ 2.75	39%
100%	\$ 3.80	\$ (2.82)	\$ 0.98	9%	\$ 9.46	91%	\$ 10.44	\$ 2.89	38%