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January 8, 1999

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Ms. Blanca S. Bayo, Director  
Division of Records and Reporting  
Florida Public Service Commission  
2540 Shumard Oak Boulevard  
Tallahassee, FL 32399-0850

990017-EJ

Re: Tampa Electric Company Non-Firm Electric Service – 1999 Assessment of Need

Dear Ms. Bayo:

In accordance with Rule 25-6.0438 Florida Administrative Code regarding non-firm electric service, enclosed as Exhibit "A" is a copy of Tampa Electric Company's January 1, 1999 revision to its July 1, 1998 assessment of the level of non-firm load on the Tampa Electric system.

Tampa Electric has analyzed its assessment of need and the cost-effectiveness of its non-firm rates. Although the assessment of need calculations indicate a need for additional non-firm load, the cost-effectiveness analysis of the IS-3 and IST-3 rate shows them to be not cost-effective and, therefore, should not be reopened at this time. Enclosed as Exhibit "B" is a copy of Tampa Electric's cost-effectiveness analysis. Tampa Electric will be evaluating other non-firm electric service alternatives that would be cost-effective.

Please acknowledge receipt and filing of the above by stamping the duplicate copy of this letter and returning same to this writer.

Thank you for your assistance in connection with this matter.

Sincerely,

  
James D. Beasley

JDB/pp  
Enclosure

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DOCUMENT NUMBER-DATE

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FPSC-RECORDS/REPORTING

**Exhibit A**

### TARGET INTERRUPTIBLE LOAD WORKSHEET

1.	TARGET INTERRUPTIBLE BEGINNING FOR	1999		200	MW
2.	TARGET INTERRUPTIBLE FOR THE YEAR	2003		229	MW
3.	ANNUAL INTERRUPTIBLE INCREMENT	229 (Over	- 4	200 Years)	7.3 MW
4.	TARGET INTERRUPTIBLE ENDING FOR	2003		207	MW

**TARGET INTERRUPTIBLE LOAD WORKSHEET  
 FIRM LOAD RESERVE MARGIN WORKSHEET  
 (WITH COMMITTED CAPACITY ONLY)**

	(1)	(2)	(3)	(4)	(5)	(6)
	TOTAL INSTALLED CAPACITY (MW)	FIRM CAPACITY INTERCHANGE (MW)	COGEN- ERATION (MW)	TOTAL CAPACITY (MW)	FIRM LOAD ANNUAL PEAK DEMAND (MW)	RESERVE MARGIN (MW)
1999	3,587	200	62	3,849	3,194	20
2000	3,592	49	62	3,703	3,293	12
2001	3,772	63	62	3,897	3,400	15
2002	3,772	213	62	4,047	3,500	16
2003	3,560	360	62	3,982	3,596	11

Column (1) Total installed capacity includes Polk CT 1 (in service as of January 2001) and Hookers Point retirement (as of January 2003).  
 Column (2) Capacity interchange is the net of capacity import and exports: Capacity import includes the Purchase Agreement with TECO Power Services (TPS) beginning in 1993 (360 MW). Availability of this capacity is subject to back-up requirements for Seminole Electric Cooperative. Capacity export includes 145 MW of Big Bend 4 which will be sold to TECO Power Services, on a limited basis, for use by Seminole Electric Cooperative. Capacity export also includes firm D transactions.  
 Column (3) The cogeneration column accounts for cogeneration that will be purchased under firm contracts.  
 Column (5) The firm load annual peak demand is firm system peak demand. Firm system peak demand contains firm retail and firm wholesale demand (PR, etc.). Firm demand values are based on the current load forecast.  
 Column (6) The reserve margin is a winter firm peak reserve margin.

TARGET INTERRUPTIBLE LOAD WORKSHEET

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	FIRM LOAD	ADJUSTED FIRM LOAD	FIRM SYSTEM PEAK DEMAND	FIRM SYSTEM PEAK DEMAND	FIRM SYSTEM PEAK DEMAND	FIRM SYSTEM PEAK DEMAND	FIRM SYSTEM PEAK DEMAND	FIRM SYSTEM PEAK DEMAND
1999	3,194	200	258				200	7.3
2000	3,293	212	266				207	7.3
2001	3,400	212	274				215	7.3
2002	3,500	199	282				222	7.3
2003	3,596	200	290	519	3,133	27	229	7.3

Column (2) The firm load annual peak demand is firm system peak demand. Firm system peak demand contains firm retail and firm wholesale demand. Firm demand values are based on the current load forecast.

Column (7) The adjusted firm reserve is a winter firm peak reserve margin.

**Exhibit B**

**1998 COST-EFFECTIVENESS REVIEW OF IS-3 PROGRAM**  
**MULTIPLICATION FACTORS TO SPLIT OUT IS-1 AND IS-3**  
**INCREMENTAL EXPANSION PLAN REVENUE REQUIREMENTS**

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)								
										ENERGY			BILLING DEMAND			% OF TOTAL IS	
										IS-1 (MWH)	IS-3 (MWH)	TOTAL IS (MWH)	IS-1 (MW)	IS-3 (MW)	TOTAL IS (MW)	BILLING DEMAND IS-1	BILLING DEMAND IS-3
2001	1,100,824	609,933	1,710,757	288	207	495	58%	42%	64%	36%							
2002	1,084,747	572,874	1,657,621	288	215	503	57%	43%	65%	35%							
2003	1,064,047	568,983	1,633,030	288	216	503	57%	43%	65%	35%							
2004	1,044,047	577,553	1,621,600	288	216	504	57%	43%	64%	36%							
2005	1,028,047	586,494	1,614,541	289	217	506	57%	43%	64%	36%							
2006	998,007	587,494	1,585,501	289	217	506	57%	43%	63%	37%							
2007	978,007	587,494	1,565,501	279	209	488	57%	43%	62%	38%							
2008	868,007	587,494	1,455,501	248	185	431	57%	43%	60%	40%							
2009	858,007	587,494	1,445,501	245	184	430	57%	43%	59%	41%							
2010	848,007	587,494	1,435,501	244	183	427	57%	43%	59%	41%							
2011	838,007	587,494	1,425,501	241	181	423	57%	43%	59%	41%							
2012	828,007	587,494	1,415,501	240	180	420	57%	43%	58%	42%							
2013	823,007	587,494	1,410,501	239	179	418	57%	43%	58%	42%							
2014	818,007	587,494	1,405,501	238	179	417	57%	43%	58%	42%							
2015	813,007	587,494	1,400,501	235	177	412	57%	43%	58%	42%							
2016	798,007	587,494	1,385,501	233	175	408	57%	43%	58%	42%							
2017	798,007	587,494	1,385,501	233	175	408	57%	43%	58%	42%							
2018	798,007	587,494	1,385,501	233	175	408	57%	43%	58%	42%							
2019	798,007	587,494	1,385,501	233	175	408	57%	43%	58%	42%							
2020	798,007	587,494	1,385,501	233	175	408	57%	43%	58%	42%							
2021	798,007	587,494	1,385,501	233	175	408	57%	43%	58%	42%							
2022	798,007	587,494	1,385,501	233	175	408	57%	43%	58%	42%							
2023	798,007	587,494	1,385,501	233	175	408	57%	43%	58%	42%							
2024	798,007	587,494	1,385,501	233	175	408	57%	43%	58%	42%							
2025	798,007	587,494	1,385,501	233	175	408	57%	43%	58%	42%							
2026	796,007	587,494	1,385,501	233	175	408	57%	43%	58%	42%							
2027	798,007	587,494	1,385,501	233	175	408	57%	43%	58%	42%							
2028	798,007	587,494	1,385,501	233	175	408	57%	43%	58%	42%							

> COLUMNS (7) & (8) RATIO OF IS-1 OR IS-3 AVERAGE MONTHLY BILLING DEMAND TO THE TOTAL INTERRUPTIBLE AVERAGE MONTHLY BILLING DEMAND.

> COLUMNS (9) & (10) RATIO OF IS-1 OR IS-3 ENERGY TO THE TOTAL INTERRUPTIBLE ENERGY.

> SYSTEM IMPACTS FOR CAPITAL AND FIXED O&M ALLOCATED BY THE % OF BILLING DEMAND.

> SYSTEM IMPACTS FOR VARIABLE O&M AND FUEL ALLOCATED BY THE % OF INTERRUPTIBLE ENERGY.

Exhibit B-2

**1998 COST-EFFECTIVENESS REVIEW OF IS-3 PROGRAM**  
**RATE AND SYSEM IMPACTS (COST vs BENEFITS) OF TRANSFERRING EXISTING IS-3**  
**LOAD TO FIRM LOAD**

YEAR	IS-3 NOMINAL and PRESENT WORTH				
	RATE IMPACT (\$000)	SYSTEM IMPACT (\$000)	NET IMPACT (\$000)	PW (\$000)	CUMUL. PW (\$000)
2001	16,530	(2,628)	19,158	14,572	14,572
2002	16,942	17,012	(70)	(49)	14,523
2003	16,964	15,111	1,853	1,174	15,698
2004	17,042	19,150	(2,108)	(1,219)	14,478
2005	17,115	4,067	13,047	6,890	21,369
2006	17,118	21,019	(3,901)	(1,880)	19,488
2007	16,594	20,767	(4,173)	(1,836)	17,652
2008	14,899	8,376	6,523	2,620	20,272
2009	14,845	8,669	6,176	2,265	22,537
2010	14,765	24,520	(9,756)	(3,265)	19,272
2011	14,637	8,264	6,373	1,947	21,219
2012	14,570	8,204	6,365	1,775	22,994
2013	14,496	28,723	(14,227)	(3,622)	19,372
2014	14,476	(7,948)	22,424	5,211	24,583
2015	14,321	(8,502)	22,823	4,841	29,424
2016	14,200	11,921	2,279	441	29,866
2017	14,200	11,767	2,433	430	30,296
2018	14,200	7,946	6,254	1,009	31,305
<b>2019-2028 (PW)</b>				<b>16,857</b>	<b>48,161</b>

<b>98CPWRR</b>	<b>112,086</b>	<b>80,781</b>	<b>48,161</b>
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DISCOUNT RATE = 9.55%.

RATE CLASS	ENERGY \$/KWH
GSLD FOR IS-3	3.295

RATE CLASS	DEMAND \$/KW	ENERGY \$/KWH
IS-3	1.45	3.588



## Exhibit B-3

**1998 COST-EFFECTIVENESS REVIEW OF IS-3 PROGRAM**  
**TOTAL COST BREAKOUT FOR CAPACITY ADDITION TO SERVE IS-3 CUSTOMERS**  
**(SYSTEM IMPACT)**

(1)	(2)	(3)	(4)
YEAR	BASE PLAN	BASE PLAN W/ TRANSFERRED EXISTING IS-3 LOAD	IS-3 COST (3) - (2)
	(\$000)	(\$000)	(\$000)
2001	391,192	388,564	(2,628)
2002	399,907	416,919	17,012
2003	434,569	449,680	15,111
2004	476,446	495,596	19,150
2005	516,673	520,740	4,067
2006	549,749	570,767	21,019
2007	591,366	612,133	20,767
2008	629,665	638,041	8,376
2009	684,556	693,225	8,669
2010	723,563	748,084	24,520
2011	777,317	785,581	8,264
2012	836,605	844,810	8,204
2013	870,011	898,734	28,723
2014	936,141	928,193	(7,948)
2015	1,002,817	994,314	(8,502)
2016	1,053,022	1,064,942	11,921
2017	1,136,329	1,148,095	11,767
2018	1,206,108	1,214,053	7,946
<b>2019-2028 (PW)</b>	<b>8,044,817</b>	<b>8,102,090</b>	<b>57,274</b>
<b>98CPWRR</b>	<b>12,437,156</b>	<b>12,575,211</b>	<b>138,055</b>

CPWRR - CUMULATIVE PRESENT WORTH OF REVENUE REQUIREMENTS

> IS-3 COST, COLUMN (4), IS COLUMN (3) - COLUMN (2)

**1998 COST-EFFECTIVENESS REVIEW OF IS-3 PROGRAM**  
**BENEFITS OF TRANSFERRING EXISTING IS-3**  
**LOAD TO FIRM LOAD**  
**(RATE IMPACT)**

(1) YEAR	ENERGY					DEMAND						TOTAL BENEFIT		
	(2) ENERGY (MWH)	(3) IS-3 RATE (\$/KWH)	(4) GSLD RATE (\$/KWH)	(5) DELTA RATE (\$/KWH)	(6) ANNUAL BENEFIT (\$000)	(7) AVERAGE MONTHLY BILLING DEMAND (KW)	(8) IS-3 RATE (\$/KW)	(9) GSLD RATE (\$/KW)	(10) DELTA RATE (\$/KW)	(11) MONTHLY BENEFIT (\$000)	(12) ANNUAL BENEFIT (\$000)	(13) NOMINAL (\$000)	(14) PW (\$000)	(15) CUMUL. PW (\$000)
2001	609,933	3.588	3.931	0.343	2,094	207,414	1.45	7.25	5.80	1,203	14,436	16,530	12,573	12,573
2002	572,874	3.588	3.931	0.343	1,967	215,168	1.45	7.25	5.80	1,248	14,976	16,942	11,763	24,338
2003	568,983	3.588	3.931	0.343	1,953	215,668	1.45	7.25	5.80	1,251	15,010	16,964	10,751	35,088
2004	577,553	3.588	3.931	0.343	1,983	216,368	1.45	7.25	5.80	1,255	15,059	17,042	9,859	44,947
2005	586,494	3.588	3.931	0.343	2,014	216,968	1.45	7.25	5.80	1,258	15,101	17,115	9,038	53,985
2006	587,494	3.588	3.931	0.343	2,017	216,968	1.45	7.25	5.80	1,258	15,101	17,118	8,252	62,237
2007	587,494	3.588	3.931	0.343	2,017	209,433	1.45	7.25	5.80	1,215	14,577	16,594	7,302	69,539
2008	587,494	3.588	3.931	0.343	2,017	185,089	1.45	7.25	5.80	1,074	12,882	14,869	5,985	75,523
2009	587,494	3.588	3.931	0.343	2,017	184,317	1.45	7.25	5.80	1,069	12,828	14,845	5,443	80,967
2010	587,494	3.588	3.931	0.343	2,017	183,157	1.45	7.25	5.80	1,062	12,748	14,765	4,942	85,908
2011	587,494	3.588	3.931	0.343	2,017	181,322	1.45	7.25	5.80	1,052	12,620	14,637	4,472	90,380
2012	587,494	3.588	3.931	0.343	2,017	180,356	1.45	7.25	5.80	1,046	12,553	14,570	4,063	94,443
2013	587,494	3.588	3.931	0.343	2,017	179,293	1.45	7.25	5.80	1,040	12,479	14,496	3,690	98,134
2014	587,494	3.588	3.931	0.343	2,017	179,003	1.45	7.25	5.80	1,038	12,459	14,476	3,364	101,498
2015	587,494	3.588	3.931	0.343	2,017	176,782	1.45	7.25	5.80	1,025	12,304	14,321	3,038	104,535
2016	587,494	3.588	3.931	0.343	2,017	175,043	1.45	7.25	5.80	1,015	12,183	14,200	2,750	107,285
2017	587,494	3.588	3.931	0.343	2,017	175,043	1.45	7.25	5.80	1,015	12,183	14,200	2,510	109,795
2018	587,494	3.588	3.931	0.343	2,017	175,043	1.45	7.25	5.80	1,015	12,183	14,200	2,291	112,086
2019	587,494	3.588	3.931	0.343	2,017	175,043	1.45	7.25	5.80	1,015	12,183	14,200	2,091	114,177
2020	587,494	3.588	3.931	0.343	2,017	175,043	1.45	7.25	5.80	1,015	12,183	14,200	1,909	116,096
2021	587,494	3.588	3.931	0.343	2,017	175,043	1.45	7.25	5.80	1,015	12,183	14,200	1,743	117,829
2022	587,494	3.588	3.931	0.343	2,017	175,043	1.45	7.25	5.80	1,015	12,183	14,200	1,591	119,420
2023	587,494	3.588	3.931	0.343	2,017	175,043	1.45	7.25	5.80	1,015	12,183	14,200	1,452	120,872
2024	587,494	3.588	3.931	0.343	2,017	175,043	1.45	7.25	5.80	1,015	12,183	14,200	1,325	122,197
2025	587,494	3.588	3.931	0.343	2,017	175,043	1.45	7.25	5.80	1,015	12,183	14,200	1,210	123,407
2026	587,494	3.588	3.931	0.343	2,017	175,043	1.45	7.25	5.80	1,015	12,183	14,200	1,104	124,511
2027	587,494	3.588	3.931	0.343	2,017	175,043	1.45	7.25	5.80	1,015	12,183	14,200	1,008	125,520
2028	587,494	3.588	3.931	0.343	2,017	175,043	1.45	7.25	5.80	1,015	12,183	14,200	920	126,440

> COLUMNS (9) AND (10) REPRESENT THE DIFFERENCE IN THE GSLD AND IS-3 RATES UNDER THE COMPANY'S CURRENT RATES. DEMAND IS IN MWH OF BILLING DEMAND AND ENERGY IS IN (MWH)

> COLUMN (14) IS THE PRESENT WORTH BENEFIT OF THE TRANSFER OF EXISTING IS-3 LOAD TO THE GSLD RATE. THE NOMINAL BENEFIT, COLUMN (13), IS THE SUM OF THE ANNUAL ENERGY BENEFIT, COLUMN (6), AND THE ANNUAL BILLING DEMAND BENEFIT, COLUMN (12). THE ANNUAL BILLING DEMAND BENEFIT IS THE MONTHLY BENEFIT IN COLUMN (11) x 12 MONTHS PER YEAR.

**1998 COST-EFFECTIVENESS REVIEW OF NON-FIRM LOAD**  
**RATE AND SYSTEM IMPACTS (COST vs BENEFITS) OF TRANSFERRING EXISTING IS-1 AND IS-3**  
**LOAD TO FIRM LOAD**

YEAR	IS-1 NOMINAL and PRESENT WORTH					IS-3 NOMINAL and PRESENT WORTH				
	RATE IMPACT (\$000)	SYSTEM IMPACT (\$000)	NET IMPACT (\$000)	PW (\$000)	CUMUL. PW (\$000)	RATE IMPACT (\$000)	SYSTEM IMPACT (\$000)	NET IMPACT (\$000)	PW (\$000)	CUMUL. PW (\$000)
2001	26,532	10,598	15,935	12,120	12,120	16,530	7,130	9,400	7,149	7,149
2002	26,438	10,678	15,759	10,942	23,062	16,942	7,222	9,721	6,749	13,899
2003	26,315	10,602	15,713	9,959	33,020	16,964	7,159	9,805	6,214	20,113
2004	26,197	9,816	16,381	9,477	42,497	17,042	6,759	10,284	5,949	26,062
2005	26,172	9,214	16,958	8,855	51,453	17,115	6,426	10,689	5,645	31,707
2006	25,995	9,763	16,232	7,825	59,277	17,118	6,785	10,353	4,991	36,698
2007	25,178	8,767	16,411	7,222	66,499	16,594	6,179	10,415	4,583	41,281
2008	22,274	8,195	14,079	5,655	72,154	14,899	5,984	8,916	3,581	44,862
2009	22,143	7,741	14,402	5,281	77,435	14,845	5,678	9,167	3,361	48,223
2010	21,976	7,764	14,212	4,757	82,191	14,785	5,700	9,064	3,034	51,257
2011	21,747	7,701	14,046	4,291	86,483	14,637	5,665	8,972	2,741	53,998
2012	21,599	8,051	13,548	3,778	90,261	14,570	5,926	8,644	2,411	56,409
2013	21,471	7,604	13,867	3,530	93,791	14,496	5,612	8,883	2,261	58,670
2014	21,414	6,898	14,517	3,373	97,165	14,476	5,111	9,365	2,176	60,846
2015	21,179	6,966	14,213	3,015	100,180	14,321	5,165	9,156	1,942	62,789
2016	20,929	11,366	9,563	1,852	102,031	14,200	8,434	5,766	1,116	63,905
2017	20,929	12,004	8,925	1,578	103,609	14,200	8,903	5,297	936	64,841
2018	20,929	12,635	8,294	1,338	104,947	14,200	9,375	4,825	778	65,620
<b>2019-2028 (PW)</b>				<b>4,967</b>	<b>109,914</b>				<b>2,938</b>	<b>68,557</b>
<b>98CPWRR</b>	<b>170,955</b>	<b>66,007</b>	<b>109,914</b>			<b>112,086</b>	<b>46,466</b>	<b>68,557</b>		

DISCOUNT RATE = 9.55%.

RATE CLASS	DEMAND \$/KW	ENERGY ¢/KWH
GSLD FOR IS-1	7.25	3.885
GSLD FOR IS-3	7.25	3.931

RATE CLASS	DEMAND \$/KW	ENERGY ¢/KWH
IS-1	1.45	3.295

RATE CLASS	DEMAND \$/KW	ENERGY ¢/KWH
IS-3	1.45	3.588