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April 30, 2008

HAND DELIVERED

Ms. Ann Cole, Director
Division of Commission Clerk
Florida Public Service Commission
2540 Shumard Oak Boulevard
Tallahassee, FL 32399-0850

080000

Re: Load Research Report - Tampa Electric Company

Dear Ms. Cole:

In compliance with Rule 25-6.0437, enclosed are five copies of Tampa Electric Company's Load Research Report.

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

CMP _____
COM _____
CTR _____
ECR 1 JDB/pp
GCL 1 Enclosures
OPC _____ cc: Paula K. Brown (w/o enc.)
RCA _____
SCR _____
SGA _____
SEC _____
OTH _____

TAMPA ELECTRIC COMPANY
DOCKET NO. 820491-EU
LOAD RESEARCH REPORT
FILED: APRIL 30, 2008

TAMPA ELECTRIC COMPANY

LOAD RESEARCH REPORT

APRIL 30, 2008

REPORTING PERIOD

The data summarized in this report was collected during calendar year 2007. The samples were selected in 2005 and 2006; the recording equipment was installed prior to December 31 of the year the sample was selected in most cases.

SAMPLING PLAN

The sampling plan was formulated and filed with this Commission on August 15, 2005.

RESIDENTIAL CLASS SAMPLE

The residential samples were pre-stratified by housing type. The three housing type categories are single-family detached, multi-family, and mobile-home. This stratification is required because the load patterns for the three housing types are dissimilar and the mobile home population as a percentage of the population varies with the seasons. For example, the percentage of mobile homes was 9.5% and 9.9% in the summer and winter, respectively. Because the sample is stratified by housing type and the inter-strata migration is insignificant, the stratum weights are varied on a month by month basis when estimating class demands. Thus, the estimated demands reflect the seasonal changes in the housing type mix. The sample points were allocated to the strata using Neyman allocation with stratum means and variances estimated from the previous sample results. A minimum sample size of 50 was used in the multi-family and mobile home categories. The resulting sample allocation is shown below.

RESIDENTIAL SERVICE SAMPLE SIZES

Stratum	Sample Size
Single Family Detached	175
Multi Family	50
Mobile Home	50
Total	**275**

GENERAL SERVICE NON-DEMAND CLASS SAMPLE

The stratification variable used for the General Service Non-Demand sample was the annual kilowatt-hour ("kWh") consumption at the time of sample selection. The sample was selected in 2005and comprised of two strata. The stratum boundary was set at 15,000 kWh of annual usage. The sample points were allocated to the strata using Neyman allocation with stratum variances estimated from previous sample results. The allocation is shown below.

GENERAL SERVICE NON-DEMAND SAMPLE SIZES

Stratum	Sample Size
0 – 14,999 kWh	257
15,000 kWh and beyond	243
Total	**500**

GENERAL SERVICE DEMAND CLASS SAMPLE

The stratification variable used for the General Service Demand sample was the highest billed demand in the twelve months prior to sample selection. For cost of service analysis, class demands are separated by voltage level. To facilitate this separation, a stratum of all customers served at primary voltage and one at secondary voltage, but metered at primary voltage was established. For secondary voltage customers, the stratum boundaries were 200 kW and 500 kW. All customers over 500 kW were included in a 100% sampled stratum. For any customers subsequently exceeding this threshold, recorders were installed on the meters and they were included in the sample as well. The sample points in the two sampled strata were allocated using Neyman allocation. The allocation is shown below and reflects totals in the 100% sampled strata as of December 2007.

GENERAL SERVICE DEMAND SAMPLE SIZES

Stratum	Sample Size
Primary Metered/Primary Served	57
Primary Metered/Secondary Served	29
Secondary under 500 kW:	
0 – 199 kW	70
200 – 499 kW	70
Secondary over 499 kW	518
Total	**744**

GENERAL SERVICE LARGE DEMAND CLASS SAMPLE

The General Service Large Demand class has recorders installed on each customer. For cost of service analysis, the customers are divided by voltage level. On a month by month basis, as customers migrate into and out of the GSLD rate, the analysis population changes accordingly. The population size was 221 as of December 2007.

INTERRUPTIBLE SERVICE CLASS SAMPLE

The Interruptible Service class has recorders installed on each customer. For cost of service analysis, the customers are divided by voltage level. In the event customers migrate out of the IS rate, the analysis population is changed accordingly. The population size was 55 as of December 2007.

STUDY METHODOLOGY

Following sample design, the load research study consists of four phases: data collection, editing, storage and analysis. The methodology Tampa Electric used in the phases for this study is basically the same as it has used in the past.

DATA COLLECTION

Once sample sizes, stratum definitions, and sample allocations are determined, sample selection begins. Random numbers are assigned to each customer in the class; then, the list of customers is sorted in ascending order by the assigned random number. The first group of customers on the list is the prime sample, while the following group is used, if necessary, as a source of replacement customers. The replacement list is maintained in random order and used in order, as needed. For customers selected, the standard billing watt-hour meter is replaced with a pulse initiating meter. In addition, a recording device is installed to collect and retain pulse information in fifteen minute intervals. The recorded information is collected, usually on a monthly basis, and processed by the Meter Department through a translation system. The translation system produces transfer files which are uploaded and subsequently input into the LODESTAR System. Data entered into LODESTAR goes through a preliminary screening to determine its acceptability. Unacceptable data is examined by analysts to determine if any portion of the data is useable and if any editing is required. The data is flagged to indicate whether it is suitable for analysis purposes and is then stored permanently.

DATA ANALYSIS

The data flagged as acceptable in the LODESTAR System is then processed through software modules capable of performing stratified or unstratified mean-per-unit, combined ratio or separate ratio analysis. The analyses are run on a calendar month basis and produce statistics at the class level and at the per customer level. For Tampa Electric Company, the best results for sampled classes are obtained through the use of combined ratio expansion. Since the 100% sampled classes do not require statistical expansion, the results for these classes are tabulated with the mean-per-unit module.

SAMPLE POINT REPLACEMENT

Initially and during the course of the load research study, sample points must be replaced. During the installation period, 53 replacements were required for the following reasons: customer access or installation problems (37), customers in suspense (6), and customers with rate changes (10). During the sampling period, 39 removals occurred for the following reasons: rate changes (8), extended periods of suspense (17), customer dissatisfaction or access problems (7), and meter/service removed (7). In all cases, the replacements were selected randomly from customers in the same stratum. As a result of making these replacements, it is assumed that no significant bias is introduced into the results in the process. Because the combined ratio expansion technique was used for the analysis phase in the sampled classes, the assumption is reasonable.

RESULTS

The following tables provide the class coincident and non-coincident demands and their related precision for the calendar year 2007. The precision values reported are calculated at the 90% confidence level.

The winter system coincident peak occurred on February 19, 2007 at 08:00 and the summer coincident peak occurred on August 20, 2007 at 18:00.

RESIDENTIAL CLASS
MONTHLY COINCIDENT DEMANDS
2007

Month	Class Total (MW)	Average Per Customer (kW)	Precision (%)
January	1,682.6	2.88	8.0
February	1,834.4	3.13	7.4
March	1,313.4	2.24	7.1
April	1,601.5	2.73	5.2
May	1,729.0	2.95	4.5
June	2,003.3	3.41	4.5
July	2,091.7	3.57	3.6
August	2,204.8	3.76	4.1
September	1,991.3	3.39	3.7
October	1,845.2	3.14	4.0
November	1,209.6	2.06	5.6
December	1,594.7	2.71	8.4

12 Coincident Peak Average 1,758.5 MW
Precision 2.4 %

RESIDENTIAL CLASS
MONTHLY CLASS NON-COINCIDENT DEMANDS
2007

Month	Class Total (MW)	Average Per Customer (kW)	Precision (%)
January	1,790.0	3.07	8.0
February	2,160.8	3.69	7.8
March	1,406.5	2.40	7.0
April	1,683.0	2.87	6.0
May	1,924.2	3.28	4.4
June	2,086.4	3.56	5.2
July	2,149.2	3.66	4.0
August	2,255.8	3.84	3.9
September	2,065.6	3.52	3.8
October	1,870.7	3.18	4.6
November	1,368.6	2.33	7.7
December	1,594.7	2.71	8.4

RESIDENTIAL CLASS
MONTHLY CUSTOMER NON-COINCIDENT DEMANDS
2007

Month	Class Total (MW)	Average Per Customer (kW)	Precision (%)
January	4,300.6	7.37	5.0
February	4,529.4	7.73	5.2
March	4,133.2	7.04	4.5
April	4,105.6	7.00	4.5
May	4,206.2	7.17	4.1
June	4,229.9	7.21	3.8
July	4,221.1	7.19	4.1
August	4,277.8	7.29	3.9
September	4,131.3	7.04	3.7
October	3,939.2	6.70	4.5
November	3,871.7	6.58	6.5
December	4,277.7	7.26	5.3

GENERAL SERVICE NON-DEMAND
MONTHLY COINCIDENT DEMANDS
2007

Month	Class Total (MW)	Average Per Customer (kW)	Precision (%)
January	149.4	2.32	11.1
February	153.9	2.38	9.4
March	175.6	2.70	7.9
April	186.4	2.86	6.7
May	213.2	3.28	5.5
June	242.4	3.73	5.4
July	242.1	3.72	5.1
August	222.8	3.43	5.5
September	241.7	3.72	5.1
October	234.0	3.61	5.0
November	196.3	3.04	5.7
December	108.5	1.68	8.4

12 Coincident Peak Average 197.2 MW
Precision 3.5 %

GENERAL SERVICE NON-DEMAND
MONTHLY CLASS NON-COINCIDENT DEMANDS
2007

Month	Class Total (MW)	Average Per Customer (kW)	Precision (%)
January	191.7	2.97	9.5
February	202.5	3.13	7.4
March	211.0	3.25	7.4
April	225.6	3.46	6.3
May	237.9	3.66	5.6
June	254.6	3.92	5.0
July	259.2	3.99	5.4
August	266.1	4.09	4.8
September	257.4	3.96	4.6
October	240.8	3.71	5.0
November	203.0	3.14	5.7
December	196.7	3.04	6.3

GENERAL SERVICE NON-DEMAND
MONTHLY CUSTOMER NON-COINCIDENT DEMANDS
2007

Month	Class Total (MW)	Average Per Customer (kW)	Precision (%)
January	433.9	6.72	6.1
February	465.5	7.20	5.3
March	418.3	6.44	5.2
April	422.1	6.48	5.9
May	425.7	6.55	5.9
June	450.4	6.93	5.4
July	445.0	6.84	5.1
August	442.2	6.81	4.9
September	421.8	6.49	4.7
October	415.8	6.41	5.9
November	380.6	5.89	4.9
December	420.8	6.50	6.0

GENERAL SERVICE DEMAND CLASS
MONTHLY COINCIDENT DEMANDS
2007

Month	Class Total (MW)	Average Per Customer (kW)	Precision (%)
January	608.8	43.24	7.6
February	609.0	43.25	7.5
March	736.5	52.53	5.8
April	772.7	55.27	5.3
May	835.4	59.71	5.6
June	881.1	62.89	5.4
July	913.1	64.96	5.7
August	923.4	65.22	5.3
September	919.1	64.51	5.0
October	906.2	62.83	5.1
November	826.7	56.94	6.1
December	541.1	37.30	6.8

12 Coincident Peak Average	789.4 MW
Precision	4.3 %

GENERAL SERVICE DEMAND CLASS
MONTHLY CLASS NON-COINCIDENT DEMANDS
2007

Month	Class Total (MW)	Average Per Customer (kW)	Precision (%)
January	802.9	57.03	6.7
February	772.3	54.85	6.9
March	819.9	58.48	5.9
April	840.2	60.10	5.5
May	877.8	62.74	5.9
June	942.1	67.25	5.3
July	953.3	67.81	6.1
August	986.1	69.65	4.8
September	985.1	69.15	6.1
October	946.1	65.60	6.2
November	864.9	59.57	6.5
December	846.0	58.32	6.7

GENERAL SERVICE DEMAND CLASS
MONTHLY CUSTOMER NON-COINCIDENT DEMANDS
2007

Month	Class Total (MW)	Average Per Customer (kW)	Precision (%)
January	1,151.6	81.79	9.4
February	1,145.4	81.35	8.8
March	1,139.8	81.30	8.1
April	1,167.1	83.48	8.0
May	1,185.2	84.71	7.4
June	1,261.5	90.05	7.3
July	1,237.2	88.01	7.1
August	1,323.0	93.45	8.4
September	1,301.2	91.34	8.7
October	1,278.4	88.64	8.5
November	1,200.2	82.66	9.0
December	1,180.5	81.38	8.0

GENERAL SERVICE LARGE DEMAND CLASS
MONTHLY COINCIDENT DEMANDS
2007

Month	Class Total (MW)	Average Per Customer (kW)	Precision[1] (%)
January	275.1	1,291.55	N/A
February	258.7	1,203.32	N/A
March	321.8	1,489.80	N/A
April	338.3	1,580.63	N/A
May	336.5	1,579.65	N/A
June	360.7	1,669.71	N/A
July	366.4	1,712.21	N/A
August	361.3	1,688.19	N/A
September	365.7	1,685.04	N/A
October	383.3	1,750.37	N/A
November	356.7	1,621.25	N/A
December	267.6	1,210.81	N/A

12 Coincident Peak Average 332.7 MW
Precision NA

(1) Accuracy for this class does not apply since it is 100% sampled and does not require statistical expansion.

GENERAL SERVICE LARGE DEMAND CLASS
MONTHLY CLASS NON-COINCIDENT DEMANDS
2007

Month	Class Total (MW)	Average Per Customer (kW)	Precision[1] (%)
January	342.2	1,606.80	N/A
February	333.5	1,551.10	N/A
March	343.3	1,589.45	N/A
April	356.0	1,663.75	N/A
May	356.6	1,674.18	N/A
June	378.1	1,750.50	N/A
July	376.7	1,760.31	N/A
August	389.7	1,821.16	N/A
September	379.9	1,750.80	N/A
October	393.1	1,795.19	N/A
November	365.8	1,662.50	N/A
December	345.8	1,564.54	N/A

(1) Accuracy for this class does not apply since it is 100% sampled and does not require statistical expansion.

GENERAL SERVICE LARGE DEMAND CLASS
MONTHLY CUSTOMER NON-COINCIDENT DEMANDS
2007

Month	Class Total (MW)	Average Per Customer (kW)	Precision [1] (%)
January	393.9	1,849.20	N/A
February	391.4	1,820.64	N/A
March	410.1	1,898.52	N/A
April	416.9	1,948.21	N/A
May	421.2	1,977.69	N/A
June	437.5	2,025.38	N/A
July	436.6	2,040.41	N/A
August	449.7	2,101.36	N/A
September	450.2	2,074.79	N/A
October	453.6	2,071.02	N/A
November	419.7	1,907.93	N/A
December	414.3	1,874.61	N/A

(1) Accuracy for this class does not apply since it is 100% sampled and does not require statistical expansion.

INTERRUPTIBLE SERVICE CLASS
MONTHLY COINCIDENT DEMANDS
2007

Month	Class Total (MW)	Average Per Customer (kW)	Precision [1] (%)
January	174.9	3,180.67	N/A
February	155.8	2,832.78	N/A
March	184.7	3,357.53	N/A
April	178.9	3,252.85	N/A
May	154.8	2,814.09	N/A
June	151.8	2,759.82	N/A
July	140.0	2,545.13	N/A
August	159.4	2,898.25	N/A
September	168.6	3,065.98	N/A
October	173.2	3,149.04	N/A
November	164.3	2,987.43	N/A
December	160.0	2,909.85	N/A

12 Coincident Peak Average 163.9 MW
Precision NA

(1) Accuracy for this class does not apply since it is 100% sampled and does not require statistical expansion.

INTERRUPTIBLE SERVICE CLASS
MONTHLY CLASS NON-COINCIDENT DEMANDS
2007

Month	Class Total (MW)	Average Per Customer (kW)	Precision [1] (%)
January	224.4	4,079.29	N/A
February	235.4	4,279.20	N/A
March	219.6	3,992.56	N/A
April	217.3	3,951.56	N/A
May	217.0	3,946.25	N/A
June	215.5	3,918.64	N/A
July	226.7	4,122.15	N/A
August	211.4	3,844.38	N/A
September	218.3	3,968.33	N/A
October	225.2	4,094.47	N/A
November	206.6	3,756.18	N/A
December	206.7	3,758.31	N/A

(1) Accuracy for this class does not apply since it is 100% sampled and does not require statistical expansion.

INTERRUPTIBLE SERVICE CLASS
MONTHLY CUSTOMER NON-COINCIDENT DEMANDS
2007

Month	Class Total (MW)	Average Per Customer (kW)	Precision [1] (%)
January	329.2	5,986.24	NA
February	344.1	6,256.49	NA
March	362.3	6,586.75	NA
April	350.9	6,379.89	NA
May	359.4	6,534.46	NA
June	349.9	6,362.04	NA
July	333.2	6,058.19	NA
August	348.1	6,328.75	NA
September	384.5	6,991.56	NA
October	354.7	6,449.44	NA
November	310.4	5,643.52	NA
December	331.9	6,034.80	NA

(1) Accuracy for this class does not apply since it is 100% sampled and does not require statistical expansion.

COINCIDENT AND NON-COINCIDENT PEAK DATES AND TIMES

Month	Coincident Peak	Non-Coincident Peaks				
		RS	GS	GSD	GSLD	IS
Jan	30-08:00	30-07:00	30-10:00	08-12:00	08-12:00	27-14:00
Feb	19-08:00	17-09:00	19-11:00	28-15:00	26-15:00	02-05:00
Mar	28-18:00	28-19:00	28-16:00	01-15:00	01-15:00	28-23:00
Apr	26-18:00	30-18:00	26-16:00	27-15:00	27-14:00	19-04:00
May	04-17:00	06-17:00	03-16:00	17-14:00	14-14:00	06-01:00
Jun	26-17:00	24-17:00	12-15:00	11-15:00	11-14:00	02-22:00
Jul	11-17:00	08-19:00	10-15:00	11-14:00	12-14:00	27-09:00
Aug	20-18:00	11-16:00	21-15:00	29-15:00	09-14:00	17-07:00
Sep	13-17:00	16-17:00	06-16:00	12-15:00	18-14:00	22-00:00
Oct	04-17:00	07-17:00	04-15:00	18-14:00	04-14:00	24-12:00
Nov	01-17:00	26-19:00	01-16:00	01-16:00	01-14:00	03-16:00
Dec	17-21:00	17-21:00	13-15:00	10-14:00	12-14:00	08-04:00

CLASS TOTAL
MONTHLY ENERGY (MWH)

Month	RS	GS	GSD	GSLD	IS
Jan	620,945	77,040	406,482	194,798	132,955
Feb	594,222	71,675	360,053	174,116	107,831
Mar	575,460	81,066	417,450	202,543	118,239
Apr	607,594	81,534	414,040	200,468	113,566
May	783,524	95,779	466,528	216,063	115,643
Jun	877,936	101,891	475,077	220,500	107,266
Jul	963,476	106,564	494,863	226,014	114,372
Aug	1,022,633	114,960	531,364	238,024	119,673
Sep	881,494	99,154	492,501	223,563	116,100
Oct	780,415	95,821	490,221	234,177	123,798
Nov	534,730	72,380	412,059	197,384	114,612
Dec	616,134	74,739	410,657	198,506	111,070
Total	**8,858,563**	**1,072,602**	**5,371,295**	**2,526,154**	**1,395,123**

Note: Totals may not add due to rounding.

CUSTOMER AVERAGE
MONTHLY ENERGY (kWh)

Month	RS	GS	GSD	GSLD	IS
Jan	1,064	1,194	28,871	914,543	2,417,366
Feb	1,015	1,108	25,572	809,841	1,960,565
Mar	980	1,248	29,775	937,698	2,149,794
Apr	1,036	1,252	29,614	936,768	2,064,829
May	1,336	1,474	33,342	1,014,378	2,102,594
Jun	1,497	1,567	33,912	1,020,832	1,950,284
Jul	1,642	1,639	35,204	1,056,140	2,079,490
Aug	1,742	1,769	37,531	1,112,262	2,175,866
Sep	1,501	1,526	34,571	1,030,244	2,110,907
Oct	1,327	1,478	33,991	1,069,300	2,250,865
Nov	909	1,119	28,379	897,198	2,083,862
Dec	1,046	1,155	28,309	898,216	2,019,448

COINCIDENT PEAK LOAD FACTORS

Month	RS	GS	GSD	GSLD	IS
Jan	50%	69%	90%	95%	102%
Feb	48%	69%	88%	100%	103%
Mar	59%	62%	76%	85%	86%
Apr	53%	61%	74%	82%	88%
May	61%	60%	75%	86%	100%
Jun	61%	58%	75%	85%	98%
Jul	62%	59%	73%	83%	110%
Aug	62%	69%	77%	89%	101%
Sep	61%	57%	74%	85%	96%
Oct	57%	55%	73%	82%	96%
Nov	61%	55%	69%	77%	97%
Dec	52%	93%	102%	100%	93%
12 CP AVG	57%	64%	79%	87%	98%

NON-COINCIDENT PEAK LOAD FACTORS

Month	RS	GS	GSD	GSLD	IS
Jan	47%	54%	68%	77%	80%
Feb	41%	53%	69%	78%	68%
Mar	55%	52%	68%	79%	72%
Apr	50%	50%	68%	78%	88%
May	55%	54%	71%	81%	72%
Jun	58%	56%	70%	81%	69%
Jul	60%	55%	70%	81%	68%
Aug	61%	58%	72%	82%	76%
Sep	59%	54%	69%	85%	74%
Oct	56%	53%	70%	80%	74%
Nov	54%	50%	66%	75%	77%
Dec	52%	51%	65%	77%	72%