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November 7, 1990

HAND DELIVERED

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Mr. Steve C. Tribble, Director
Division of Records and Reporting
Florida Public Service Commission
101 East Gaines Street
Tallahassee, Florida 32399-0850

Re: Planning Hearings on Load Forecasts, Generation
Expansion Plans, and Cogeneration Prices for
Peninsular Florida's Electric Utilities;
FPSC Docket No. 900704-EU

Dear Mr. Tribble:

On October 30, 1990 we filed Tampa Electric's Ten Year Power Resource Plan along with proposed tariff sheets in response to Order No. 23625 issued in Docket No. 891049-EU on October 16, 1990. Since that time Tampa Electric has made certain improvements to six of the above-referenced tariff sheets. Enclosed are fifteen copies of the following revised tariff sheets which we would request that you substitute in lieu of the corresponding proposed tariff sheets filed on October 30, 1990:

- Original Sheet No. 8.345
- Original Sheet No. 8.346
- Original Sheet No. 8.348
- Original Sheet No. 8.351
- Second Revised Sheet No. 8.355
- Original Sheet No. 8.357

- ACK
- AFA
- APP
- CAF
- CMU
- CTR
- EAG
- LEG
- LIN
- OPC
- RCH
- SEC
- WAS
- OTH

Also enclosed are copies of the revised tariff sheets marked in legislative format to reflect the changes Tampa Electric has made.

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
James D. Beasley

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& EAG*

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22
FPC - DIVISION OF RECORDS

DOCUMENT NUMBER-DATE

09992 NOV-7 1990

FPSC-RECORDS/REPORTING

JDB/pp
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TAMPA ELECTRIC COMPANY'S DESIGNATED AVOIDED UNIT
MINIMUM PERFORMANCE STANDARDS
SCHEDULE COG-2
APPENDIX C

Tampa Electric Company's (TEC) Standard Offer Contract will be based on a 1996, 75 megawatt (MW), Combustion Turbine. Due to our requirements for peaking power in the mid to late 1990's, and the two (2) year minimum lead time required for its construction, the 1996 combustion turbine is TEC's designated avoided unit offered to QFs (small qualifying facilities below 75 MWs and solid waste facilities) under a Standard Offer Contract effective January 1, 1994 through December 31, 2005.

All Firm Capacity and Energy committed by QFs and solid waste facilities shall meet the following Minimum Performance Standards (MPS), which shall approximate the anticipated peak and off-peak availability and net operating factor of the 1996, 75 MW, combustion turbine designated avoided unit, over the term of the contract. The QF may elect either a **Non-Dispatchable** or a **Dispatchable** option depending on his particular operation:

Option 1 (Non-Dispatchable):

For QF processes that are non-dispatchable operations, and typically operate on a continuous (base loaded) basis, the QF may elect a non-dispatch option. Under this option, the QF's performance for the purpose of receiving capacity payments will be measured by Non-Dispatch-Option Minimum Performance Standards:

1. Availability - The QF shall provide one megawatt or greater of export to TEC at a monthly minimum of 70% of all hours in the load zones specified for this option (excluding 2 weeks for annual planned maintenance to be scheduled and coordinated in advance with TEC). The QF must meet the minimum performance standards for availability on a 12-month rolling weighted average basis in order to receive a monthly capacity payment. TEC shall record power flow from the QF into TEC's electric grid and this will be a measurement of the QF's generator availability. In addition;
2. Net Operating Factors (NOF) - The QF shall provide committed capacity into the TEC electric grid in order to meet or exceed the following annual weighted average net operating factor on a 12-month rolling weighted average basis. The QF's composite net operating factor is defined as the sum of all megawatthours provided to TEC during a specified number of hours (service hours) divided by the product of the "contracted committed capacity" megawatts and the service hours for the month. The QF must meet or exceed the minimum performance standards for the annual weighted average net operating factor on a 12-month rolling weighted average basis in order to receive monthly capacity payments.

Annual Weighted Average Net Operating Factor

Minimum Requirement 87.6%

- 2.1 Service Hours - are defined as the number of hours during a month that TEC's system load is expected to peak and/or during which unexpected critical unit failure(s) may occur. In order to receive capacity payments, a QF generator will be required to provide capacity which meets or exceeds the appropriate monthly composite NOF percentage during the service hours in order to approximate the peaking and back-up service required from the 75 megawatt combustion turbine the Standard Offer is designed to avoid. The service hours for each month are as follows:

	<u>Service Hours - Monthly</u>		<u>Sum</u>
	<u>Weekday</u>	<u>Weekend</u>	
Jan	4	1	5
Feb	3	1	4
Mar	5	3	8
Apr	19	14	33
May	17	13	30
Jun	50	34	84
Jul	38	24	62
Aug	51	38	89
Sep	55	37	92
Oct	46	24	70
Nov	49	29	78
Dec	5	6	11

- 2.2 Threshold Hours - are defined to be a subset of all hours in the load zones for the month. Threshold hours are calculated by dividing service hours by the availability percentage (70%) rounded up to the nearest whole hour. Threshold hours represent the total number of hours each month from which the QF's monthly performance will be evaluated. In order to determine whether or not the QF has met the minimum NOF criteria, the QF's maximum hourly performance, based on a number of hours equivalent to the service hours specified for each month, will be selected from the following threshold hours:

B) Net Operating Factor - The QF has provided committed capacity in March 1994 during the load zones for March (6 AM - 1 PM & 4 PM - 11 PM).

Step 1. Since there are 11 (7 weekday & 4 weekend) threshold hours defined for March, 11 of TEC's highest peaks will be identified within the load zones defined (7 weekday & 4 weekend). The QF export contribution will be identified coincident with each of these peaks. For instance,

<u>Clock Hour</u>	<u>Threshold Hour</u>	<u>TEC Peak</u>	<u>QF Export</u>
<u>Weekday</u>			
1 PM	1	2700	23
7 AM	2	2550	15
8 AM	3	2600	20
5 PM	4	2330	25
1 PM	5	2420	24
8 AM	6	2200	25
9 AM	7	2310	25
<u>Weekend</u>			
10 AM	8	1750	0
9 PM	9	1612	20
6 PM	10	1580	24
7 AM	11	1630	25

Step 2. Since there are 8 (5 weekday & 3 weekend) service hours defined for March, 8 of the QF's highest export megawatts (5 weekday & 3 weekend) will be selected to determine his net operating factor. For instance,

QF's Composite Net Operating Factor For March
 $= (25 + 25 + 25 + 24 + 23) + (25 + 24 + 20) /$
 $(25 \times 8) = 95.5\%$

Step 3. A rolling weighted average (not to exceed 12 months) is calculated based on the number of service hours in each month and the QF's performance measured against the composite NOF for the prior months of January and February. For instance,

Rolling Weighted Average (January thru March)
 $\text{NOF} = [(96.8 \times 5) + (97.2 \times 4) + (95.5 \times 8)] /$
 $(5 + 4 + 8) = 96.3\%$

Since the rolling weighted average of 96.3 percent exceeds the minimum defined annual weighted average NOF of 87.6 percent, the NOF criteria for March has been satisfied.

3. Net Operating Factors (NOF) - The QF shall provide committed capacity into the TEC electric grid on an "on-call" basis. TEC dispatch personnel shall call the QF operator at a minimum of 15 minutes prior to the peak export required from the QF. The TEC dispatcher will indicate the starting time and ending time (Threshold Hours) that committed capacity is required from the QF. The QF's monthly composite net operating factor will be calculated and included in the QF's 12-month rolling weighted average net operating factor. The QF's 12-month rolling weighted average will then be compared to TEC's annual weighted average NOF. The QF must meet or exceed TEC's NOF minimum requirements in order to receive monthly capacity payments.

Annual Weighted Average Net Operating Factor

Minimum Requirement 87.6%

- 3.1 Service Hours - are defined as the number of hours during a month that TEC's system load is expected to peak and/or during which unexpected critical unit failure(s) may occur. In order to receive capacity payments, a QF generator will be required to provide capacity which meets or exceeds the appropriate monthly composite NOF percentage during the service hours in order to approximate the peaking and back-up service required from the 75 megawatt combustion turbine the Standard Offer is designed to avoid. The service hours for each month are as follows:

	<u>Service Hours - Monthly</u>		<u>Sum</u>
	<u>Weekday</u>	<u>Weekend</u>	
Jan	4	1	5
Feb	3	1	4
Mar	5	3	8
Apr	19	14	33
May	17	13	30
Jun	50	34	84
Jul	38	24	62
Aug	51	38	89
Sep	55	37	92
Oct	46	24	70
Nov	49	29	78
Dec	5	6	11

QF's Composite Net Operating Factor For March
 $= (25 + 25 + 24 + 23) + (25 + 25 + 24) / (25 \times 7) = 97.7\%$

Step 4. A 12-month rolling weighted average (not to exceed 12 months) is calculated based on the number of service hours in each month, and the QF's performance measured against the composite NOF for the prior months of January and February. For instance,

Rolling Weighted Average (January thru March)
 $\text{NOF} = [(96.8 \times 5) + (97.2 \times 4) + (97.7 \times 7)] / (5 + 4 + 7) = 97.3\%$

Since the rolling weighted average of 97.3 percent exceeds the minimum defined annual weighted average NOF of 87.6 percent, the NOF criteria for March has been satisfied.

Example

Actual Dispatch Hours Greater Than Expected Threshold Hours (3.4)

A QF has signed a Standard Offer Contract with TEC for 25 MWs; the QF has elected a dispatch option and early capacity payment; the QF came on-line January 1994. The QF has been dispatched fifteen times during weekday, and eight times during the weekend subperiods, which is greater than Expected Dispatch Hours for the month in each period. Determination is being made as to whether the QF is entitled to a capacity payment following the month of March 1994.

- A) Availability - The QF has been recorded as supplying export power into the TEC electric grid for 700 hours at 1 MW or greater. This is greater than 53.42 percent of all hours in the load zones, January-March 1994 (700 hours/1260 hours $\times 100\% = 55.6\%$). Therefore, the availability requirement has been met.
- B) Net Operating Factor (NOF) - The QF has provided committed capacity in March 1994 during the load zones for March (6 AM - 1 PM & 4 PM - 11 PM).

Step 1. Since actual dispatch hours exceed expected dispatch threshold hours, the Service Hours are already defined for this example and calculation is not required.

Step 2. Since the QF has been dispatched 23 times (15 weekday & 8 weekend) during the month of March, the QF's export contribution will be identified accordingly. For instance,

$$\begin{aligned} &\text{Rolling Weighted Average January thru March} \\ \text{NOF} &= [(96.8 \times 5) + (97.2 \times 4) + (100.0 \times 8)] \\ &/ (5 + 4 + 8) = 98.4\% \end{aligned}$$

Since the rolling weighted average of 98.4 percent exceeds the minimum defined annual weighted average NOF of 87.6 percent, the NOF criteria for March has been satisfied.

- C) Capacity Payment - In either of the two examples, both the availability and net operating factor criteria have been met, consequently, the QF is entitled to the early capacity payment for March.
 - D) Energy Payment - The QF is entitled to energy payment regardless of the MPS criteria requirements for capacity payment. The basis for the QF energy payment, prior to the in-service date of the avoided unit, will be the "system avoid energy cost." In the event the QF is dispatched following the in-service date for this avoided unit, the "designated avoided unit's energy cost" will be the basis for energy payment for all hours the QF was dispatched.
5. Maintenance Effects - The QF shall coordinate scheduled outages with TEC and promptly provide updates to these scheduled outages. Preferably scheduled outages should take place in low-load months, typically in the months of May and November each year. For purposes of these MPSs, the QF will be measured for availability and net operating factor during those typical peak load zones excluding scheduled outage hours not to exceed two weeks (14 days) during the calendar year for scheduled maintenance.