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June 25, 1997

HAND DELIVERED

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

Re: Determination of appropriate cost allocation and regulatory treatment of total revenues associated with wholesale sales to Florida Municipal Power Agency and City of Lakeland by Tampa Electric Company;  
FPSC Docket No. 970171-EU

Dear Ms. Bayo:

Enclosed for filing on behalf of Tampa Electric in the above docket are the original and fifteen (15) copies of Late Filed Exhibit 14 of Witness Karen A. Branick.

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/bjm  
Enclosures

cc: All Parties of Record (w/enc.)

DOCUMENT NUMBER DATE  
06400 JUN 25 5

**CERTIFICATE OF SERVICE**

I HEREBY CERTIFY that a true copy of the foregoing Late Filed Exhibit 14 of Karen A. Branick, filed on behalf of Tampa Electric Company, has been furnished by U. S. Mail or hand deliver (\*) on this 25<sup>th</sup> day of June, 1997 to the following:

Ms. Leslie Paugh\*  
Staff Counsel  
Division of Legal Services  
Florida Public Service  
Commission  
2540 Shumard Oak Boulevard  
Tallahassee, FL 32399-0850

Mr. Gary Lawrence  
City of Lakeland  
501 East Lemon Street  
Lakeland, FL 33801-5079

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Tallahassee, FL 32399-1400

  
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ATTORNEY

## Fuel Cost Comparison

Late-file exhibit 14 compares the system incremental fuel and purchased power expense rate for the avoided energy payment made to as-available cogeneration purchases versus the system incremental fuel expense rate associated with the off-system sales to the Florida Municipal Power Agency ("FMPA") and the City of Lakeland. This comparison is illustrated graphically on page 3 of 3. The graph contains the actual "real-time" incremental fuel and purchased power expense for the month of May 1997. The calculations were done based on actual system operating conditions for each of the 744 hours in May.

The as-available cogeneration fuel expense rate (abbreviated as AAQF on the graph) is computed using the Commission approved methodology for determining system incremental fuel expense that is avoided due to the presence of the as-available energy purchases. These values are computed "real-time" on an hourly basis using the fuel expense used for economic dispatch and the actual operating conditions and characteristics of Tampa Electric's generation. As described in the Commission approved tariff, the as-available avoided energy rate is computed as a decrement from the top of all retail load plus all firm wholesale load, including the sales to the Florida Municipal Power Agency ("FMPA") and the City of Lakeland.

For the 744 hours of May, the hourly as-available cogeneration fuel expense rate averaged \$16.27 per MWh which equates to \$16.55 when adjusted for losses at transmission level voltage. This rate is based on the megawatts of as-available cogeneration being purchased each hour. For May, as-available energy varied between 0 and 29 MW and averaged only 2 MW.

To derive the actual system incremental fuel and purchased power expense for the sales to FMPA and Lakeland, the as-available energy computation was re-run for all 744 hours. Instead of using the block size of the as-available purchases, the block size was equal to the megawatts being sold to FMPA and Lakeland every hour. Thus, the FMPA and Lakeland sales were treated as being at the very top of the incremental cost curve for the company. This placement of the FMPA and Lakeland sales relative to the as-available cogeneration block was illustrated by Exhibit 13 in the hearing held June 11, 1997. For the month of May, FMPA took 35 MW of capacity every hour while Lakeland did not take any energy, so the block size was 35 MW every hour. For this 35 MW block size, the actual incremental fuel and purchased power expense averaged \$16.15 per MWh, or \$16.43 when adjusted for losses. Thus, as one would expect based on lowest incremental cost dispatch theory, the as-available cogeneration rate is actually higher than the actual system incremental fuel expense incurred to make the sales to FMPA and Lakeland.

Since the FMPA sale increases to 150 MW in 2000, the computation was also re-run for a 150 MW block each hour in order to assess the effects of this block size on the true incremental cost for the sales. The resulting average rate is \$15.92 per MWh which equals \$16.19 per MWh when adjusted for losses. As expected, the actual system incremental fuel expense decreases as the block size

increases. The as-available energy rate is computed for a relatively small block size at the very "top" of all retail and firm wholesale sales. Since the units are dispatched in the sequence of lowest variable cost units first, the incremental cost for the "top" segment will be the highest cost. The larger block sizes are a blend of the higher cost as-available block plus lower variable cost resources serving the energy "below" the as-available block. For May 1997, the as-available rate overstates actual system incremental fuel rate for the FMPA and Lakeland sales by a small amount. However, with larger differentials in the block size of as-available energy and firm sales that are treated by the proposed method and with overall increases in incremental fuel cost through time, it is conceivable that the as-available rate could significantly overstate the system incremental fuel expense. In the cost benefit analysis, the actual block size of the sales is modeled so as to capture the incremental fuel expense for that block. For 1997, the projected system incremental fuel and purchased power expense is \$17.62 per MWh including the adjustment for losses.

In an effort to be accurate in crediting the correct expense through the fuel clause and in order to eliminate the potential for over crediting discussed above, Tampa Electric will make the additional calculation for the fuel expense for the FMPA and Lakeland sales separately from the as-available rate calculation. This additional calculation will be based on the actual MW block size for these sales therefore resulting in the more appropriate amount credited to the fuel clause.

# System Incremental Fuel and Pur. Power

