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November 16, 1998

HAND DELIVERED

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

Re: Fuel and Purchased Power Cost Recovery Clause
with Generating Performance Incentive Factor;
FPSC Docket No. 980001-EI

Dear Ms. Bayo:

Enclosed for filing in the above docket, on behalf of Tampa Electric Company, are the original and ten (10) copies of each of the following:

1. Prepared Direct Testimony of Deirdre A. Brown. 12840-98

2. Prepared Direct Testimony of Mark J. Hornick, 12841-98

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
Enclosures

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

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ORIGINAL

TAMPA ELECTRIC COMPANY
DOCKET NO. 980001-EI
FILED 11/16/98

BEFORE THE PUBLIC SERVICE COMMISSION

PREPARED DIRECT TESTIMONY

OF

MARK J. HORNICK

Q. Please state your name, address, occupation and employer.

A. My name is Mark J. Hornick. My business address is 702 North Franklin Street, Tampa, Florida 33602. I am employed by Tampa Electric Company in the position of Director, Fuels in the Energy Supply Department.

Q. Please provide a brief outline of your educational background and business experience.

A. I received a Bachelor of Science Degree in Mechanical Engineering in 1981 from the University of South Florida. I began my career with Tampa Electric in 1981 as an Engineer Associate in the Production Department. I have held a number of different engineering positions at Tampa Electric's power generating stations including Instrument and Controls Engineer, Performance Engineer and Senior Operations Engineer at Gannon Station and Senior Operations Engineer at Hookers Point Station. In August 1990, I was promoted to Manager - Operations at Hookers Point Station.

In September of 1991, I was transferred to Big Bend Station as Manager - Support. From September 1991 to July 1998, my managerial responsibilities at Big Bend varied to include Electrical Maintenance, Instrument and Control Maintenance, Coal Field Operations, Engineering, Water and Fuels Analysis, Engineering and Plant Operations. In July 1998, I was promoted to my current position as Director - Fuels. I am responsible for managing Tampa Electric's fuel-related activities including planning, procurement, inventory, usage and combustion by-product management.

Q. What is the purpose of your testimony in this proceeding?

A. The purpose of my testimony is to support Tampa Electric's benchmark filings related to its affiliate, Gatliff Coal Company (Gatliff) for coal purchases for the period 1993 through 1997. My testimony will also support the appropriateness of heat content adjustments as important safeguards in coal supply contracts and describe the appropriate treatment of these adjustments for comparison to the Commission-approved benchmark.

Q. Have you prepared an exhibit in support of your testimony?

A. Yes. Exhibit __ (MJH-1), containing documents entitled

1) "Heat Content Adjustment Example" and 2) "Gatliff Benchmark Summary and Heat Content Adjustments," was prepared under my direction and supervision.

Q. Please summarize your testimony.

A. The essence of my testimony is that the exclusion of heat content adjustments is required for a valid benchmark price comparison and that the heat content adjustments are appropriate to include in fuel expense for recovery because they ensure that total fuel expense is the same as if the coal had been delivered at the standard heating value.

It is standard practice for the electric utility industry to purchase coal at an agreed upon price per ton assuming a specified heating value for the coal. In the case of Tampa Electric's agreement with Gatliff, this price per ton, FOB mine, is based on a specified heating value of 12,550 Btu per pound. This reflects the fact that the value of the commodity being purchased lies in its heat content. Tampa Electric uses this standard industry practice for all of its coal supply contracts, including the contract with Gatliff, and the standard of 12,550 Btu per pound has been in place since 1988.

The purpose of the benchmark is to provide a method for the Commission to assess the reasonableness of the price paid for coal supplied to Tampa Electric by Gatliff. This benchmark, while expressed in dollars per ton, has the necessary underlying assumption of a standard heating value associated with each ton supplied. Without this heating value standard, the benchmark is of no use in determining the reasonableness of coal pricing.

Since 1988 Tampa Electric has used the payments made to Gatliff on a dollar per ton basis, FOB mine, to be compared to the benchmark price. This methodology, which Tampa Electric has diligently followed, is demonstrated in Attachment A to the 1993 Gatliff Stipulation, Document 2 of Tampa Electric Witness Deirdre A. Brown's Exhibit No. __ (DAB-1). This treatment is both appropriate and necessary since the FOB mine payments and the benchmark are based on the same standard heating value.

Heat content adjustments are structured to provide a credit to the buyer for coal supplied with a heat content lower than that specified and, conversely, to provide a payment to the supplier if the delivered heat content is higher. These adjustments are essential to protect Tampa Electric and its customers against the delivery of low Btu coal and

to ensure that the total fuel costs of the utility are not impacted by changes in heating value. Credits to the buyer for low heat content offset the cost of having to purchase and deliver more coal to make up for the Btu deficiency. Payments for higher heat content, on the other hand, compensate the supplier for delivering the additional Btu's.

An assertion that the heat content adjustments should be included in the actual price for comparison to the benchmark is incorrect. Doing so would result in an "apples and oranges" comparison because of dissimilar heating values. The heat content adjustments ensure that Tampa Electric is held harmless to changes in heat content of the coal supplied and have been properly excluded from the benchmark comparison.

Q. What is the commodity that Gatliff supplies to Tampa Electric?

A. The commodity supplied to Tampa Electric is the heat content contained in coal which is used for boiler fuel. Tampa Electric converts the chemical energy inherent in the coal to electrical energy for use by Tampa Electric's customers. The standard unit of measure of this chemical

energy is the British thermal unit (Btu) which, in this instance, refers to the heat content in a pound of coal.

Q. Is the fact that Tampa Electric is purchasing heat content reflected in all of Tampa Electric's coal supply contracts?

A. Yes. All contracts between Tampa Electric and its coal suppliers, including Gatliff, acknowledge that the commodity being purchased is the heat content of coal. This is a universally accepted practice for the purchase of coal for use in power generation.

The Gatliff coal contract provides a base selling price for coal which has an as-received heat content of 12,550 Btu per pound. It also provides for a quarterly quality price adjustment to account for variances in the heat content of coal delivered, both above and below 12,550 Btu per pound, compared to the quality specified in the contract. The heat content adjustment is not unique to the Gatliff coal supply agreement. Heat content adjustments are included in every long-term coal purchase agreement currently in effect with Tampa Electric.

Q. What is the purpose of the benchmark calculation?

A. The benchmark calculation provides a method for the Commission to annually review the reasonableness of the FOB mine price of coal supplied to Tampa Electric by Gatliff.

Q. How do the coal payments to Gatliff acknowledge and account for the heat content of the coal?

A. The total payment to Gatliff is specified by the terms of the contract. A price per ton payment, FOB mine, is made in accordance with the contract for all tons supplied based on the specified heat content of 12,550 Btu per pound. On a quarterly basis, an additional payment or credit is calculated based on any differences from the specified heat content of 12,550 Btu per pound. In other words, if the actual delivered heat content is lower than specified by the contract, a credit is given to Tampa Electric. Conversely, if the actual delivered heat content is higher than specified, Gatliff receives a payment.

Q. During 1993 through 1997, how has Tampa Electric reported its weighted price per ton, FOB mine, for comparison to the benchmark?

A. Tampa Electric has followed the methodology dictated by the 1993 Gatliff Stipulation. This methodology

uses the weighted average FOB mine price per ton, which is exclusive of heat content adjustments for reporting total cost. This FOB mine price per ton is stated on the same basis as the benchmark price per ton and is, therefore, directly comparable to the benchmark. The FOB mine price per ton, which excludes heat content adjustments, was less than or equal to the benchmark in every year for the period 1993 through 1997.

Q. Has Tampa Electric consistently used this methodology to calculate and report actual costs paid to Gatliff throughout the term of the contract?

A. Yes. Tampa Electric has used this methodology consistently since 1988 when a market-based benchmark was first established.

Q. Why are heat content adjustment payments to or from Gatliff excluded from the reported cost of Gatliff coal to the dollar per ton benchmark?

A. Inclusion of the heat content adjustment payments for quality above or below 12,550 Btu per pound in a comparison with the dollar per ton benchmark based on a standard 12,550 Btu per pound would make the comparison invalid.

Accurate assessments of the reasonableness of the price per ton of coal can only be made based on a standard ton with a specified heat content. Since 1988 this standard value has been 12,550 Btu per pound. Adding the adjustments in the FOB mine payments would result in a meaningless comparison of dissimilar heat content and, therefore, coals of different value.

Q. If heat content adjustments are not included in the benchmark calculations, what assurance does the Commission have that these payments are appropriate?

A. Heat content adjustment payments are structured to hold harmless Tampa Electric in the likely event that delivered Btu's are different than the specified standard of 12,550 Btu per pound. Heat content adjustments are based on the contract FOB mine price (which is already directly compared to the benchmark), the actual buyer's transportation cost, and the actual heating value of the coal. If delivered Btu's are less than the standard, Gatliff is required to credit Tampa Electric to directly compensate for the cost of additional tons of coal needing to be purchased and delivered. Conversely, if the delivered Btu's are more than the standard, Tampa Electric makes a payment to Gatliff to compensate for fewer tons needing to be

purchased and delivered to obtain the required heat content. The total cost to Tampa Electric and its customers would be the same under either scenario. These heat content adjustments are essential to ensure that Tampa Electric and its customers are protected from a supplier delivering coal with low heat content.

By way of an example, Document 1 of Exhibit __ (MJH-1) demonstrates the heat content impact on total payments. Note that the overall fuel expense on line 8 remains unchanged for each of the three heat content examples.

Document 2 of Exhibit __ (MJH-1) provides an overview of payments to Gatliff and comparisons to the benchmarks, as well as the impacts of heat content adjustments, for 1993 through 1997. In each year, the FOB mine payments have been at or below the benchmark. Line 6 of the document shows that the actual heating value has been above the standard in each year. Line 8 shows the tons of coal not needed because the heat content was higher. The savings for receiving higher Btu coal (shown on line 10) were greater than the heat content adjustments in each year (shown on line 11). This demonstrates that the heat content adjustments and, therefore, the total payments to Gatliff were appropriate.

Q. Does this conclude your testimony?

A. Yes, it does.

DOCKET NO. 980001-EI
TAMPA ELECTRIC COMPANY
(MJH-1)
WITNESS: MARK J. HORNICK
FILED: NOVEMBER 16, 1998

INDEX OF EXHIBIT

Heat Content Adjustment Example

	Contract at 12,550 Btu/lb.	Lower Heat Content at 12,350 Btu/lb.	Higher Heat Content at 12,750 Btu/lb.
1 Thermal Input Required, MBtu	25,100,000	25,100,000	25,100,000
2 Equivalent Volume of Coal, tons	1,000,000	1,016,194	984,314
3 Coal Commodity Cost, $/ton	$40	$40	$40
4 Coal Transportation Cost, $/ton	$20	$20	$20
5 Coal Commodity Expense, $	$40,000,000	$40,647,773	$39,372,549
6 Coal Transportation Expense, $	$20,000,000	$20,323,887	$19,686,275
7 Heat Content Adjustment, $	n/a	-$971,660	$941,176
8 Fuel Expense, $	$60,000,000	$60,000,000	$60,000,000
9 Effective Price, $/MBtu	$2.39	$2.39	$2.39

Notes:
Values shown are for illustration only and do not reflect actual or projected costs and volumes.

Heat Content Adjustment = (F.O.B. mine price + buyer's transportation cost) x (Actual heat content - 12550)/12550

A negative value indicates a penalty due to lower heat content than contract; a positive value indicates a credit due to higher heat content.

GATLIFF BENCHMARK SUMMARY AND HEAT CONTENT ADJUSTMENTS

Gatliff Market Price Comparison	1993	1994	1995	1996	1997
1 Benchmark price per ton	$39.03	$40.08	$41.12	$42.48	$43.20
2 Average price per ton FOB mine	$39.03	$40.08	$40.14		
3 Tons purchased	2,129,457.59	1,913,438.16	1,546,426.52	1,223,737.50	1,004,249.25
4 Total payments FOb mine	$83,112,730.00	$76,690,601.00	$62,074,725.32		
5 **Over/(Under) Benchmark as Reported**	**$0.00**	**$0.00**	**($1,514,333.18)**		
Heat Content Adjustment Payments					
6 Actual average Btu's / lb	12,744	12,726	12,849	12,743	12,778
7 Additional/(fewer) Million Btu's received	826,229.54	673,530.23	924,763.06	472,362.68	457,937.66
8 Tons not needed to be burned	32,917.51	26,833.87	36,843.15	18,819.23	18,244.53
9 Actual price per ton (coal + transportation)	$61.65	$61.57	$57.32		
10 (Savings)/cost from not burning additional tons	($2,029,364.60)	($1,652,161.61)	($2,111,849.34)		
11 Actual heat adjustment premium/(penalty)	$2,021,067.19	$1,642,039.66	$2,100,618.51		
12 **Net (savings)/expense from Btu impact**	**($8,297.41)**	**($10,121.95)**	**($11,230.83)**		

EXHIBIT NO. _____
DOCKET NO. 980001-EI
TAMPA ELECTRIC COMPANY
(MJH-1)
DOCUMENT NO. 2
FILED: NOVEMBER 16, 1998
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