

CONFIDENTIAL

17/1m 10-27-08
DECLASSIFIED



080001-EI

BEFORE THE
FLORIDA PUBLIC SERVICE COMMISSION

DOCKET NO. 060001-EI

IN RE: FUEL & PURCHASED POWER COST RECOVERY

AND

CAPACITY COST RECOVERY

PROJECTIONS

JANUARY 2007 THROUGH DECEMBER 2007

TESTIMONY AND EXHIBIT

OF

JOANN T. WEHLE

DECLASSIFIED

CONFIDENTIAL

CONFIDENTIAL

DOCUMENT NUMBER-DATE

08066 SEP 18

FPSC-COMMISSION CLERK

1 BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

2 PREPARED DIRECT TESTIMONY

3 OF

4 JOANN T. WEHLE

DECLASSIFIED

5
6 Q. Please state your name, address, occupation and employer.

7
8 A. My name is Joann T. Wehle. My business address is 702 N.
9 Franklin Street, Tampa, Florida 33602. I am employed by
10 Tampa Electric Company ("Tampa Electric" or "company") as
11 Director, Wholesale Marketing & Fuels.

12
13 Q. Please provide a brief outline of your educational background
14 and business experience.

15
16 A. I received a Bachelor of Business Administration Degree in
17 Accounting in 1985 from St. Mary's College in Notre Dame,
18 Indiana. I am a CPA in the State of Florida and worked in
19 several accounting positions prior to joining Tampa Electric.
20 I began my career with Tampa Electric in 1990 as an auditor
21 in the Audit Services Department. I became Senior Contracts
22 Administrator, Fuels in 1995. In 1999, I was promoted to
23 Director, Audit Services and subsequently rejoined the Fuels
24 Department as Director in April 2001. I became Director,
25 Wholesale Marketing and Fuels in August 2002. I am

1 responsible for managing Tampa Electric's wholesale energy
2 marketing and fuel-related activities.

3 **DECLASSIFIED**

4 **Q.** Please state the purpose of your testimony.

5
6 **A.** The purpose of my testimony is to discuss Tampa Electric's
7 fuel mix, fuel price forecasts, potential impacts to fuel
8 prices, and the company's fuel procurement strategies. I
9 will address steps Tampa Electric takes to manage fuel supply
10 reliability and price volatility and describe projected
11 hedging activities. I also sponsor Tampa Electric's 2007
12 risk management plan submitted concurrently in this docket.
13 Finally, I will present the calculation of waterborne
14 transportation costs submitted for recovery.

15
16 **Q.** Have you previously testified before this Commission?

17
18 **A.** Yes. I testified before this Commission in Docket Nos.
19 030001-EI and 031033-EI, and I filed testimony in the annual
20 fuel and purchased power cost recovery dockets since 2001.
21 My testimony in these dockets described the appropriateness
22 and prudence of Tampa Electric's fuel procurement activities,
23 fuel supply risk management, fuel price volatility hedging
24 activities, and fuel transportation costs.

25

DECLASSIFIED

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

2
3 A. Yes. Exhibit JTW-2 describes the calculation of the 2005
4 waterborne transportation costs disallowance.

5 6 **2007 Fuel Mix and Procurement Strategies**

7 Q. What fuels will Tampa Electric's generating stations use in
8 2007?

9
10 A. In 2007, Tampa Electric expects its fuel mix to be nearly the
11 same as 2006. In 2007, natural gas-fired and coal-fired
12 generation is expected to be 42 percent and 57 percent of
13 total generation, respectively. The remaining generation
14 comes from No. 2 oil and No. 6 oil.

15
16 Q. How does Tampa Electric's natural gas procurement and
17 transportation strategy achieve competitive natural gas
18 purchase prices for long- and short-term deliveries?

19
20 A. Tampa Electric uses a portfolio approach to natural gas
21 procurement. The company's portfolio consists of a blend of
22 base load, intermediate and swing supply along with spot
23 purchases. The contracts have various time lengths to help
24 secure needed supply at competitive prices and maintain the
25 ability to take advantage of favorable natural gas price

DECLASSIFIED

1 movements. Tampa Electric trades for physical natural gas
2 supply with approved counterparties, enhancing liquidity and
3 diversification of its natural gas supply portfolio. The
4 natural gas prices are based on monthly and daily price
5 indexes, increasing portfolio diversification.

6
7 Tampa Electric improved reliability of the physical delivery
8 of natural gas to its power plants by diversifying its
9 pipeline transportation assets, including receipt points, and
10 utilizing pipeline and storage tools to enhance access to
11 natural gas supply during hurricanes or other events that
12 constrain supply. On a daily basis, Tampa Electric strives
13 to obtain reliable supplies of natural gas at favorable
14 prices in order to minimize costs to its customers.
15 Additionally, Tampa Electric's risk management activities
16 improve the company's natural gas procurement activities by
17 reducing natural gas price volatility.

18
19 **Q.** How has Tampa Electric diversified its natural gas
20 transportation arrangements?

21
22 **A.** As described in my testimony filed on September 9, 2005 in
23 Docket No. 050001-EI, Tampa Electric diversified its
24 transportation assets when it entered into a cost-effective
25 contract for firm natural gas transportation on Gulfstream

DECLASSIFIED

1 Natural Gas Pipeline, LLC ("Gulfstream") that provides firm
2 natural gas transportation directly to Tampa Electric's H. L.
3 Culbreath Bayside Station ("Bayside Station") from Manatee
4 County, via a 28-mile lateral pipeline. Tampa Electric
5 anticipates completion of the lateral pipeline in late 2007
6 to early 2008. The transportation agreement with Gulfstream
7 adds a second pipeline to Tampa Electric's capacity portfolio
8 and improves the company's ability to meet natural gas hourly
9 and daily demands.

10
11 **Q.** Has Tampa Electric taken any other measures to enhance the
12 reliability of access to natural gas supply?

13
14 **A.** In 2005, Tampa Electric entered into a storage capacity
15 agreement with Bay Gas Storage near Mobile, Alabama. This
16 agreement provided Tampa Electric with 175,000 MMBtu of
17 storage capacity beginning in 2005. The expansion of Bay Gas
18 Storage, expected to be complete during the second quarter of
19 2007, will increase Tampa Electric's storage capacity to
20 750,000 MMBtu. In addition to storage, Tampa Electric also
21 diversified its natural gas supply receipt points on Florida
22 Gas Transmission. It "swapped" FGT Zone 3 receipt points
23 with another pipeline customer to acquire their FGT Zone 1
24 and Zone 2 receipt points. These receipt points reduce the
25 company's vulnerability to hurricane impacts in FGT Zone 3

DECLASSIFIED

1 and provides access to lower priced gas supply.

2

3 Q. What is Tampa Electric's coal procurement strategy?

4

5 A. Tampa Electric's two coal-fired plants are Big Bend Station
6 and Polk Station. Big Bend Station is a fully scrubbed plant
7 whose design fuel is high-sulfur Illinois Basin coal. Polk
8 Station is an integrated gasification combined cycle plant
9 currently burning a mix of coal, petroleum coke, and lower
10 sulfur coal. The plants have varying operational and
11 environmental restrictions and require fuel with custom
12 quality characteristics such as sulfur content, Btu/lb, ash,
13 fusion temperature and chlorine content. Since coal is not a
14 homogenous product, fuel selection is based on these unique
15 characteristics, price, availability, and creditworthiness of
16 the supplier.

17

18 Tampa Electric maintains a portfolio of bilateral, long-,
19 intermediate-, and short-term contracts for coal supply.
20 Tampa Electric monitors the market to obtain the most
21 favorable prices from sources that meet the needs of the
22 generating stations. The use of daily and weekly
23 publications, independent research analyses from industry
24 experts, discussions with suppliers and coal solicitations
25 aid in market monitoring and in shaping the company's coal

DECLASSIFIED

1 procurement strategy to reflect current market conditions.
2 This allows for stable supply sources while providing
3 flexibility to take advantage of favorable spot market
4 opportunities. The company's efforts to obtain the most
5 favorable coal prices directly benefit its customers by
6 displacing higher cost options.
7

8 **Q.** Has Tampa Electric entered into coal and natural gas supply
9 transactions for 2007 and 2008 delivery?
10

11 **A.** Yes, it has. To mitigate price volatility and ensure
12 reliability of supply, Tampa Electric has contracted for a
13 significant portion of its expected coal needs for both years
14 through bilateral agreements with coal suppliers. Nearly two
15 thirds of the company's expected 2007 and 2008 coal
16 requirements are already under contract. Tampa Electric has
17 also entered into contracts for over 40 percent of the
18 company's expected natural gas needs for the winter of 2006
19 and through 2007.
20

21 **Q.** Has Tampa Electric reasonably managed its fuel procurement
22 practices for the benefit of its retail customers?
23

24 **A.** Yes. Tampa Electric diligently manages its mix of long-,
25 intermediate-, and short-term purchases of fuel in a manner

DECLASSIFIED

1 designed to reduce overall fuel costs while maintaining
2 electric service reliability. The company monitors and
3 adjusts fuel volumes it accepts within contractually allowed
4 maximum and minimum amounts in accordance with the price of
5 fuel available on the spot market, to take advantage of the
6 lowest available prices. The company's fuel activities and
7 transactions are reviewed and audited on a recurring basis by
8 the Commission. In addition, the company monitors its rights
9 under contracts with fuel suppliers to detect and prevent any
10 breach of those rights. Tampa Electric continually strives
11 to improve its knowledge of fuel markets and to take
12 advantage of opportunities to minimize the costs of fuel.

13 14 **Projected 2007 Fuel Prices**

15 **Q.** How does Tampa Electric project fuel prices?
16

17 **A.** Tampa Electric reviews fuel price forecasts from sources
18 widely used in the industry, including PIRA Energy
19 Consulting, Hill & Associates, the Energy Information
20 Administration, the New York Mercantile Exchange ("NYMEX")
21 and other energy market information sources. Futures prices
22 for energy commodities, as traded on the NYMEX, blended with
23 current PIRA price forecasts form the basis of the natural
24 gas, No. 6 oil, No. 2 oil and propane price forecasts. The
25 commodity price projections are adjusted to incorporate

DECLASSIFIED

1 expected transportation costs and quality adjustments. These
2 adjustments are specific to the power plants to which the
3 fuel will be delivered and the locations from which it is
4 transported.

5
6 Coal prices and coal transportation prices are projected
7 using information from industry-recognized consultants and
8 are specific to the particular quality and mined location of
9 coal utilized by Tampa Electric's Big Bend Station and Polk
10 Unit 1. Final as-burned prices are derived using expected
11 commodity prices, associated transportation costs, inventory
12 effects, and analysis performed on coal inventory.

13
14 **Q.** How do the 2007 projected fuel prices compare to the fuel
15 prices projected for 2006?

16
17 **A.** The entire industry, including Tampa Electric, has
18 experienced rising fuel prices since 2003, and projected fuel
19 prices for 2007 are expected to remain high due to the demand
20 on natural resources. The global economy and the increasing
21 industrialization of countries like China have affected the
22 global balance of natural resources such as natural gas, oil,
23 and coal. Additionally, crude oil prices have soared to well
24 over \$70 per barrel, due to factors such as the turmoil in
25 the Middle East, fears of additional hurricane activity near

1 the U.S. coastline and growth in demand for refined products.
2 Similarly, the transportation costs for commodities have
3 increased as the fuel used in that transportation increased
4 in price.

5
6 **Q.** What are the market drivers of the expected 2007 increase in
7 the price of natural gas?

8
9 **A.** Of the fuels utilized by Tampa Electric, natural gas has
10 experienced the greatest increase in price over the last
11 several years. In addition to price pressures from crude
12 oil, the market drivers include increased demand from
13 natural-gas fired generation, declining natural gas
14 production in North America, delayed liquefied natural gas
15 projects, concerns about the adequacy of natural gas in
16 storage, and concerns about production losses due to tropical
17 storm activity.

18
19 **Q.** What are the market drivers of the increase in the price of
20 coal?

21
22 **A.** Coal prices correlate with the prices of other fuels since
23 coal mining utilizes petroleum products, steel, and lumber in
24 its production processes; therefore, coal prices have
25 increased in conjunction with increases in the prices of

1 these products and other fuels. Also, increased costs of SO₂
2 allowances contributed to the higher prices for lower sulfur
3 coals and coal in general. Thus, Tampa Electric expects
4 higher coal prices to continue through 2006. Fortunately,
5 Tampa Electric's use of high sulfur coal from the Illinois
6 Basin in scrubbed units has shielded Tampa Electric from some
7 of the extreme price volatility experienced in low sulfur
8 coal prices.

9
10 Q. Did Tampa Electric consider the impact of higher than
11 expected or lower than expected natural gas prices?

12
13 A. Yes. Tampa Electric estimates that actual prices in 2007
14 could be higher or lower than the base forecast by as much as
15 35 percent. Similarly, oil prices may be 25 percent higher
16 or lower than the projected base case. The causes of this
17 uncertainty include weather, political turmoil, global
18 economics, commodity production, and transportation issues.

19
20 **Risk Management Activities**

21 Q. Please describe Tampa Electric's risk management activities.

22
23 A. Tampa Electric complies with its risk management plan as
24 approved by the company's Risk Authorizing Committee. Tampa
25 Electric's plan is described in detail in the Risk Management

1 plan filed simultaneously in this docket.
2

3 **Q.** Does Tampa Electric's risk management strategy help to
4 mitigate natural gas price risk?
5

6 **A.** Yes. To help protect customers from price volatility, Tampa
7 Electric may purchase over-the-counter natural gas swaps,
8 options and collars. A swap is a financial derivative that
9 provides a "fixed for floating" position. Tampa Electric,
10 the buyer pays a fixed price for the natural gas, which has a
11 floating value until cash settlement. Swaps allow Tampa
12 Electric to lock in known natural gas prices and avoid upward
13 price volatility. The transaction costs of swaps are
14 embedded in the price of the commodity.
15

16 Options give Tampa Electric the right, but not the
17 obligation, to buy (call) or sell (put) natural gas at a
18 predetermined price for a given future month. Tampa Electric
19 pays a premium at the time of the option purchase for this
20 right.
21

22 Collars are combinations of call options (caps) and put
23 options (floors) that limit prices within a certain range.
24 An option is the right, but not the obligation, to buy (call)
25 or sell (put) natural gas at a pre-determined price. With a

DECLASSIFIED

1 collar, the company knows that its future prices will remain
2 within the predetermined boundaries established by the call
3 and put options.

4
5 **Q.** Has Tampa Electric used financial hedging to help mitigate
6 the price volatility of its 2006 and 2007 natural gas
7 requirements?

8
9 **A.** Yes. Tampa Electric has hedged a significant portion of its
10 2006 natural gas supply needs and a portion of its expected
11 2007 natural gas supply needs. Tampa Electric will continue
12 to take advantage of available natural gas hedging
13 opportunities that benefit its customers, while complying
14 with the company's approved Risk Management Plan. The
15 current market position for natural gas hedges is provided in
16 the Risk Management Plan.

17
18 **Q.** Are the company's strategies adequate for mitigating price
19 risk for Tampa Electric's 2006 and 2007 natural gas
20 purchases?

21
22 **A.** Yes, the company's strategies are adequate for mitigating
23 price risk for Tampa Electric's natural gas purchases. Tampa
24 Electric's strategies balance the desire for reduced price
25 volatility and reasonable cost with the uncertainty of

1 natural gas volumes. These strategies are described in
2 detail in Tampa Electric's Risk Management Plan.

3

4 Q. Have recent increases in the market price of natural gas
5 affected the percentage of Tampa Electric's natural gas
6 requirements that the company has hedged or plans to hedge?

7

8 A. No. The volume hedged is driven primarily by expected
9 natural gas consumption levels and the time until that
10 natural gas is needed. Based on those two parameters, the
11 amount hedged is maintained within a prescribed percentage
12 range. Price is not a component of the current plan since
13 the objective is price volatility reduction, not price
14 speculation.

15

16 Q. Were Tampa Electric's efforts through August 2006 to mitigate
17 price volatility through its non-speculative hedging program
18 prudent?

19

20 A. Yes. Tampa Electric has executed hedges according to the
21 risk management plan filed with this Commission, which was
22 approved by the company's Risk Authorizing Committee.

23

24 **Coal Transportation Costs**

25 Q. Did Tampa Electric calculate the waterborne transportation

DECLASSIFIED

1 costs submitted for cost recovery in accordance with the
2 Commission's Order No. PSC-04-0999-FOF-EI ("Order No. 04-
3 0999"), issued in Docket No. 031033-EI on October 12, 2004?
4

5 **A.** Yes. The waterborne transportation costs that Tampa Electric
6 is seeking to recover are the adjusted rates per ton for each
7 upriver terminal as well as the adjusted ocean barge
8 transportation rate. The company calculates the adjusted
9 rates as described in Order No. 04-0999. The river rate is
10 adjusted using the following formula:
11

$$\frac{\text{(Weighted average rate per ton for all upriver terminals - \$1/ton)}}{\text{Weighted average rate per ton for all upriver terminals}} \times \text{Contract rate for specific upriver terminal}$$

12
13
14
15 The ocean rate is reduced by \$2.41 per ton for shipments from
16 the Davant, Louisiana terminal and \$4.08 per ton for
17 petroleum coke shipments from Texas, as prescribed by the
18 Commission order.
19

20 For 2005, Tampa Electric's adjustment to its total waterborne
21 transportation costs totaled \$14,144,718. The variance from
22 the projected \$15,315,000 disallowance amount was due to
23 variations in river terminal origins, petroleum coke
24 purchases, and total tons shipped, compared to projections.
25 The total 2005 adjustment recorded in Tampa Electric's final

DECLASSIFIED

1 true-up filing, submitted in this docket on March 1, 2006,
2 was calculated using the actual tons of coal and petroleum
3 coke shipped in 2005 and the methodology required by Order
4 No. 04-9999. These calculations are shown in Exhibit JTW-2,
5 Document No. 1. Therefore, Tampa Electric's 2005 adjusted
6 coal transportation costs are appropriate for recovery
7 through the Fuel and Purchased Power Cost Recovery Clause.

8
9 Likewise, the expected 2006 and 2007 waterborne
10 transportation costs have been adjusted using this same
11 methodology according to Order No. 04-0999 and will be
12 revised to reflect the actual tons shipped and associated
13 calculated disallowances as part of the normal true-up
14 process. Accordingly, it is also appropriate for Tampa
15 Electric to recover its allowable 2006 and 2007 projected
16 transportation expenses included in the fuel clause for coal
17 transportation.

18
19 **Q.** Does this conclude your testimony?

20
21 **A.** Yes, it does.
22
23
24
25

DECLASSIFIED

EXHIBIT TO THE TESTIMONY OF
JOANN T. WEHLE

2005 WATERBORNE TRANSPORTATION COST ADJUSTMENT

DECLASSIFIED

CONFIDENTIAL January - December 2005	(A)	(B)	(C)	(D)	(A*D)	(B*D)	(C*D)
	Contract	Adjusted	Disallowance	Total	Contract	Adjusted	Disallowed
	\$/Ton ^{(1) (3)}	\$/Ton ⁽²⁾	\$/Ton	Tons	Total	Total	Total
Inland River Docks							
Pet Coke Refinery (M.P. 140)	\$ 2.53	\$ 2.19	\$ 0.34	280,587.97	\$ 709,888	\$ 614,488	\$ 95,400
Chester Dock	\$ 8.43	\$ 7.28	\$ 1.15	205,666.02	1,733,765	1,497,249	236,516
Overland/Camp	\$ 6.97	\$ 6.02	\$ 0.95	23,761.00	165,614	143,041	22,573
Hamilton	\$ 6.90	\$ 5.96	\$ 0.94		-	-	-
Empire Dock	\$ 6.65	\$ 5.75	\$ 0.90		-	-	-
Cora, Non-Zeigler	\$ 7.12	\$ 6.15	\$ 0.97		-	-	-
Yankeetown	\$ 7.34	\$ 6.34	\$ 1.00		-	-	-
Mount Vernon	\$ 7.04	\$ 6.08	\$ 0.96	404,909.60	2,850,564	2,461,850	388,713
Cook	\$ 5.98	\$ 5.17	\$ 0.81	381,491.85	2,281,321	1,972,313	309,008
Henderson River Port	\$ 9.14	\$ 7.90	\$ 1.24	16,710.90	152,738	132,016	20,722
Rigsby & Barnard (Arclar)	\$ 6.69	\$ 5.78	\$ 0.91		-	-	-
Patriot	\$ 8.24	\$ 7.12	\$ 1.12	217,542.99	1,792,554	1,548,906	243,648
Owensboro	\$ 7.45	\$ 6.44	\$ 1.01		-	-	-
New Hope	\$ 7.53	\$ 6.51	\$ 1.02		-	-	-
Dekoven	\$ 6.75	\$ 5.83	\$ 0.92	479,551.40	3,236,972	2,795,785	441,187
Jefferson	\$ 8.13	\$ 7.02	\$ 1.11		-	-	-
Powhatan	\$ 10.65	\$ 9.20	\$ 1.45	77,682.19	827,315	714,676	112,639
Caseyville	\$ 6.74	\$ 5.82	\$ 0.92	69,297.50	467,065	403,311	63,754
S. Indiana/Evansville	\$ 7.21	\$ 6.23	\$ 0.98	142,636.28	1,028,408	888,624	139,784
Pyramid	\$ 8.95	\$ 7.73	\$ 1.22		-	-	-
Ken Mine	\$ 8.99	\$ 7.77	\$ 1.22	8,747.00	78,636	67,964	10,671
GRT	\$ 7.16	\$ 6.19	\$ 0.97	33,152.00	237,368	205,211	32,157
Kentucky Lakes Dock	\$ 7.16	\$ 6.19	\$ 0.97		-	-	-
Transcontinental (TTI)	\$ 9.20	\$ 7.95	\$ 1.25		-	-	-
Sebree	\$ 8.37	\$ 7.23	\$ 1.14	162,110.80	1,356,867	1,172,061	184,806
Green 11	\$ 8.01	\$ 6.92	\$ 1.09		-	-	-
Shawneetown	\$ 6.81	\$ 5.88	\$ 0.93	1,313,142.41	8,942,500	7,721,277	1,221,222
Total River				3,816,990	\$ 25,861,574	\$ 22,338,773	\$ 3,522,801
Ocean							
Coal	\$ 7.98	\$ 5.57	\$ 2.41	4,307,553.00	34,374,273	23,993,070	10,381,203
Petcoke from Texas	\$ 10.88	\$ 6.80	\$ 4.08	66,084.00	718,994	449,371	269,623
Total Ocean				4,373,637	\$ 35,093,267	\$ 24,442,441	\$ 10,650,825
						Total⁽⁴⁾	\$ 14,144,718

1 Contract rate per contract signed with TECO Transport.
 2 Adjusted rate based on methodology set forth in Order No. PSC-04-0999-FOF-EI, which takes the weighted average rate for all upriver terminals minus \$1 and divides it by the weighted average rate of all upriver terminals multiplied by the contract rate for that specific upriver terminal. Ocean rate based on the aforementioned Order.
 3 Contract rate subject to quarterly escalation provisions in the contract. Therefore, ratio between total contract amount and adjustment will change moving forward.
 4 Includes adjustment of \$28,908 for river tons not received.