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April 2, 2012

HAND DELIVERED

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

Re: Fuel and Purchased Power Cost Recovery Clause with Generating Performance Incentive Factor; FPSC Docket No. 120001-EI

Dear Ms. Cole:

Enclosed for filing in the above docket on behalf of Tampa Electric Company are the original and fifteen (15) copies of the Prepared Direct Testimony of J. Brent Caldwell and accompanying Exhibit No. ___ (JBC-1), identified as 2011 Hedging Activity True-Up.

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/encls.)

COM 5
APA 1
ECR 6
GCL 1
RAD 1
SRC
ADM
OPC
CLK CTR

CERTIFICATE OF SERVICE

I HEREBY CERTIFY that a true and correct copy of the foregoing Testimony and Exhibit JBC-1 of Brent Caldwell has been furnished by U. S. Mail or hand delivery (*) on this 2nd day of April 2012 to the following:

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ATTORNEY

TECO
TAMPA ELECTRIC

BEFORE THE
FLORIDA PUBLIC SERVICE COMMISSION

DOCKET NO. 120001-EI
IN RE: FUEL & PURCHASED POWER COST RECOVERY
AND
CAPACITY COST RECOVERY

REDACTED

2011 FINAL HEDGING ACTIVITY TRUE-UP

TESTIMONY AND EXHIBIT

J. BRENT CALDWELL

FILED: APRIL 2, 2012

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

PREPARED DIRECT TESTIMONY

OF

J. BRENT CALDWELL

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

A. My name is J. Brent Caldwell. My business address is 702 N. Franklin Street, Tampa, Florida 33602. I am employed by Tampa Electric Company ("Tampa Electric" or "company") as Director of Origination & Market Services.

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

A. I received a Bachelor Degree in Electrical Engineering from Georgia Institute of Technology in 1985 and a Master of Science in Electrical Engineering from the University of South Florida in 1988. I have over 16 years of utility experience with an emphasis in state and federal regulatory matters, natural gas procurement and transportation, fuel logistics and cost reporting, and business systems and analysis. In October 2010 I assumed my current position where I am responsible for

the long term fuel supply planning and procurement for Tampa Electric's generation plants.

Q. Please state the purpose of your testimony.

A. The purpose of my testimony is to present, for the Florida Public Service Commission's ("FPSC" or "Commission") review, information regarding the 2011 results of Tampa Electric's risk management activities, as required by the terms of the stipulation entered into by the parties to Docket No. 011605-EI and approved by the Commission in Order No. PSC-02-1484-FOF-EI.

Q. Do you wish to sponsor an exhibit in support of your testimony?

A. Yes. Exhibit No. ___ (JBC-1), entitled Tampa Electric's 2011 Hedging Activity True-up, was prepared under my direction and supervision. This report explains the company's risk management activities and results for the calendar year 2011.

Q. What is the source of the data you present in your testimony in this proceeding?

A. Unless otherwise indicated, the source of the data is the books and records of Tampa Electric. The books and records are kept in the regular course of business in accordance with generally accepted accounting principles and practices, and provisions of the Uniform System of Accounts as prescribed by this Commission.

Q. What were the results of Tampa Electric's risk management activities in 2011?

A. As outlined in Tampa Electric's 2011 Hedging Activity True-up, filed as an exhibit to this testimony, the company follows a non-speculative risk management strategy to reduce fuel price volatility while maintaining a reliable supply of fuel. In particular, Tampa Electric established a financial hedging program to limit its exposure to spikes in the price of natural gas. Over time, this program has been enhanced as Tampa Electric's gas needs have evolved and grown. All enhancements have been reviewed and approved by the company's Risk Authorization Committee.

The report indicates that Tampa Electric's 2011 hedging activities resulted in a net loss of approximately $34 million. Tampa Electric followed the plan objective of

reducing price volatility while maintaining a reliable fuel supply. A decrease in natural gas prices began in the middle of 2008 due to lower demand as a result of the recession as well as from increased supply from non-conventional, shale gas production. Natural gas prices continue to stay at a low price due to this supply surplus and have been further reduced by mild temperatures nationally.

Q. Does Tampa Electric implement physical hedges for natural gas?

A. No, Tampa Electric does not hedge natural gas pricing through physical gas supply contracts. However, Tampa Electric does hedge its supply through diversification. In addition to financial hedging, Tampa Electric uses a variety of sources, delivery methods, inventory locations and contractual terms to enhance the company's supply reliability and flexibility to cost-effectively meet changing operational needs.

Tampa Electric continually pursues new creditworthy counterparties and maintains contracts for gas supplies from various regions and on different pipelines. The company also contracts for pipeline capacity to access

non-conventional shale gas production which is less sensitive to interruption by hurricanes. Additionally, Tampa Electric has storage capacity with Bay Gas Storage near Mobile, Alabama. All of these actions enhance the effectiveness of Tampa Electric's gas supply portfolio.

Q. Does Tampa Electric use a hedging information system?

A. Yes, Tampa Electric continues to use Sungard's Nucleus Risk Management System ("Nucleus"). Nucleus supports sound hedging practices with its contract management, separation of duties, credit tracking, transaction limits, deal confirmation, risk exposure analysis and business report generation functions. The Nucleus system records all financial natural gas hedging transactions, and the system calculates risk management reports.

Q. Did the company use financial hedges for commodities other than natural gas in 2011?

A. No. Tampa Electric did not use financial hedges for commodities other than natural gas in 2011.

Tampa Electric's generation is comprised mostly of coal

and natural gas. Although the price of coal has increased, it is relatively stable compared to the prices of oil and natural gas. In addition, there is not an organized and liquid market for financial hedging instruments for the high-sulfur Illinois Basin coal that Tampa Electric uses at Big Bend Station, its largest coal-fired generation facility.

Tampa Electric consumes a small amount of oil; however, its low and erratic usage pattern makes price hedging impractical.

Similarly, Tampa Electric did not use financial hedges for wholesale energy transactions because a liquid, published market does not exist for power in Florida.

Q. How does Tampa Electric assure physical supply of other commodities?

A. Tampa Electric assures sufficient physical supply of coal and oil through inventory supply diversification, and bi-modal delivery options for coal. For coal, the company entered into a portfolio of contracts with differing terms and various suppliers to obtain the types of coal used on its system. Additionally in 2009,

Tampa Electric added rail delivery capability for coal to Big Bend Station. The addition of rail to the already existing waterborne transportation enhances Tampa Electric's access to coal supply and increases the reliability.

For oil, Tampa Electric fills its oil tanks prior to entering hurricane season to reduce exposure to supply or price issues that may arise during hurricane season.

Q. What is the basis for your request to recover the commodity and transaction costs described above?

A. Tampa Electric requests cost recovery pursuant to the Commission Order No. PSC-02-1484-FOF-EI, in Docket No. 011605-EI that states:

> "Each investor-owned electric utility shall be authorized to charge/credit to the fuel and purchased power cost recovery clause its non-speculative, prudently-incurred commodity costs and gains and losses associated with financial and/or physical hedging transactions for natural gas, residual oil, and purchased power contracts tied to the price of natural gas."

Q. Does this conclude your testimony?

A. Yes, it does.

J. BRENT CALDWELL

EXHIBIT

2011 HEDGING ACTIVITY TRUE-UP

2011 Hedging Activity True-up

Tampa Electric's Risk Management Plan identified the following objectives:

- Qualitative Objectives
  Tampa Electric's primary goal in managing risk associated with fuel or power purchases focuses on minimizing supply risk to ensure reliability of electric service to its customers at a reasonable price. To the extent that price risk can be mitigated without compromising supply reliability or imposing unreasonable costs on its customers, Tampa Electric is committed to executing strategies to accomplish its risk management goal.

- Quantitative Objectives
  Tampa Electric's quantitative objective is to prudently manage its fuel and wholesale energy procurement activities so as to minimize the variance from projected expenditures while taking advantage of cost-saving opportunities that do not result in increased supply risk. Tampa Electric has established a portfolio of fuel and purchased power products with creditworthy counterparties for known volumes and prices.

2011 Risk Management Activities
The company's activities in 2011 that supported the objectives listed above are described in the following section.

- Coal Purchases
  Tampa Electric maintains a portfolio of short-term (also called spot market), medium-term and long-term coal contracts with the goal of minimizing fuel costs and price risk while maintaining reliability of supply. The company procured all of its 2011 coal needs from suppliers with known, established pricing. Thus, the cost for the commodity was known. Tampa Electric continued to monitor deliveries and volume commitments in contracts as the pricing in the coal market changed. Tampa Electric takes advantage of favorable spot market pricing when the coal supply is needed. Coal was used to produce approximately 59 percent of the electricity the company generated in 2011.

- Coal Risk Management Activities
  Tampa Electric's long-established policy of using physical hedges within its portfolio of different term coal supply contracts continued to help protect ratepayers from coal price volatility.

➢ Natural Gas Purchases

In 2011, approximately 40 percent of the electricity Tampa Electric generated was produced using natural gas. Tampa Electric's risk management strategy continues to focus on supply reliability and price volatility reduction. The components critical to the success of the natural gas purchasing strategy are as follows:

- Execution of the natural gas hedge plan approved by the Risk Authorizing Committee;
- Maintaining liquidity by contracting with numerous qualified counterparties;
- Time horizon for natural gas hedging activity that allows the company to hedge natural gas prices into the future;
- Maintaining a minimum and maximum hedge volume percentage by month into the future;
- Maintaining physical natural gas storage capacity near Mobile Bay, Alabama;
- Diversifying interstate pipeline receipt points;
- Expanding access to additional interstate pipelines;
- Maintaining databases and reports to monitor activity;
- Maintaining coordination between power plant operations and natural gas scheduling;
- Maintaining separation of duties and installation of controls consistent with current industry practices.

➢ Natural Gas Hedging Activities

Natural gas prices historically have been more volatile than coal prices. Natural gas prices are more volatile due to the significant variations in natural gas consumption by natural gas fired power plants that increase and decrease generation to follow changes in demand. Additionally, hurricane activity and other weather-related production reductions or demand increases have a significant impact on the natural gas market. Therefore, Tampa Electric continued to use financial instruments to hedge the price of a portion of the natural gas burned in 2011 to reduce customers' exposure to the volatility of natural gas prices. Tampa Electric used financial floating-price-to-fixed-price swaps to hedge natural gas prices. The costs associated with these instruments are embedded in the price of the instruments and are included in the fuel commodity costs reported by the company. The hedges are described in the following table.

Tampa Electric
2011 Natural Gas Hedging Activity True-Up

	Type of Hedge	Mark-to-Market Saving/(Loss)	Hedged Volume (MMBTU)	Consumption (MMBTU)	Percent Hedged	Budget Price	Hedge Price	Settle Price
Jan-11	Swaps	$ (2,755,160)		3,416,729				$ 4.22
Feb-11	Swaps	$ (2,815,820)		3,445,599				$ 4.32
Mar-11	Swaps	$ (4,590,970)		4,790,417				$ 3.79
Apr-11	Swaps	$ (2,613,260)		4,157,649				$ 4.24
May-11	Swaps	$ (1,693,800)		5,215,809				$ 4.38
Jun-11	Swaps	$ (1,777,830)		5,305,163				$ 4.33
Jul-11	Swaps	$ (1,633,460)		6,274,090				$ 4.36
Aug-11	Swaps	$ (1,514,300)		6,287,522				$ 4.37
Sep-11	Swaps	$ (3,269,690)		6,092,720				$ 3.86
Oct-11	Swaps	$ (3,801,560)		5,258,042				$ 3.76
Nov-11	Swaps	$ (3,471,310)		3,510,750				$ 3.52
Dec-11	Swaps	$ (3,952,320)		2,542,025				$ 3.36
Total		$ (33,889,480)		56,296,515				

Consistent with Tampa Electric's non-speculative risk management plan objective, Tampa Electric's natural gas hedging plan provided price stability and certainty during 2011. The losses for 2011 are due to a reduction in the price of natural gas during 2011. The price decline was driven primarily by a supply surplus due to higher supply from non-conventional production of shale gas and reduced demand due to mild weather and continued economic weakness.

To enhance its physical reliability of gas supply, Tampa Electric has increased its natural gas storage capabilities since summer 2005. In 2011, the total storage capacity increased to 1,250,000 MMBtu. The storage provides Tampa Electric with improved access to "intraday" natural gas when an operational need arises, provides improved hurricane coverage, and can be used to cost-effectively manage swings in gas supply needs during extreme weather conditions, weekends and holidays.

Tampa Electric also continues to improve its physical access to natural gas supply by diversifying its receipt points along the Gulf Coast and other areas when opportunities arise.

In summary, financial hedging activities for natural gas resulted in a net loss of approximately $34 million in 2011; however, Tampa Electric was successful in reducing price uncertainty and maintaining fuel supply reliability for customers for both its physical and financial hedges.

2011 Market Pricing

Tampa Electric provides a comparison of 2011 fuel prices to the market price for the respective commodity in the following section.

- Coal

  Coal is a commodity with a great range of potential quality characteristics. Market indexes provide a guide to current market pricing but are not specific enough to accurately demonstrate the market price of a particular coal. Market prices for coal are most accurately determined by competitive bid solicitations that specify the required coal quality or characteristics. With the exception of purchases for reliability reasons, short-term purchases for changing plant operation needs and spot market purchases to take advantage of favorable pricing, Tampa Electric purchases coal at prices determined by competitive bid solicitations; therefore, the company's purchases are at market. A comparison of coal contract prices for 2011 to the average acceptable bid price or index price is provided in the following table. Unless otherwise stated, the prices represent the market at the time each contract was entered into and are not representative of today's market. Any comparison to current market prices overlooks the market conditions that existed at the time the coal was procured.

Tampa Electric
Coal Contract to Market Indicator Price Comparisons

Supplier (Mine)	Contract ($ / MMBtu)	Market Indicator ($ / MMBtu)	Difference	Market Indicator Source	Note
Knight Hawk		$3.07		GEN-2009-01 December2007	1
Warrior		$3.00		GEN-2009-01 December2007	1
Peabody 2011-SP1-LS		$4.32		BB-LS 2011-01 (issued 1.15.2011)	1
Patriot 3.2011 SP1		$3.87		Gen 2011-01 (issued 2.23.2011)	1
Patriot 6.2011 SP2		$3.87		Gen 2011-01 (issued 2.23.2011)	1
Patriot 11.2011 SP3		$4.00		ICAP United, Inc - Coal 10/3/2011	3
Allied Res-11LT1-15		$3.87		Gen 2011-01 (issued 2.23.2011)	1
Allied Res-11CP1-15		$3.08		ICAP United, Inc - Coal 6/24/09	3,4
KenAm-09SP2-15		$4.53		Gen2009-02 June 2008	1
KenAm-11CP1-09		$4.03		ICAP United, Inc - Coal 8/31/2011	3
KenAm-11SP1-09		$3.89		ICAP United, Inc - Coal 4/29/11	3
Armstrong-11SP2-PT		$3.87		Gen 2011-01 (issued 2.23.2011)	1
Armstrong-11SP1-09		$3.87		Gen 2011-01 (issued 2.23.2011)	1
Armstrong-11LT1-09		$3.87		Gen 2011-01 (issued 2.23.2011)	1
CoalSales 2011-SP2		$3.89		ICAP United, Inc - Coal 10/14/2011	3
Emerald-10SP1-LS		$4.53		ICAP United, Inc - Coal 12/15/10	3
Emerald 2011-SP1-LS		$4.84		ICAP United, Inc - Coal 3/25/11	3
Glencore 2011SP1-LS		$5.10		Coal Daily International $ / MT 3/4/2011	2
Marathon-11-SP02		$4.12		Index pricing, Pace Petroleum Coke Index	5
Valero-11SP1-PC		$4.42		Index pricing,Pace / Argus Petroleum Coke Index	6
Valero-2011SP2-PC		$3.24		Index pricing,Pace / Argus Petroleum Coke Index	6

Notes:
The contract $/MMBTU refers to the initial price of the contract at its inception. This price could be subject to escalation
per the terms of the contract. All prices are determined on a fully delivered basis. Index values have also been calculated
on a delivered basis for comparison purposes.

1. The bid solicitation price is the average price submitted of all acceptable coal bids.
2. Energy Argus, Coal Daily International, $ / MT
3. Pricing based on ICAP United Inc - Daily Coal price index.
4. Call / Put option entered into in June 2009
5. Pace Petroleum Coke Price index: Petroleum Coke monthly Green Coke, Gulf Coast/Caribbean,
6. Blend of Energy Argus Petroleum Coke, Monthly index and Pace Petroleum coke monthly Index.

- Natural Gas
  Tampa Electric purchases natural gas at prices that are set by published indexes that reflect the market price. Most of the monthly baseload gas is purchased at a price relative to the New York Mercantile Exchange natural gas futures last day settlement price. Tampa Electric purchases additional baseload gas at monthly index prices published in *Inside FERC, Gas Market Report.* Tampa Electric uses the indexes representing market prices for natural gas on the Gulf Coast that can be transported to Tampa Electric's service area: Henry Hub, Mobile Bay, or Florida Gas Transmission ("FGT") Zone 1, Zone 2 or Zone 3. For daily and short-term natural gas, Tampa Electric typically purchases natural gas based on the FGT index price published in *Gas Daily.* In rare instances, Tampa Electric also purchases small volumes of spot natural gas needed for short durations at fixed prices. Since the price of natural gas Tampa Electric purchases is based upon a published market index, the company's natural gas purchases are at market.

- No. 2 Oil
  Tampa Electric purchases No. 2 oil for combustion turbines at Polk Station and for Big Bend Station startup. The purchase price is based upon the daily index price published in Platt's *Oilgram* for Gulf Coast Waterborne spot purchases of ultra-low sulfur No. 2 oil. Since the price is determined by the published market index, the price paid by Tampa Electric is at market.

- No. 6 Oil
  Tampa Electric no longer purchases No. 6 oil for Phillips Station. Phillips Station was placed on long term standby in September 2009.

- Propane
  Tampa Electric purchases propane for Polk Unit No. 1. The purchase price is based upon the average of daily index prices published by Oil Price Information Service at Mont Belvieu, the primary propane hub for the southern United States. Since the price is determined by the published market index, the price paid by Tampa Electric is at market.