

ORIGINAL

AUSLEY & McMULLEN

ATTORNEYS AND COUNSELORS AT LAW

227 SOUTH CALHOUN STREET  
P.O. BOX 391 (ZIP 32302)  
TALLAHASSEE, FLORIDA 32301  
(850) 224-9115 FAX (850) 222-7560

September 9, 2004

HAND DELIVERED

RECEIVED-FPSC  
SEP - 9 PM 2:36  
COMMISSION  
CLERK

Ms. Blanca S. Bayo, Director  
Division of Commission Clerk  
and Administrative Services  
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. 040001-EI

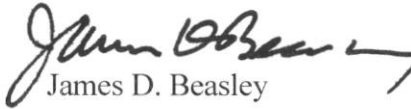
Dear Ms. Bayo:

Enclosed for filing in the above docket are the original and ten (10) redacted copies of Tampa Electric's Company's Fuel Procurement and Wholesale Power Purchases Risk Management Plan 2005. A single confidential version of the Plan with the confidential information highlighted in yellow is being separately filed this date with your office along with a Request for Confidential Classification.

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

- CMP \_\_\_\_\_
- COM 5
- CTR \_\_\_\_\_
- ECR 2
- GCL 2 JDB/pp
- OPC \_\_\_\_\_ Enclosure
- IMMS \_\_\_\_\_ cc: All Parties of Record (w/enc.)
- RCA \_\_\_\_\_
- SCR \_\_\_\_\_
- SEC 1
- OTH \_\_\_\_\_

RECEIVED & FILED  
  
FPSC-BUREAU OF RECORDS

DOCUMENT NUMBER-DATE

09859 SEP-9 8

FPSC-COMMISSION CLERK

**BEFORE THE  
FLORIDA PUBLIC SERVICE COMMISSION**

<b>In re: Fuel and Purchased Power</b>	)	<b>DOCKET NO. 040001-EI</b>
<b>Cost Recovery Clause with</b>	)	<b>FILED: SEPTEMBER 9, 2004</b>
<b>Generating Performance Incentive</b>	)	
<b>Factor</b>	)	

---

**REDACTED VERSION**

**TAMPA ELECTRIC COMPANY'S  
FUEL PROCUREMENT AND WHOLESALE POWER PURCHASES  
RISK MANAGEMENT PLAN  
2005**

**TAMPA ELECTRIC COMPANY  
FUEL PROCUREMENT AND WHOLESALE POWER PURCHASES  
RISK MANAGEMENT PLAN  
2005**

## **Introduction**

Tampa Electric meets the electric service needs of its retail customers through a portfolio of generation and wholesale purchases. The fuel mix of the generation portfolio became more diverse with the completion of H. L. Culbreath Bayside Station ("Bayside Station") in 2004. While fuel mix diversity enhances long-term reliability, the increased reliance on natural gas has increased variation in fuel prices. The company's risk management activities help reduce the impact of price volatility to the Fuel and Purchased Power Cost Recovery Clause. In anticipation of the commercial operation of Bayside Station, the company developed and followed a hedging plan that was approved by TECO Energy's Risk Authorizing Committee ("RAC") in early 2003. In August 2004, the RAC approved an updated hedging plan that incorporates the experience gained in operating the generation system with the addition of Bayside Station. Tampa Electric continues to hedge fuel price exposure consistent with the approved hedge plan and makes regular reports of activity to the RAC.

### **I. Qualitative and Quantitative Risk Management Objectives**

- A. Qualitative objectives:** Tampa Electric's goals in managing risks associated with fuel or power purchases are focused 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 reduced without compromising supply reliability or imposing unnecessary costs on its customers, Tampa Electric is committed to executing strategies to accomplish its risk management goals.
- B. Quantitative objectives:** Tampa Electric's quantitative objective is to prudently manage its fuel and wholesale energy procurement activities 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 credit-worthy counterparties for known volumes and prices.

### **II. Oversight & Reporting of Fuel Procurement Activities**

The company provides its fuel and wholesale energy procurement activities with independent and unavoidable oversight. In support of this, we offer the following observations:

- A.** The TECO Energy Board of Directors established an Energy Risk Management Policy (“Risk Policy”). This policy governs all energy commodities transacting activity at each of TECO Energy’s operating units. The scope of the policy includes:
- Roles and responsibilities of various persons and functions with respect to risk management
  - Authorized transacting activity
  - Risk limits
  - Valuation and data management
  - Credit risk management Reporting
  - Compliance and enforcement
- B.** The Risk Policy established the RAC. The responsibilities of the RAC include the following:
- Reviewing the Risk Management Policy periodically and recommending changes and enhancements for Board of Directors approval
  - Reviewing corporate risk limits for recommendation to the Board
  - Within Board approved corporate risk limits, establishing the quantitative limits for operating companies. The RAC may, at its discretion, delegate approval of sub-limits to operating company management
  - Approving parameters for counterparty credit limits and the allocation of limits among the operating companies
  - Establishing guidelines for risk management and measurement
  - Overseeing and reviewing the risk management process and infrastructure
  - Reviewing and approving transacting strategies proposed by the operating companies
  - Understanding and approving methodologies used for valuation and risk measurement
  - Reviewing and approving corporate and operating company risk limits
  - Establishing credit underwriting standards, and monitoring credit risk-taking activities and related exposures
  - Reviewing risk reports, including portfolio risk summaries and profitability and performance summaries
  - Enacting, maintaining, and enforcing limit violation and trader misconduct policies
  - Taking appropriate courses of action when the risk position of a transacting group has exceeded, or is approaching the established limits

- Reviewing and approving new risk management products
  - Presenting periodic reports to the Board or its committees
- C.** TECO Energy established a corporate risk management function (“middle office”) and hired a Vice President of Energy Risk Management.
- D.** Tampa Electric established additional oversight or control mechanisms to ensure compliance with policies and procedures. The following practices provide checks and balances on procurement activities.
- Fuel and wholesale energy procurement activities are conducted in accordance with company guidelines, including review by the operating stations, Environmental Affairs Department and officers of the company
  - All agreements are formalized in a written contract that is reviewed by the company’s Legal Department
  - The contracts are reviewed by the Corporate Credit Manager of TECO Energy’s Treasury Department for potential credit risks and incorporation of appropriate credit protection
  - The company maintains approval authority restrictions based on term and value of the transaction
  - Payments of invoices under each contract are approved by the Manager(s) and/or Director of the Wholesale Marketing and Fuels Department and reviewed by the Regulatory Accounting Department
  - Each transaction is eligible for review by outside, internal and regulatory auditors
  - Implementation of an information system that provides transaction authority control, credit monitoring, mark-to-market and value-at-risk analysis and other key controls
- E.** In accordance with the Risk Policy, Tampa Electric established commodity transaction limits for related commodity transactions.
- F.** Tampa Electric’s Wholesale Marketing and Fuels Department updated and formalized its policies and procedures.
- G.** Reports are generated that summarize the fuel procurement activities of the company. These include monthly financial reports produced by Regulatory Accounting, FERC Electric Quarterly Reports, FERC Form 1, FERC Form 580, FERC Form 423, FPSC A schedules and FPSC E schedules. In addition, position and mark-to-market reports are produced and reviewed by the Vice President of Energy Risk Management. The appropriate entries and related disclosures are made in the company’s books and records as required by accounting standards.

### III. Risk Assessment

In its Risk Policy, TECO Energy has identified the following types of risks for its commodity portfolio:

#### Market Risk

Market risk is the potential change in value of a commodity contract caused by adverse changes in market factors (price and volatility). The following are types of market risk.

**Price Risk:** Price risk refers to the uncertainty associated with changes in the price of an underlying asset. For instance, if a company has a short position in the market (e.g., needs to meet load requirements by purchasing electricity or gas), it will be susceptible to price increases. Conversely, if a company is in a long position (e.g., excess generation or gas supply), it is exposed to decreases in market prices. Tampa Electric manages its price risk using physical and financial hedges.

In 2005 Tampa Electric is subject to some price risk related to variation in coal prices. That price risk is mitigated in part because the company has already contracted for the majority of its expected coal needs. Expected market conditions do not currently require further price risk mitigation, for the reasons described in Section IV of this plan.

Tampa Electric evaluated its exposure to changes in the price for natural gas in 2005 based on the forward price and volatility curves for natural gas and the company's expected usage. As expected, natural gas expenditures decrease due to lower prices. In the low case, natural gas expense and total fuel and purchased power expense are estimated to decrease by [REDACTED] and [REDACTED], respectively. Natural gas expense is also reduced in the high case because total gas volume consumed decreases due to higher dispatch prices for the gas-fired units. However, the decrease in gas expense and gas-fired generation is offset by an increase in economic wholesale purchases. In the high case, natural gas expenditures are estimated to decrease [REDACTED]; however, the net effect is an increase in total fuel and purchased power costs of [REDACTED]. This exposure estimate does not take into account any hedges the company may implement to limit its exposure. Tampa Electric's hedging strategy with respect to natural gas is outlined in Section IV of this plan.

Tampa Electric's expected expenditures for purchased power have an open position of approximately [REDACTED] for 2005. Tampa Electric's hedging strategy with respect to purchased power is outlined in Section IV of this plan.

Tampa Electric requires small quantities of fuel oil and maintains a requirements contract that eliminates its supply risk. Due to the small quantities in question, price risk is minimal and is therefore not quantified.

**Time Spread Risk:** This is the risk that the relationship between two points (*i.e.*, one month versus six months) on the forward curve changes. Because the shape of the fuel or electricity forward curve changes to reflect the market's expectations of spot and future fuel or electricity prices, the relationship between any two points on the curve is not always constant. Because of the nature of its business Tampa Electric has little reason or opportunity to offset energy commodity requirements in one month with resources delivered in another month. Therefore, time spread risk is not a significant issue for Tampa Electric.

**Liquidity Risk:** Liquidity risk is associated with the lack of marketability of a commodity. It includes the risk of an adverse cost or return variation stemming from the lack of marketability of a financial instrument. Liquidity risk may arise because a given position is very large relative to typical trading volumes of like commodity and contract tenor, or because market conditions are unsettled. Liquidity risk is usually reflected in a wide bid-ask spread and large price movements in response to any attempt to buy or sell. A firm facing the need to quickly unwind a portfolio of illiquid instruments may find it necessary to sell at prices far below fair value. Tampa Electric is not exposed to liquidity risk since the company does not purchase instruments for resale.

**Basis Risk:** Basis risk is the risk exposure due to a difference in commodity value between different delivery points. Electricity markets are regional. Prices can be different at different locations because of differences in both supply costs and the cost of transmission between the two locations. These price differences are dynamic, primarily due to changes in transmission availability between the two locations. Due to the stability of the coal market, Tampa Electric's negligible use of oil, and the indexing of its natural gas contract pricing, basis risk is not a significant issue for the company.

**Option Risk (Convexity):** Option risk is associated with purchasing or writing an option, and represents the risk that the value of an option at expiration or upon exercise is different from the premium paid when the option was purchased or sold. Option risk is limited to the value of the premium paid at the time the option is purchased.

Fundamentally, market risk is created by the existence of “open” positions. An open position is the difference between an existing requirement and the ability to meet that requirement with existing resources.

### **Volume Risk**

Volume risk is the potential adverse economic impact of unanticipated changes in supply or demand. Tampa Electric faces supply risk, because there is uncertainty associated with the availability of generating units or fuel availability for those units. If a generating unit fails, Tampa Electric must replace the power with another unit’s generation or with purchased power at market prices. Tampa Electric also faces demand risk since there is uncertainty associated with customer demand, and thus uncertainty in the determination of the fuel or energy purchase volumes necessary to supply such demand. Tampa Electric’s volume risk for fuel and purchased power in 2005 is managed operationally and through contract terms enforcement, including appropriate legal remedies, should a party default.

### **Credit Risk**

Credit risk is the risk of financial loss due to a counterparty’s failure to fulfill the terms of a contract on a timely basis. It includes both settlement risk associated with payment for fuel or energy received, as well as potential risk, which reflects the risk that the counterparty defaults on an obligation to provide or receive fuel or energy. Credit risk depends on the probability of counterparty default, the concentration of credit exposure with a small number of counterparties, the total amount of exposure, and the volatility of markets. Tampa Electric’s credit risk commodity price hedging will vary based on the number of its trading counterparties and the mark-to-market value of its hedge transactions. Tampa Electric’s existing credit risk is minimal since it uses a wide-variety of counterparties, continues to add to its portfolio of counterparties and has systems and processes in place to monitor and control Credit Risk.

### **Administrative Risk**

Administrative risk is risk of loss associated with deficiencies in a company’s internal control structure and management reporting due to human error, fraud or a system’s inability to adequately capture, store and report transactions. The company has consistently maintained appropriate administrative controls for entering and administration of coal and oil contracts. Tampa Electric’s controls for natural gas procurement have changed due to the increased use of natural gas. In 2004, the company purchased and implemented the Nucleus risk management system. With the use of the Nucleus system, Tampa Electric has significantly enhanced its internal controls and management reporting for natural



gas. In addition, Nucleus is currently being evaluated for its application to wholesale energy transactions.

#### IV. Risk Management Strategy and Current Hedging Activity

Tampa Electric's risk management strategy is designed to limit exposure to different types of risk that are applicable to the company's operation.

##### Market Risk

Tampa Electric's potential market risk is the result of open positions in four commodities:

- Coal
- Natural Gas
- Fuel Oil
- Purchased Power

Projected system energy requirements during 2005 will be served in the proportions shown in the following table.

Commodity	Percent of System Energy
Coal	51
Natural Gas	36
Fuel Oil	1
Purchased Power	12

Based on Tampa Electric's assessment of market risk factors, the company has implemented the market risk management strategies described below.

**Coal.** Tampa Electric has contracted for the majority of its expected coal needs for 2005 through bilateral agreements with coal producers. The company provided the projected amounts in both tons and dollars in its 2005 projection filing submitted September 9, 2004. Tampa Electric's contracts with suppliers incorporate legal remedies in the event of default, which address volume risk. In addition, the coal market is expected to remain higher but relatively stable for Tampa Electric in 2005. Tampa Electric's ability to utilize high-sulfur, Illinois Basin coal in its units has protected it from the extreme price volatility experienced in 2004 for low-sulfur, compliance (Central Appalachian) coal. Similarly, Tampa Electric's

use of waterborne transportation has protected it from the price volatility and delivery problems experienced by utilities relying upon rail transportation. In addition, the Illinois Basin is a region where coal production can be increased relatively quickly to respond to increased needs. As a result, Tampa Electric's coal volume risk in 2005 is minimal. Tampa Electric has continued to strengthen its credit review process. Newly established agreements incorporate stricter credit provisions; and as older contracts expire, the company plans to include the stricter provisions in future coal supply agreements.

**Fuel Oil.** In 2005, Tampa Electric will continue to purchase its fuel oil needs at spot market prices. Oil represents less than one percent of the company's needs on a GWH basis, and therefore, associated price risk is minimal. Tampa Electric maintains a requirements contract with a local supplier to deliver all of its needs, which mitigates supply risk.

**Natural Gas.** Tampa Electric continues to implement prudent financial hedging strategies for natural gas requirements. The company has used swap agreements, or the exchange of a payment tied to the value of a natural gas index for a fixed payment. Tampa Electric plans to hedge a significant percentage of its projected natural gas usage in 2005, using swaps and collars—the exchange of a price floor for a price cap.

Tampa Electric uses the forward pricing information of the New York Mercantile Exchange ("NYMEX") natural gas forward price curve in developing natural gas price hedging strategy. Tampa Electric also subscribes to energy consulting services that provide information about underlying issues affecting the availability and price of natural gas and other commodities. The purpose of Tampa Electric's natural gas hedge plan is to reduce natural gas price volatility by utilizing financial instruments relying on three key variables: price, volume and time.

Tampa Electric projects price during the company's annual fuel budgeting process. The volume of natural gas that the company will hedge falls between a minimum and maximum percentage of the expected natural gas burn that are approved by the RAC and vary according to the time remaining until the contract month.



Volume is another forecasted variable. It is determined by expected demand and supply fundamentals: customer load and energy use, Tampa Electric generation and statewide generation. Expected natural gas

consumption establishes the basis for the amount of financial hedging instruments or contracts to be entered. Expected minimum and maximum volumes are set according to shoulder and peak month consumption.

The third variable, time, provides a plan for financial hedging based on the number of days until expiration of a given financial instrument, which is the ability to hedge a greater percentage of expected volume as the contract month is closer in time. For instance, during September 2004, there is a greater likelihood that more hedging transactions will be entered for January 2005 than for December 2005 simply because there are fewer hedging days remaining until January.

**Purchased Power.** Total forecasted purchased power for 2005 is 2,549,205 MWH. As of August 2004, Tampa Electric has physically hedged ■ percent of its expected purchased power needs through pre-scheduled purchased power agreements. Of this total, firm cogeneration energy purchases account for ■ MWH. Another ■ MWH will be purchased from Hardee Power Partners, at cost-based capacity and energy rates, and an additional ■ MWH will be purchased from Progress Energy Florida, at system average fuel cost.

The remaining ■ MWH or ■ percent of 2005 forecasted wholesale energy purchases will be purchased from as-available cogenerators or on the short-term, non-firm market for economy purposes, which are not hedged. The table on the following page shows the expected spot purchased power amounts by month.

The company's purchased power contracts include a fuel component; therefore, Tampa Electric has exposure to fuel price risk for its wholesale energy purchases, particularly for purchased power supplied from natural gas-fired generation. The fuel component of the price risk could be hedged with financial derivatives, but Tampa Electric does not currently hedge wholesale energy transactions with financial instruments due to the lack of a liquid, published wholesale energy market and appropriate available instruments. The company will continue to evaluate the merits of hedging the fuel price risk of purchased power contracts in its risk management strategy.

EXPECTED PURCHASES					
2005					
	Total Purchases (MWH)	Open Position Purchases (MWH)	Open Position % of Total	Projected Transaction Price (\$/MWH)	Open Position (\$)
JAN					
FEB					
MAR					
APR					
MAY					
JUN					
JUL					
AUG					
SEP					
OCT					
NOV					
DEC					
<b>TOTAL</b>					

In summary, Tampa Electric's planned operations in 2005 result in nominal market risk associated with coal and fuel oil. Non-price risks associated with natural gas and purchased power are also minimal. Therefore, while the company continues to evaluate risk for all fuel and energy commodity transactions, it is currently focused on mitigating the price risk associated with natural gas and purchased power.

### Volume Risk

Hedging of volumetric risk is problematic due to a limited number of viable financial hedging instruments. Tampa Electric has identified the following hedges:

- Maintaining appropriate inventory stockpiles provides a physical hedge against volume risk
- "Swing" contracts enable the buyer to take variable volumes up to a predefined limit
- Full requirement contracts enable the buyer to take any volume up to total usage
- Weather derivatives enable the buyer to take variable volumes depending on weather temperatures and have significant price premiums

Tampa Electric uses swing contracts and full requirements contracts where needed commodity volumes are small and in situations where commodity volumes are unpredictable in volume and/or timing. The company has evaluated

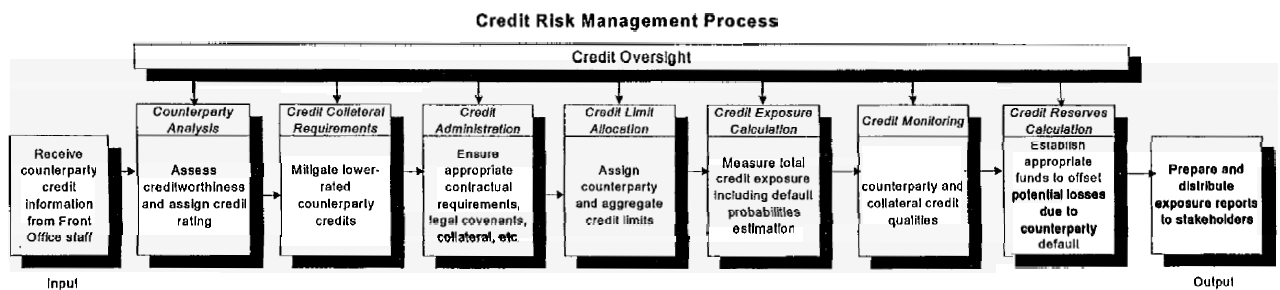
weather derivatives and does not anticipate using them in the near future because they are not appropriate for Tampa Electric's situation.

## Credit Risk

TECO Energy's credit risk management process is composed of the following primary steps. (Also see the figure below.)

- Receive counterparty information for initial processing
- Assess counterparty creditworthiness and assign credit rating (i.e., third-party and internal)
- Determine credit collateral requirements, as needed
- Request, review and monitor contractual requirements, legal covenants, collateral documents and credit provisions
- Establish corporate maximum exposure and allocate appropriate counterparty credit limits to operating companies
- Quantify counterparty exposure and measure against approved limits
- Monitor counterparty and collateral credit qualities
- Calculate appropriate credit reserves to offset losses associated with potential default
- Prepare credit exposure reports that result in updated credit limits for new business transactions entered into by the operating companies

### TECO'S Credit Risk Management Process



## Administrative Risk

In 2004, Tampa Electric purchased and implemented a software program to more efficiently track, monitor and evaluate hedging activities and provide greater reporting capability and control functionality. The system implementation is complete for natural gas and is being evaluated for its application to purchased power.