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July 27, 2021

VIA: ELECTRONIC FILING

Mr. Adam Teitzman
Commission Clerk
Florida Public Service Commission
2540 Shumard Oak Boulevard
Tallahassee, FL 32399-0850

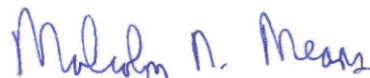
Re: Fuel and Purchased Power Cost Recovery Clause with Generating
Performance Incentive Factor; FPSC Docket No. 20210001-EI

Dear Mr. Teitzman:

Attached for filing in the above docket on behalf of Tampa Electric Company is the Prepared Direct Testimony and Exhibit No, JCH-2 of John C. Heisey, regarding Tampa Electric Company's Risk Management Plan 2022.

Thank you for your assistance in connection with this matter.

Sincerely,



Malcolm N. Means

MNM/bmp
Attachment

cc: All Parties of Record (w/attachment)

CERTIFICATE OF SERVICE

I HEREBY CERTIFY that a true and correct copy of the foregoing Testimony John C. Heisey, filed on behalf of Tampa Electric Company, has been furnished by electronic mail on this 27th day of July, 2021 to the following:

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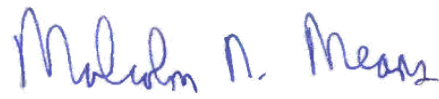
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ATTORNEY



BEFORE THE
FLORIDA PUBLIC SERVICE COMMISSION

DOCKET NO. 20210001-EI
IN RE: TAMPA ELECTRIC'S
FUEL & PURCHASED POWER COST RECOVERY
AND CAPACITY COST RECOVERY

FUEL PROCUREMENT AND WHOLESALE POWER PURCHASES
RISK MANAGEMENT PLAN

JANUARY 2022 THROUGH DECEMBER 2022

TESTIMONY AND EXHIBIT
OF
JOHN C. HEISEY

1 **BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION**

2 **PREPARED DIRECT TESTIMONY**

3 **OF**

4 **JOHN C. HEISEY**

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

7
8 **A.** My name is John C. Heisey. My business address is 702
9 North Franklin Street, Tampa, Florida 33602. I am
10 employed by Tampa Electric Company ("Tampa Electric" or
11 "company") as Manager, Gas and Power Trading.

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

15
16 **A.** I graduated from Pennsylvania State University with a
17 Bachelor of Science in Business Logistics. I have over
18 25 years of power and natural gas trading experience,
19 including employment at TECO Energy Source, FPL Energy
20 Services, El Paso Energy, and International Paper.
21 Prior to joining Tampa Electric, I was Vice President
22 of Asset Trading for the Entegra Power Group, LLC
23 ("Entegra") where I was responsible for Entegra's
24 energy trading activities. Entegra managed a large

1 quantity of merchant capacity in bilateral and
2 organized markets. I joined Tampa Electric in September
3 2016 as the Manager of Gas and Power Trading and
4 currently hold that position. I am responsible for
5 natural gas and power trading activities and work
6 closely with the company's unit commitment team to
7 provide low cost, reliable power to our customers. In
8 addition, I am responsible for portfolio optimization
9 and all aspects of the Optimization Mechanism.

10
11 **Q.** What is the purpose of your testimony?

12
13 **A.** The purpose of my testimony is to sponsor and describe
14 Exhibit No. JCH-2, entitled Tampa Electric Company's
15 Fuel Procurement and Wholesale Power Purchases Risk
16 Management Plan 2022.

17
18 **Q.** Was this exhibit prepared by you or under your
19 direction and supervision?

20
21 **A.** Yes, it was.

22
23 **Q.** Please describe your exhibit.

24
25 **A.** My Exhibit No. JCH-2 provides Tampa Electric's overall

1 plan for mitigating risk in the company's procurement
2 of fuel and purchased power during 2022.

3
4 **Q.** Is hedging activity included in Tampa Electric's Risk
5 Management Plan for 2022?

6
7 **A.** No. In accordance with the 2017 Amended and Restated
8 Stipulation and Settlement Agreement ("2017
9 Agreement"), approved by Commission Order No. PSC-2017-
10 456-S-EI issued on November 27, 2017, in Docket No.
11 20170210, the company agreed that it would not enter
12 any new natural gas financial hedging contracts for
13 fuel through December 31, 2022. Tampa Electric
14 currently has no active natural gas hedges. In
15 accordance with the 2017 Agreement, the company
16 currently has no plans to engage in natural gas hedging
17 activity.

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

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

**TAMPA ELECTRIC COMPANY
FUEL PROCUREMENT AND WHOLESALE POWER PURCHASES
RISK MANAGEMENT PLAN
2022**

Introduction

Tampa Electric serves its retail customers' electricity needs through a portfolio of generation and wholesale purchases. Tampa Electric's generation fuel mix is primarily a blend of natural gas, solar and coal. The company's risk management activities focus on maintaining supplies of fuel to ensure reliable service. Pursuant to Order No. PSC-2017-0451-AS-EU, the company does not currently maintain nor execute any financial hedges to mitigate natural gas price volatility.

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 price risk can be reduced without compromising supply reliability or imposing unnecessary costs on 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 creditworthy counterparties for known volumes and prices.

II. Oversight & Reporting of Fuel Procurement Activities

The company provides fuel and wholesale energy procurement activities with independent and unavoidable oversight.

A. The TECO Energy Board of Directors established an Energy Risk Management Policy ("Risk Policy"). This policy governs all energy commodities transacting activities at each of TECO Energy's operating units. The scope of this 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 Risk Advisory Committee (“RAC”). The responsibilities of the RAC include the following activities:
- Reviewing the Risk Management Policy periodically and recommending changes and enhancements for approval by the Board of Directors (“Board”).
 - Reviewing corporate risk limits for recommendation to the Board.
 - Establishing the quantitative limits for operating companies within Board approved corporate risk limits. 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”), which is overseen by the Senior Director, Enterprise 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 fuel and purchased power procurement activities.

- Fuel and wholesale energy procurement activities are conducted in accordance with company guidelines, including review by Fuels and Executive management.
- All agreements are formalized in a written contract that is reviewed by legal counsel and commercial sponsors.
- The contracts are reviewed by the Senior Director, Enterprise Risk Management of TECO Energy’s Energy Risk Management 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 settled and approved by an independent department.
- Each transaction is eligible for review by outside, internal and regulatory auditors, and audits are performed regularly.
- Information systems provide transaction authority control, credit monitoring, and, if applicable, mark-to-market and value-at-risk analysis and other key controls.

E. In accordance with the Risk Policy, Tampa Electric established commodity specific transaction limits for commodity transactions.

- The RAC reviews and approves commodity transaction limits on an individual basis.
- The limits include commodity, physical or financial, tenor (time limit), and dollar amount.
- If applicable, only a few individuals are authorized to execute financial hedging transactions.

F. Although the company does not currently engage in financial hedging, Tampa Electric’s Fuels Department has applicable policies and procedures. The key elements of its policies and procedures are:

- Financial hedging of fuel commodities is for mitigation of risk to fuel price uncertainty and volatility.
- Hedging will be conducted in a manner consistent with the Risk Management Plan approved by the RAC.
- Execution of hedges under the Risk Management Plan will be consistent with approved transaction limits for authorized transactors.
- Duties will be separated to assure sufficient control over hedging transactions.
- Hedging activity will be monitored regularly and reported at least once a month to ensure consistency with the Risk Management Plan.

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 923, FERC Form 552, FPSC Form 423, FPSC A-Schedules and E-Schedules. In addition, position and, if applicable, mark-to-market reports are produced and reviewed by the Senior Director, Enterprise 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.

A. 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.

- 1. 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 natural gas), it will be susceptible to price increases. Conversely, if a company is in a long position (e.g., excess generation or natural gas supply), it is exposed to decreases in market prices. Currently, Tampa Electric manages its price risk using physical hedges.

In 2022, Tampa Electric is subject to limited price risk related to variation in coal prices. That price risk is mitigated in part because the company has already contracted for much of its expected coal needs at known prices. 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 during 2022 based on the forward price forecasts from various consultants and agencies including the Energy Information Administration ("EIA") and S&P Scenario Planning Service and the company's expected usage under both low and high price natural gas cases. Natural gas expenditures decrease in the low case by an estimated \$22.0 million, and total fuel and purchased power costs decrease by \$22.5 million due to lower prices. In the high case, natural gas expenditures increase by an estimated \$35.2 million, and the total fuel and purchased power costs increase by \$ 36.4 million.

Tampa Electric requires small quantities of fuel oil and maintains a contract that eliminates its supply risk. Due to the small quantities of fuel oil needed for generation, the cost impact caused by price risk is minimal and is therefore not quantified.

2. **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.
3. **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 for natural gas financial instruments since the company does not use financial hedges. Tampa Electric does have some liquidity risk for wholesale power transactions since the Florida market has a limited number of participants.
4. **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. Power basis risk is not a significant issue for the company as most of our purchased power is sourced from the Florida market. Due to the low consumption of coal, Tampa Electric's negligible use of oil, and the sourcing of natural gas supply with index contract pricing at or close to the Henry Hub, gas basis risk is not a significant issue for the company.

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.

B. 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. If fuel supply is curtailed, Tampa Electric utilizes contracted natural gas storage capacity and/or backup fuel to mitigate fuel supply risk. 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 2022 will be managed operationally and through contract terms enforcement, including appropriate legal remedies, should a party default.

C. 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 the potential 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 current credit risk will vary based on the number of its trading counterparties. Tampa Electric's existing credit risk is minimal since it uses a wide variety of counterparties and has systems and processes in place to monitor and control credit risk.

D. 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 commodity 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.

A. Market Risk

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

- Natural Gas
- Coal
- Fuel Oil
- Purchased Power

System energy requirements during 2022 are projected to be served in the proportions shown in the following table.

Commodity	Percent of System Energy
Natural Gas	82
Solar	10
Coal	7
Purchased Power	1

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

1. **Coal:** Tampa Electric has contracted for much of its expected coal needs for 2022 through bilateral agreements with coal producers. The company will provide the projected amounts in both tons and dollars in its 2022 projection filing to be submitted September 3, 2021. Coal prices are expected to remain low in the near term as generation shifts toward renewables and domestic demand for coal continues to decline. Tampa Electric has secured a majority of its coal needs for 2022, reducing exposure to price volatility and mitigating coal volume risk. Tampa Electric’s contracts with suppliers also incorporate legal remedies in the event of default, which address volume risk.
2. **Fuel Oil:** In 2022, Tampa Electric will continue to purchase its fuel oil needs at indexed market prices. Oil represents less than one percent of the company’s needs on a GWH basis, and therefore, associated cost impacts from price risk are minimal. Tampa Electric maintains a contract with a local supplier to deliver all of its needs, which mitigates supply risk.
3. **Natural Gas:** Tampa Electric will prepare its annual natural gas supply Request for Proposal (“RFP”) in Quarter 3, 2021 to procure 70 to 90 percent of its gas requirements for 2022. The company procures the balance of its requirements monthly or daily as

requirements become more certain. All products procured in the annual RFP are at indexed market prices.

Natural gas prices are subject to short term volatility. The drop in natural gas prices during the pandemic, price swings during extreme events like Winter Storm Uri in February 2021, and current price increases associated with the increased demand from the economic rebound outpacing the slow production recovery illustrate the significant and frequent types of events that drive natural gas price volatility. However, long term gas prices are expected to remain relatively low as production growth from shale gas and associated gas from shale oil production is expected to continue.

Pursuant to Order No. PSC-2017-0451-AS-EU, Tampa Electric has discontinued its financial hedging program for natural gas and is not able to resume hedging until the expiration of its moratorium, on December 31, 2022.

4. **Purchased Power:** Total forecasted purchased power for 2022 is 422 GWH. The 2022 forecasted wholesale energy purchases will be purchased from as-available cogenerators or on the short-term, non-firm market for economy purposes.

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. Tampa Electric has never hedged wholesale energy transactions with financial instruments due to the lack of a liquid, published wholesale energy market and appropriate available instruments.

In summary, Tampa Electric's planned operations in 2022 result in nominal market risk associated with coal and fuel oil. Non-price risks associated with natural gas and purchased power are also minimal.

5. **Volume Risk:** Hedging of volumetric risk is problematic due to a limited number of viable financial hedging instruments. Tampa Electric has identified the following physical 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.

Tampa Electric uses inventory 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. Other alternatives will continue to be identified, assessed, and implemented as necessary.

6. **Credit Risk:** TECO Energy's credit risk management process is composed of the following primary steps.
 - Gather counterparty information for initial evaluation.
 - Assess counterparty creditworthiness and assign credit limit.
 - Determine credit collateral requirements, as needed.
 - Request, review and monitor contractual requirements, legal covenants, collateral documents and credit provisions.
 - Quantify counterparty exposure and measure against approved limits.
 - Monitor counterparty and credit support provider qualities.
 - Prepare credit exposure reports on a daily basis that are reviewed prior to entering into transactions.

7. **Administrative Risk:** Tampa Electric maintains energy trading risk management systems and processes to efficiently track, monitor and evaluate contracts and trading activities. Tampa Electric's administrative processes and system controls have passed repeated internal and external (Sarbanes-Oxley) audits.