

GRU Administrative Guideline 6.1

TOPIC: ENERGY RISK MANAGEMENT POLICY

EFFECTIVE: DECEMBER 1, 2004

REVISED: NOVEMBER 14, 2016

DEPARTMENT: ENERGY SUPPLY

GENERAL

Gainesville Regional Utilities' (GRU) objective for energy risk management is:

To protect our customers from excessive energy price increases while, at the same time and to the extent possible, minimizing the cost of reliable energy supplies.

The types of energy market and operating risks GRU must manage include: a) price risk (risk related to price deviations in energy markets); b) volumetric risk (changes in supply, fuel or power requirements and/or sales); c) credit risk (risk related to counter-party contract fulfillment); d) delivery risk (risk related to fuel or energy transportation availability or interruptions); e) outage risk (scheduled and unscheduled); f) event risk (related to acts of nature, accident, or malice); g) weather risk (related to the effects of weather on load and supply); and h) catastrophic risk (major unplanned and uncontrolled events). There are numerous methods for managing or hedging these risks, including insurance, mutual aid agreements, forwards contracts, fuel inventories, and **Financially Traded Instruments**. **Financially Traded Instruments** include **Futures Contracts**, **Options** on Futures Contracts, and **Over-the-Counter (OTC) Commodity Derivative** transactions. These methods may be applied alone or in any combination to reduce, or offset, the economic impact to GRU's ratepayers attributable to any of the types of risks identified above.

PURPOSE AND SCOPE

This guideline addresses: a) the purchase or sale of **Financially Traded Instruments** intended to hedge GRU's costs or revenues related to fuel and electricity; and b) the management of counter-party credit and credit commitments associated with **Financially Traded Instruments** related to fuel and electricity. All transactions covered by this policy will be executed under GRU's Operating Agreement with The Energy Authority (TEA), which shall prepare certain required analyses and reports and maintain the associated record keeping. Any other transaction shall be considered an exception to this policy and will be reviewed and authorized by GRU's Risk Oversight Committee.

DEFINITIONS

The following definitions shall apply for the purposes of this policy.

Cash-Flow-at-Risk: The amount by which Net Cash will be no lower than expected, expressed with a confidence level of 95%. This measure of risk has the unique attribute of encompassing both hedged and naturally open positions (i.e., the exposure to risk inherent in the system) to arrive at a total risk exposure (constrained in accuracy to the parameters evaluated and the probability distributions applied).

Designated Alternate: GRU Staff member that has been designated to perform the duties and responsibilities of a Risk Oversight Committee member in the event of his/her absence or unavailability. Designated Alternates should attend all ROC meetings, receive and review documents provided to ROC members, and maintain awareness of all issues or decisions under consideration by ROC members. Designated Alternates shall not have any authority in ROC meetings except in cases where the affected ROC member is not present.

Effectiveness: the effectiveness of a derivative is established if the changes in cash flows or fair values of the potential hedging derivative instrument substantially offset the changes in cash flows or fair values of the hedgeable item.

Expected Commodity Transaction: A transaction that is forecasted and is probable to occur during a defined time period.

FASB: Financial Accounting Standards Board

F.E.R.C.: Federal Energy Regulatory Commission

Financial Power: An agreement between two parties to buy or sell power for delivery out of or into a trading hub, such as Entergy, with the intent to offset or liquidate the transaction prior to the time delivery is scheduled to begin.

Financial Transaction: A transaction involving a **Financially Traded Instrument**. The utility may arrange to be either the buyer or seller of such Financial Transactions, depending upon the circumstances.

Financially Traded Instruments: A product that is intended to be settled financially rather than by taking or making physical delivery. The **Financially Traded Instruments** authorized under this Policy include **Futures Contracts, Options on Futures Contracts, and Over-the-Counter Commodity Derivatives**.

Forward Contract: An agreement between two counter-parties to buy/sell the commodity in the future at an agreed upon price. The terms of the contract are negotiable and may be customized.

Fuel Basis Swaps: An agreement between two parties to exchange cash flows based on the difference between two prices (e.g., the settlement price of the NYMEX fuel Futures Contract and the Inside F.E.R.C index for FGT Zone 1).

Fuel Price Swaps and Options: An agreement between two parties to exchange cash flows based on the difference between the contract price and the settlement price of the NYMEX fuel Futures Contract (in the case of a Swap) or between the strike price and the NYMEX settlement price (if positive) in the case of an Option.

Futures Contract: A firm contractual purchase or sale of a commodity on the New York Mercantile Exchange or other exchange for a specified volume for delivery of the financial equivalent of the underlying commodity during a specified month in the future.

Futures Position: The subset of a **Hedging Strategy** that contains **Futures Contracts**.

GASB: Governmental Accounting Standards Board.

Hedging Derivative Instrument: A **Financially Traded Instrument** or other contract that has the characteristics of settlement factors, leverage, and net settlement that is employed to reduce identified financial risks by offsetting changes in cash flows or fair values of the associated item.

Hedging Strategy: A set of **Financial Transactions**, **Forward Contracts**, and/or physical **Options** designed to hedge risks for a specified amount of underlying commodities.

Mark-to-Market Value: The gain or loss the utility would bear if all the financial contracts held were to simultaneously be liquidated at the current forward price for the corresponding months.

Net Cash: The net cash available to GRU; computed by subtracting fixed and variable costs from retail and wholesale revenues.

NYMEX: New York Mercantile Exchange

Option: A contract between two parties giving the buyer the right, but not the obligation, to purchase or sell a given commodity at a specified price at any time up to the expiration of the contract, in exchange for a one time premium.

Options on Financial Power: An **Option** with either daily or monthly exercise rights with power delivered out of or into a trading hub, such as Entergy, as the underlying commodity.

Over-the-Counter (OTC): Commodity Derivatives: For purposes of this Policy, the OTC Derivatives that are authorized are limited to Fuel Price Swaps and Options, Fuel Basis Swaps, Financial Power, and Options on Financial Power.

Prudent Review: Prudent Review shall include consideration of relevant factors, including but not limited to: a) hedges already in place; b) historical long and short term changes in key indicators correlated with energy prices; c) **Futures Contract** prices and **Forward Contract** prices; d) customer requests for firm prices; e) the risks addressed by the proposed transaction (e.g., the NYMEX component of price risk); f) the risks not addressed by the proposed transaction (e.g., basis risk, volume risk, intra-month price risk, etc.), g) the expected need for the underlying commodity; h) any due diligence analysis prepared by TEA, GRU Fuels Management, GRU Power Marketing or GRU's energy risk management consultant(s), and i) other supporting information as may have been provided to the Risk Oversight Committee related to the Hedging Strategy.

Regulated Entity for Accounting Purposes: As defined in GASB Statement No. 62, paragraphs 476-500, Regulated Operations, a regulated entity for accounting purposes is an enterprise that has regulated operations whose rates are established by an independent third party regulator or its own governing board, designed to recover costs of providing the regulated products or services and set at a level that can be charged to and collected from customers.

Risk Oversight Committee: A GRU staff committee with the responsibilities as established by this policy.

SFAS: Statements of Financial Accounting Standards.

Value at Risk: The Value at Risk is the maximum expected daily change in the **Mark-to-Market** value of financial positions expressed with a confidence level of 95%.

RISK OVERSIGHT COMMITTEE

The General Manager is authorized by the Gainesville City Commission to manage the acquisition of fuel supplies and electricity to meet the System Load for GRU customers. The General Manager has also been authorized to conduct any necessary risk management and/or hedging activity required to protect customers from market volatility and excessive prices. The General Manager may delegate his/her authority to conduct the day-to-day fact finding and analysis of energy markets to the GRU Risk Oversight Committee (ROC). The ROC shall be responsible for assembling and analyzing fuel and electricity forecasted prices, futures prices, market pricing for Financially Traded Instruments, GRU load and generation forecasts and any other information necessary to manage the risk associated with fuel and electricity supplies for GRU's generating system and its Natural Gas Local Distribution Company (LDC). The General Manager retains his/her authority for final approval of all fuel and electricity hedging activity. The ROC is charged with reviewing all of the relevant market data, GRU requirements for fuel and electricity and reaching consensus on a strategy to manage the associated risks. The fact-findings and recommendations of the ROC shall to be transmitted to the General Manager for final review and approval to implement the risk management strategy.

The ROC shall consist of three (3) members. The members include the Chief Operating Officer, the Chief Financial Officer, the Energy Supply Officer, and/or their Designated

Alternate as necessary from time to time. The membership of the ROC shall be reviewed annually by the General Manager and revised as necessary to reflect organizational changes in personnel and responsibilities. Each ROC member shall have the unilateral ability to call for a meeting, and shall have a **Designated Alternate** in case of absence.

The General Manager tasks the ROC to perform fact-finding and ultimately make recommendations to the General Manager related to the items set forth below:

Fuel

- The Chief Financial Officer is the primary designee for fact-finding purposes in the use of **Financial Traded Instruments** and fuel hedging criteria for all fuel types.
- In the event that the General Manager and the Chief Financial Officer are unavailable, the alternate designee for fact-finding purposes is the Director of Fuels, Power Marketing & Business Services.

Electricity

- The Chief Financial Officer is the primary designee for fact-finding purposes in the use of **Financial Traded Instruments** and energy criteria to hedge electricity.
- In the event that the General Manager and the Chief Financial Officer are unavailable, the alternate designee for fact-finding purposes for hedging electricity is the Director of Fuels, Power Marketing & Business Services.

The Manager of the Fuels Management Department shall provide staff support to the ROC, including, but not limited to: calling meetings, setting agendas, preparing fact-finding analyses, maintaining order during meetings, and implementing approved Hedging Strategies.

The function of the ROC is fact-finding and making recommendations to the General Manager for the General Manager's review and approval.

RESPONSIBILITIES OF THE ROC

The ROC may meet periodically to re-evaluate the criteria under which the General Manager's designee shall perform in a fact-finding function. The General Manager's approval is needed to revise any such criteria. The ROC is charged with fact-finding and recommending only, with the decision-making authority resting with the General Manager. The fact-finding outcomes of the ROC meetings shall be provided to the General Manager for review and approval prior to implement the risk management strategy. The ROC shall also review exceptions related to policies, procedures, and limits.

Each member of the ROC is charged with the following specific responsibilities:

- Maintenance of this policy and associated procedures.
- Annual review of this policy to ensure that adequate governance and control functions are achieved by ROC structure and processes, hedging policy and procedures, and staff oversight.

- Annual review of hedging portfolio performance and effectiveness metrics to ensure that the General Manager and ROC members have the appropriate data to determine performance and alignment of the hedging function with the policy objective.
- Participating in ROC meetings and assuring that the ROC is kept abreast of pertinent issues.
- Reviewing risk reports provided by TEA, GRU Fuels Management and/or GRU's energy risk management consultant(s).
- Providing Prudent Review of potential Hedging Strategies developed by TEA, Fuels Management and/or GRU consultants.
- Developing ROC member consensus to accept, modify or develop new Hedging Strategies as a recommendation to the General Manager.
- Reviewing proposed **Hedging Strategies** and TEA due diligence analyses to ensure they comply with policy guidelines.
- Monitoring compliance with the policy (products, limits, authorized individuals, etc.) and reporting all exceptions to the policy and limits to the General Manager.
- Ensuring documentation of all transactions is in compliance with risk policy.
- Monitoring the interest earnings of GRU's brokerage investments and extensions of GRU's credit assurances.
- Developing measures and targets for GRU's **Cash-Flow-At-Risk**.

FUELS MANAGEMENT DEPARTMENT

The Director of Fuels, Power Marketing & Business Services and the Manager of the Fuels Management Department or his/her designee is empowered to execute Financial Transactions pursuant to this guideline, and shall maintain records documenting **Prudent Review** for every **Hedging Strategy** as well as documentation of every Financial Transaction.

Additional responsibilities include:

- Execution of approved **Hedging Strategies** through TEA.
- Assembly of all relevant market data, price forecasts, GRU operating data, brokerage analyses, etc. required for ROC to conduct a Prudent Review of fuel and electricity risks to the GRU system.
- Documentation of hedging decision by the General Manager or the General Manager's designee(s).
- Reporting of hedging decisions to the General Manager and ROC members.
- Serving as primary interface with TEA's financial traders.
- Serving as the primary interface with TEA risk analysis and control personnel.

- Reviewing daily **Mark-to-Market** reports.
- Preparation of periodic reports.
- Documenting, on an annual basis, that all individuals with responsibilities under this policy have read and understand the most recent version of this document.
- Daily monitoring of energy markets, assessment of market analyses, tracking of energy prices and reporting of relevant trends or events to ROC members.
- Regular reporting of energy pricing levels, pricing trends and potential impacts on GRU's portfolio of **Financially Traded Instruments**.

CHIEF FINANCIAL OFFICER'S ADDITIONAL RESPONSIBILITIES

- Compliance review of hedging decision and report exceptions to the General Manager.
- Providing TEA with appropriate, written authorizations for each person to whom the authority to execute is delegated.
- Financial management and maintenance of GRU energy related brokerage accounts.

INTERFACE WITH TEA

The Director of Fuels, Power Marketing & Business Services is designated to be the primary operational interface with TEA's VP-Risk Control with regard to this policy. TEA's VP-Risk Control is authorized to contact, or to be contacted by, any other member of the ROC as needed with regard to this policy.

GUIDELINES AND POLICIES

Operational Controls

1. Prior to execution of any **Hedging Strategy** in any fiscal or calendar year, the projected fuel volumes, system loads, system generation, scheduled outages and power purchase forecasts and assumptions shall be reviewed and approved by the ROC. The ROC approved projected volumes shall be consistent with those contained in the GRU Budget and provided to TEA. The ROC may, at any time, with appropriate justification and the General Manager's approval, revise the forecasted fuel or electricity volumes to reflect current conditions on the GRU system. TEA and Fuels Management shall only use ROC approved volume projections for hedging criteria analysis and as the basis for developing any **Hedging Strategy**.
2. Prior to execution of any **Financial Transactions**, the **Hedging Strategy** must be approved by the General Manager or his/her designee.

3. **Financial Transactions** will only be made pursuant to an approved **Hedging Strategy** or if it is to liquidate an existing position: (i) in anticipation of expiration of the underlying instrument (e.g., expiration of an Option or termination of trading in a **Futures Contract**), (ii) to adjust to changes in underlying physical assumptions or asset availability (e.g., responding to an unplanned unit outage), or (iii) to adopt more favorable terms in response to market changes provided that the **Financial Transaction** is liquidated with the intention of reducing GRU's **Cash-Flow-At-Risk**.
4. Counter-party credit is to be assured by executing all **Financial Transactions** through TEA, whose policies are governed by the TEA Board of Directors, on which GRU's General Manager has a voting position.
5. All individuals responsible for executing transactions as well as those with other responsibilities under this policy shall acknowledge on an annual basis that they have read, understand, and will comply with this policy.
6. The ROC shall review the fuel and electricity hedging criteria as needed.

Risk Measurement

GRU shall use **Cash-Flow-at-Risk (CFaR)** as its primary risk measurement metric. CFaR for the utility shall be calculated on at least a semi-annual basis and shall cover the forthcoming eighteen-month period. It is the responsibility of the ROC to ensure that appropriate Hedging Strategies are implemented to constrain the CFaR.

Limits and Criteria for Fuel

The total volume of the commodity which the Fuels Management Department is authorized to hedge through Financial Transactions for any given future month may not exceed 100% of the utility's documented estimate of requirements for utility operations for the month in question.

- Any Financial Transaction committing the utility in excess of 75% of the utility's expected requirement for a given future month shall be considered an exception under this guideline. Such exceptions must be authorized by the General Manager in advance of implementation of any associated Hedging Strategy.
- Unless executed pursuant to (2) under Operational Controls, no Financial Transaction may be executed if it increases the CFaR without the approval of the General Manager.

Limits and Criteria for Electricity

The total volume of the commodity which the Power Systems Operations Department is authorized to hedge through Financial Transactions for any given future month may not exceed 100% of the utility's documented estimate of requirements for utility operations for the month in question.

- Any Financial Transaction committing the utility in excess of 75% of the utility's expected requirement for a given future month shall be considered an exception under this guideline. Such exceptions must be authorized by the General Manager in advance of implementation of any associated Hedging Strategy.
- Unless executed pursuant to (2) under Operational Controls, no Financial Transaction may be executed if it increases the CFaR without the approval of the General Manager.

Accounting for Financially Traded Instruments

GRU records fuel and financial related derivative instruments in accordance with GASB Statement No. 53, *Accounting and Reporting for Financial and Derivative Instruments*. All effective derivative instruments are included in the Statements of Net Position as either an asset or liability measured at fair market value. All ineffective derivative instruments are recorded as a regulatory asset. Changes in the fair value of the hedging derivative instruments during the year are recorded as either deferred outflows or deferred inflows and are recognized in the period in which the derivative is settled. The settlement of fuel and financial related hedging derivative instruments are included as a part of fuel costs and interest expense, respectively, in the Statements of Revenues, Expenses, and Changes in Net Position.

Monitoring and Reporting

1. Documentation for each Financial Transaction shall include at a minimum:
 - a. A unique identifying code that identifies the approved Hedging Strategy it was executed under
 - b. The ROC and General Manager authorizations issued for its execution
 - c. Any related orders and confirmations
 - d. The underlying item being hedged
2. **Mark-to-Market** reports shall be reviewed daily by the Fuels Manager (or designee) and summaries of these reports will be presented at each ROC meeting.
3. A monthly Management Summary reporting the financial positions taken, historical hedge summary, positions taken within the reporting month, and the **Mark-to-Market** value of the positions will be prepared by the Manager of the Fuels Management Department and distributed to the General Manager and ROC members.

Exceptions

Any deviation or exception from these guidelines is to be reported to the General Manager. Any Financial Transactions not covered under this policy or other GRU purchasing policies shall require General Manager approval.

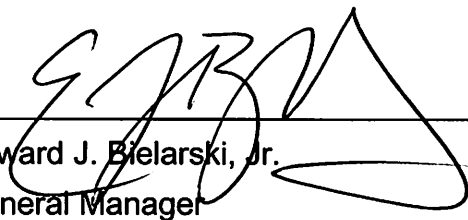
APPROVED EXPENSES

The General Manager authorizes funds for **Financial Transactions** to be deposited as required into interest bearing accounts at brokerage firm(s) with which GRU has a contractual relationship. The ROC will review the risk management program, and modify cash limits and credit requirements subject to the approval of the General Manager.

PROHIBITED EXPENSES

Execution of **Financial Transactions** under conditions not meeting the above guidelines is prohibited without prior approval from the General Manager.

Approved:



Edward J. Bielarski, Jr.
General Manager

11/21/16

Date