# BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION CONFIDENTIAL

IN RE: Review of Investor-Owned Electric Utilities' Risk Management Policies and Procedures

Docket No.:
Date Filed:

011605-EI June 11, 2002

# REQUEST FOR CONFIDENTIAL CLASSIFICATION EXHIBIT "A"

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under separate cover as confidential information





# State of Florida

Commissioners: LILA A. JABER., CHAIRMAN J. TERRY DEASON BRAULIO L. BAEZ MICHAEL A. PALECKI RUDOLPH "RUDY" BRADLEY



Walter D'Haeseleer, Director Division of Competitive Markets & Enforcement (850) 413-6600

# Public Service Commission

May 30, 2002

Ms. Linda Davis
Regulatory Affairs
Gulf Power Company
One Energy Place
Pensacola, Fl. 32520-0780

Dear Linda:

Please find enclosed a draft copy of the Bureau of Regulatory Review's recently completed Internal Controls of Florida's Investor Owned Utilities for Fuel and Wholesale Energy Transactions. The draft is being provided to allow your company to review it for factual accuracy and confidentiality concerns prior to the exit conference. We encourage the company's assistance and feedback during the exit conference and we request the exit conference to be held on June 6, 2002. We believe a teleconference will suffice for this purpose.

If the company wishes to provide written comments on the report, we ask that the comments be provided to staff no later than June 12, 2002. These comments will be published in the final report.

In accordance with Chapter 25-22.006(3) of the Florida Administrative Code, upon the completion of the exit conference, the company will have 21 days to file any requests for confidential treatment with the Division of the Commission Clerk and Administrative Services. The request for confidential classification of selected lines of the report should be filed in accordance with 25-22.006(4) of the Florida Administrative Code.

To assist us in making the report available for informational purposes in Docket No. 011605-EI, we are requesting that you waive the 21 day rule. Please file any requests for confidential treatment by June 12, 2002 so that the report can be published on June 14. Thank you for the cooperation extended by your company and its employees during the completion of this review. If you have any questions, please contact Lou Yambor at (850) 413-6530.

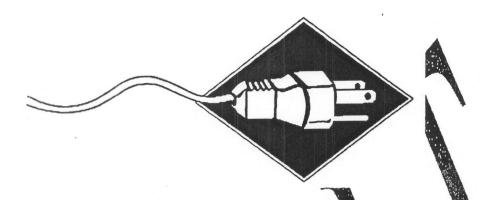
Sincerely,

Lisa S. Harvey, Chief Bureau of Regulatory Review

LSH/bjm Enclosure

Walter D' Haeseleer, Director, Division of Competitive Markets & Enforcement Beth Salak, Assistant Director, Division of Competitive Markets & Enforcement

# 6.0 GULF'S FUEL PURCHASING PRACTICES



# Review of Internal Controls of Flor day, Investor Owned Utilities for Fuel and Wholes ale

34 te 2002

By Authority of
The State of Florida for
The Public Service Commission
Division of Competitive Markets and Enforcement
Bureau of Regulatory Review



# Review of Internal Controls of Florida's Investor Owned Utilities for Fuel and Wholesale Energy Transactions

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June 2002

By Authority of
The State of Florida for
The Public Service Commission
Division of Competitive Markets and Enforcement
Bureau of Regulatory Review

RR-01-08-004

# **Table of Contents**

Ch	apte		Page
1.0	EXE	ECUTIVE SUMMARY	
	1.1	Objectives	2
	1.2	Scope	2
	1.3	Methodology	
	1.4	Overall Opinion	
2.0	BAC	CKGROUND AND PERSPECTIVE	
	2.1	Gas Industry Development	8
	2.2	Fuel Cost Recovery	10
	2.3	Current Trends in Utility Purchasing of Fossil Fuel	10
	2.4	Industry and Commission Actions Regarding Hedging	
	2.5	National Regulatory Research Institute Report	
	2.6	Internal Controls for Physical and Financial Hedging	14
3.0	FPL'	'S FUEL PURCHASING PRACTICES	
	3.1	FPL Company Profile	18
	3.2	FPL's Fossil Fuel Purchasing Policies and Controls	
	3.3	FPL's Wholesale Energy Purchasing and Sales Policies and Controls	
	3.4	FPL's Risk Management Plan	
	3.5	Risk Plan Analysis	38
4.0	FPC'	'S FUEL PURCHASING PRACTICES	
	4.1	FPC Company Profile	40
	4.2	FPC's Fossil Fuel Purchasing Policies and Controls	45
	4.3	CP&L's Wholesale Energy Purchasing and Sales Policies and Control	s50
	4.4	FPC's Risk Management Plan	
	4.5	Risk Plan Analysis	59
5.0	TEC'	'S FUEL PURCHASING PRACTICES	
	5.1	TEC Company Profile	62
	5.2	TEC's Fossil Fuel Purchasing Policies and Controls	66
	5.3	TEC's Wholesale Energy Purchasing and Sales Policies and Controls	68
	5.4	TEC's Risk Management Plan	69
	5.5	Risk Plan Analysis	75

# 6.0 GULF'S FUEL PURCHASING PRACTICES

6.1	Gulf Company Profile	8
6.2	Gulf's Fossil Fuel Purchasing Policies and Controls	2
6.3	Gulf's Wholesale Energy Purchasing and Sales Policies and Controls 8	4
6.4	Gulf's Risk Management Plan 8	5
6.5	Risk Plan Analysis	5

# **Table of Exhibits**

No.	Exhibit Name	Page
1.	U. S. Natural Gas Electric Utility Prices 1974-2000	9
2.	FPL Group 2001 Organizational Structure	19
3.	Energy Marketing and Trading Division for 2001	21
4.	Risk Management Organizational Chart	22
5.	Finance and Accounting Organizational Chart	23
6.	EMT's Market Trading Loss Limits	26
7.	FPL Group Credit Matrix per Each Corporation	27
8.	FPL's Fossil Fuel Purchases	29
9.	FPL's Wholesale Megawatt Purchases, Sales, and Options	33
10.	Progress Energy 2002 Organizational Structure	41
11.	CP&L Gas & Oil Trading	42
12.	Progress Ventures-Progress Fuels	43
13.	CP&L Power Trading	44
14.	CP&L's Fossil Fuel Purchases	48
15.	FPC's Wholesale Megawatt Hour Purchases, Sales, and Options	51
16.	TECO Energy 2002 Organizational Chart	63
17.	Tampa Electric Fuels Department	64
18.	Tampa Electric Wholesale Power Group	65
19.	TEC's Fossil Fuel Purchases	67
20.	TEC's Wholesale Megawatt Hour Purchases, Sales, and Options	69
21.	Southern Company Organizational Chart	79

22.	SCS Fuel Services 2002	80
23.	Southern Company Risk Management Services Functional Separation of Duties	81
24.	Gulf Fossil Fuel Purchases	83
25.	Gulf's Wholesale Megawatt Hour Purchases, Sales, and Options	85

# 1.0 EXECUTIVE SUMMARY

# 1.0 Executive Summary

# 1.1 Objectives

On November 26, 2001, as a spin off of Docket 010001-EI, Docket 011605-EI was created to fully address the issue of risk management and the hedging theory. Consequently, the Florida Public Service Commission's (FPSC) Division of Economic Regulation requested that the Bureau of Regulatory Review (BRR) examine and evaluate risk management policies and procedures associated with the procurement of fossil fuel and wholesale energy for the four largest investorowned electric utilities: Florida Power and Light (FPL), Florida Power Corporation (FPC), Gulf Power (Gulf), and Tampa Electric Company (TEC).

BRR's primary objectives were as follows:

- To protect the interests of ratepayers and evaluate the processes by which each company obtains fuel and manages its fuel procurement, to determine how effectively these practices are used, and to ensure that adequate and effective policies and procedures are in place
- To provide a basis for enhancing the Commission staff's understanding and knowledge of each company's risk management policies and procedures associated with the procurement of fuel and wholesale energy
- To provide an overview and comparison of hedging current and best practices within the electric utility industry
- Identify those areas where the greatest opportunities exist to improve both managerial and operational practices and where cost-effective benefits may be realized

# 1.2 Scope

Using the content from these objectives, this study looked at the four largest IOU's overall practices, controls, and policies when purchasing fossil fuel and wholesale energy. The review looked at the years from 1998 through 2001. Additionally, staff considered what other state commissions have recommended to curtail fuel prices and what the electric utility industry has considered when hedging techniques and financial options are sanctioned policies. This review is not intended to give an opinion on the use of financial hedging by a regulated utility. Instead, its focus is on controls that should be used if such a strategy were to be pursued.

# 1.3 Methodology

This review was based upon information gathered through document requests, interrogatories, interviews with fossil fuel department personnel, examination of company policies and procedures, and analysis of all company trading. These trading transactions include all hedging, contracts, contract swaps, options, and the spot market. Particular attention was given to current practices and to comparing them to industry recommendations.

In examining these practices and philosophies, staff focused on the following information sources:

- ◆ Transcripts of the FPSC undocketed Hedging and Portfolio Management Workshop held on May 14, 2001
- FPSC's Digest of Commission Regulatory Practices, Section XIII, Fuel and Purchased Power, Revised 4/98
- Regulatory Perspective on Hedging and Speculating in the Electricity Futures

  Market, FPSC Bureau of Research, July 1997
- Review of Purchasing and Selling Practices for Natural Gas, FPSC Bureau of Auditing, Audit Control No. 00-353-4-1, April 2001
- A Practical Guide to Hedging: Operational and Accounting Controls, Financial Reporting, and Federal Income Tax, NYMEX/PricewaterhouseCoopers, Chapter 4, pp 40-47, June 2001
- Use of Hedging by Local Gas Distribution Companies: Basic Considerations and Regulatory Issues, National Regulatory Research Institute, May 2001
- Investment Management Theory and Application, Sarkis J. Khoury, 1983
- Company responses to FPSC interrogatories and document requests
- Other documented Commission activities related to fuel cost recovery

# 1.4 Overall Opinion

There is considerable risk for utilities opting not to engage in financial hedging and there is considerable risk inherent in financial hedging. More risk is encountered if such an activity is not

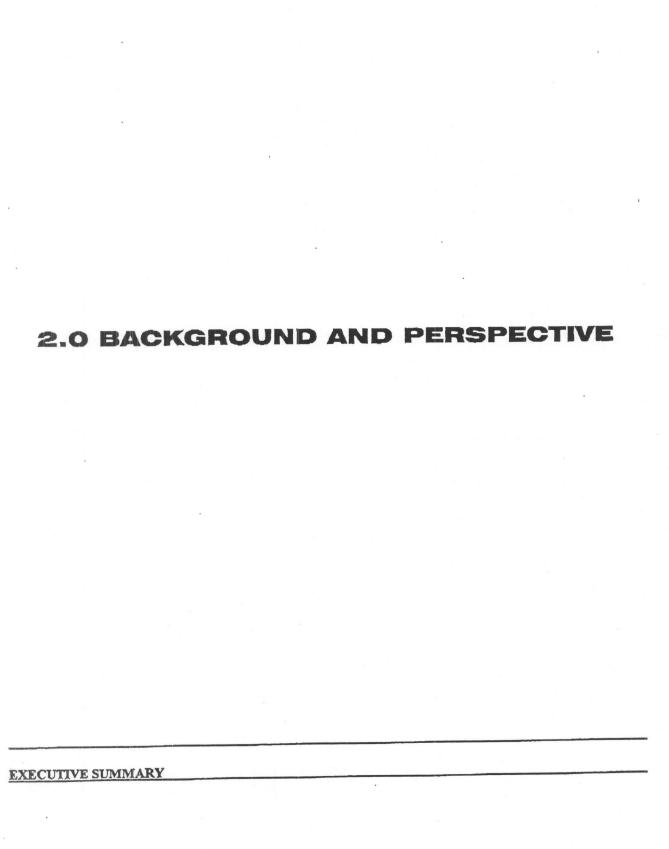
adequately controlled<sup>1</sup>. Given that, the summary below describes each company's approach to hedging techniques in fuel procurement and related controls.

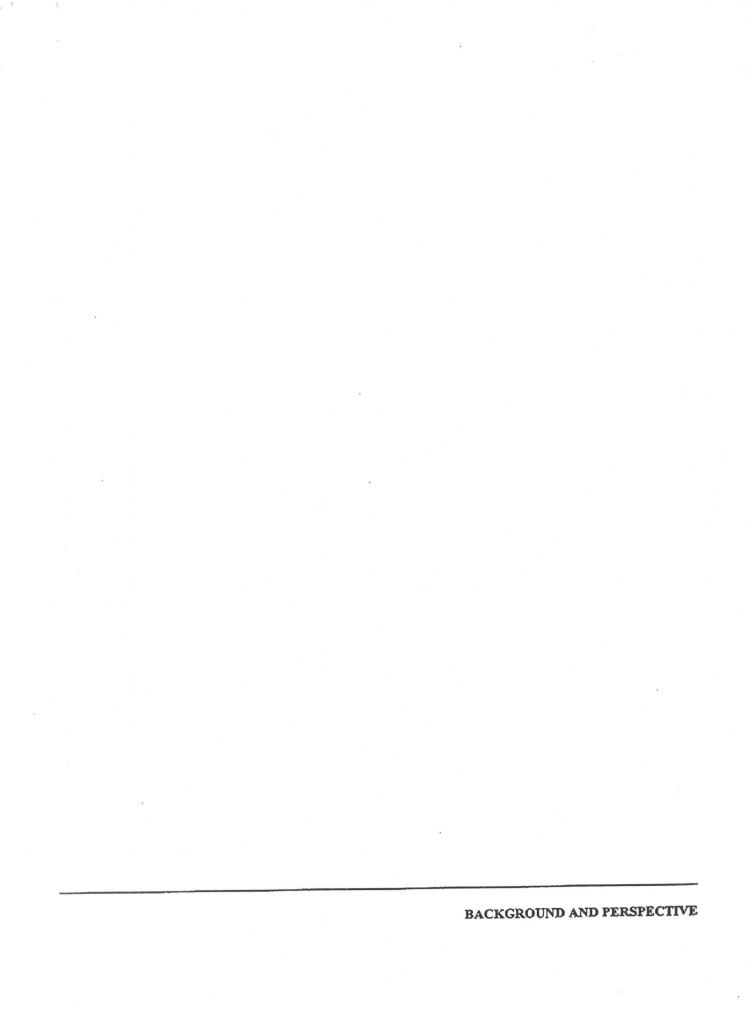
1.4.4 Gulf Power Company

Gulf also lacks some of the controls necessary to operate a risk management program. Similar to FPC, Gulf has multiple companies and departments contributing to the trading portfolio. Southern Company should consider central consolidation under the Risk Management Department. Secondly, the risk management policy needs more detail regarding office designation, credit monetary limits, and other department procedures that support the entire procurement and trading operation. Currently, Southern has not engaged in any hedging transactions for Gulf, but is financially trading on behalf of Savannah Electric and Alabama Power.

Policies and procedures that support the company risk management concept need much more detail and revision. For example, the contract procedures for fuel procurement are only six pages long and lack any policy on procuring gas and oil. They address coal only. The company is currently revising them. More detail is provided in Sections 6.2 and 6.3.

Application, "No matter how well conceived a hedging strategy is, it is not always superior to a no-hedge position. . . . hedging depend[s] on expectations. . . the ability to predict the behavior of the basis should dictate the hedge ratio (where the hedge ratio is). . . determined the yield volatility of the asset to be hedged relative to that of the futures contract."





# 2.0 Background and Perspective

# 2.1 Gas Industry Development

The nationwide natural gas prices during 2000/2001 resulted in a burden on many utility customers and prompted regulators to look for ways to protect consumers from fuel price spikes.

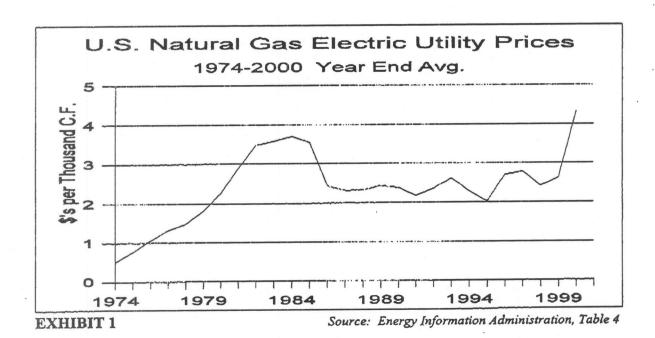
One option is to do nothing, assume these spikes are rare, isolated occurrences. However, public response demanded price protection. There appear to be two alternatives state utility commissions have used to mitigate utility fuel cost recovery: mandating some form of hedging or locking in prices through price moratoriums. Both alternatives can shift part of the price risk from rate payers to the companies.

Both of these options would require a company to create a risk management plan and a department to execute the plan. A company that has heavily depended on spot purchases and contracts as its purchasing norm may have to redefine its mission and acquire personnel who have commodity trading, forecasting, and financial skills. Further a utility company that fails to mitigate fuel prices through some form of hedging or alternate purchasing plan run the risk that a regulator could deny full cost recovery.

According to Webster's Third New International Dictionary, "a commodity is something of value especially when regarded as an article of commerce." Fossil fuels (natural gas, coal, crude oil) and wholesale energy are classified as commodities. Commodities are nonfinancial by nature but are sold through futures contracts and are commonly traded on recognized exchanges. Futures trading has long existed for commodities such as orange juice, metals, livestock, and currency. The most prominent futures exchange for gas is the New York Mercantile Exchange (NYMEX), although there are currently sixteen exchanges across the United States that trade commodities.

Natural gas price volatility began with the Natural Gas Policy Act of 1978 and the passage of the Wellhead Price Decontrol Act of 1989. The 1989 Act transformed natural gas from a regulated supply into a speculative commodity that began trading in 1992. Today, all utility commissions must cope with a market that can be changed by rumors and speculators who are betting on rising and falling prices.

Exhibit 1 depicts the price trend for natural gas in the United States from 1974 through 2000. More important are the future prices of gas. The Energy Information Administration predicts that natural gas prices will rise at a faster pace than oil. The Energy Information Administration expects natural gas to increase 2.8 percent per year reaching \$3.13 by 2020. Rising prices are reflected by projected rising demand.



Supply will be a cause for concern for utilities. The trend of electric utilities either converting plants to natural gas or building gas-fired power has greatly impacted demand. Increased demand creates concerns about gas production. The Energy Information Administration predicts that short-term (through 2004) and mid-term (2010) supply appears adequate, but long-term (2020) domestic production is not expected to keep up with demand.

The Energy Information Administration asserts that natural gas demands have risen 57 percent due to increased demand in electricity generation since 1999. By 2020, demand by utilities is expected to rise to 11.3 trillion cubic feet when based upon usage for the year 1999. That would be a rise of 336 percent. The Energy Information Administration cautions consumers that the ever-increasing demand raises the following questions:

- ♦ Is there enough to gas to meet demand?
- Can it be produced fast enough?
- Can we build pipelines fast enough?
- How high will prices go?

Questions such as these can and have affected market prices. A shortage assures higher prices, and increased availability can reduce prices. This is further solidified by looking at natural gas futures on the NYMEX Henry Hub Index for one-thousand cubic feet. In December 2001, the price was set at \$2.55. In December 2002 it is \$3.44, and for December 2003, it is \$3.80.

A key event affecting the wholesale energy markets took place in 1996 when the Federal Energy Regulatory Commission (FERC) laid the foundation for competitive wholesale power markets by opening access to transmission lines. The wholesale energy bulk trading market started

with the establishment of the Independent System Operators, and in 1999 FERC mandated grid management through Regional Transmission Organizations. This rule affected all public held electric companies.

At present, bulk power is traded at NYMEX and other markets in various hubs throughout the United States. The hubs are regional since interconnections are the limitations. For example, no transmission connection exists between Florida and California. Clusters among neighboring utilities are the norms. Peninsular Florida belongs to the Florida Regional Reliability Council region.

Wholesale power is traded and sold in megawatt hours. Like any other commodity, both futures and options are available. According to NYMEX data accumulated in Energy Information Administration, a large amount of electricity is traded in wholesale purchases and resale contracts. IOUs are responsible for over half of all those sales. In the last quarter of 2001, the NYMEX average megawatt hour sold for \$35. However, in that same year, which was subject to heat waves and other factors such as the time of day and weather, a megawatt hour has sold for more than \$1000.

# 2.2 Fuel Cost Recovery

From 1974 and forward, oil volatility has keenly affected utilities and the ratepayers they serve. It led to the mechanism used to recuperate the cost of fuel that cannot be anticipated in base rates costs: fuel and purchase recovery clause. Florida's history on this clause goes back to the 1950's, but it was effectively established in 1974 by Florida Public Service Commission Order No. 6357. It has been modified by eight Commission orders since that date.

The fuel cost recovery is designed and allowed by the FPSC as a means for the IOUs to recover for cost-effective fuel, purchased power, and other related expenditures on a dollar-for-dollar basis. Upon Commission approval, it passes on costs to customers when there is a fuel price increase. It also passes on any savings realized to the customers when there are price reductions. All of the recovered costs are applied to oil, gas, and purchased power.

# 2.3 Current Trends In Utility Purchasing of Fossil Fuel

The largest criticisms of fossil fuel cost-recovery involve purchasing practices and ratepayer price protection. The easiest way for an electric utility to purchase fuel is to buy it on the spot market. The spot market is the current daily price. Simply put, the company buys the fuel at the current price, applies to the Commission for a fuel-price adjustment, and passes it onto the rate-paying customers as a charge. This practice provides very little incentive for the utility to look for ways to save the consumer from added fuel adjustment charges.

In lieu of spot market purchases, there are transactions that may mitigate the risk associated with spot oil and gas markets. The first is financial or derivative hedging. Derivatives include futures contracts and options such as puts, calls, and contract swaps. Another way to hedge is physical hedging through contract purchase with actual physical possession. These can also include contracts, puts, calls, and contract swaps.

# 2.4 Industry and Commission Actions Regarding Hedging

It appears that fossil fuel hedging options and derivatives within electric utilities appears to be a relatively new practice. Most state commission activity has centered on local distribution gas companies with two time-tested exceptions. In November 1999, the Minnesota Public Utilities Commission granted an electric utility a one-year pilot program to purchase future contracts, puts, calls, and linked transactions in the purchase of wholesale energy. Also in 1999, the Minnesota Commission granted permission for the company to hedge natural gas. All effects would flow back through the fuel clause.

2.4.1 Northern States Power Company-Minnesota

The original Minnesota Commission order included three safeguards and limitations: purchases are limited to the electricity commodity, no speculating, and all activity is subject to prudence reviews. The commission imposed no specific internal risk management controls on the company. In the first year, the net impact was a \$6.9 million loss and an extra burden to ratepayers. The commission extended the program another 15 months. Total gas and wholesale power losses for the second year were \$5.1 million. The commission extended the program for a third year, but the results are not available at this time. This is an example of how substantial losses may occur over the short term when forecasted pricing goes the other way, particularly in derivative trading.

2.4.2 Savannah Electric & Power-Georgia

The other company that was recently ordered to hedge was the Savannah Electric and Power (which is part of the Southern Company). The Georgia Public Service Commission was concerned because Savannah Electric had experienced high gas price volatility and believed the rate payers were entitled to price protection. The commission held hearings and ordered on May 24, 2001, that Savannah Electric must hedge part of the oil and gas purchases with financial instruments. The order imposed the following time and percentage limitations on the company:

- ♦ Hedging program begins June 1, 2001
- ♦ Maximum time is 42 months into the future
- Maximum annual dollar is 10 percent of gas and oil budget
- ♦ Maximum 42 month dollar hedges are 5 percent of the 42 month gas/oil budget
- All losses and gains will flow back to the fuel clause
- ♦ The company must procure all physical gas/oil at market

The commission imposed no specific risk management rules. However, commission staff will monitor the program and evaluate its success. Additionally, Savannah will retain 25 percent of the

gains, and the company must keep records of all transactions. The budget for oil and gas was \$29 million and, in the ensuing seven months, the company recorded hedge losses of nearly \$3 million. 3 Actual fuel prices varied from what was predicted by the Southern Company.

2.4.3 NARUC/NRRI Survey

The National Association of Regulatory Utility Commissions (NARUC) conducted a state commission survey on the hedging mechanism. The twenty-eight state responses were compiled by the National Regulatory Research Institute (NRRI). One of the questions asked was: Has your state utility commission addressed hedging as a risk management technique? Twenty-six answered affirmatively. The survey further verifies that at least six states have ordered or permitted hedging as a tool to mitigate prices on natural gas. The survey further shows that 14 states allow some tool for hedging cost recovery subject to provisos such as prudence review, reasonableness, or prior commission approval.

2.4.4 Regulatory Actions on Local Gas Distribution Companies

The West Virginia Public Service Commission also issued a specific order on hedging. In early 1995, a local distribution gas company filed a rate case along with a separate cost-recovery proceeding. Staff at the West Virginia Commission looked at futures gas prices on the NYMEX and proposed a settlement. The proposal was a three-year lock-in on rates.

After considerable discussion, the West Virginia Commission and the company agreed to a total rate moratorium for years 1996 through 1998. The agreement was a locked-in price of \$2.00 per thousand cubic feet. Action by the West Virginia Commission essentially hedged for the customer by specifying a three-year tariff.

The gas company was free to rely on spot markets but it recognized that there was too much assumed risk to its stockholders. Therefore, the company did not hesitate in making a management decision to lock-in a rate for 36 months. Since the burden of gas prices had switched from ratepayers to stockholders, hedging became a company strategy.

Further, the company agreed to the same conditions for the years 1999 through 2001. Commission staff calculated that action by the West Virginia Commission saved customers \$30 million for the first three years and forecasted savings of \$81 million for 1999 through 2001.

In other action by a utility commission, Arkansas has taken recent action on natural gas price control during 2001. The Arkansas Commission realized that natural gas prices were being determined by traders and financial instruments. After hearings and workshops, it ordered all gas companies under its jurisdiction to adopt the principles for gas procurement:

- Develop a diversified gas supply portfolio which should include hedging, contracts, and financial instruments
- Submit portfolio for Commission review

- Costs associated can be recovered through the Cost Recovery Clause
- Maintain records
- ♦ Educate your customers and levelize billing

The Arkansas Commission will closely monitor each company plan for proper price strategy and execution of the plan.

Lastly, the state utility commissions in Indiana, Nevada, and New Mexico either have publicly admonished or penalized local gas companies for failure to protect their customers from unreasonable gas prices. These commissions informed the companies that spot-market buying is insufficient, and that it is their duty to mitigate large price increases. Failure to do so will result in a denial for partial cost recovery.

# 2.5 National Regulatory Research Institute (NRRI) Report

In a May 2001 report by NRRI, entitled Use of Hedging by Local Gas Distribution Companies: Basic Considerations and Regulatory Issues, hedging natural gas was given close scrutiny. The NRRI offers the following caveats when hedging price control is endorsed by a commission:

- Risk management has costs; establish a need for the program
- Keep the hedging program simple
- Specify and articulate all objectives
- ♦ Identify the hedging costs
- ♦ Make sure the company has the qualified personnel to sufficiently run a program
- Utilities may want to avoid shifting risk, "play it safe," and avoid financial hedging altogether
- Rapid falls in price may rule out hedging

The NRRI identified the winter of 2000-2001 market shortfalls as illustrative of how volatile natural gas prices can be. They caution commissions that hedging in its purest form is only an insurance policy and, over time, should not be expected to reduce the average price. Hedging only stabilizes prices if they continue to rise.

# 2.6 Internal Controls for Physical and Financial Hedging

A company that plans to hedge commodities must have internal controls in place before the program is instituted. A guide for operation, internal controls, and accounting entitled A Practical Guide to Hedging is referenced by NYMEX on its internet website. Below is a summation of the general elements of the guide as well as other pertinent risk management controls:

- Inform the board of directors and seek board approval for a hedge program
- Establish a risk management executive committee composed of company top executives; establish dotted line reporting to the front office.
- Create an organization of personnel and facilities capable of commodity trading, portfolio management, procurement, financial planning, and an understanding of financial and inherent risk; within the organization it must have:
  - Continuing education for all front office personnel
  - ▶ Established clear communications
  - Organize the supporting departments which may include legal, data information, and contract administration
- Create and segregate duties in the front, middle, and back offices
  - Front office would be trading and procurement
  - Middle office would be risk management
  - Back office would be accounting and finance
- Draft a risk management plan
  - Goals and objectives
  - List strengths, weaknesses, opportunities, and threats
- ♦ Write policies and procedures that comply with all regulating authority, other laws and practices, and reflect the risk plan objectives; establish the following as a minimum:
  - Purpose of hedging and trading
  - Responsibilities of each supporting department and establish independence between each department
  - Stop loss and position limits
  - Types of options tools to be used
  - Value at Risk (VaR) and other analytical tools
  - Credit risk management with exposure standards and limits
  - Accounting
  - Authorization; state who has authority to do what
  - Employee duties and limitations
  - Timely reports to monitor positions, trades, and markets

♦ Institute annual internal auditing as part of the check process

# 6.0 Gulf's Fuel Purchasing Practices

# 6.1 Gulf Company Profile

Gulf is a regulated subsidiary of the Southern Company and provides service to 7,400 square miles of Northwest Florida. In 2001, customer accounts totaled an average of 376,520. For year end 2001, operating revenues for Gulf totaled \$725 million and the workforce consisted of 1,307 employees. Gulf's summer generating capacity stood at 2,250 megawatts for year 2001 and was 100 percent generated by fossil-fuel, of which 57 percent was coal-fired.

Gulf has 14 base-load on-line generating units, 11 with steam turbines, and three with combustion turbines. Eight of those units are coal powered and six use natural gas. To operate those generators in 2001, total fuel consumption was 4,360,069 tons of coal, 28,924 barrels of oil, and 1,134,898 MCF of gas. In total, the fossil fuel bill to fire Gulf's generators was \$199.7 million.

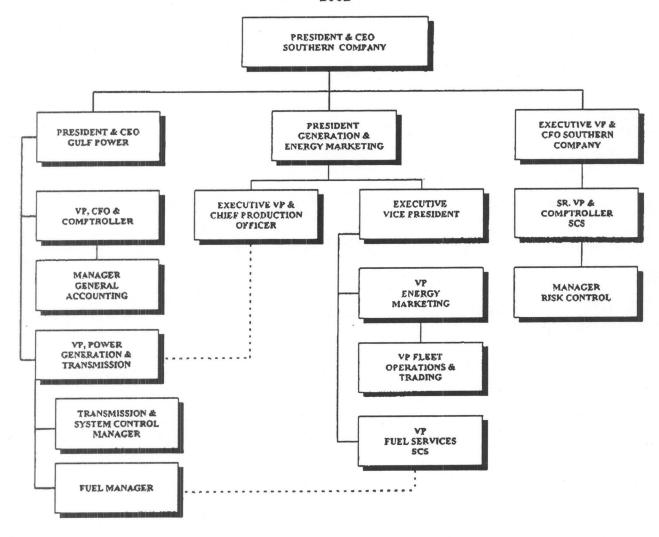
Citing Gulf's 2002 Ten-Year Site Plan, the company will rely more on natural gas for future generation needs. By June 2002, Lansing Smith Unit 3 will be on-line and will generate 574 megawatts. Unit four will be in-service by 2008. Both units will be fired by natural gas with unit 3 using 87,000 MMBTU per day.

For the current status of fuel cost-recovery, Gulf has Commission approval for \$6,907,921 underrecovery for the period of January through December 2000, \$17,609,612 estimated/actual underrecovery for 2001, and \$10,701,691estimated underrecovery for 2002.

6.1.1 Fuel and Wholesale Power Purchasing Organization

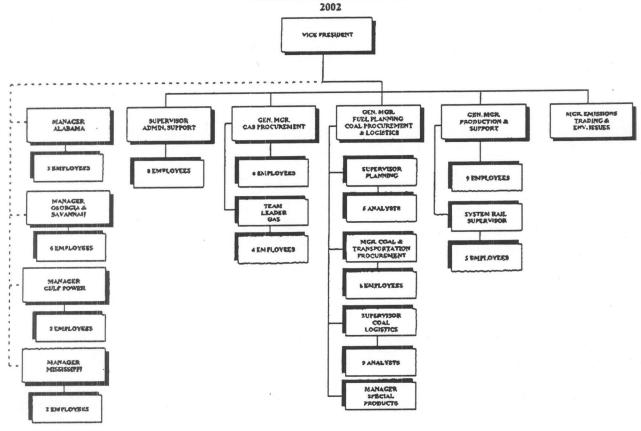
Exhibit 21 depicts Gulf as it relates to the Southern Company regarding fuel acquisitions, wholesale energy, and risk management. As shown in Exhibit 22, the Southern Company Services (SCS) Fuel Services Department consists of 70 employees and has responsibility for fossil fuel acquisitions for the entire parent company. Also, Southern Company has a risk management department within SCS. As Exhibit 23 shows, risk management activities are functionally segregated to assure proper control.

# SOUTHERN COMPANY FUEL ORGANIZATIONAL STRUCTURE 2002



Source: DR-2-1.

# SOUTHERN COMPANY SERVICES FUEL SERVICES DEPARTMENT



**EXHIBIT 22** 

Source DR 1-1

# SOUTHERN COMPANY SERVICES RISK MANAGEMENT FUEL SERVICES SEGREGATION OF DUTIES

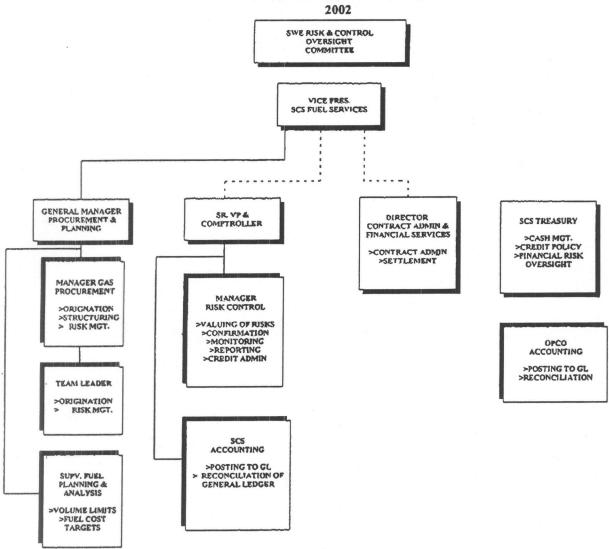


EXHIBIT 23

Source DR 1-1.

# 6.2 Gulf's Fossil Fuel Purchasing Policies and Controls

Gulf's fuel is purchased by the SCS Fuel Services, which is a subsidiary of The Southern Company. SCS acts as an agent for Gulf and works under the oversight of a fuel manager who is a Gulf employee, and all contracts are negotiated by SCS employees under the auspices of the Gulf fuel manager.

SCS procures coal as specified by the Fuel Procurement Procedures. These six pages of procedures specify the procuring of coal using need determination, purchasing strategy, bid solicitation, and approval process. The strategy states that coal should be bought by long-term and spot market for the best value and competitive price. However, that does not match Exhibit 24 regarding how it bought coal for Gulf during the past four years. Currently the mainstay purchase is fixed short-term and indexed long-term.

Gulf states these procedures are outdated and are currently being revised. They lack specific detail such as procedure number, forms used for bids, and contract content. Also, these procedures do not include gas and oil contract policy. Gulf did not provide any policies that outline the procurement of gas and oil.

Gulf has a risk committee referred to as the Southern Company Oversight Committee that approved risk management guidelines in 1997. The guidelines apply to any company business unit engaged in risk management activities. In particular, this includes the purchase of gas, coal, and wholesale energy. The general guidelines specify the objectives in energy acquisition:

- ♦ Deliver the lowest energy cost to customers
- ♦ Maximize returns on resources
- Provide reliability of power supply

Additionally, natural gas fulfillment function objectives are more specific and are listed as follows:

- ♦ Deliver risk-optimized gas to resources
- Deliver risk-optimized gas to support sales of wholesale energy
- Optimize natural gas assets associated with supply, transportation, and storage
- Support operations for cross-commodity spreads

The approved instruments under this policy are futures, forwards, options, and swaps. The acquisition of oil is not addressed in these guidelines. However, the guidelines include the necessities

# 

	Coal Percent			Distillate Oil as %				Natural Gas as %				
Purchased as	1998	1999	2000	2001	1998	1999	2000	2001	• 1998	1999	2000	2001
Fixed Long Term											<1	
Indexed Long Term	58	48	46	43							8	11
Fixed Medium Term			2	2								
Indexed Medium Term											<1	38
Fixed Short Term	42	52	52	55					42	44	30	
Indexed Short Term					100	100	100	100			27	30
Spot Market									55	54	28	20
Storage Inv.									3	2	6	1

EXHIBIT 24

Source: DR 1-8

for a valid hedge program: credit limits, VaR, market risk, legal, segregation of duties, monitoring and reporting. Segregation of duties is of key importance in risk management. Southern acknowledges this and their risk control procedural process demonstrates that concept as shown in Exhibit 23.

Gulf has the ability to store natural gas. In 1997 it contracted to store up to 100,000 MMBTU and at any one time and can withdraw 10,000 MMBTU per day. If the stored gas is not needed by Gulf's power plants, SCS may buy it and compensate the company at market value and restore the inventory after depletion.

SCS on behalf of Gulf, needs to update, revise, and create procedures that would enhance and complement all of Southern Company's risk management policy. It appears much more detail is needed to assure proper management control over fuel related transactions. Southern should also consider further department consolidation if it intends to hedge fuel and wholesale energy for its regulated companies.

# 6.3 Gulf's Wholesale Energy Purchasing and Sales Policies and Controls

Wholesale energy purchases and sales are transacted by Energy Marketing on behalf of Gulf's Transmission and System Control Department. Energy Marketing is part of Southern Wholesale Energy. The Gulf transmission control manager acts as liaison between Gulf and Southern Wholesale energy. Like SCS fuel services, Southern Wholesale Energy also has segregation of duties as described in Section 6.2. It is set up the similar to Exhibit 23 and assures a risk management control over wholesale energy trading.

The Energy Marketing Department states that its wholesale energy plan is dependent upon the following:

- Direct the lowest cost off-system energy to territorial customers if there is a savings
- Jurisdictional resources are marketed elsewhere and treated as an economy sale
- If energy that is not jurisdictional is marketed elsewhere, all losses and gains will be directed to the wholesale jurisdiction

As Gulf's agent, SCS does not enter the wholesale energy market to hedge, rather it uses the off-system approach mostly in short-term. In the short-term, SCS constantly compares existing resources with the availability of off-system energy resources. If a purchase can lower prices, SCS will institute a transaction. SCS also looks at long-term and determines if a purchase would be conducive for a system mix.

- Gulf also participates in the Southern electric system power pool and states that the off-2 system spot market has desirable low-cost energy savings. This is especially true when purchased 3 power is cheaper then company generation. The balanced approach is reliable and is low-cost to 4 Gulf customers.
- As noted in Exhibit 25, Gulf has substantially increased its purchases in wholesale power. As management states: Gulf buys energy if it is cheaper than we can produce it and we will sell if the price is greater. Wholesale energy was cheaper in 2001, therefore Gulf purchased 37 percent more wholesale power when compared to 2000. As a result, sales have dropped 30 percent when comparing the same two years. Gulf had no option activity for the last three years.

Purchases*	1,100	1,729	2,363
Sales	4,001	3,525	2,710
Call Options	n/a	n/a	n/a

**EXHIBIT 25** 

Source: FPSC Forms A6-A9.

# 0 6.4 Gulf's Risk Management Plan

As a culmination of risk planning for fuel purchases and hedging, Gulf was asked to submit a risk management plan that would summarize its strategy for year 2002. Included as an excerpt of the plan's strategy which is part four. The company responses are verbatim and identified in *italics*.

- IV. Risk Management Strategy
- S A. Risk Identification
- 1. Identify each type of risk that the utility encounters when procuring:
  - a. Coal

18 Response:

SCS, as agent for Gulf is charged with the responsibility to purchase adequate coal supplies and associated transportation for these coal purchases to ensure the dependability of Gulf's coal-fired

<sup>\*</sup>Includes Purchases from Qualifying Facilities.

generation plants. Major risks that are associated with the purchase of coal and transportation

must be mitigated through purchasing strategies and implementation include: burn uncertainty, pricing risk, the risk associated with the reliability of supply, diversity of supply risk and environmental risk.

# b. Residual Oil

Response: Gulf does not procure residual oil for its plants.

#### c. Distillate Oil

Response:
Gulf purchases distillate oil on an annual basis through a formal bidding process at index based prices. Gulf negotiates predetermined contracts for each plant and purchases fuel oil quantities throughout the year (as needed). Risks associated with distillate oil are primarily a failure of the supplier to deliver when called upon.

#### d Natural Gas

# Response:

SCS, as agent for Gulf, is charged with the responsibility to purchase adequate natural gas supplies and pipeline transportation to ensure the dependability of Gulf's generation plants. The risks associated with natural gas procurement include an interruption of pipeline transportation, an interruption of natural gas from producers, and price risks associated with volatility.

#### e. Purchased Power

Response:
The types of risks associated with the purchase of energy and/or capacity by Gulf include: load forecast risk, operational risks due to transmission capacity availability, price risk, counter party risk due to credit conditions, and reliability risks due to possible interruption or curtailment of supply.

Separately identify the utility's goal(s) in managing the recognized risks associated with each
fuel or power purchases.

Response:
Clearly, no matter how much a company hedges its fuel program, it can never totally protect its customers from adverse price changes. Gulf's fuel program is designed to minimize the risk of uncertainties associated with fuel procurement and delivery, including price risk.

Coal:

Gulf's strategy for the procurement of coal and associated transportation seeks to provide a reliable, cost-competitive, environmentally acceptable coal supply. Uncertainty in the amount of coal procurement of coal generation and therefore coal supply is one of the most critical risks associated with the long-term.

For this reason, a portion of the projected coal requirements is left uncommitted to be purchased in the spot market as the need Volume optionality of +/- some percentage is negotiated in long-term contracts when possible to adjust for burn swings on a monthly and/or quarterly basis. Transportation agreements seek to minimize volume commitments that are sought by the barge and/or rail carriers. The objective of a procurement program is to have a portfolio of long-term contracts and spot supplies that provide competitive pricing at any given point in time. Mechanisms to achieve this objective include: (1) starting the contract at or below market prices, (2) fixed pricing or allowing small annual price increases which are below the expected rate of inflation, (3) including contract volume options that can be optimized based on current market conditions, and (4) negotiating frequent market reviews that allow the contract pricing to adjust to market pricing. Strategically, it is desirable to stagger the term of long-term agreements expiration and/or market review dates such that Gulf is not in the market for large volumes of coal at any point in time.

Diversity of supply is vital to ensure reliability and competitive pricing. Therefore, another goal is to maintain a diverse portfolio of suppliers from various regions since market conditions vary from region to region. Any successful strategy must mitigate the risks of future changes in environmental laws and regulations that may preclude the burning of coal or render its use uneconomical. Gulf mitigates future environmental risk in long-term coal agreements by including the most current environmental language that allows Gulf maximum flexibility and discretion to modify and/or terminate the contract for environmental reasons.

Distillate Oil

Gulf's oil storage capability has proven to be an effective means of mitigating risks associated with supply interruptions. Distillate oil is not consumed at a constant rate, but varies on a relatively unpredictable basis from day to day. The usage depends on peaking requirements, unit start-ups, and load changes. This oil is delivered by trucks, which restricts the amount a plant can receive at any one time. The level of oil inventory maintained for each plant is set to allow for variations in plant consumption and procurement and to guard against market volatility and supply disruptions.

Natural Gas

Gulf's strategy for gas procurement is to purchase the commodity at or below market prices. Fuel purchased at-market over a long period is a low cost option for customers. For plants such as Lansing Smith #3 with an anticipated high capacity factor and no alternate fuel capability, Gulf arranges long-term firm transportation with adequate firm storage capacity. For peaking plants such as Plant Crist, Gulf purchases natural gas on the spot-market, and transports the gas using interruptible transportation, released seasonal firm transportation capacity, or delivered natural gas (priced to the plant).

For natural gas, SCS has historically used a combination of long-term contract and spot market fuel purchases to provide for a reliable and stable supply of fuel. SCS, as agent for Gulf, seeks to arrange its gas supply from a number of suppliers. The diversity of this group provides Gulf with a means of mitigating risks associated with supply failures.

The primary purpose of gas storage is to ensure the availability of fuel when a unit is expected to run. Given the potential impact that a hurricane can have on Gulf Coast production, Gulf determined that it was best to subscribe to gas storage as a means to back-up any potential interruptions of fuel

supply. Actual operating experience has proven the value of gas storage. There have been several occasions, including hurricane and Operational Flow Order (OFO) conditions on the pipeline, when the only source of gas to the plant came from storage. Gas storage also helps reduce the cost of pipeline balancing charges and penalties resulting from differences in nominations and actual burn under transportation agreements. Gulf utilizes a standard contract for salt dome storage, which is 10 days of withdrawal capacity.

Purchased Power

Gulf's agent, SCS, purchases power to meet the reliability needs of its customers and to reduce costs to its customers. To manage the risks associated with reliability and opportunity purchases, SCS first identifies and quantifies the related risks, and then purchases the product that minimizes the customer's cost given an acceptable level of risk.

Reliability purchases are made in recognition of reliability risks (i.e. keep the lights on risk). Once a reliability risk is identified, market solicitations are made to procure reliable purchases from the market. If alternative supplies equal in reliability (i.e. the same delivery certainty) are available, then the lowest cost alternative will be selected.

Economic purchases are entered into when there is a high degree of certainty that such purchases will reduce costs to the customers. As purchase decisions must be made in advance of a given time period, there is some risk that the conditions that were forecasted to occur did not actually occur thus resulting in either an increase or decrease in the original expected savings. The risks associated with such uncertainty is taken into account prior to committing to such economic purchases by having actual and forecasted system conditions available when the decision is made.

Describe how the utility decides what an acceptable level of risk when associated with 3. fuel procurement and purchased power transactions.

Response:

Fuel:

Gulf has a low tolerance for risk associated with fuel procurement and purchased power transactions. Gulf views its primary responsibility as providing reliable service to its customers at a competitive price. Fuel procurement for electric generation is considered a vital part of meeting this responsibility. For fuel, the acceptable level of risk associated with procurement decisions is determined by the effect of such decisions on the overall reliability and competitiveness of Gulf's generating units.

Purchased Power:

Gulf purchases capacity and/or energy for both reliability and economic purposes. Reliability purchases fall into two main categories: (1) capacity purchases to meet planning reserve margins; and, (2) short-term energy purchases to meet an unexpected shortfall in supply. capacity purchases. Acceptable risk levels for short-term energy reliability purchases are more Gulf's target reserve margin provides the acceptable level of need (and corresponding risk) for such difficult to specify given the dynamic nature of supply, demand, market availability, transmission availability, and market prices. Therefore, the acceptable level of risk for this type of purchased power is determined by Gulf's agent on a real-time basis given all of the factors listed above. Economic, or opportunity purchases are made using the best information available if Gulf's customers are expected to benefit. Factors considered when making these purchases include weather and load forecasts, unit availability, fuel prices, transmission capacity availability, and other market considerations.

- B. Describe your fossil fuel procurement and wholesale purchased power plans separately for 2002. Please include:
- 1. General
  - Types of fuel used and power purchased or sold

Fuel: Response:

See response to question II A - II E for a description of Gulf's fuel use for 2002.

Purchased Power:

Gulf expects to purchase and sell energy to the Southern electric system (SES) pool and short-term, non-firm energy to the off-system market. Also, Gulf will purchase 150 megawatts of capacity and associated energy through May 2002 and 19 megawatts of capacity and associated energy from January 2002 until December 2002.

b. Quantities and mix and by percent

Response:

Fuel:

Based on the information currently available, Gulf's best estimate is that the following amounts of fuel and purchased power will be purchased for the years specified.

	Total 2002  MMBtu  Projected	Percent
Coal Distillate Oil Residual Oil Natural Gas	134,268,357 329,275 0 15,031,930	89.7% 0.2% 0.0% 
Total	149,629,562	100.0%

#### Purchased Power:

	Total 2002 Projected	Percent
Capacity Purchases	169 MW	7%
Energy Purchases	755,649 mwh	n/a
Energy Sales	4,456,170 mwh	n/a

c. How purchased and by percent

#### Response:

# Fuel:

SCS negotiates distillate oil procurement on an annual basis through a formal bidding process. All of Gulf's fuel oil is purchased at index based prices. SCS negotiates predetermined contracts for each plant and purchases fuel oil quantities throughout the year (as needed).

Effective June 1, 2002, SCS has committed to purchase approximately 75% of the combined-cycle gas-supply needs to serve Lansing Smith #3 at market-based index prices. Spot-market purchases will meet any remaining gas needs. The duration of these contracts is for 1 to 5 years. Likewise, any unused natural gas will be sold at market-based prices. Obviously, this percentage will vary based on fuel prices, dispatch decisions and daily sales of unused gas into the market.

### Purchased Power:

Gulf will purchase and sell energy under the provisions of the Intercompany Interchange Contract (IIC). Gulf will also purchase and sell energy to the off-system market under provisions of the SES Market-Based Tariff or the counterparty's tariff.

Finally, Gulf will purchase firm capacity and associated energy under the provisions of negotiated contracts.

d. Justify all purchasing strategies in items 1-3.

# Response:

#### Fuel:

As an overall goal, Gulf endeavors to put together a balanced fuel supply portfolio consisting of a mix of spot and long-term contracts at both market and fixed prices. The objective is to produce a cost effective yet highly reliable fuel supply. Securing competitive fuel prices for its customers is a governing consideration in all of Gulf's fuel decisions. Because the fuel markets are dynamic, Gulf's fuel procurement strategy incorporates flexibility and will change over time.

The coal purchasing strategy for Gulf involves mitigation of risks through a combination of long-term contracts and spot purchases. Long-term coal contract and spot coal purchase needs are determined by analyzing plant burn forecasts, desired inventory levels and other information supplied by the SCS Logistics Team, the Gulffuel department and the Gulffossil plant management.

Once the requirements have been determined, the goal is to develop and implement a strategy which will secure the desired tonnage at market prices while mitigating risks such as burn uncertainty, changes in market conditions, changes in environmental requirements, etc. This results in a combination of contract and spot purchases. A portion of coal requirements for Gulf will normally be purchases made on a short-term basis of one year or less. Primarily these purchases are used to manage inventory risk that results primarily from weather related effects. There is not a specific amount of tonnage associated with spot purchases; it will vary with the markets for fuel and electricity. The remainder of the coal requirements are met through long-term agreements structured to capture pricing, volume, and quality flexibility, to mitigate the risk of environmental uncertainty, and to ensure reliability of supply.

Gulf's strategy for gas and oil procurement is to purchase the commodity at or below market prices. Fuel purchased at-market over a long period is a low cost option for customers. For plants such as Lansing Smith #3 with an anticipated high capacity factor and no alternate fuel capability, Gulf arranges long-term firm transportation with adequate firm storage capacity. For peaking plants such as Crist, Gulf purchases natural gas on the spot-market, and transports the gas using interruptible transportation, released seasonal firm transportation capacity, or delivered natural gas (priced to the plant). Gulf purchases fuel oil on an annual basis through a formal bidding process at index based prices. Gulf negotiates predetermined contracts for each plant and purchases fuel oil quantities throughout the year (as needed).

Purchased Power:

Gulf's purchase power procurement plan for 2002 provides the mix of capacity and energy purchases and sales that can reasonably be expected to provide a high level of reliability and cost savings to Gulf's territorial customers.

- Specific 2.
  - What derivatives will be used and how

Response:

Fuel and Purchased Power

Gulf does not currently plan to use financial instruments during 2002.

What will be hedged and how b.

Response:

Fuel and Purchased Power

Gulf does not plan to hedge any of its procurement with financial instruments during 2002. Gulf's long-term fuel contracts and fuel storage inventory can be considered as physical hedges. Gulf currently plans to utilize long-term contracts for coal supply and transportation, and gas supply and transportation. Gulf currently plans to utilize storage inventory for coal, natural gas, and distillate oil. Reliability purchases of capacity and energy could be considered hedges from possible outages. Economic energy purchases could be considered hedges for higher replacement costs. However, such purchased power practices in the past have not been designated as hedges.

Gulf believes that the establishment of any expanded hedging program should only occur after an acknowledgement by the FPSC of the appropriateness of such a program.

c. Savings (net of expenses) anticipated and why

Response:

Fuel and Purchased Power

Physical fuel hedges such as those used by Gulf can and often will achieve costs savings relative to market, however, such savings are not known until after-the-fact. Although Gulf seeks to execute competitive long-term fuel supply, transportation and storage contracts, the primary purpose of these agreements is to achieve reliability of supply and minimize price volatility, not cost savings.

Gulf will be procuring physical power products from the market and delivering such products to its customers. The economic purchases will only be entered into if such transactions can reasonably be expected to provide cost savings.

Gulf does not anticipate hedge savings resulting from the use of financial instruments during 2002.

# 3. SWOT

a. Describe the strengths of the plan

Response:

Fuel:

Gulf's fuel plan incorporates a balanced fuel supply portfolio consisting of a mix of spot and long-term contracts at both market and fixed prices. The diversity in fuel supplies and pricing provides flexibility in dispatching and provides some protection to the ratepayer from upward fuel price movements. Gulf's conservative fuel management approach provides adequate storage and transportation capability to limit fuel supply interruption.

Purchased Power:

Purchases will only be entered into if such transactions can reasonably be expected to provide cost savings. No up-front premiums (costs) required.

b. Describe the weaknesses of the plan

# Response:

# Fuel:

Gulf's current plan contemplates the management of price risk only through physical commodity purchases and sales, as opposed to hedging tools and strategies of a financial nature that have evolved over recent years.

Natural gas has demonstrated a significant degree of price volatility, ranging from as low as 1.62/MMBtu in 1999 to \$10.53/MMBtu in 2001. This price volatility is driven by a number of considerations that are each difficult to predict with any degree of certainty. While price volatility unquestionably exists in fuel markets, opportunities periodically arise whereby that risk can be mitigated through physical positions as well as financial positions. Gulf's risk management strategy could provide customers with some additional protection against upward price movement through the use of financial instruments, provided that such practices and costs were authorized for recovery by the Commission.

## Purchased Power:

None. Transactions are only entered into if savings are expected.

c. Describe the opportunities within the plan

### Response:

#### Fuel:

One key opportunity is described in our response to the previous questions.

# Purchased Power:

Referenced in Strengths above.

Describe the threats and possible countermeasures

# Response:

# Fuel:

As we have stated previously, Gulf has a low tolerance for risk associated with fuel procurement. Gulf views its primary responsibility as providing reliable service to its customers at a competitive price. Fuel procurement for electric generation is considered a vital part of meeting this responsibility. When a Gulf unit is called upon to dispatch, it must be able to meet this need.

For these reasons, Gulf's strategy has been to mitigate any risks associated with fuel supply by providing a diverse fuel portfolio backed up with adequate transportation and storage.

#### Purchased Power:

None. If purchase savings are not available, purchases will not be entered into (except for short-term reliability purchases).

# C. Audits

1. Internal Auditor – describe the level of audit oversight that the utility's internal auditor provides to the utility's risk management efforts.

# Response:

Annually, Internal Auditing engages management in a risk assessment process to identify key areas of concern. Audit work is then designed around the aforementioned areas of concerns, as well as those areas of concern identified by Audit Management. The results of the audit work are reported to the Audit Committee on a regular basis.

#### 2. Outside Auditors

a. Indicate which outside auditors, if any, provide oversight to the utility's risk management efforts.

Response:

The outside auditors do not provide oversight to the utility's risk management efforts.

b. Describe the level of audit oversight that these outside auditors provide to the utility's risk management efforts.

Response:

Not applicable. The outside auditors do not provide oversight to the utility's risk management efforts.

# 6.4 Risk Plan Analysis

Beginning this year, and through 2004, Gulf's risk management plan is for coal purchases to decline by 10 percent and natural gas dependence to more than double. According to the plan, wholesale energy purchases will be reduced by 72 percent and sales will decline by 19 percent. Gulf offered no reason for the changes within the energy areas other than customer reliability.

At present, Gulf's plan is mainly for the purchase of coal and its goal to offset price risk is a balanced mix of spot market and long-term contracts. The strategy has built-in flexibility and will change over time. Gas strategy is to purchase at or below market price. Historically, this is accomplished through the use of spot and long-term contracts. Gulf also has the means of gas storage which ensures availability.

Gulf's plan in wholesale energy designates reliability and price as the risks when buying and selling power. Once the company identifies both risks in advance, it arrives at a high degree of

certainty that a purchase or selling will be beneficial to the customer. The risk that cannot be discounted is that the decision must be in advance of the action. If conditions do not occur as forecasted, there will be a penalty.

In summary, Gulf's risk plan acknowledges that fuel has price volatility and is currently managed through physical commodity purchase and sale. It further recognizes that opportunities exist through financial instruments. If authorized by the Commission, Gulf asserts some price risk can be mitigated by those instruments.

EXHIBIT "B"