

GAINESVILLE REGIONAL UTILITIES
FINANCIAL RISK MANAGEMENT DISCUSSION

August 22, 2005

EXECUTIVE SUMMARY

Risk in general is the quantifiable likelihood of loss or less-than-expected returns. Risk management is the process of analyzing exposure to risk and determining how to best handle such exposure. This Financial Risk Management discussion is specific for the requirements and constraints of Gainesville Regional Utilities (the Utility). The purpose of this discussion is to:

- Identify the Utility's financial risks;
- Establish a framework for setting reserve fund levels; and
- Identify other financial strategies to manage identified risks.

Any Financial Risk Management strategy that will be developed must be consistent with the financially based objectives of the Utility. These objectives are to:

- Provide the City of Gainesville (the City) with a General Fund Transfer (GFT) in each system that is in the top 10% in the state of Florida.
- Maintain uninsured bond ratings of AA/Aa2 from Standard and Poor's and Moody's Investors Service, respectively.

Any Risk Management strategy would, as required, be consistent with the requirements set forth in the Amended and Restated Utilities System Bond Resolution ("Resolution").

SCOPE

All of the Utility's financial activities including debt management, swap (an exchange of securities to change a financial component) management, investment guidelines, energy risk management, and long range planning must be addressed. Individual plans will provide the framework for daily operations.

IDENTIFICATION OF FINANCIAL RISKS

The Utility is exposed to six broad categories of risk. These categories are identified in Table 1 below. Each major category has an example of sources of risk and a list of the applicable risk mitigation strategies currently being applied to manage these risks.

Table 1
Gainesville Regional Utilities'
Risk and Mitigation Strategies

MAJOR CATEGORY	THREAT	RISK MITIGATION
Operating Cash Flow Risk	Revenue Issues -Forecast Error -Weather Sensitive Sales -Loss of Wholesale Revenue -Loss of Retail Revenue -Electric Transmission System Market Restructuring	-Financial Reserves -Load Retention – Retail -Rate Reduction for Term Retail Contracts (Business Partners)
	Generation Costs Issues -Fuel Prices -Fuel Supply	-Fuel Adjustment Policies -Fuel Levelization Fund -Fuel Diversity/Switching -Energy Marketing and Trading -Commodity Hedging Program
	Inventory Issues -Fuel Reserves -General Materials (ready assets)	-Maintain fuel inventory -Maintain spare parts inventory
	Accidents and Property Damage Issues -Vehicle Accidents -3 rd Party Liability Claims	-Insurance -Financial Reserves -Sovereign Immunity -Safety and Training Programs
Catastrophic Events	Failures -Generation Plants -Water Treatment Plant -Wastewater Treatment Plants -Telecom – Central Plant -Telecom – Fiber System -Information Systems -Transmission Systems -Distribution Systems -Collection Systems -Weather	-Generation Mutual Aid Agreements -Property Insurance -Financial Reserves -Reserve Capacity -Redundant Designs -Emergency Materials and Supplies -Business Recovery Plans -Mutual Aid Agreements
Construction Risk	-Delays and Overruns	-Contingency Budgets -Liquidated Damages
Regulatory and Environmental Risk	-Climate Change, CAIR -Env. Contamination	-Risk Assessment for Climate Change -Green Energy Programs -Regulatory & Legislative Awareness -Natural Resource Studies
Contingent Financial Liabilities	Swap Termination Payment	-Financial Reserves
	Variable Interest Rate Risk	-Financial Reserves -Variable rate assets

SUMMARY OF RESERVES

A reserve fund level that is formula-driven by the primary indicators of risk is necessary as the levels of risk can vary markedly through time. There are two funds established within the Bond Resolution that can be used to provide financial reserves:

- 1) Rate Stabilization Fund (RSF) – provides financial reserves and helps avoid rate shock;
- 2) Utility Plant Improvement Fund (UPIF) – provides a source of equity for capital improvements of the system, payment of Debt Service, Operation & Maintenance Expenses, and other allowed payments.

The following formula for minimum reserves, as applied to each system separately, then summed, will conservatively meet the Utility's changing need for financial reserves through time. This assumes that existing policies for insuring centralized plant assets, managing fuel costs, managing swap and debt policies, and budgeting for capital and debt service requirements are maintained.

1. The difference between expected and the lower 97.5% confidence limit for non-fuel revenue; plus
2. A percentage of the value of self insured distributed assets plus the deductible; plus
3. Sixty days of average annual non-fuel operating expenses; plus
4. Five percent (5.0%) of expected annual capital expenses; plus
5. One-Hundred percent (100%) of Termination Payment Risk; plus
6. One-Hundred percent (100%) of the un-hedged Variable Interest Rate risk.

Review of this formula with the Utility's financial advisor and senior managing underwriter indicates that these criteria are appropriate.

OPERATING CASH FLOW RISK

Revenue Risk

Weather Sensitive Sales and Forecast Error

The Utility's budget and rate making is based on many variables, including projections of sales revenue. Revenues vary from projections due to a variety of factors, including weather, higher or lower than expected consumption, or higher or lower than expected new customers. This level of risk can be assessed statistically using historical variations in sales and the application of current rates.

The Utility has also created a confidence interval around the budgeted numbers. A statistical calculation, Cash Flow at Risk (CaFR), was performed which measures with a 97.5% degree of certainty that the actual results will not differ from budget by a certain amount. Through statistical analysis, the Utility can have confidence that there is only a 2.5% chance that the actual results will differ over and above the reserved amount.

Loss of Wholesale Revenue

The Utility has two electric wholesale customers – the City of Alachua and Seminole Electric. These two wholesale contracts account for approximately 2.9% and 1.9% of total sales revenue. There is not a reserve provided for this portion of revenue as this power, if available, could be sold competitively in the open market. However, the margin budgeted as a result of these sales might not be achieved. The non-fuel O&M portion of these costs is covered under the Catastrophic Event risk category.

Loss of Retail Revenue

Revenue risk is present due to future regulatory change that could require retail electric choice. This could generate the loss of retail customer sales, resulting in stranded assets and costs

Florida does not now allow, nor is any legislation pending, to allow retail electric choice. The Utility's strategy for the possibility of retail choice is to maximize the economic hurdle rate a competitor would need to meet to entice a potential customer with lower energy costs. A hurdle rate is the required rate of return above which an investment makes sense and below which it does not. It is currently assumed that electrical service transmission and delivery will remain a regulated monopoly, and that transmission ownership related expenses will be recovered. This assumption has been shown to be true for all the retail electric

deregulation and independent transmission system operator models instituted in the US to date.

The economic hurdle rate a competitor must meet has been maximized through four key strategies. First, the Utility has a core value of keeping its electric production costs as low as possible. The fuel mix is diversified and the generation fleet is currently at or below market prices. The Utility's membership with The Energy Authority (TEA) assures continued access to the energy markets in the southeastern US to take advantage of opportunities to purchase power at lower than production costs.

Second, the Utility has unbundled its retail rates into generation, transmission, distribution, and customer service elements. Transfers to the City's General Fund are fixed costs defined by formulas, and none of these costs have been assigned to the generation billing elements.

Third, in recent years the Utility has reduced retail rates to levels consistent with completed cost of service studies. In order to retain value from these reductions, commercial customers have only been given access to tariff reductions by agreeing to enter into ten-year term agreements that require the refund to the utility of three years of the reduction before the customer is allowed to terminate the agreement and change energy suppliers.

Finally, a load retention tariff is in place under which the City Commission may choose not to apply a portion of the general fund transfer to a specific customer. This provides the City the opportunity to retain, attract or expand load, when justified to protect fixed costs or promote economic development. These measures combined with the currently lower level of interest in implementing retail choice in Florida appear to be adequate strategies to mitigate this risk at this time.

Electric Transmission System Market Restructuring

The formation of a Florida ISO/RTO could affect GRU in one of two ways, first, by affecting cost recovery for transmission facilities, and second, by changing the effective pricing of wholesale power transactions. All of the proposals for the creation of an ISO/RTO for Florida to date have included provisions for the management and cost recovery of facilities owned by municipal utilities, as well as providing the option for municipals to opt in or out under a reciprocity arrangement. GRU's unbundling of rates as described above has created a history of FPSC approved tariff structures intended in part to defend GRU's filings for transmission cost recovery from an ISO/RTO, thus effectively hedging against the first concern. Second, the net effect of an appropriately structured ISO/RTO, with improved wholesale market liquidity, may very well be to the benefit of GRU ratepayers. The net effect of participation will be weighed very carefully prior to making any decision to participate. Finally, studies performed to

date have not shown a Florida ISO/RTO to be cost-effective, and there also appears to be reduced Federal and State interest in promoting the formation of ISO/RTO, as evidenced by the 2005 Energy Policy Act's de-emphasis on FERC's Standard Market Design.

Generation Costs

Fuel Prices

Certain electrical generation costs at risk are addressed through the Utility's Energy Risk Management Administrative Guideline. The Guideline provides criteria and guidance to staff for the appropriate use of financial and physical hedges to manage the volatility of fuel and electrical energy costs, to the benefit of the Utility's customers. Examples of financial hedges include the purchase or sale of New York Mercantile Exchange (NYMEX) gas futures or electrical energy futures, and examples of physical hedges might include the purchase or sales of call options. Under the Guideline, an electrical generation or natural gas "Cash Flow at Risk" calculation (measured at a probability of 97.5%) must be reduced by any financial position that is taken.

Cash flow at risk calculations for these purposes are performed for the Utility by The Energy Authority (TEA) using industry specific modeling software. Future electrical production costs are modeled on an hourly basis using heat rates and fuel costs based upon real time management of the Utility's generation assets. Probability distributions for the variations from forecasted hourly loads, NYMEX gas futures, forced outage rates and projected market prices for power are applied using Monte Carlo methods to create 700 different cases. The effects of financial and physical hedging strategies that the Utility is considering are used to create a probability distribution of fuel and power costs. The statistical distribution of these outcomes is used to compute CaFR_{97.5} values.

The Utility's 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 effectiveness of the Utility's hedging program on reducing natural gas price volatility has been successful.

Other means by which the Utility hedges its customers' fuel costs include:

- TEA's Trading Operations
- Fuel Diversity/Switching
- Fuel Adjustment Policies
- Fuel Levelization Fund

TEA's Trading Operations: TEA's physical trading operations include buying and selling electricity and natural gas on a 24 hour per day, seven day a week basis. Given that TEA is managing almost 18,000 MW of generation capacity for its members, the Utility is continuously aware of the economics of buying, self generating, or selling electric power. In a similar manner, TEA also purchases natural gas on a daily basis and maximizes the economic value of the natural gas pipeline entitlements that the Utility holds.

Additionally, the Utility manages fuel and purchased power risk through TEA. TEA monitors the credit of counterparties and manages credit security requirements on behalf of its members.

Utility Management is in constant contact to collaborate with TEA staff. Through our active involvement in several TEA oversight committees, staff participates in decisions that effect the daily operations and strategic direction of TEA.

Fuel Diversity/Switching: Several of the Utility's generating units can use multiple fuels, such as distillate or residual oil. These are fuels that the Utility stores as emergency backup, and from time to time fuel switching is one way to control fuel costs, especially during periods of extreme natural gas price spikes.

Fuel Adjustment and Levelization Policies: Although the Utility works hard to minimize the cost and volatility of fuel prices on customers, current federal and state policies and tariffs allow fuel costs to be passed directly to customers. For the electric system, this cost is passed through as a fuel adjustment. For the natural gas system, it is passed through as the purchased gas adjustment. Although these adjustments can be made on a monthly basis, these operating funds are managed to help minimize the volatility of the monthly fuel adjustment on the customer. This is known as fuel price levelization. Retail fuel adjustments are set in combination with operating funds and can then be used to defray higher purchased power costs during major planned unit outages. Because fuel price levelization policies are designed to net to zero on an annual basis, the use of operating funds for levelization is not considered to be a financial reserve.

Although the Utility actively manages fuel to minimize price risk, these risks ultimately are borne by the Utility's customers and specific funds are not set aside for this purpose.

Inventory Issues

Fuel Reserves

Coal: The Utility's coal procurement strategy is to cover the bulk of forecasted coal requirements with competitive, flexible firm contracts. The contracts are structured to allow additional volumes of contract coal to be purchased beyond the base volumes to account for potential variations in the forecasted coal burn.

Depending on coal prices and volumes at any given time, coal inventory on hand can vary. A planned build up of inventory can hedge against unplanned events related to supply or transportation. Financial reserves do not need to be budgeted for this area.

Oil: The Utility has the ability to purchase and inventory oil. The Utility purchases fuel oil in cargo lots and transports the fuel by railcar and tanker truck. The Utility purchases all oil cargo by competitive bidding procedures and seeks to control the cost of such purchases by purchasing forward cargo at fixed prices for the contract term, timing its market entry points to take advantage of favorable pricing, and shifting inventory by truck between sites as needed to avoid purchases in periods of high prices or tight supply by maximizing the use of available storage. This active management of oil inventory is a hedge, thus reserves do not need to be budgeted in this area.

General Materials

The Utility currently utilizes four warehouses. There is sufficient space to store those items which might be very difficult to find on short notice or would be necessary during a natural disaster or severe weather conditions. Financial reserves do not need to be budgeted in this area.

Accidents and Private Property Damage

Under the laws of the State of Florida, municipal corporations have limited liability for accidental death and private property damage with a limit of \$100,000 per instance. The Utility does not provide reserve funds for these occurrences other than under the Catastrophic Events category.

The Utility is also exposed to third party liability claims. However, they tend to be minimal in nature and are covered under the Catastrophic Events category.

CATASTROPHIC EVENTS

Failures

Utility facilities are planned, designed and maintained to prevent against catastrophic failure. For example, there are 12 substantial generating units of a variety of types and sizes that provide for excess generation (reserves) to accommodate unit outages. The Utility participates in the Florida Reliability Coordinating Council to gain access to the reserve capacity of other utilities and make its own reserve capacity available in return, for relatively short term events. The Utility is also party to a special long term generation mutual aid agreement among consumer-owned electric utilities in Georgia and Florida. This agreement provides access to base load power to back-up designated base load units in the event of an extended outage greater than 60 days and up to 12 months in length.

Despite these precautions, catastrophic failures are possible and can result in repairs and lost revenues to cover fixed operating costs.

To address property damage the Utility carries property insurance. The Utility's insurance strategy includes coverage for large centralized facilities, such as power and water plants, and is self insured for distributed facilities such as electrical distribution. This is the industry norm. The single largest cost of catastrophic events on Utility facilities was a result of hurricanes Frances and Jeanne in the fall of 2004. The total cost of these events was \$6.8 million, or roughly 1.3% of the asset value of uninsured facilities. The reserve for property damage provides for a percentage of the asset value of uninsured facilities as an additional safety factor along with the funding of the deductible. The Utility's 1.4079% ownership share of the Crystal River 3 nuclear power generating station is insured and covered with reserve funds through its operating agreements with Progress Energy Florida and the Florida Municipal Power Agency acting as the Utility's agent.

If the Utility is damaged so badly that it is unable to provide service, it will still have substantial fixed costs of operation, although variable operating costs such as fuels and chemicals will be diminished.

Another critical contingency is the loss of critical business systems, which could result in the inability to collect revenues. The Utility has never had disruption of service that interrupted operations or revenue collection for more than a week. However, in planning for a catastrophic event, it is prudent to cover operating expenses for sixty days. A two month time frame is within industry norms according to published data and the Utility's financial advisor.

CONSTRUCTION RISK

Construction Risk includes costs incurred due to cost over-runs, project delays, and project changes. The magnitude of the risk is roughly proportional to the scale of the investment involved. The Utility uses many techniques to manage these risks, depending upon the project, including liquidated damages and performance agreements. A level of conservatism is built into every project during the estimating stage as a part of the budgeting process. However, construction requirements, construction delays and increased material cost can affect the actual cost of construction. In order to mitigate this risk, the Utility plans for financial reserves equal to 5% of annual capital budgets.

REGULATORY AND ENVIRONMENTAL RISKS

The Utility has three basic strategies related to regulatory risks. First, it stays actively involved with industry associations that monitor and participate in

regulatory and legislative proceedings of all types that could impact Utility services. Second, the Utility studies and anticipates the effects of potential new regulations on existing and planned new facilities. Third, the Utility is proactively involved in environmental monitoring and in programs likely to immerse staff in the science and public perception of emerging issues. Examples of this include involvement in renewable energy programs, natural resource studies, and assessment of environmental hazards resulting from both utility operations and the activities of other industries. The Utility currently budgets funds for specific projects related to the environment. While additional reserves are not provided at this time, staff is actively monitoring upcoming changes which might suggest that additional reserves are necessary.

Changing environmental requirements and the addition of new environmental requirements impose financial risks upon utility operations. In March of 2005, for instance, new USEPA regulations were promulgated and will result in substantial additional costs for SO₂, NO_x, and mercury control. The Utility also believes that concerns about greenhouse gases could result in future legislation and ultimately additional costs.

CONTINGENT FINANCIAL LIABILITIES

Swap Termination Payment

Termination risk refers to the risk that a swap could be terminated by the counterparty due to any of several events, which may include issuer or counterparty ratings downgrade beyond pre-defined minimum thresholds, covenant violation by either party, bankruptcy of either party, swap payment default by either party, and default events as defined in the issuer's bond indenture.

In the event that one of these events was to occur, a swap termination would be due from one party to another. At any point in time the Utility could be the receiver or the payor depending on market conditions. Because of this risk, reserves are allocated for this payment.

Variable Interest Rate Risk

The Utility has both fixed and variable rate equity and debt. Variable rate equity would be represented by our short term investments in cash. Variable rate debt would be represented by the Tax Exempt Commercial Paper (TECP), Taxable Commercial Paper (TCP) and Auction Rate Notes (ARN) outstanding. The Utility's goal is to properly match interest income from assets with the interest expense from liabilities. However, that is not always practical. In addition, there are times when variable rate debt might become due, but the asset does not mature until a later time. For asset/liability mismatch or for timing differences, the

Utility sets aside reserves for those differences that might be experienced through an interest rate swing.

RESERVE FUND REQUIREMENTS

Reserve funds can provide financial insurance to allow the Utility to reliably meet its financial obligations under adverse circumstances and can also serve as a means by which to smooth out required rate changes (particularly rate increases). Maintaining minimum financial reserves contributes to GRU's financial strength and AA/Aa2 bond rating.

The Utility is relatively unique in having five utility services. From a financial risk management perspective, this is an advantage because the sources of risk are highly diversified.

For any one of the Risk Categories, the level of reserve required could differ by fund. For example, non-fuel revenue variability as a percentage of average revenue is higher for the Natural Gas system than for the Electric system.

The levels of risk can also vary markedly through time. For example, construction risk can vary widely from year to year for a given system, depending to a large extent on its need for infrastructure.

Accordingly, the Utility has developed a policy for reserve funds that is formula-driven by the primary indicators of risk. Reserve levels proposed for any given year will be based on the budgeted numbers for that fiscal year.

The various factors and criteria applied were developed in part by reviewing financial indicators from other financially strong utilities, and in concert with our Financial Advisor.

Reserve Funds

The Utility's funds that provide financial reserves to meet the requirements identified in this study are established under the Bond Resolution and include the:

- Rate Stabilization Fund (RSF)
- Utility Plant Improvement Fund (UPIF)

The Rate Stabilization Fund

The RSF has two primary functions, to provide financial reserves and to help avoid rate shock. The preceding discussion primarily addressed the minimum

RSF balance needed to meet financial reserve requirements. But the RSF is also used to anticipate Utility revenue requirements and thereby smooth rate changes so customers do not experience a large swing in price at any given time.

The Utility Plant Improvement Fund

Pursuant to the Resolution, monies are placed into the UPIF at a rate equal to 50% of the second preceding years' net operating revenues less aggregate debt service. The UPIF is primarily intended to provide a source of equity for continued capital improvements of the system, and as such may not fully be treated as a source of financial reserves, except under extreme conditions. The Utility does use UPIF for Debt Service in accordance with the Resolution. UPIF can be used for O&M expenses but only if the amounts on deposit in the fund are in excess of the requirements. In some instances UPIF balances exceed the Utility's need for equity investment and as a result, can be carried forward. The Utility assumes that 50% of this carry forward amount may be considered as financial as reserves for the purposes outlined here.

Minimum Reserves Formula

The following formula for minimum reserves, as applied to each system separately, then summed, will conservatively meet the Utility's changing need for financial reserves through time. This assumes that existing policies for insuring centralized plant assets, managing fuel costs, managing swap and debt policies, and budgeting for capital and debt service requirements are maintained.

1. The difference between expected and the lower 97.5% confidence limit for non-fuel revenue; plus
2. A percentage of the value of self insured distributed assets plus the deductible; plus
3. Sixty days of average annual non-fuel operating expenses; plus
4. Five percent (5.0%) of expected annual capital expenses; plus
5. One-Hundred percent (100%) of Termination Payment Risk; plus
6. One-Hundred percent (100%) of the un-hedged Variable Interest Rate risk

The Utility has explored the criteria for setting financial reserves from the perspective of bond rating agencies, financial underwriters, bondholders, and other utilities. They consider a wide range of risk factors and risk management strategies, not all of which are simply financial reserves. These criteria were reviewed with the Utility's financial advisor and senior managing underwriter confirming that these criteria are appropriate.