

City of Gainesville General Fund Transfer Project

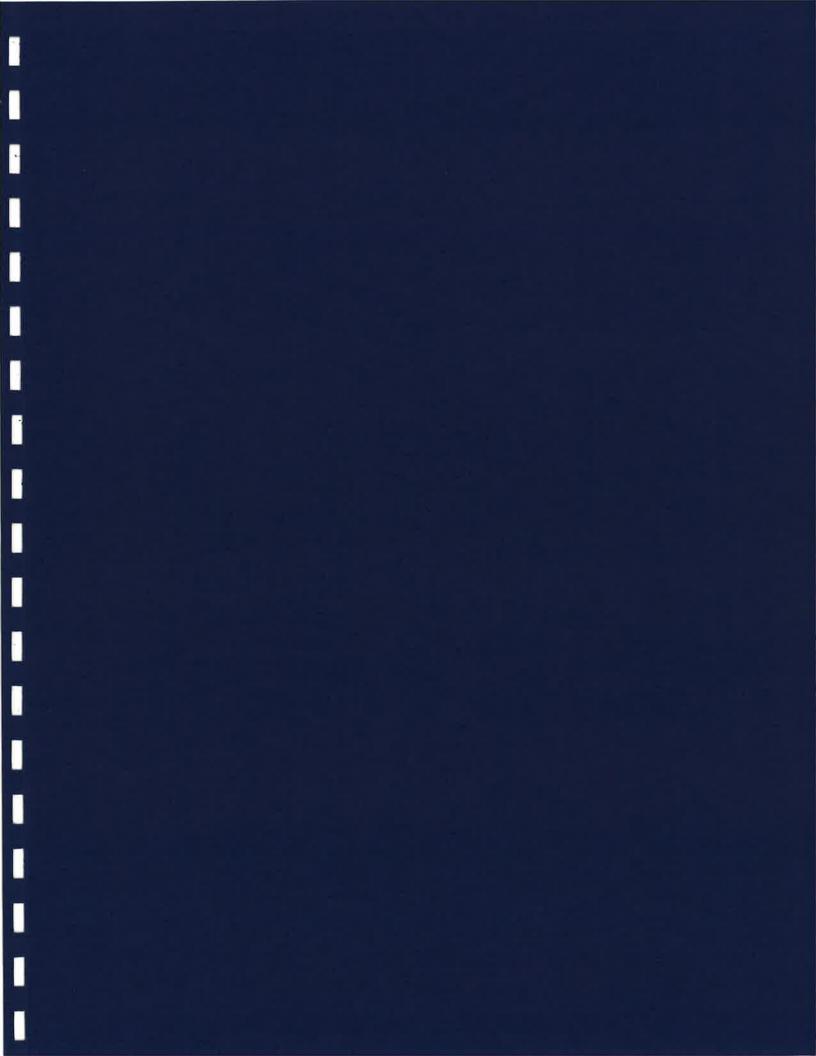
January 7, 2000

Public Financial Management

Suite 720 201 South Orange Avenue Orlando, FL 32801-3470

407 648-2208 407-648-1323 fax Two Logan Square, Sulte 1600 18th and Arch Streets Philadelphia, PA 19103

215-567-6100 215-567-4180 fax





Overview



Overview

Transfer levels have been an increasing area of focus for both the utilities that pay them and the cities that receive them as some utility industries shift from a regulated environment to a competitive one. The General Government of the City of Gainesville, Florida (General Government) and the Gainesville Regional Utilities (GRU) (collectively, the City) have been discussing utility transfers to the General Government's general fund, both in terms of the level of transfer from each utility and the formula used to determine the transfer. Public Financial Management, Inc. (PFM) has been asked to assist the two parties in this project. PFM serves as the General Government's financial advisor, and maintains a separate public power practice that has assisted a number of its public power clients in dealing with the policy issues related to city transfers.

This report is organized into five sections. The first section addresses the overall policy issues facing both the General Government and GRU, and provides some framework for the issues that factor into the establishment of a transfer policy. The second section focuses on those specific utilities that are most impacted by some form of deregulation or competition in the industry—gas and electric. The third section focuses on the water and wastewater utilities, which are not yet experiencing the pressures of competition in the industry. Section four discusses the specific issues related to the telecommunications transfers. Section five provides a summary and conclusions.

Formula Influences

As it embarks on a review of transfer methodology, the City should be mindful of factors that influence those formulas in other jurisdictions. There are a number of factors that govern both the level of transfer that a utility makes to the general fund of a city, and the formula. It is likely that a number of utilities (and/or the cities) would have taken a different approach if they had been able. Some of those factors include:

Regulatory impacts

Some state regulatory structures have restrictions on both the level of transfers or franchise fees and the structure. Additionally, some states have other oversight bodies that may impact transfer levels. In North Carolina, for example, there is a strong State oversight of local governments, and the State Treasurer has forced a number of cities to reduce the level of transfer to the General Fund. This is driven partly by very high rates from heavy nuclear exposure.

Regulatory bodies generally limit the level of franchise payments that cities (normally those served by IOU's) may place on the utilities, and some municipal utilities choose transfer levels that are consistent with those levels, even if they are not bound by them.

Charter/state law restrictions

Some utilities are impacted in their transfer levels by provisions in city charters or by some state limits. Springfield, MO has charter limitations of 3-4% (depending on service) for gas and electric, but no restrictions for water and wastewater. State law provides that the joint action agency in Massachusetts (the Massachusetts Municipal Wholesale Electric Company, or MMWEC) make an in lieu of tax



payment to the city where it is located as if it were a private utility. Many California public power cities also have charter limits on the level of transfer.

Rate levels

Utilities that have low rates and financial flexibility generally find that their transfer levels come under less scrutiny than those utilities that do not have competitive rates, even if the utility is not in an industry that faces deregulation.

Service territory limitations

While it is not unusual in Florida or some other states for a governmental utility to serve customers outside its boundaries, typically in unincorporated areas, there are states where that is not permitted, or otherwise is not the practice. In Massachusetts, for example, all property in the state is already in a city or town; there is no unincorporated territory. If a governmental utility serves outside its limits, it is typically by contract. In California, cities that provide power serve only in their city limits; the investor-owned utilities serve unincorporated areas or cities that do not provide power.

Governance

While all utility operations for the City reside in GRU, there are many combinations of government structures, as well as the combination of utilities that are provided by the cities. A number of cities operate wastewater as a city department, while all other municipal utilities are part of a separate utility system (Memphis and Orlando). A few operate all utilities as departments of the city (Tallahassee and Austin). Additionally, while it might seem logical for cities that have municipal electric systems to also have municipal gas systems, there are relatively few combined municipal gas and electric systems.

Yan da	Number of	f Municipal	Systems	% of
Region	Gas	Power	Combined	Combined to Power
South	285	211	89	42
Other	668	1,818	186	10
Total	953	2,029	275	14

Where there are different governance structures, there are often entirely different approaches to general fund transfers. In Orlando, for example, OUC makes a substantial transfer to the City, but the City only transfers an overhead allocation from the City-operated wastewater department. Therefore, there may be little consistency in approaches among the various cities when it comes to transfer policies.

Rating Considerations

It would likely be comforting to find a simple formula or transfer level that is acceptable to the rating agencies in order to maintain or improve current bond ratings for both the General Government and GRU, but the issue is not that easy. Generally, all three rating agencies express similar concerns.



Their main issues are discussed below. Appendix A includes several articles that relate to rating agency views on transfers, particularly from electric systems.

Formula approach

The rating agencies like to see a formula or agreement that the city, the utility, and the financial community can count on. They are most uncomfortable with a transfer that is dictated by the needs of the General Government.

Rates

The rating agencies look to see whether the utility has competitive rates. While it is not as simple as this single statement, if they feel a utility can be competitive and financially sound while maintaining a high transfer, they will generally not treat this as a negative. This is clearly a more significant issue for utility industries that have, or are expected to have, competition.

General Financial Condition

Financial condition is related to rate levels, but is also a separate consideration for the rating agencies. A utility with a good credit rating is expected to have sufficient cash flow to manage its operations, fixed costs that are manageable, and the ability to make necessary investments in capital. The rating agencies become concerned when the level of transfer to the general fund interferes with the utility's ability to operate in an effective manner.

Transfer Methodologies

Cities and utilities use a number of methodologies to make the general fund transfers. Sometimes the method is simply what they have used and are comfortable with; in other circumstances the methodology has been carefully considered and negotiated. There is no one ideal solution for all utilities, though some utilities find that a combination of methods works best. As the City is considering formulas as well as levels, it is appropriate to be aware of the choices that have been made by other utilities in their transfer decisions. The table on page 7 is a list of transfer methodologies that have been utilized by other entities. A discussion of the policy issues for each method follows:

Percent of revenues

The most commonly used methodology for general fund transfers is a percent of the utility's revenues. There are a number of variations on this base; for example, applying the formula only to certain revenues. Franchise fees paid by many IOU's to cities are generally based on retail revenues in the city limits.

This approach (however it is applied) is generally simple to understand and administer. It does have certain characteristics that need to be understood. Some utilities have very low margin revenue sources that may flow through their operations. The most notable of these is interchange sales for electric services. These sales consist mostly of fuel charges; however, the sales are a necessary component of the orderly operation of electric systems



throughout the country. If the transfer rate as a percent of revenue is greater than the profit margin (or break-even level) of a transaction, the utility has a disincentive to engage in that transaction even if it otherwise would create a profit. If the utility has a significant level of revenues from these kinds of transactions this can be a significant problem.

IOU's typically show a franchise fee as a separate item on their bills to customers. This means that the franchise fee is not included in the rates, which appear to be a little lower. Most government utilities include their transfer to the general fund in the rates, and they are therefore not separately identifiable. This also means that the rates may be slightly higher, but that the amount paid by the customer (including all fees and charges) may be same. Some government utilities are considering showing at least part of the transfer (a franchise-equivalent amount) as a separate line on their bill as a means of dealing with this, especially in view of competition. Whether this works for any given utility depends on whether they have the authority to do so on their bills and whether they could apply a separately identifiable franchise-equivalent to all customers. This may be an issue for utilities that serve a significant number of customers outside the city limits, since typically the ability of a city to assess a franchise fee is only applicable to customers inside the city limits.

Percent of net income

Investor-owned utilities generally pay a dividend to their stockholders. A few municipal utilities have taken the approach of paying a "dividend pay-out" equivalent to their owners (the city) as a fair means of transferring funds to the General Fund. The Orlando Utilities Commission (OUC), for example, pays the City of Orlando 60% of net income using this approach. As municipal utilities begin to adopt an approach of acting more like a business, this approach puts a business orientation on the transfer. A profit-based transfer emphasizes to both the city and utility that they both benefit from the utility being profitable.

There are several issues with this methodology as well. First, unlike IOU's, many municipal utilities do not budget and manage their financial situation on a net income basis. If the income statement (with depreciation as opposed to principal payments) isn't the way the utility operates, then it probably shouldn't be used for a transfer method either. GRU does not currently use the ROE approach to rate setting and budgeting.

Additionally, there will be more volatility in net income than revenues. The following table shows an example of how a transfer will vary based on the methodology. Clearly whether the city would prefer the revenue based method or the income-based method will depend on whether it's a good year. However, there is no certainty about which way things will be in the future; the General Government must consider the level of volatility it can tolerate when it considers the methodology. The following table shows how transfers would change depending on methodologies for a hypothetical city with a \$100 million utility revenue base:



(In Millions of \$'s)	Base Case	5% over	5% under
Revenues	\$100.0	\$105.0	\$95.0
Net Income	\$10.0	\$15.0	\$5.0
Transfer to General Fund			
50% of Net Income Transfer Amount	\$5.0	\$7.5	\$2.5
5% of Revenues Transfer Amount	\$5.0	\$5.3	\$4.8

Dollars (or cents) per unit

A third approach to general fund transfers is to set a transfer level based on the number of units produced, sold, or delivered. This transfer formula might be, for example, cents per kWh for electric or cents per thousand gallons for water. JEA uses this method to determine the transfer to the City of Jacksonville.

Like the "percent of revenue" approach, this method will see transfers go up or down with volume, and therefore with growth. It is not sensitive to revenue levels. This means that it will not rise with inflation, where that is applicable, and will not fall if prices fall (if electric rates decline with competition). This will cause the City to periodically adjust the unit price as market conditions and other factors change. Typically, this method has been calculated on a "units sold" basis (i.e., kWh). JEA has recently changed to a "units delivered" basis.

Property tax payment

While all government property is exempt from property taxes in the State of Florida, some states either require or permit utilities to make transfers based on property valuations. This method can provide a relatively stable transfer level to the general fund. However, there are several policy issues for consideration. First, several County tax assessors in Florida have attempted (unsuccessfully) to assess taxes on municipal utility property. A property tax-based transfer may be used by these assessors to legitimize such a tax in other jurisdictions. Second, we believe the City would intend to make a payment only to the City. Actual property tax rates are generally more heavily assessed for schools and other taxing jurisdictions. The City needs to consider how it will react to any requests from other overlapping taxing entities for a similar transfer based on their tax rate. Third, the City needs to consider how much of the asset base of the utility is actually inside the city limits, and whether it wants to assess a payment based on all property or just that to which it would be entitled to a tax payment from an IOU.



Fee for services

Some cities have dealt with the transfer issue by replacing part of the general fund transfer with a fee for services. The increased revenue from the fee would replace a lower general fund transfer from the utility, which would then need to lower rates commensurately. This approach has been used in Tallahassee to deal with its substantial general fund transfer.

The shift from a utility transfer to a fee for services removes the revenue source from the utility rates and essentially makes it non-bypassable for a utility where competition is an issue. Even where the total is a zero sum game, the city and utility should be aware of any shifts in who pays, since the basis for the charge may be different. Additionally, there may be some issues of applicability of the fee versus applicability of the utility charge unless the service territory of the utility and the service basis for the fee service are the same. For example, if only 60% of a utility's customers are inside the city, the city may not be able to assess a fee to the other 40% of the customers outside the city unless it provides that fee-based service to them. This is not to say that a service fee cannot be implemented, but that it may fall to a different group of customers than originally contemplated.

Flat transfer

Some cities and utilities negotiate a flat transfer amount that will be transferred to the city's general fund. In this approach, the transfer is not based on any particular methodology. While it is theoretically possible to create a stable transfer using this approach, generally this is associated with a less predictable transfer policy. Because the transfer has no formula or real basis for calculation, this is considered a less certain method.

Free services

Some utilities and cities approach the issue of transfers by requiring the utility to provide some group of services to the city at no charge. Most common among the services that are provided at no cost are utility services, street lighting, fire protection (hydrants), and billing services. This is more likely to be in conjunction with some other transfer method. The issues related to the free service approach include the pressure from other governments to do the same for them; essentially, once the door is open to charging something other than the standard prices, how far such a policy may go. Additionally, their is no appetite control for a customer that has no price signals to encourage them to use that service efficiently. Finally, many bond covenants prohibit the provision of free services to any party.



Telecommunications Transfers



Conclusions



Conclusions

The General Government and GRU both face some unique and different challenges related to the policies for transfers to the general fund. There is no one answer that will necessarily meet all the needs of both parties, and the issues for the various utilities may lead to different solutions.

Electric

The electric transfer faces the most challenges for GRU and the General Government. The following are the primary issues and comments:

- The General Government and GRU will likely be unable to continue a surcharge on at least the generation component of the electric revenues if customers can choose other suppliers and avoid the charge.
- The GRU customer base has a substantial component that comes from outside of the General Government, and that has some impact on the options available to it in addressing the transfer.
- The transfer, excluding the surcharge, is high by most comparisons. However, an important issue is whether it will affect GRU's ability to compete when deregulation becomes a factor.
- There are a number of different approaches to addressing the electric transfer level. Those options include taking steps to shift more of the transfer to the wires component of the electric bill, which currently is not faced with competition. There may also be some opportunity for transferring some of the electric exposure to another utility service.
- There are a number of different formula approaches used by municipal utilities in addressing transfers. Each has some advantages and drawbacks. GRU and the General Government may want to model several approaches, and consider whether they are comfortable with the philosophy, associated risk and which part of electric revenues would bear the cost. There is no requirement to use only one approach; however, this should also not be too complex.

Gas

Gas utilities already face competitive pressures for larger customers, and may see retail competition for all customers at some point in the future. There is no outside surcharge for the gas utility, which is appropriate, given the competition in the industry. The current transfer formula excludes the gas component, and equates to approximately 7.1% of revenues. The transfer level is a little higher than the norm, but not out of line. Additionally, given the formula, GRU should be allocating the transfer to the distribution component of the charges.

Water and wastewater issues

The transfers of both water and wastewater are high compared to those from other utilities. Additionally, the transfer of 100% of the surcharge to the General Government is outside the norm. Given the different competition

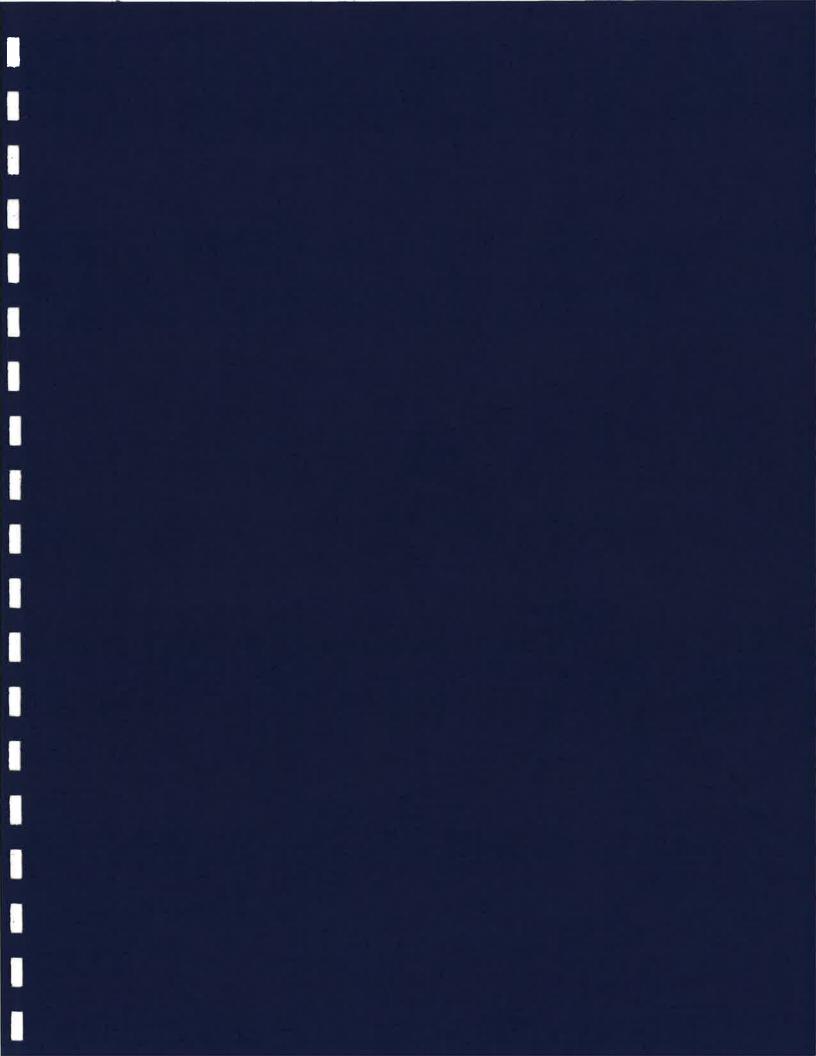


profile of water and wastewater, the General Government and GRU should consider answering a number of questions to arrive at a solution. These include:

- Given the current level of transfer, how do water and wastewater rates compare to the region?
- Do they fit into the economic development policy framework that the General Government is trying to achieve?
- How do the rates with the surcharge compare? Are there any viable alternatives for those customers outside the General Government, and would it be less costly?
- Does the rate level and/or transfer level interfere with GRU's ability to maintain the systems and make the appropriate infrastructure improvements?
- Given the answers to the above questions, does GRU have the capacity to transfer any of the electric general fund transfer burden, and, from a policy perspective, are they comfortable with doing so?

Telecommunications

The telecommunications venture of GRU is still in somewhat early stages and not yet generating a profit. Given the need for investment at this stage, it makes the most sense to forego a transfer from GRUCom until it is more stable and profitable. At that point, a reasonable position for a transfer is a franchise equivalent of 5-6%.





Appendices



Utility Transfer Articles



Enterprise Fund Transfers: Changing Times Call for Flexibility

any cities depend to some extent on enterprise funds to keep property taxes low and diversify their revenue stream. Standard & Poor's Public Finance rating criteria maintain:

- Interfund transfers are not cost or risk free;
- A well-researched, flexible, consistent transfer policy is likely to contribute to credit quality; and
- Transfers, in general, are not improper.
 On the other hand, inflexible or inconsistent policies may hinder financial performance and credit quality. In fact, the worst policy is no policy at all.

For general fund finances, utility fund transfers can be a positive GO rating factor if the transfer policy is consistent and does not signal financial problems. For example, a sign of financial stress is an increase in the size of the transfers to the general fund, primarily to offset a continuing lack of tax or revenue growth or to avoid necessary governmental cost-cutting. A city that is too dependent on transfers from enterprise funds may be failing to address fundamental problems in the general fund that are causing a general deterioration in its financial position.

Utility funds that account for water, sewer, solid waste, gas, and electric funds are common among municipalities rated by Standard & Poor's. Electric, water, and sewer funds have been historically profitable and generated significant cash flows so that a transfer to the general fund comprises only an incremental cost to their customers. Transfers from solid waste enterprises are less common



because those operations are often barely profitable and, in some cases, require subsidies from the general fund. However, as utility markets, particularly electric markets, become more competitive, pressure on municipal utilities' margins can put pressure on transfers levels.

Transfers from utility funds spring from various needs. In some cases, municipal utilities receive administrative and

managerial services that require reimbursement. In others, transfers offset taxes that might otherwise be paid by an investor-owned utility, providing property tax relief. In either case, the presence of transfers that are either significant outflows from the utility fund or significant portions of general fund revenues invites more scrutiny during a credit analysis.

Gordon Murray, 212-208-1864, Ellen Hennessy, 212-208-1819

Market dynamics,

particularly
electric market
prices and
competition, have
pressured cities to
reduce their
reliance on utility
enterprise funds.

Changing Markets Require Changing Policies

Market dynamics, particularly electric market prices and competition, have pressured cities to reduce their reliance on utility enterprise funds. Austin, Texas (combined utility rating 'A') lowered its utility transfers in 1997 to 9.1% of revenues from 12% in 1993 without revising its policies governing transfers.

Others cities, such as Chaska, Minn., ('A' GO rating) revised their policies to immunize themselves from changing electric sales patterns. To provide property tax relief, Chaska had historically followed a predictable policy of transferring 10% of gross electric sales revenues to its general fund. Since 1991, the transfers have ranged from about \$700,000 to more than \$1 million. The transfer represented 18.4% of general fund operating revenues in fiscal 1997. The city operates the electric distribution system and buys wholesale power to sell to its customers. In 1997, in response to concerns about deregulation, the city established a franchise fee of 0.53 cents per kWh, effective in 1998. The fee is paid by all customers using the city's distribution lines, whether or not the customer purchases energy from the city. Even though the city's industrial and

commercial rates are lower than those of competitor Northern States Power Co., the possibility exists that some customers, will switch to other suppliers. The franchise fee both accommodates open access over Chaska's distribution system and assures continued support for the general fund provided by the transfers. The effect of the franchise fee on municipal electric customers is neutral, resulting in neither a rate increase or nor a decrease.

Tallahassee, Fla.(electric utility rating 'AA-'/Stable) also responded to market pressures by changing its policies. In 1996 and 1997, the utility transferred 17%-18% (\$33 million-\$35 million) of its electric utility operating revenues to the city. However, its rates were high, and because of the large number of tax-exempt properties in the city (Florida's capital), it needed to supplement tax revenues. To solve its dilemma, the city created a fire rescue service charge that will be levied on otherwise tax-exempt properties. This will reduce annual transfers by \$9.6 million per year from \$35.5 million and establish an appropriate user fee. Recognizing the need to lower rates even further, the city also reduced transfers. The creation of the fire rescue service fee mitigates the vulnerability associated with a service area characterized by the prominence of tax-exempt properties. In the past year, members of the management team, including city and county officials, have demonstrated their conviction to reduce the burden borne by the electric system's customers.

The Lack of a Policy Can Lead to Uncertainty

Coleman, Texas ('BBB' (SPUR), Stable Outlook) followed a practice of transferring amounts necessary from its utility funds, primarily the electric fund, to avoid general fund deficits. The transfers were done without a governing policy and varied from year to year. In addition to providing 46%-47% of annual general fund revenues in fiscals 1995-1997, the transfers were equal to 15.6%-17% of combined water, sewer, and electric utility

fund revenues during those years. As a result of the varying amounts transferred each year, it was difficult to determine the true strength of the general fund over the longer term. Additionally, utility customers were paying 15 cents-17 cents of each dollar paid to the utility to support the general fund. All this in an era of increasingly competitive utility rates and potentially shrinking utility margins. The city avoided a non-investment grade underlying credit rating (the bonds also carry an 'AAA' insured rating) by instituting a policy that reduced the level of transfers. That policy instituted a franchise fee of 5% of revenues as well as a 4% administrative fee to the general fund. To offset lost revenues to the general fund, the city raised revenues two ways:

- It implemented water and sewer rate increases to move more revenues through to the general fund, and
- It implemented an ad valorem tax rate increase and a five-cent increase for debt service on outstanding debt.

These policy changes were made to ensure the stability and predictability of financial performance in both the utility and the general funds.

Flexible Policies Must Be Implemented Judiciously

Flexible policies, that is those that rely on a percentage of revenues, are the most common type of transfer policies, but they must be applied judiciously. One example is Brownsville, Texas. The city charter, which established the Public Utilities Board (PUB), provides for the transfer of surplus funds from PUB to the city's general fund. Surplus funds are defined in the charter as the greater of \$400,000 or 50% of funds remaining at the close of the fiscal year after setting aside enough money to pay system operating and maintenance expenses for the next 60 days. PUB is a separate authority that owns and operates a combined utility system that provides electricity, water, and wastewater services. PUB transferred \$2.6 million to the city in fiscal 1997, or about 3.2% of utility revenues. Under this formula, rate increases could be implemented to ensure transfers to the general fund. However,

PUB, which approves rates, and the City Commission, which also approves rates, have taken a judicious approach to raising rates. Electric rates are lower than state averages, and water and sewer rates have been increased in the past few years to make those operations self supporting.

Utility transfers comprised about 8% of the city's fiscal 1997 revenues, while property taxes, at \$5.7 million, were 17%. A city sales tax provides the largest share of revenues at almost 34% of the total. In addition to the transfer, PUB also provides free utility service to the city that it valued at \$2.5 million. Should PUB face

a financial downturn, its contribution to the city scales back to the \$400,000 floor which, at that minimum level, is less than 1% of 1997 revenues. It also has the option of reducing free service to the city.

Predictable Policies Yield Predictable Ratings

The preceding examples illustrate the implementation of flexible and well-adapted transfer policies. While the more recent examples tend to reflect changes in the utility industry, in Brownsville's case an old policy continues to contribute to a stable rating and outlook. In Coleman,

Texas, the implementation of a policy led to a higher rating.

In both its GO and utility rating analyses, Standard & Poor's can anticipate more predictable financial outcomes based on these policies, which in most cases balance the need of city's general government with market pressures outside of the city's control. In any case, city management's willingness to create and adopt appropriate policies based on current financial and market pressures provides Standard & Poor's with a level of comfort that lends stability to a bond rating.

CONTRACTOR CONTRACTOR

Key Water and Sewer Ratios



tandard and Poor's financial analysis of water and sewer systems focuses on financial flexibility. The financial analysis is one component of the overall rating analysis. The other key components are:

- legal analysis: includes a review of key legal covenants and security provisions
- service area (demand): analysis which includes a review of the composition of the underlying service area from which demand is generated
- operational analysis: includes a review of the typical industry risks, and specific operating risks of the system.

An important component of S&P's financial review is the analysis of a number of key financial ratios. The ratios are evaluated over a period of years in order to compare a system's performance from year to year and track any changes in financial performance. In addition, the ratios are compared to other 'peer' systems (systems of comparative size, rating, or located in general vicinity of the system being analyzed) in order to ensure rating consistency and make further credit distinctions within a rating category.

It is important to note that strong financial performance in and of itself might not lead necessarily to a higher rating. While a strong financial profile is typically associated with 'AA' category ratings reflecting strong underlying credit fundamentals, above-average ratios related to debt service coverage and liquidity might be a prerequisite to maintaining an 'A' category rating in light of high customer concentration, a relatively weak service area economy or other operating risks.

Standard and Poor's key ratios and the significance of each is explained in the following table.

Malachy Fallon, Dallas 214-871-1402, Jacqueline Walcott New York 212-438-2114

Income Statement Ratios	Calculation	Significance
Annual Senior Lien Debt Service Coverage	net available (total revenues-total expenses (excluding depreciation and debt service [// annual senior lien debt service	displays current financial cushion
Annual Total Debt Service Coverage	net available/annual senior lien, junior lien(s), general obligation debt service	displays current financial cushion relative to all financial obligations of the system
Annual Fixed Charge Coverage	net available (0&M expenses related to contractual debt or minimum long term contractual payments excluded from operating expenses/annual senior liendebt service (0&M expenses related to contractual debt or minimum long term contractual payments included in debt service)	treats all 'fixed financial obligations' as debt service in order to display a more accurate financial cushion
Maximum Annual Senior Lien Debt Service Coverage	net available/future maximum annual senior lien debt service	displays current financial cushion relative to future requirements and is an indication of additional rate increases/revenue requirements
Maximum Total Debt Service Coverage	net available/future maximum total debt service	A more conservative calculation which displays current financial cushion relative to future total debt service requirements and is an indication of additional rate increases/revenue requirements
Annual Debt Service Coverage with transfers as an O&M expense	net available (transfers included as an O&M expense)/ annual senior lien debt service	treats all transfers as 0&M expense in order to display a more accurate financial cushion
Net Margin %	net available (total revenues-total expenses (excluding depreciation and debt service)/total revenues	indicator of a system's 'profitability' and financial cushion
Non-Operating Revenues as a % of State Revenues	non-operating revenues (interest income, connection/tap fees, other contributions)/total revenues	shows a system's potential dependence on and exposure to non-recurring revenues
Transfer as % of Total Revenues	transfers to the general fund (out of system)/total revenues	shows the system's transfers relative to its revenue base - an indication of how 'inflated rates are' to support general fund operations
D/S as a % of Total Expenses	total annual debt service/total expenses	demonstrates relative annual debt service burden
Accounts Receivable/ Operating Revenues	customer accounts receivables/operating revenues	indicator of potential problems with cash flow/slow payments
Equity (excluding OBSD)	(net plant property and equipment + total restricted assets-total debt)/(net plant property and equipment + restricted assets)	demonstrates the overall debt burden of the system relative to long-term assets
Short term debt / Total Debt (Excluding Off balance sheet obligations)	Short term debt (notes, commercial paper, variable rate demand bonds)/Total Debt (Excluding Off balance sheet obligations)	demonstrates potential interest rate/ tender /repayment exposure
Top 10 Customers - % of Total Revenue	revenues generated from the system's ten largest customers/total revenues	demonstrates system's exposures to large customers/industries

Income Statement Ratios	Calculation	Significance
Cash Ratios	新发展的	
Unrestricted cash and investments to Cash Budget	unrestricted cash and investments/(total operating expenses + transfers + total annual debt service)	demonstrates a system's liquidity relative to total revenue requirements
Unrestricted cash and investments to Debt	unrestricted cash and investments/total debt	demonstrates a system's liquidity relative to total outstanding debt
Unrestricted cash and investments to Debt Service	unrestricted cash and investments/total annual debt service	demonstrates a system's liquidity relative to its annual debt service requirements
Unrestricted cash and investments + restricted eash and investments to cash budget	Unrestricted cash and investments + restricted cash and investments/(total operating expenses + transfers + total annual debt service)	demonstrates a system's liquidity including restricted. assets relative to total revenue requirements
Unrestricted cash and investments + restricted cash and investments to Debt	unrestricted cash and investments + restricted cash and investments/total debt	demonstrates a system's liquidity including restricted assets relative to total debt
Unrestricted cash and investments + restricted cash and investments to D/S	unrestricted cash and investments + restricted cash and investments/total annual debt service	demonstrates a system's liquidity including restricted assets relative to its annual debt service requirements
Unrestricted Days Cash	unrestricted cash and investments/(total operating expenses/365)	measures liquidity relative to daily operating and maintenance expenses
Debt Ratios		
Total Debt/Net Plant	total debt/net plant, property and equipment	measures debt burden relative to net plant
Total Debt/Total Revenues	total debt /total revenues	measures debt burden relative to total revenues
Total Debt per capita	Total debt/service area population	measures debt burden relative to service area population (similar to per capita G.O. debt ratio)
5 year CIP as a % of current NPPE	current and succeeding four fiscal years' capital improvement requirements/not plant property and equipment	measures future capital needs relative to the current size of the system

November 1997

Special Comment

Contact	Phone
New York	
Dan Aschenbach George Leung Susan Abbott Chee Mee Hu	212-553-0880 212-553-0342 212-553-1653 212-553-3665

Electric-Industry Deregulation Puts Negative Pressure on Credit Ratings of Some Local Municipal Bond Issuers

Sunnary Opinion

In reviewing deregulation's effect on the electric power industry, Moody's has determined that deregulation will present numerous local governments with increased credit challenges. Most immediately affected will be those that depend on tax revenue from investor-owned utilities with nuclear generation assets. Moody's believes there is negative pressure on the ratings of several municipal bond issuers that derive significant property-tax revenue from troubled nuclear power plants. We have identified in this report six municipal bond issuers (combined with \$100 million of outstanding debt) and included an assessment of their credit position (See Figure 1). In addition, we have identified and are reviewing other rated, local entities with a major coal-fired or nuclear generating unit that is dominant in the tax base. We have also identified state- and local-finance issues related to deregulation that we expect will affect about 2,000 local municipalities, counties, and school districts, along with nearly 30 states as electric utility industry deregulation becomes a reality nationwide in the years ahead.

This report, which provides an early assessment of deregulation's impact, outlines the key effects of deregulation on the credit quality of municipal, county, and school-district debt. Because deregulation spurs competition and lower prices, electric utilities-particularly those with high fixed costs and poorly performing generation assets (often nuclear plants)—are forced to close plants and demand property-tax appeals, both of which threaten local tax revenue. In addition, deregulation pressures city-owned electric utilities to reduce the amount of money they transfer to municipal general funds, which will force either lower government spending or increases in other taxes. Finally, deregulation will have the longer term effect of causing state and local governments to reconfigure their tax polices in light of reduced tax revenue from utility business taxes and the difficulty of collecting those taxes when they involve interstate power sales.

The severity of credit-quality problems for individual issuers of tax-exempt debt will depend on the local utility's dominance as a taxpayer, the pace of deregulation, and government's ability to cut spending and shift the tax burden to other industrial, commercial, or residential taxpayers.

As electric-industry deregulation unfolds, Moody's will update this early assessment of deregulation's impact on state and local governments, particularly those that depend on tax revenue from utilities with uneconomic nuclear power plants, coal-fired plants, or other assets that will make for stranded costs in an open market.

In detailing how deregulation affects local and state government revenue, we focus in this report specifically on:

- Power-plant closings
- Utility property-tax appeals
- Reductions in general fund transfers
- Changes in local and state government tax policy

continued on page 3

Author	Data Support	Editors	Production Associate
Dan Aschenbach	Vance Lavin	Michael Oneal Crystal Carrafiello	William L. Thompson

© Copyright 1997 by Moody's Investors Service, Inc., 99 Church Street, New York, New York 10007. All rights reserved. ALL INFORMATION CONTAINED HEREIN IS COPYRIGHTED IN THE NAME OF MOODY'S INVESTORS SERVICE, INC. ("MOODY'S"). AND NONE OF SUCH INFORMATION MAY BE COPIED OR OTHERWISE REPRODUCED, REPACKAGED, FURTHER TRANSMITTED, TRANSFERRED, DISSEMINATED, REDISTRIBUTED OR RESOLD, OR STORED FOR SUBSEQUENT USE FOR ANY SUCH PURPOSE, IN WHOLE OR IN PART. IN ANY FORM OR MANNER OR BY ANY MEANS WHATSOEVER, BY ANY PERSON WITHOUT MOODY'S PRIOR WRITTEN CONSENT. All information contained herein is obtained by MOODY'S in a sie" without warranty of any kind and MOODY'S, in particular, makes no representation or warranty, express or implied, as to the accuracy, timeliness, completeness, me "as is" without warranty of any kind and MOODY'S, in a particular purpose of any such information. Under no circumstances shall MOODY'S have any liability to any person or entity for (a) any loss chantability or fitness for any particular purpose of any such information. Under no circumstances shall MOODY'S have any liability to any person or entity for (a) any loss chantability or fitness for any particular purpose of any such information. Under no circumstances shall MOODY'S have any liability to any person or entity for (a) any loss chantability or fitness for any particular purpose of any such information in contained the procurement, collection, compilation, analysis, interpretation, communication, publication or delivery of any such information, or (b) any direct, indirect, special, consequential, compensatory or incidental damages whatsoever (including without limitation, lost profits), even if MOODY'S is advised in advance of the possibility of such damages, resulting from the use of or inability to use, any such information. The credit ratings, if any, constituting part of the information contained herein, and must be construed solely as, statements of opinion and not statements of fact or credit support for a profits), even if MOODY'

FREQUENCY OF POWER PLANT CLOSINGS TO INCREASE AS DEREGULATION EVOLVES

Power-plant closings are expected to increase as a result of electric-industry deregulation. Moody's believes that as regulated electric utilities emphasize becoming the lowest cost generators of power in order to compete in an open, deregulated retail marketplace, uneconomic generating units will be closed. We also believe that newer, more efficient electric-generation technology and low natural gas prices have affected the economics of large generating stations, particularly nuclear power plants.

Two years ago, Moody's reported that at least 10 nuclear plants might close because of stranded costs if electric-power generation was completely deregulated. (See Moody's Special Comment, "Stranded Costs Will Threaten Credit Quality of U.S. Electrics," August 1995.) Since then, several nuclear plants have closed, and we expect others will follow, significantly affecting the communities they are located in. Although most nuclear plants are not located in communities that have credit ratings, those that are remain positioned differently, as the following examples illustrate:

- The slated closing of Connecticut Yankee Nuclear Station threatens the tax revenue of the Town of Haddam (underlying rating Baa1), since the station represents 25% of Haddam's tax base? A recent court settlement covering an over-assessment of the plant's property taxes required the town to refund \$13.9 million in taxes. The immediate loss in taxable value and the expectation of more losses resulting from the plant's decommissioning create uncertainty regarding the town's overall operations and financial position. As a result, Moody's has assigned a negative outlook to the town's debt obligations. During decommissioning, which will take several years, the plant will remain taxable but at a reduced level. The challenge town officials face in terms of mitigating the effects of the tax-base loss is to maintain fiscal balance and to address economic development.
- Located in Waterford, Connecticut (general obligation bonds rated A1), the Millstone I, II, and III nuclear units have been scrutinized by the Nuclear Regulatory Commission (NCR) for poor operating procedures and placed on its Watch List. Although no final announcement has been made about the units' long-term status (they have been out of service for a year and a half, during which property taxes have been paid), Millstone's tax payments account for almost 80% of the City of Waterford's tax revenue. The city's governing board, however, prudently maintains minimal debt and has financed its capital improvements on a pay-as-you-go basis. The city has also maintained substantial operating reserves, which could be available should any adverse tax decisions be made regarding the Millstone nuclear units. Although the city will evidently face challenges over the long term if the units no longer operate, its planning strengths are a positive consideration.
- The Dresden Nuclear Plant, owned by Commonwealth Edison and located in Grundy County, Illinois, has been on the NRC Watch List longer than any plant in NRC history. One of the nation's oldest nuclear facilities, it has had less than a 35% availability factor. Although no decision has been made to close the plant, this example clearly points to the potential exposure some communities face from deregulation. Commonwealth Edison's taxable valuation represents more than 30% of the county's tax base, including the location of the Dresden facility and a fossil fuel-fired power plant. Property taxes from all county taxpayers account for almost 50% of the county's revenues. About 10% of the county labor force is employed at the power plants. The county, with a general obligation rating of A1, could suffer both financially and economically if the plant closes-potentialities that may pressure the county's long-term credit rating. Offsetting this concern, however, is the county's direct debt burden of less than 0.2%, with most of the debt slated for retirement in the next 10 years. The county also has adequate taxing margins and conservative financial management, including maintaining substantial cash balances to meet contingencies. In addition, the Illinois legislature recently approved a three-year freeze on depreciation of nuclear power plants to protect school and other taxing districts from reduction in the property tax assessment base. The new provision provides some transition time for Gundy County.

^{1.} A utility has "stranded costs" if its overall break-even price, which is adjusted to include the break-even price for deferred assets, exceeds the utility's competitive market price for capacity. Underpinning Moody's calculation of a utility's break-even price for capacity is a key distinction between 1) what a utility charges for electric energy (the actual power, measured by kilowatt hours, that customers use) and 2) what it charges for electric capacity (the uninterrupted availability of energy, measured in kilowatts, that can be used at will). Break-even price, therefore, refers to the minimum price at which a utility must sell electric capacity (owned and purchased) in order to cover all its fixed production costs. Fixed production costs refer to current cash spending (nonfuel operating and maintenance expenses, fixed payments under long-term power contracts, and interest and property taxes, as well as depreciation [a noncash expenses]). Deferred assets are noncash expenses reflecting past and current expenditure that were capitalized in expectation of future recovery. Therefore, a technical definition of stranded costs is that they refer to the difference between a utility's adjusted break-even price and market price for capacity (both expressed in dollars per kilowatt) times the amount of the utility's capacity (total kilowatts). A plain-English definition of stranded costs is they refer to those costs that a utility cannot recover from customers via rates.

2. Moody's rates Haddam, Connecticut, general obligation bonds Aaa based on the financial strength of the insurance company that insured thebonds.

Moody's research found that the average age of nuclear units located in communities with Moody's-rated outstanding debt is 24 years. As nuclear power facilities have matured and marketplace economics changed, many utilities will make planning decisions regarding the role of the nuclear resource in their future power mixes. (See Figure 1, which lists some of the nuclear units Moody's has determined to be potentially uneconomic in an open-access retail marketplace. The chart also includes credit information about affected communities.)

Once the decision is made to close a power plant, the effect on the local community will not be immediate since power-plant decommissioning takes time, keeping some of the plant's assessed valuation intact and taxable. Decommissioning, however, remains an uncertain process since so few power plants and sites have gone through the process fully.

The impact of electric utility deregulation for a particular municipality will be heavily influenced by the planning done to mitigate lower taxes, the relative importance of utility taxes, the level of reserves maintained, and the political environment affecting a shift of tax burden to other taxpayers.

Besides nuclear units, Moody's also expects that as utilities assess their cost structures other uneconomic generation assets may be identified as candidates for closure. For example, recently announced changes to the Clean Air Act are expected to affect the economics of smaller, coal-fired power plants, particularly in the Mid-West, and could cause plant closings.

Moody's generation cost-analysis model has allowed us to assess each generating facility in the U.S. and to estimate which ones are uneconomic in an open marketplace. For example, we have matched the largest coal-fired facilities with local governments that have Moody's credit ratings. As part of our ongoing analysis of deregulation, we will continue to evaluate which communities may be affected by possible plant closures, particularly plants that represent a major portion of the tax base and whose closure may have the greatest effect on the community.

TAX APPEALS ARE THE MORE IMMEDIATE THREAT TO LOCAL GOVERNMENTS' FINANCES

As deregulation evolves, Moody's believes competition will cause the value of utilities' assets, including that of uneconomic generating plants, to decline, and will reduce property taxes in communities that assess utility property for taxation purposes. Whether the tax assessment is based on the income approach to property-tax appraisal or cost or book value, we think there will be a new, lower tax assessment that will result in the loss of property-tax revenue.

Utility managers will pressure local governments to reduce tax assessments, given the fact that property taxes represent more than 40% of utilities' tax burdens nationwide. Moody's also expects that as some investor-owned utilities divest their generation assets the resulting asset sale may not be at book value, which could then also affect taxable values. (New England Electric System recently sold its generating plants to U.S. Generating Company, reportedly at an amount above book value, which is an exception to what is generally expected.) The impact of reduced tax assessments will depend on the utility asset's importance to the tax base and the extent to which the community relies on the affected utility as a revenue source.

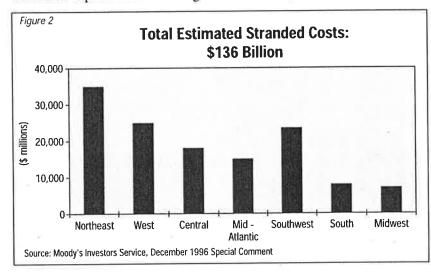
Following are examples of the tax-appeal issue that we reviewed:

- In 1996, Ohio's Lake County (rated Aa3) saw its delinquent-tax level soar when Ohio Edison/Centerior contested the personal property tax assessment on the Perry Nuclear Power Plant. The utility's assets represent more than 10% of the county's assessed valuation in 1996. The county's stable credit record remains pressured by the tax-appeal litigation that is before the state appeals court. As electric industry restructuring in Ohio proceeds, we expect the pressure on taxable values to increase.
- Suffolk County, New York (rated Baa1), over-assessed the Shoreham Nuclear Plant on Long Island, resulting in litigation that was recently settled as part of the Long Island Power Authority (LIPA)-proposed takeover of Long Island Lighting Company (LILCO). Besides Suffolk County, the City of Brookhaven (rated A3) and the Shoreham-Wading River Central School District (rated Ba3) are affected by the litigation and settlement. If LILCO's sale is completed according to the terms of the agreement, the need for several taxing jurisdictions to refund up to \$1.1 billion would be removed. According to a New York Supreme Court decision, the \$1.1 billion represents the full potential cost that might have required such a refund, with interest, for property taxes paid because of the overassessment of Shoreham from 1984 to 1991 and for payments-in-lieu-of-taxes on the plant from 1992

Municipal - Issuer	GO Credit Rating	Credit Outlook	Final Bond Maturity	Analyst	Plant as % of Total	Property Tax as % of Operating Revenues	Nuclear Power Plant Name	MW	Age (Years)	SALP	License Expiration
Lake County, Ohio	Aa3	Stable, but tax appeal on nuclear facility remains a rating pressure.	2016	Jeanne Wilson (212) 553-1690	10.0	27.1	Perry	1166	11	2.0	2026
Grundy County. Illinois	LΑ	Stable in short-term, but county could be affected financially and economically should plant close.	2010	Harvey Zachem (212) 553-7731	30.0 [1]	47.4	Dresden 2 Dresden 3	794 794	28 26	2.5	2006 2011
Haddam Town, Connecticut	Aaa (Underlying Baa1)	Negative credit outlook; announced closing of Connecticut Yankee; a credit significant pressure	2002	Robert Stanley (212) 553-0334	25.0	89.5	Connecticut Yankee	582	30	1.8	2007
Waterford, Connecticut	A1	Stable since minimal debt is outstanding: significant dominance of Millstone units in tax base presents a major negative pressure.	2001	Nicole Johnson (212) 553-4573	70.0	1.68	Millstone 1 Millstone 2 Millstone 3	660 870 1,154	22 11	2.0 2.5 2.0	2010 2015 2015 2025
Plymouth, Massachusetts	St. b	Stable due to strong financial position, but rating is pressured by dominance risk of Pilgrim Nuclear Plant and potential impact of deregulation	2004	Nicole Johnson (212) 553-4573	22.8	76.2	Pilgrim	655	25	1.8	2012
Brunswick County. North Carolina	nty. A1	Stable, nuclear plant dominance in tax base a concern, but county's fundamental financial and economic strengths offset concern.	2009	Ed Krauss (212) 553-0822	19.0	64.0	Brunswick1 Brunswick2	821	21	1.0	2016

- to 1995. Under the agreement settling the over-assessment matter, LIPA promised to pay LILCO \$625 million in cash, funded by bond proceeds of a LIPA debt issuance and recovered by LIPA through electric rates.
- Oswego, New York, is the location of a Niagara Mohawk oil- and gas-fired generating facility that represents 71% of Oswego's tax base. Property taxes fund 66% of the city's operating budget. Moody's rates the city's bonds A3 with a negative outlook partly because of tax-assessment appeals and concern that Niagara Mohawk may-in an effort to divest itself of generation assets-sell the plant as part of its Power Choice Plan. Whether the sale would be below book value and affect taxable value remains uncertain. Management has begun to actively position the city for the worst by increasing property taxes and accumulating significant reserves.

Moody's believes that utilities operating in an open electricity market will be unable to recover the currently high, above-market, electric-power prices from customers that will be inclined to choose another power supplier. Moody's estimates that investor-owned utilities have about \$136 billion of stranded costs. (See Figure 2.) To help prepare utilities for deregulation, regulators have started to let utilities accelerate depreciation of their generation assets, which also translates into lower book values.



In states where book value represents the basis for property tax assessment, accelerated depreciation equates to reduced tax assessments and result in lower tax revenues for the affected communities. As utilities reduce their potential stranded costs by writing off the value of uneconomic generation or divesting their generation assets to reduce their market power, the generationrelated, property-tax assessment is expected to be lower, causing the property tax required for local government

operations to shift to other classes of property-tax payers. A second option is for local governments to cut spending to compensate for the lower tax revenues.

LIMITS ON GENERAL FUND TRANSFERS WILL NEGATIVELY AFFECT GENERAL GOVERNMENT BUDGETS

As retail competition in the electricity marketplace intensifies, pressure on retail rates will require local governments that own electric systems to examine the role of the general fund transfer in their budgets. In communities that own an electric system, a standard practice has been to transfer the system's surplus to the general government's general fund. Already, municipalities that own electric utilities are responding with planned reductions. For the next several years, the City of Riverside, California, with electric revenue bonds rated A1, is reducing its transfer level by a targeted amount annually. In 1996, North Carolina communities of ElectriCities (municipal electric utilities that are participants in the state's two joint power agencies) reduced transfer levels by an average of 13% for North Carolina Municipal Power Agency No. 1 participants and 7% for North Carolina Eastern Municipal Power Agency participants. The City of Austin, Texas, with electric revenue bonds rated A2, has begun to lower its general fund transfer by 0.12 cents/kWh annually, which will reduce its transfer level to about 8% of revenues in 2001.

General governments in some communities depend heavily on utility-revenue transfers and, as a result, may find it difficult to cope with lower transfer levels. As retail competition looms, Moody's believes this issue will place a great deal of pressure on communities to make the difficult choice to lower the general fund transfer and cut general fund spending or raise property taxes.

ELECTRIC-INDUSTRY RESTRUCTURING PROMPTS EXAMINATION OF HARD CHOICES VIS-À-VIS STATE AND LOCAL TAX POLICY

Most states are facing hard choices regarding deregulation's effect on various sources of tax revenue. Moody's estimates that almost two-thirds of the nation's states rely on utility taxes as important components of their revenue budgets. Discussions of electric-industry restructuring are occurring in almost every state in the nation. (Figure 3 provides examples of the legislative or regulatory status of state reviews

of electric industry restructuring.)

Reducing the tax burden will be a difficult policy choice, with most states having begun extensive examinations to determine how state and local government finances will be affected. Lowering electric-utility taxes is an attractive way to improve a state's business climate, but doing so also suggests that policy makers will have to make tough trade-offs. A key tradeoff is reducing utility taxes to levels that other corporations pay. Studies show that the incidence of taxes for investor-owned utilities is greater than it is for other businesses. Investor-owned utilities have been a major source of state and local taxes, amounting to an estimated \$15 billion nationwide. (See Figure 4, which reflects the substantial portion of taxes that these utilities paid in the form of gross receipts4 and property taxes.)

Deregulation is having a major impact in states that levy gross receipts taxes. Tax bases have effectively been reduced as the more competitive marketplace has introduced new market players that sell power to customers in other states and are not governed by tax laws of the purchaser's state. The electric-power seller has no obligation to collect gross receipts taxes.

	ctric Industry Restructuring ate and Regulatory Review
State	Status of State Deregulation Discussions
California	Deregulation bill signed into law September 1996; retail choice begins January 1, 1998.
Rhode Island	Deregulation legislation signed into law; retail choice expected to begin January 15, 1998
Montana	Legislation approved that allows retail choice for small customers by 2000.
New Jersey	NJ Board of Public Utilities called for choice of energy supplier to be offered to 10% of customers in October 1998, phased in for rest by July 2000. No legislation approved
Florida	Informational study groups established separately by PSC and Legislature; no legislation introduced.
New York	State Public Service Commission reaching agreement in principle with each utility; no comprehensive legislation introduced.
North Carolina	Legislative Study group established with interim report due in 1998; final report in 1999.
Texas	Legislation tabled until 1999; stranded cost and role of cooperatives major issues.
Washington	State regulatory board process on drafting deregulation guide suspended; pending outcome of Regional Review; Regional Review recommendations being implemented.
Massachusetts	Legislature passed comprehensive deregulation legislation.

In New Jersey and Utah, for example, major tax-policy changes have resulted in replacing the gross-receipts tax with a consumer-based charge that is expected to capture most sales activity in the new, electric-energy marketplace. Since these state-level, tax-policy modifications are new, Moody's is evaluating their effect on the finances of local governments.

New Jersey, for example, will facilitate local governments' transition from utility gross receipt taxes via a new tax policy that will provide an increase over what local governments had received previously from gross receipts and franchise⁵ taxes. The growth-in-revenue provision, however, lasts only five years. In addition, because gross-receipts and franchise taxes represent an important revenue component of the local municipal budget, limits to their growth impact future budgets.

Moody's believes that the difficult tax-policy issues deregulation created are partly responsible for the slower approach some states have taken to implement electric-industry restructuring. Both Iowa and Minnesota, for example, which are states where electric utility property taxes are levied locally, have delayed any state action on restructuring because, in evaluating the issue, they must confront the fact that industry restructuring could significantly affect the finances of local governments. Florida will face difficult tax-policy questions, for example, because it secures its school construction program bonds with gross

³ The American Public Power Association estimates that about 71% of the general fund transfers are made as payments-in-lieu-of-taxes.
4 Gross receipts taxes, also called business gross receipts taxes, are the oldest taxes used by American governments. They are exacted by the public for the privilege of carrying on a business and usually involve payment of an annual fee plus a percentage of the sales or gross receipts.

Report Number 27441

