

Deregulation Strategies for Local Governments and the Role/Opportunities for Energy Efficiency Services in the Utility Industry Deregulation

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ABSTRACT

As the future shape of the electric utility industry continues to unfold and as retail competition becomes a reality, local governments are faced with balancing the need for: (1) economic development; (2) and to avoid the potential impact of cost-shifting among residents and businesses, while ensuring reliable and universal energy services.

Furthermore, local governments need to find ways to recoup potential loss of franchise and tax revenues, to ensure fair and adequate energy-efficiency programs, and to continue other social programs for low income families. This paper will address two important issues every local government in the United States are facing: (1) the development of viable deregulation strategies before, during and after the promulgation of utility deregulation; (2) opportunities for energy efficiency services in the competitive markets to serve local governments, which typically constitutes the largest market segment in utility's service territory.

This paper presents issues and challenges common to all local governments. It documents strategies that several local governments are utilizing to embrace the coming electric utility restructuring and competition challenge to the benefits of their respective communities. This paper is intended to energize local governments to respond to the tremendous opportunities in the new era of decentralized delivery of electric utilities. The paper presents the results on deregulation work by the City of Portland, Oregon, Barnstable County, Massachusetts, and Montgomery County, Maryland. The research by these local governments was sponsored by the Urban Consortium Energy Task Force and Public Technology, Inc.

Introduction

Historic changes are occurring in the electric utility power industry that will have important implications for the local governments, their residents and businesses. At stake is the future of electric utility companies and billions of dollars in power supply rates paid by consumers. Electric utility companies and state regulators have already begun the transition to a new era of competition. They anticipate that buying and selling of electricity will be less regulated and customers will be free to choose their supplier. The new competitive marketplace will be similar to what consumers experienced with long distance telephone services a decade ago. New independent companies, as well as companies with familiar names will compete with utilities to sell electricity to the local government market. Nationally, the stakes are enormous--\$210 billion--a market larger than either automobiles or telecommunications.

Competition will usher in many new choices for customers, and a variety of new products and services as power marketers and utilities attempt to make the electricity they sell more attractive. Savings are likely for some users, especially industrial companies who have lobbied hard for retail access. Savings are less certain for small businesses and residential customers, especially in geographic areas like the Pacific Northwest, which already have relatively low power costs. The higher cost regions such as the Northeast and Mid-Atlantic areas may reap significant initial cost savings.

Acknowledgment

Highlighted is the extensive and current on-going applied research effort by the Urban Consortium Energy Task Force (UCETF), in examining the potential impact and opportunities in the pending electric utility restructuring.

UCETF is made up of local governments energy programs administrators and policy makers from 23 major urban areas around the United States. This task force is one of the specialized task force of the Urban Consortium (UC), an organization of local governments drawn together to pursue technological solutions to common problems. The UC is administered by Public Technologies, Inc. (PTI) the non-profit research, and development and technology application arm of the National League of Cities, the National Association of Counties and the International City/County Management Association.

The primary goal of the Urban Consortium Energy Task Force is to act as the premier technology research, development and deployment organization dealing directly with energy programs that leverage federal, state and local funds for the conduct of research and technology transfer projects.

Issue and Problem

Local governments plays numerous and sometimes conflicting roles relating to the electric utility industry. For example, local governments establishes policies on energy, reliability, and sustainability. They grant electric utility franchises, maintains public right-of-ways occupied by utility poles and wires, and collects license fees totaling millions of dollars each year. Local governments typically are large consumers with electric bills that account for 10%-25% of a local utility's revenue. Also, they may be a municipal utility providing water, wastewater and street lighting services. Local governments promote and fund energy efficiency programs for homes, businesses and public facilities, as well as promotion of business growth and economic expansion.

In light of these various roles, the local governments' objective is to stay abreast of the rapid changes in the electric utility industry. At the same time, they are positioning themselves to capture the benefits of competition and at the same time, achieve local energy and environmental goals.

Where Does Local Government Fit

What can local governments do? Indeed, most of the rules governing the structure of the electric utility industry are in the hands of state legislatures and regulatory commissions. They need to remain keenly aware of what is going on in their state and at the federal level, rather than passively waiting on the sidelines for the outcome. If they so desire, they need to actively influence the discussion through their participation at round-tables and adjudicatory proceedings in their respective state.

The effect on local governments corresponds with their current roles and relationships with the electric utility industry. Generally, municipalities will fall in one of these three groups; (1) local government as a utility, (2) local government as a franchiser; and (3) local government as a customer. In fact, there might be considerable overlapping among these three categories. Where a local government falls within these categories determines the options available to their officials.

Local Government as Utility

If a city or county has a municipal electric utility department, it will be affected differently by restructuring than ones that do not provide this services. The American Public Power Association (APPA), the member organization of municipal electric utility systems in the U.S., has prepared extensive educational material and position papers that reveals how public power entities might be affected by competition, and how they can influence the legislative debate.

In the competitive debate, two competing actions are occurring with regard to public power. First extensive pressure has been brought to bear on municipal electric utility departments (by groups both in and outside government) to consider privatization -- or at least outsourcing -- of the electricity service function. Investor-owned utilities are looking to take over some municipal electric departments to help increase their customer base, and spread the costs of providing more services. Privatizing a municipal franchise may or may not be good deal for a municipal government, and even outsourcing may present many conflicting pros and cons. In a countervailing trend, some local governments are considering municipalization, which would enable them to provide and control their community electric utility services. These entities are considering converting to public power by exercising their exclusive franchise rights. This movement is discussed in more detail in the section Resources From Urban Consortium.

Figure 1 Comparison of Public Power System and Private Utility Companies		
	Public	Private
Number of Utilities	2,007	249
Customers Served	13.6%	75.6% of total
KWH Generation	10.5%	71.4% of total
Annual KWH Sales	14.4%	76.2% of total
Revenue from KWH Sales	12.7%	78.8% of total
Ownership of Transmission	15,594	157,589 miles
SOURCE: American Public Power Association		

Local Government as Franchiser

Most local governments that do not operate utilities themselves have some form of franchise authority to grant an alternative power provider a contract to serve their municipalities, and perhaps also to operate within their territories. Contracts typically last for several years. (Ten years is not an unusual time period to grant a private company exclusive rights to provide power to a jurisdiction.) Many local governments are realizing the bargaining position that this franchising right gives them, now that the electric utility market is being opened to competition. Some are already leveraging this power to help negotiate more favorable terms with existing or new suppliers.

Local governments' utility franchise rights stem from municipal government control over right-of-ways (i.e., streets and other property rights that affect electric utility industry operations). For example, transmission and distribution lines must follow streets either above or below ground. This requires utility providers to enter into contractual relationships with their local government.

Local Government as Consumer

Whether or not local governments are in the generation business, all local governments are consumers. Those that buy power from outside providers probably do so through several accounts covering many buildings and facilities. Typically, annual electric bills account for a significant portion of the local governments' operating budgets. In Montgomery County, Maryland, the annual budget for electricity is \$48 million. As a major consumers, local governments have considerable leverage in negotiating new energy services and rates at this time. Even if a municipal is operating under an existing contract, most suppliers are willing to open negotiations to discuss alternative terms and rates. Many in the utility industry are preparing for the potential supply choice governments may exercise in a competitive market. Therefore, the local utility has a vested interest in retaining their local government as a customer. To retain their market share.

Some municipalities have already been approached by suppliers other than their local electric utility provider to purchase either energy services or electricity. Several major companies across the U.S. are beginning to offer energy-efficiency services or other energy-related services to local governments and other major customer groups; in anticipation of the opportunity to secure electric service contracts in the future. By building relationships now they are hoping to win a favorable position vis-à-vis the competition tomorrow.

Desired Outcome For Local Governments

First, as a consumer, local governments need to analyze the rate tariffs for acquiring energy and other services, such as for street lighting and traffic signal need. In general, local governments believe current rates for street lighting and signals--often the largest single utility expense--did not reflect cost efficiencies inherent for this type of service (including unmetered service, a single customer bill, generally off-peak, and high load factor characteristics). The study, *Street Lighting and Traffic Signal Utility Analysis*, concluded that rates were indeed higher with policy and tariff changes. Potential savings of one-half million dollars were demonstrated.

Second, recognizing that the purchasing power of local governments might be enhanced if municipal electric loads could be aggregated. The City of Portland Oregon studied and successfully completed the aggregation of its six largest metered accounts. The same local entity was able to negotiate a purchase of renewable resource generated power.

Third, local governments as a franchiser and manager of public right-of-ways, should study the changing electric utility industry, and the roles they should consider to achieve energy, reliability and environmental goals as we move toward retail competition. In the report, *The Local Government's Role in a Changing Electric Utility Environment*, some methods that municipals can utilize is by addressing the questions outlined below.

TABLE 1 - Questions For a Local Government In Public Policy Debate

1. What changes are taking place in the electric utility industry and why?
2. What are some likely outcomes in terms of industry structure?
3. What are the local government's current policies and programs?
4. What are the local government's current roles?
5. How can local governments help sustain and enhance local energy efficiency?
6. How can local governments help sustain and enhance renewable resource development and use?
7. How can local governments help protect consumers and ensure fair distribution of the benefits of competition?
8. What methods are available to preserve local governments revenues related to utility licenses and franchises?
9. What is the local governments' role in shaping state, regional and national policy?

SOURCE: A Study of City's Role in a Changing Electric Utility Environment - City of Portland, Oregon - 1997

Common Issues For Local Governments

1. **Rate Analysis.** Local governments' belief that street lighting and traffic signal rates are too high was substantiated in the *Street Lighting and Traffic Signal Utility Analysis* (Reference 1). If the present regulated rate structure is adjusted, savings of over \$500,000 per year could result in one case alone. Other jurisdictions may find the same opportunity and significant savings by rate structuring.
2. **Cost of Electricity and Load Aggregation.** Aggregation of large load accounts was completed and resulted in savings of over \$185,000 per year for the City of Portland. For local governments with a number of facilities such as: schools; clinics; vehicle depots; fire stations; and water treatment and distribution facilities load aggregation is a necessary step for step for a power supply contract. It offers local governments bulk purchasing power and cost savings.
3. **Tax Revenues and Franchise Fees.** The report, *The Local Government's Role in a Changing Electric Utility Environment* (Reference 2), concluded that revenues from utility license and franchise fees are now at risk. If no adjustments are made to the way local governments collect fees from electric utilities, the City of Portland's \$16 million annual revenue from license and franchise fees will dramatically decline. Similarly, Montgomery County's \$40 million of revenue for real property taxes on its utilities also faces significant decline, if the State of Maryland changes the tax laws. Further conclusions and observations are summarized below, and shown in the section Resources From Urban Consortium.
 - A. Local governments' goals for energy conservation, environmental protection and low-income services are also at risk.

- B. The forum where the decisions will be made is primarily at the state and federal level, not the local level. Local governments are often not the appropriate jurisdiction for regulatory activities that affects market conditions in state and national markets. Without favorable state and national initiatives, the outlook for local governments achievement of its energy goals is hindered. Local governments must be pro-active at the state level to address the issues of concern to them.
 - C. The interests of residential and small business users tend to be diverse and could be under-represented in decision making without an active, deliberate effort. The interests of large energy consumers and the utilities themselves tend to be well organized. Local governments using in-house staff and an abiding public commitment to achieve a sustainable energy goal can have a very important role. In representing diffuse and essential public interest local governments can influence the outcome at the state level.
 - D. Local governments to achieve the goals for consumer protection, low-income service, aggregation of small consumers and investment in energy efficiency and renewable resources, specific mechanisms will need to be specified prior to retail competition. If not, we risk shifting costs from one customer class to another. This will result in inequitable distribution of the benefits of competition and under-investment in public purposes.
 - E. The timing and packaging of restructuring initiatives is crucial. Waiting to see how it shapes-up before addressing policy and programmatic interventions may result in significant and irreversible damage to local government's goals. Local governments cannot afford to be complacent and taking a wait-and-see attitude to this important public debate on restructuring. Otherwise, interested parties with vested interests such as incumbent utilities and large industrial users will control the debate and the outcomes.
4. **Right-of-Way.** The impact of deregulation on the public's right of way, although not given much attention in federal and state discussions, is a critical issue to local governments. With competition comes increased use of the right-of-way. Although laws may not be changed, the changing market and technology may alter local governments' ability to properly manage and be compensated for the use of the public's right-ow-way.
 5. **Impact on Residences and Business.** Deregulation of the electric utility industry will have a significant impact on residences, small businesses, and large corporations operations. How deregulation is structured and how a local community responds may impact local economic development and quality of life. Cities will have to find solutions to the issues of whether electricity is affordable to each class of customer and the reliability of service.
 6. **Municipal Utilities.** Communities with municipal utilities have additional issues. First, how well will the utility fare in a deregulated electricity market? Is it prepared? Is it structurally and financially vulnerable or is its market vulnerable? The second issue is transfer payments

from the utility to the local government. These payments can allow for budgeting flexibility, but continuing such transfer payments could make the utility noncompetitive? In addition, may jurisdictions also have self generation power capacity (such as waste-to-energy plants) that may become a factor, if not a player, on the power grid locally. Volatility in real time retail wheeling may have impact on revenues from the power contracts.

Strategic Issues for the Local Government's Role in a Changing Electric Utility Environment

The City of Portland Oregon developed a set of eight strategic issues and goals. Montgomery County, Maryland has also formulated a similar set of policy goals such as:

1. Fair distribution of the costs and benefits of competition
2. Reliable, high quality service
3. A long-term perspective in energy decisions
4. Environmental quality
5. Development of renewable resources
6. Efficient use of energy supply
7. Economic development
8. Maintenance of revenues to the local government's general fund

Action Checklist for Local Governments

Since, deregulation and restructuring of the electric utility industry will have significant impacts on local governments and constituents, it is important for them to understand that there are a number of actions that can be addressed to proper for these changes. The key to success for local governments and constituents in the deregulation process will be informed engagement and proactive actions.

The checklist is not intended as an all-inclusive list of steps. It should be utilized as a starting point for local governments to begin a proactive planning process for deregulation. By doing so, local governments can capitalize on opportunities by being properly prepared. The checklist is a condensed version from "Keeping the Lights On Primer" by Public Technology, Inc. (PTI).

1. **Help Set the Rules.** Local governments need to make their interests known to state and local legislatures and regulatory agencies. This means developing a clear statement of local government interests and becoming involved in discussions about how deregulation should be implemented, if implemented at all.
2. **Action Steps for Local Government for Deregulation**
 - A. Analyze Current Usage, Costs and Billing
 - ◆ Identify facilities, including street lighting and traffic lights that the local government manage
 - ◆ Identify the inventory of existing electric meters
 - ◆ Identify monthly kilowatt demand and total usage for each facility
 - ◆ Identify the percentage of energy costs that are electric, natural gas, and other, which is their supplier

- ◆ Identify which accounts are estimated, which are metered or unmetered
- ◆ Compare energy costs to the regional average
- ◆ Identify billing errors
- ◆ Identify how utility bills are monitored

B. Review Rate Structure and Discount Options

- ◆ Identify the rates at which local government energy service is billed
- ◆ Identify discount rate structures that the utility may offer or for which the local government might be eligible
- ◆ Identify the local government's top ten energy cost centers
- ◆ Identify significant electric rate penalties
- ◆ Determine if there are opportunities and advantages to aggregating load within the government
- ◆ Identify your local utility provider's distribution, transmission, generation, and ancillary costs

C. Design and Implement Energy Efficiency Programs

- ◆ Develop procurement standards to purchase only energy-efficient equipment and systems
- ◆ Develop and implement energy-efficient performance standards for all public works projects
- ◆ Determine funding opportunities and matching programs that will facilitate a working partnership with the utility or alternative suppliers (The Electric Power Research Institute has information)
- ◆ Determine if the utility has energy efficiency programs that would facilitate a partnership
- ◆ Perform a preliminary lighting audit
- ◆ Perform energy audits on all buildings
- ◆ Investigate and join federal conservation programs
- ◆ Encourage the utility to join DOE's Climate Challenge Program

D. Audit each utility contract and determine if there are opportunities in the contract that could be incorporated into the contract for saving energy or costs.

C. Audit each franchise agreement and assess whether it is performing as intended and whether you need to prepare to make changes when it is renewed.

3. Education Yourself and the Public. Understanding what is being discussed during the rule making phase and understanding how to take advantage of deregulation once it has been approved will be a critical matter, especially for those, such as local governments and their constituents, not engaged in electricity production on a daily basis.

Local governments have to understand their interests in the issue, how their interests connect with other interests, how their interests can be incorporated into action, and how to articulate these interests to others. Once, and if, deregulation is adopted not only will

local governments have to become more informed on the operations of the electric utility market, but so will local residents and businesses.

4. **Develop Strategies for Deregulations and Competition.** The local governments will need to develop the means for operating within this deregulated market. That requires finding ways that they can maximize their market power in order to obtain the best combination of price and services. They may also want to develop strategies to assist residents of their community operate in the new market, if they feel they might not be able to on their own. Finally, these strategies might be developed in support of other community goals, such as maintaining the quality of life or promoting economic development.

Results from Case Studies - City of Portland, Oregon

1. **Rate Analysis.** Street lighting and traffic signal rates of a local utility were compared with rates from other customer sectors. The results of this survey showed that rates were generally higher relative to other customer classes.
 - A. The belief that rates are too high was substantiated in part, due to specific decisions made by the Public Utility Commission and the municipal serving utility (Portland General Electric).
 - B. Lighting class customers pay significantly higher rates, relative to marginal cost, than any other customer class. An approach to rate making that emphasizes efficiency would result in significant reductions from current levels
 - C. Changes in rate design could result in saving as much as 11-19%. This level of savings can be realized for many local governments.
2. **Aggregating Local Government's Accounts.** Aggregation, or combining accounts for group purchases and billing, was explored as a means to reduce local government's cost of electricity purchases for municipal facilities. This effort can be supported by the local utility which can offer an experimental rate tariff giving large load customers access to market based pricing.

As an example, the result was an aggregation of the City of Portland's six largest metered accounts--wastewater treatment, water pumping and one high-rise office building (street lighting was not eligible to participate) were aggregated. The load totaled 10.5 average megawatts (45 million kilowatt-hours) and over \$2 million annually. In August 1995 the contract was signed saving the City \$185,000 or 65% in the first year.

As a supplement to this power purchase, the City of Portland chose to dedicate part of the savings -- about \$60,000 -- to the purchase of more expensive renewable resource power. The contract specified that five percent (2,250,000KWH) of the purchases be electricity generated from renewable resources in the Pacific Northwest. The result was a package of benefits including lower utility bills, and clean renewable resource power. Local governments can make similar policy choices to include renewable energy in its power supply mix.

Lessons Learned

Local governments role in a changing electric utility environment across the nation includes the following:

1. Revenues and energy goals are now at risk: If no other adjustments are made to the way local governments recover fees from electric utilities, the franchise fee revenue could dramatically decline, assuming that the only remaining utility revenue subject to the fee is the distribution costs. Energy goals are also very much at stake in state, regional, and national policy and regulatory forums. Various initiatives in pursuit of energy goals may be rendered unnecessary, less difficult, more difficult, or impossible, according to developments at the state and federal levels.
2. The forum where most decisions will be made is at the state, regional and federal level: not at the local level. Local governments are often not the appropriate jurisdictional level for regulatory activity that affects market conditions in an ever-widening and more competitive energy field. Without favorable initiatives at the state, regional and national levels, the outlook for local government achievement of its energy goals is cloudy at best.
3. Public interests tend to be diffused; therefore, are not represented in decision making without an active, deliberate effort by local governments. Energy policy and regulatory determinations have dramatic impacts on both the public interest and private economic interests. However, economic interests tend to be concentrated whereas the public interest is diffused. For example, the environmental impacts of energy decisions are huge, but they are generally distributed in small, uncertain quantities over enormous numbers of people and geographic areas. Direct economic impacts, however, are often concentrated to the point where they become dominant concerns for specific energy-intensive consumers and energy providers.
4. The timing of changes in the electric utility industry requires local governments to become prominently engaged in electric energy issues. Substantial uncertainty surrounds the pace and direction of power industry restructuring. The questions about how markets develop what interests they serve and under serve can only be answered definitively over time. However, opportunities foregone or foreclosed in the short-term may be difficult to recover.

For example, the advent of retail access prior to the introduction of specific mechanisms for consumer protection, low-income service, aggregation of small consumers, and investment in energy efficiency and renewable resources are virtually certain to violate municipalities' goals. The results may be:

1. Cost-shifting as an alternative to cost-reduction
2. Inequitable distribution of the relatively few benefits that may be produced
3. Under investment in public purposes.

The timing and packaging of restructuring initiatives is crucial. Waiting to see how restructuring evolves before undertaking policy and programmatic interventions will probably result in significant and

irreversible damage to local governments' goals. With the likelihood of far-reaching state and federal legislation in 1997, the importance and potential impact of local governments involvement has never been greater.

1998/99 Urban Consortium Energy Task Force Applied Research Projects on Utility Restructuring	
Jurisdiction	Project Title
San Francisco, CA	Energy efficient services in restructured electric utility industry
St. Louis County, MO	Effect of deregulation on efficient energy utilization at building complexes
Barnstable County, MA	DSM by local government
Monona County, WI	County preparation for Wisconsin Energy Restructuring (PWER)

Resources From Urban Consortium (call 800-PTI-8976, email: pubs@pti.org)

Archiving Full Municipal DSM Potential: An Assessment of DSM Potential, Financing Options and Program Design, San Francisco, CA

This project started with development of a comprehensive database of energy saving opportunities from across the city, a database which facilitated "what if" scenario development. The city then researched various financing mechanisms to help attack the opportunities identified through demand-site management (DSM) actions. The concept of DSM is that it is more efficient and less costly to manage the way in which energy is used (i.e. manage the demand for energy) than to simply keep building more power plants to serve the demand for energy. 96/94-311.

Keeping the Lights On: A Primer, Public Technology, Inc.

Keeping the Lights On, an in-depth primer, is designed to educate readers on various concepts, terms, issues, and policy implications related to restructuring. 96-350b

Keeping the Lights On: A Resource Guide for Local Governments on Utility Industry Restructuring and Competition, Public Technology, Inc.

Is your jurisdiction ready for the complex changes sweeping the electric-utility industry, and the impact those changes will have on power customers in its community? The Resource Guide a companion piece to the primer, includes a glossary and papers from organizations heavily involved-and with much at stake-in the debate. 96-350a.

Keeping the Lights On: Electric Utility Restructuring Awareness Video, Public Technology, Inc.

This 8 minute video serves to raise awareness of the need to get involved in the issues surrounding electric utility deregulation and the opportunities for local governments to position themselves wisely and save money. 96:30c

Community Franchise Study: An Option for Local Governments

Facing the Challenge of Electric Utility Industry Restructuring, Barnstable County, MA

Need to know more up-to-date information about utility restructuring? Barnstable County has spent the last year researching and applying its findings concerning this timely issue. Learn how to evaluate and establish municipal aggregation, prepare request for proposals and contract discussions, and consider where the community franchise fits into a competitive marketplace. A must-read for anyone who is involved in the utility restructuring debate. 07/96:318

A Municipal Guide to Load Management Cooperative Programs, Chicago, IL

Local governments need to conserve electricity, not only to operate, but also to serve their communities. The city of Chicago addresses electricity conservation, including the high cost of maintaining generating capacity to meet high summer peak load requirements. Find out how your local government can offer customers more helpful, convenient, and flexible ways to reduce electric loads. 97/92:321

Securitization and Stranded Costs: Multi-Billion Dollar Restructuring Questions, Philadelphia, PA

The project's objective is to synthesize the proceedings and present a manageable, generic framework in which local governments can: improve their understanding; analyze their situations; formulate strategies; assess their options; and determine a level of involvement for proceeding in their respective state.

References

City of Portland. "A Study of the City's Role in a Changing Electric Utility Environment" 1997. Public Technology, Inc. (Pub. #97/96-323).

Barnstable County, Massachusetts. "Community Franchise Study - An Option for Local Governments Facing (Pub. #97/97-318).

Public Technology, Inc.. "Keeping the Light On" - A Primer for Local Governments on Utility Industry Restructuring and Competition.