

Approved: JAN. 28, 1998
Date

MINUTES OF THE SENATE COMMITTEE ON UTILITIES.

The meeting was called to order by Chairperson Pat Ranson at 1:30 p.m. on January 20, 1998 in Room 531-N of the Capitol.

All members were present except:
Sens. Hensley and Steffes were excused

Committee staff present: Lynne Holt, Legislative Research Department
Mary Torrence, Revisor of Statutes
Jeanne Eudaley, Committee Secretary

Conferees appearing before the committee:
David Dittmore, Director of Utilities, Kansas Corporation Commission

Others attending: See attached list

Sen. Ranson referred the committees' attention to Minutes of the Meeting dated January 13 and 14 (Attachment 1). Sen. Barone made a motion the Minutes be approved, and it was seconded by Sen. Lee; the Minutes were approved.

Sen. Ranson reminded members of the deadlines for drafting requests for bills, which are: January 26 for individuals and February 2 for committees.

Sen. Ranson then introduced David Dittmore, who presented information to the committee regarding acquisitions and mergers. Mr. Dittmore referred to the Western Resources and KCPL merger and stated that negotiations have been delayed because a "fairness" opinion was not provided by Western Resources. He stated that confidential discussions are taking place, and shareholders are putting pressure to go forward on the matter.

Mr. Dittmore also stated the Commission issued an Order last week suspending the procedural schedule under provisions of the 240-day clock, with a joint motion between staff and the company to file monthly status reports. He also commented on the Western Resources and OneOK stock agreement after settling outstanding issues. Provisions in the agreement are: To strive for a high standard in quality of service, with penalties imposed if not upheld; No rate increase by OneOK for three years (does not apply to the gas cost portion); and Western Resources demonstrated it has taken steps to insure electrical costs will not go up.

Mr. Dittmore also commented on the Atmos -United Cities acquisition, which has been approved by the KCC (Atmos had acquired Greeley Gas previously and apparently will be operating under the name "Greeley Gas). He stated they will be closing their business office and relocating their customer call center to Amarillo, Texas, but customers will be able to pay bills at pay stations. Atmos stated they will be allocating additional money to upgrade their customer service information system.

Sen. Ranson asked if there were questions, and Sen. Morris stated he has heard many complaints dealing with the fact some utilities have no local office and have set up toll-free numbers. Mr. Dittmore responded that companies have closed offices because of cutting operating costs and the Commission is concerned about the quality of service and does monitor the response time to emergency calls. Sen. Clark stated an experience from a constituent, who was on "hold" for 22 minutes and asked if the Commission conducted surveys. Mr. Dittmore asked which utility he was referring to, and he responded "KN". Mr. Dittmore stated they have not heard complaints regarding quality of service against that utility; however, the Commission does look at trends and has a toll-free number for customer complaints. Sen. Clark added he understood KN has no local employees and very little equipment to install gas lines, and asked Mr. Dittmore if there are requirements in the certificate for local employees or offices. Mr. Dittmore stated there is a requirement for handling of emergency situations. Sen. Lee then asked how the Commission determines quality of service, and Mr. Dittmore responded there are general terms and conditions required in the utility tariffs. Sen. Ranson discussed service issues and asked for the KCC complaint line number, which is 1-800-662-0027.

CONTINUATION SHEET

MINUTES OF THE SENATE COMMITTEE ON UTILITIES, Room 531- -N, Statehouse, at 1:30 p.m. on January 20, 1998.

Mr. Dittmore briefly mentioned the KN-Midwest Energy acquisition, and the committee continued by discussing with Mr. Dittmore customer complaints, service standards and quality of service.

Sen. Ranson directed the committee's attention to the Retail Wheeling Task Force Report, and recognized guests of the committee who served as members of the Task Force, as well as Sens. Lee, Brownlee and herself, who also served on the Task Force. Sen. Ranson then referred to **HB 2619--related to electric utility industry and competition in retail sales;enacting the electric utility restructuring act,** and explained the bill has been introduced in the House.

Sen. Ranson introduced Lynne Holt, who distributed the following to the committee:

1. Map showing electric industry restructuring (Attachment 2)
2. Map entitled Electric certified areas, transmission lines and power plants in Kansas (Attachment 3)
3. Retail Wheeling and Local Government, understanding deregulation (Attachment 4)
4. Analysis of the Impacts of Retail Wheeling on the State of Kansas (Attachment 5)
5. Tax Implications of Electric Industry Restructuring (Attachment 6)
6. Consumer's Dictionary for Electric Competition (Attachment 7)

Ms. Holt also furnished copies of an article entitled, "Electric power industry braces for deregulation" which appeared in the St. Louis Dispatch on December 28, 1997. She reviewed Part II of the Report, which includes membership of the Task Force and the Scope of Activity. She advised the committee that a public hearing was held in October, 1997, where a preliminary version of the bill was discussed, and the Report finalized in November, 1997. She stated the Report was not entirely endorsed by all members, and there is a Minority Report (Attachment 3). Ms. Holt also called the committee's attention to the Profile of electric service providers (Page 8). She also referred to the map showing electric industry restructuring (Attachment 2) and stated there is a direct correlation between pressure exerted by the large companies in the states with higher rates and the enactment of deregulation legislation.

Ms. Holt began her Overview of the Final Report of the Task Force on Retail Wheeling (available from the Kansas Research Department and is also on the Internet, except for attachments, which may be ordered from the Research Department) by referring to Part V, Pages 34 -39, Reports reviewed by the Retail Wheeling Task Force. She also referred to Attachment 4 of the Report, outlining the number of customers served and Attachment 5, which shows projections of estimated distribution costs for MidWest Energy and Kansas investor owned utilities, and pointed out it costs less for large companies than coops to distribute electrical power. It was pointed out the municipalities have not done a study and cautioned comparing oranges to apples. Sen. Ranson stated the committee will hear more on the subject when it discusses unbundling.

Ms. Holt then referred to Part IV of the Report, policy issues and outlined retail wheeling legislation in various states and their implementation dates and problems encountered by some of those states. She also told of implications if implementation is delayed and arguments against implementation prior to July 2001.

Meeting adjourned at 2:30.

The next meeting is scheduled for January 21, 1998.

SENATE UTILITIES COMMITTEE GUEST LIST

DATE: Jan. 20, 1998

NAME	REPRESENTING
Don Schwacke	KIOGA
Don & Miles	KEC
Jack Graves	Ruby Energy & K N
Juan Wyatt	KFY
Ron Hein	Hein & Weir, Chd.
Dean N. Hoff	Schwacke/KIOGA
Rennie Ann Brown	KS Govt Consult.
Chris Wilson	KS Governmental Consulting
J.C. Long	UtiliCorp United Inc.
Ladany Cole	—
Andy A. Campbell	Midwest Energy, Inc.
DAN WILLIAMS	Sen. Browntee
Clark Duffy	KPC
Nelson Krueger	LEL
Greg Hildebrand	Starnent-Vail
Don Daches	McGill & Assn.
Orville J Cole	Senator Tyson
Dick Carter, Jr	ENRON
Harry Hollaway	KCC

Jim Martin

Joe Staskal

DAVID BYBEE

Western Resources

Williams Field Services

KDOCH

Attach. 1

Approved: JAN. 20, 1998
Date

MINUTES OF THE SENATE COMMITTEE ON UTILITIES.

The meeting was called to order by Chairperson Pat Ranson at 1:30 p.m. on January 13, 1998 in Room 531-N of the Capitol.

All members were present except:
Sens. Hensley and Salisbury were excused

Committee staff present: Lynne Holt, Legislative Research Department
Mary Torrence, Revisor of Statutes
Jeanne Eudaley, Committee Secretary

Conferees appearing before the committee:
None

Others attending: See attached list

Sen. Ranson welcomed members of the committee, staff and visitors and introduced Jeanne Eudaley, committee secretary, and Naomi Adams, who is her new office secretary, as well as Lynne Holt, Research Department and Mary Torrence, Revisors Office, who is also new to the committee. She also asked guests of the committee to introduce themselves and explain who they represent or what agency they are representing.

Sen. Ranson explained that the Corporation Commissioners and staff will be introduced to the committee and will discuss issues and activities tomorrow and Thursday. Next Tuesday and Wednesday, January 20 and 21, the committee will be given an Overview of the Retail Wheeling Task Force report, with Thursday being devoted to a review of draft legislation.

Sen. Brownlee asked if the Senate or the House committee will be introducing the Retail Wheeling legislation, and Sen. Ranson answered she anticipated the committee will hold hearings on different issues in the report. Ms. Torrence stated the House Utilities Committee voted this morning to introduce legislation on Retail Wheeling.

Tomorrow the committee will also hear an Overview of 1997 legislation.

Meeting adjourned at 1:50.

Next meeting will be January 14.

Approved: JAN. 20, 1998
Date

MINUTES OF THE SENATE COMMITTEE ON UTILITIES.

The meeting was called to order by Chairperson Pat Ranson at 1:30 p.m. on January 14, 1998 in Room 531-N of the Capitol

All members were present except:
Sen. Hensley was excused

Committee staff present: Lynne Holt, Legislative Research Department
Mary Torrence, Revisor of Statutes
Jeanne Eudaley, Committee Secretary

Conferees appearing before the committee:
For introductions only - Kansas Corporation Commissioners:
John Wine
Susan Seltsam
Cynthia Claus

Others attending: See attached list

Sen. Ranson called the committees' attention to an article published from the Colby Free Press, entitled "Pros and Cons:", dated January 8, 1998, regarding experience with retail wheeling in California. Copies were distributed to the committee.

Sen. Ranson recognized the Kansas Corporation Commissioners and asked them to introduce themselves and briefly describe their backgrounds. They are: John Wine, Susan Seltsam and Cynthia Claus. Ms. Claus explained she is the newest member of the commission, serving out Tim McKee's term.

Mr. Wine briefly explained the role of the commissioners, that being policy maker and quasi-judicial, and explained that the Corporation Commission is a part of the executive branch. In answer to other questions, Mr. Wine stated there are not specific statutory qualifications for being appointed commissioner, except that a commissioner cannot own or be a part of a utility or corporation coming under the jurisdiction of the commission. Ms. Seltsam added that their appointments require senate confirmation.

Tom Day introduced staff present, including the new executive director, David Heinemann, and the new general counsel, Glenda Cafer. Mr. Heinemann explained the organizational structure of the commission. Committee members asked several questions, including the amount of the budget, and Mr. Heinemann replied it is approximately \$15 million, which is almost entirely funded by fees. However, the legislature does control how the money is spent and the number of full time employees.

Sen. Ranson then introduced Lynne Holt, who gave an overview of 1997 legislation to the committee. Ms. Holt referred to the following: 1997 Summary of Legislation, (**Attachment 1**) and 1997 Session Laws of Kansas, Page 725, etc. (**Attachment 2**).

Sen. Ranson asked that the committee introduce a bill that would establish the Joint Committee on Taxation of Public Utilities to study and recommend tax legislation needed should the state introduce retail wheeling. The proposed bill is from a section of a draft bill offered by the Task Force on Retail Wheeling with minor changes.

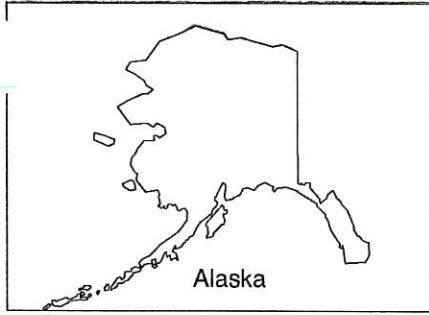
Sen. Salisbury made a motion that the committee introduce the bill, and it was seconded by Sen. Barone; the motion passed.

Sen. Ranson asked members to be prompt so that the committee may begin at 1:30. She also stated she will arrange for more chairs to be placed in the meeting room to accommodate more visitors.

Meeting adjourned at 2:30.

Next meeting will be January 15.

Electric Industry Restructuring

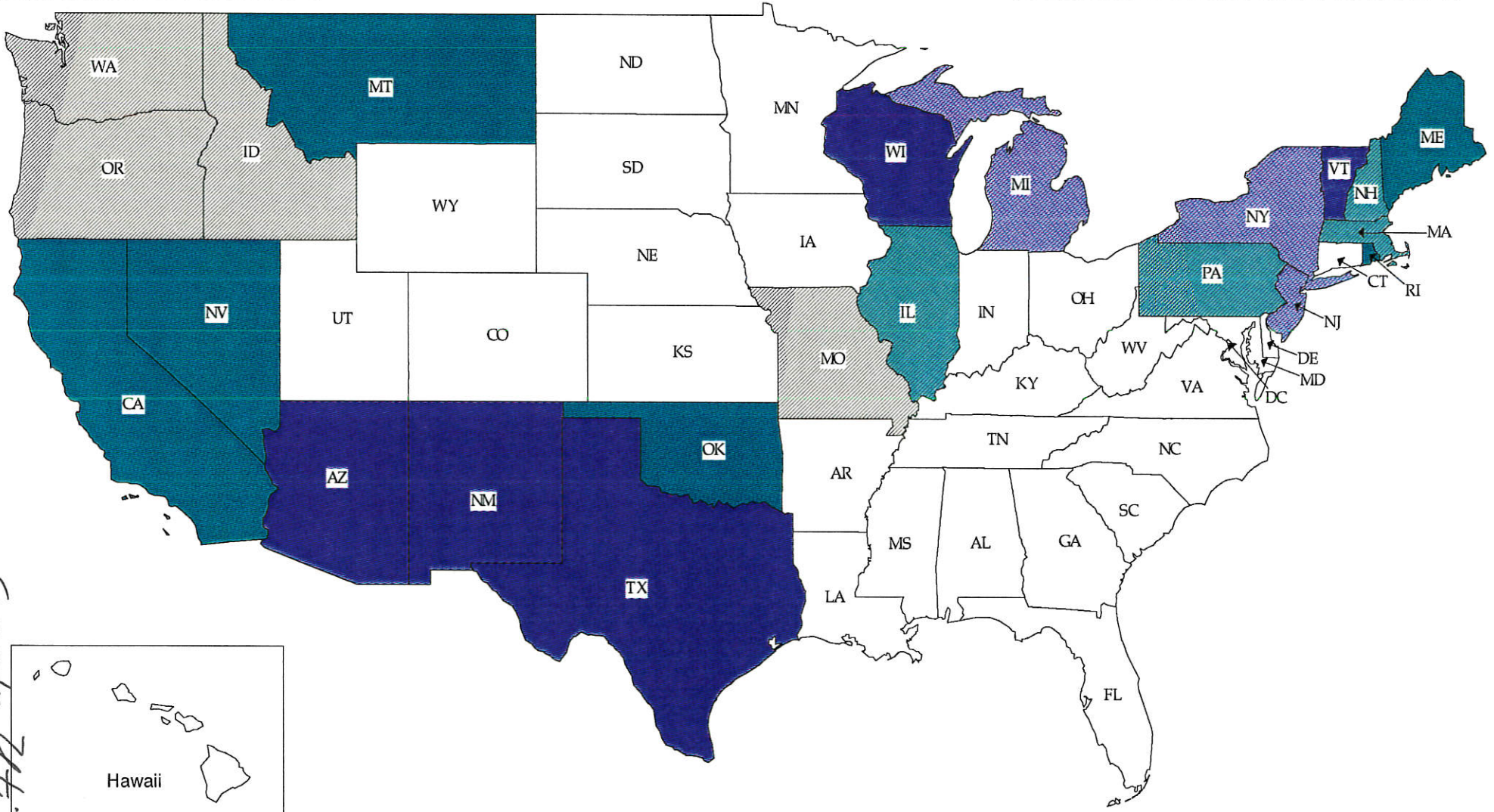


Alaska

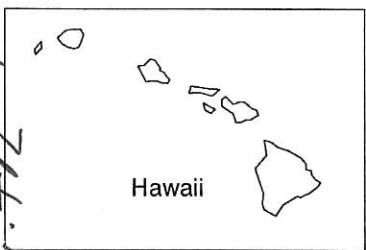
Legend

- Laws
- Commission Orders and Rules
- Pilot Programs
- Laws and Pilot Program
- Commission Orders and Rules and Pilot Program

SENATE UTILITIES
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SENATE UTILITIES
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Hawaii

SEE HARD COPY OF MINUTES

FOR

SENATE UTILITIES

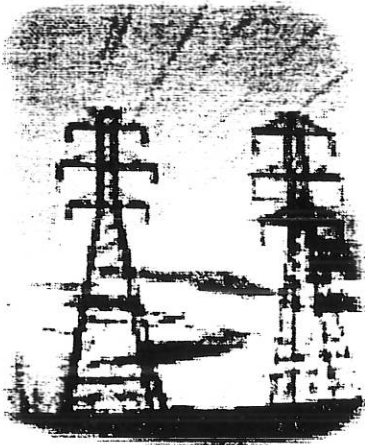
1-20-98

ATTACHMENT 3

(MAP - ELECTRIC CERTIFIED AREAS, TRANSMISSION LINES AND POWER
PLANTS IN KANSAS)

Attach 12

**RETAIL WHEELING
AND
LOCAL GOVERNMENT**



**UNDERSTANDING DEREGULATION
OF THE ELECTRIC UTILITY INDUSTRY
AND ITS IMPACT ON LOCAL GOVERNMENT**

**A HANDBOOK FOR
LOCAL GOVERNMENT OFFICIALS**

AUGUST 7, 1997

The Government Innovations Forum
of the
Mid-America Regional Council



*Senate Utilities
1-20-98
4-1*

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This document is the product of the Government Innovations Forum of the Mid-America Regional Council. The Government Innovations Forum was created by the Manager's Roundtable and MARC to facilitate communications among local governments, assist local governments in responding to first line issues and to help local governments exploit regional opportunities for cooperation. The Manager's Roundtable is a forum of local government managers working to improve local government cooperative action, communications and professional development.

INTRODUCTION

One of the most significant changes confronting local governments is the possible deregulation of the electric utility industry.

Local governments must plan for, react to, and manage change on a number of fronts. These changes impact not only their own operation, but the entire community. How local governments handle change often dictates how successful they are as governments and how the communities they serve will fare.

One of the most significant changes confronting local governments is the possible deregulation of the electric utility industry. How deregulation is managed at the federal, state, and local level will greatly impact local government revenues and expenditures, control and use of the public's right-of-way, economic development of communities, and access to affordable power for all residents. Not only will local governments be significantly impacted by deregulation, they can also have a significant impact on how deregulation is implemented and its impact on the community.

The first step in developing a sound strategy for managing the potential changes resulting from deregulation of the electric utility industry is to understand the issue. This means understanding the current situation of the electric utility industry, the proposed changes, who will be making these changes, how these changes could impact local governments and their constituents, how these changes can be influenced, and what actions local governments can take to prepare for these changes.

This report is that first step; making sure that all the effected parties have the base of knowledge necessary to develop an informed strategy and take informed action. This report also recognizes that because of the regional nature of the industry, the common issues facing local governments, and the need to impact state and federal decision-making, the local governmental response to deregulation of the electric utility industry will be more effective if it is made on a regional basis.

ELECTRICITY PRODUCTION AND DELIVERY

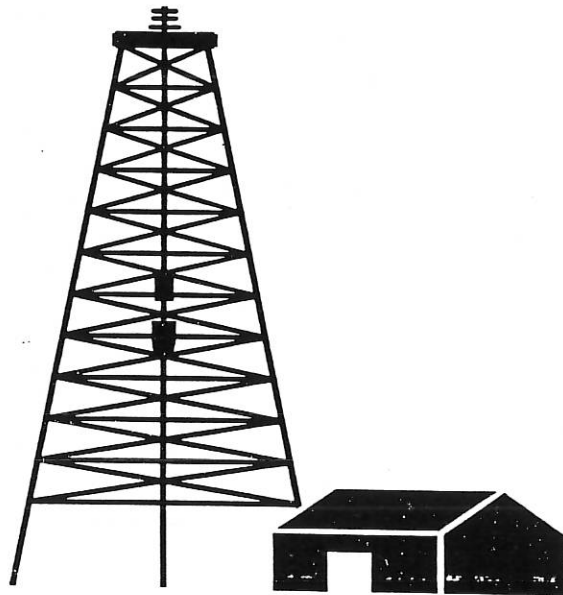
There are three basic components in producing and delivering electricity: generation, transmission, and distribution.

The current structure of the electric utility industry was put in place in the first half of this century. It is a structure that is made complicated by the different components of providing electricity, the corporate structure of the industry, and the regulatory patchwork that governs the delivery of electricity and its corporate structure. It is also a very capital-intensive industry that does over \$200 billion in sales each year. And at the retail level it is a monopoly, with specific utilities providing service to specific areas.

There are three basic components in producing and delivering electricity. The first is the **generation** of the electricity at a power plant. This might be a coal fired steam plant, a nuclear plant, a hydroelectric plant, a gas fired plant, or a combustion engine.

The second component is the **transmission** of the electricity from the power plant to the local distribution system. This is generally done on high voltage lines on large towers. Power may be transmitted a few miles or across the country.

The third component is the **distribution** of the electricity to the retail customer. These customers may be large industrial users, commercial enterprises, local government, or individual residences. Distribution of electricity is done with overhead and underground wire usually located in the public's right-of-way.



The electric utility industry is a mixture of private, public, and quasi-public corporations.

The Corporate Structure

The electric utility industry is a mixture of private, public, and quasi-public corporations. The majority of electricity is produced and delivered by **investor owned utilities (IOUs)**. Most IOUs are vertically integrated utilities, providing generation, transmission, and distribution of electricity for their exclusive service areas. However, more recently there has developed a different kind of private utility, Independent Power Producers (IPPs), that only provides generation, selling what they generate to other utilities.

There are two types of publicly owned utilities. The first is the **municipally owned utilities (munis)** which are usually owned by a city government, but may also be owned by a county or state. Some of these utilities are vertically integrated, some have only peak power capability using combustion engines, and some are distribution only, buying power from power generators, both private and public. In Kansas, for example, only about half of the munis have any generating capacity.

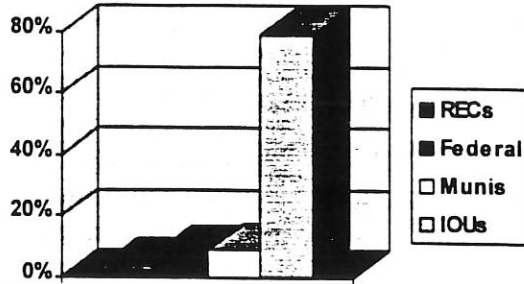
The federal government is the other public utility operator. The federal government is principally involved in the generation of electricity through hydro power, primarily in the Tennessee Valley Authority and in the Pacific Northwest.

Finally, much of rural America is served by customer-owned **rural electric cooperatives (RECs)**. These were organized earlier this century to provide electricity to areas that were not served by private utilities because they were not profitable. The federal government assisted with financing and incentives in setting up the rural electric cooperatives. Like the munis, many RECs are distribution only.

The investor owned utilities serving the metro area are KCPI and KPL. Municipal utilities include the Board of Public Utilities (KCK), Independence Power and Light, Gardner, Eudora, Baldwin City, Harrisonville, Higginsville, and Cameron. A number of rural electric cooperatives also operate at the edges of the metropolitan area.

Following is a chart that shows the distribution of generation by corporate type of utility.

1993 Net Electricity Generation in U.S.



The distribution of types of utilities in Kansas and Missouri illustrates the complexity of the electric utility industry and the many different interests that must be considered during the deregulation rule making.

	U.S.	Missouri	Kansas
IOUs	244	6	4
Munis	2,014	89	121
RECs	931	41 (dist) 7 (gen)	34

The above table shows that, in terms of numbers, Kansas and Missouri have a comparatively high number of municipal utilities and rural electric cooperatives. Almost one sixth of the metropolitan area population is served by two municipal utilities: the Board of Public Utilities serving Kansas City, Kansas and Independence Power and Light serving most of Independence, Missouri.

The Energy Policy Act, passed by Congress in 1992, reduced controls on utility mergers and opened up the U.S. transmission system to wholesale wheeling.

The Regulatory Environment

The complex system of generation, transmission, and distribution operated by private, public, and quasi-public corporations is regulated by federal and state authorities. Generally, transmission and wholesale "wheeling" (transmitting electricity for sale) is regulated at the federal level by the **Federal Energy Regulatory Commission (FERC)**.

The 1978 Public Utility Regulatory Policies Act (PURPA) began the deregulation process by allowing private electricity generators to sell to individual large industrial concerns. Then, in 1992, Congress passed the Energy Policy Act. This act reduced controls on utility mergers and opened up the U.S. transmission system to wholesale wheeling. FERC Order 888, adopted in 1996, required that any utility owning a transmission line had to open that line to the wholesale transmission of electricity and Order 889 required that Investor Owned Utilities (IOUs) electronically post their transmission capacity.

Currently, the primary regulatory authority rests with state regulatory agencies. In Kansas it is the Kansas Corporation Commission and in Missouri it is the Missouri Public Service Commission. These regulatory agencies set service areas and pricing for investor owned utilities. Municipal utilities are regulated by local elected officials operating under state law. Rural electric cooperatives are governed by their customers.

This disparity in rates is an important issue fueling deregulation discussions in each state and the resulting actions of these states.

Rates

The United States has some of the lowest electric rates in the industrialized world. However, these rates vary widely across the U.S., the region and within the states of Missouri and Kansas. This disparity in rates is an important issue fueling deregulation discussions in each state and the resulting actions of these states.

The following table shows electricity rates in cents/kwh for different classes of electric users for selected states not in our region:

	MA	NY	PA	CA	OR
Resid.	11.26	13.90	9.72	11.61	5.49
Com.	9.93	11.92	8.33	10.49	5.06
Indust.	8.41	5.79	5.92	7.37	3.47

However, not only do rates vary between states, but they vary tremendously within states. Within the state of Kansas for example, rates vary from over \$.13/kwh in Larkin to under \$.05/kwh in McPherson.

These rate disparities stem from a number of sources including the cost of generating the electricity (including the cost of fuel), the cost to distribute the electricity, taxes, and the general efficiency of operations. The table below shows average electricity rates for states in our region in cents/kilowatt hours (1995 EIA).

	MO	KS	NE	OK	CO	IA	AK	IL	MN	TX
Resid	7.25	7.92	6.37	6.82	7.42	8.24	7.98	10.37	7.17	7.71
Com	6.18	6.68	5.56	5.78	6.07	6.44	6.83	7.88	6.19	6.64
Indust	4.53	4.82	3.84	3.75	4.52	3.94	4.51	5.27	4.3	3.98

For 17 Kansas City metropolitan cities responding to a recent survey, electric utility franchise fees amounted to approximately \$51 million, representing 9.7 percent of their general fund revenue.

Taxes and Franchises

Electric utility companies operate to a great extent in the public's right-of-way. The traditional means for utilities to access this right-of-way has been through a franchise agreement with the local government. Ideally, the franchise agreement sets out the conditions under which the company can use the right-of-way and how much they should pay for this privilege, i.e., the franchise fee.

Franchise fees for electric utilities in this area are based on a percentage of gross receipts, the percentage generally varying between three and ten percent. For 17 Kansas City metropolitan cities responding to a recent survey, electric utility franchise fees amounted to over \$51 million, representing 9.7 percent of their general fund revenue.

The franchise fee is not the only source of public revenue related to utilities. Sales and property taxes also apply to utilities. If a power plant is located within the community, this can be a significant source of revenue for a local government. In Kansas, it is estimated that the total value of electric utility assets is approximately \$1.5 billion, with a third of that being the Wolf Creek nuclear plant.

Franchise agreements are generally renegotiated periodically. At that time the amount of the franchise fee and the general terms and conditions regarding access to the right-of-way, and even the cost of electricity for the local government, can become a part of the franchise agreement.

RETAIL WHEELING

Retail wheeling is the transportation of electricity across the country (wheeling) in order to sell electricity to retail customers who are able to purchase electricity in an open market.

A common term for the deregulation of the electric utility industry is retail wheeling. Retail wheeling is the transportation of electricity across the country (wheeling) in order to sell electricity to retail customers who are able to purchase electricity in an open market. As set out in FERC Orders 888 and 889, a wholesale wheeling system is already well on the way to being established.

There are two principal components involved in deregulating the electric utility industry in order to create retail wheeling. First, the current provision of electricity must be unbundled into its major components: generation of electricity, transmission of electricity, and the distribution of electricity to the retail customer. In the past, these services were provided for retail customers by one entity; under retail wheeling they will be provided by different entities, and the cost of each component will be clearly reported to the consumer. It is also possible that a service such as meter reading could also be unbundled and provided on the retail market.

Second, pricing for the generation of electricity must be established in an open retail market with retail consumers making a direct choice of electric generator. Thus, the generation of electricity and its sale will be governed by the market, under rules established by the federal government and/or the states. It is most likely that under retail wheeling transmission of electricity will be regulated by the federal government through FERC and distribution will, by-in-large, remain a monopoly provided by local "wire" companies operating under state regulation.

There are several reasons that retail wheeling has become a prominent issue across the country, one of which is being considered by almost every state and the federal government:

- Electricity is the only large industry that has not been deregulated. The airline, trucking, banking, and telecommunication industries have all recently been deregulated.
- Proponents believe that there will be substantial cost reductions as competition forces electricity generators to become more efficient in order to improve their competitive position. These proponents believe all customers will ultimately benefit from lower electricity rates.
- Large electricity users and states with high electric rates are the most vocal proponents. The early action on deregulation has occurred in states with particularly high electric rates.

The exact shape, size and nature of the electric utility industry under retail wheeling will depend on the specific actions of 50 states and the federal government.

- State interest has heightened as the possibility of federal legislation has increased. Although many states may be reluctant to move quickly on deregulation of the electric utility industry they do not want the federal government to preempt them.

The exact shape, size, and nature of the electric utility industry under retail wheeling is difficult to predict. How this evolves will depend on the specific actions of 50 states and the federal government. In addition, it is difficult to predict how the private market will be structured.

It is very likely that electricity will continue to be distributed to your home through the same wires, and possibly through the same company, as it does now. This component of the electric industry will not be competitive, but will have rates regulated by the state, not unlike they are now. This local monopoly may also continue to provide services such as metering as they do now. However, it is possible that these types of services may also be opened to retail competition with the telecommunication industry and others becoming competitors to the traditional electricity provider.

The transmission of electricity from the generator to the local distributor is already undergoing a change because of wholesale wheeling. It is very likely that new companies, called Independent System Operators (ISOs), will be established to operate and maintain the reliability of the electricity transmission system under FERC regulations. Under wholesale wheeling, ISOs are defined as a neutral operator that facilitates open, non-discriminatory transmission access by assuming operational control of geographically defined transmission grid. These ISOs may cover a state, as California has authorized, or they may cover a multi-state region.

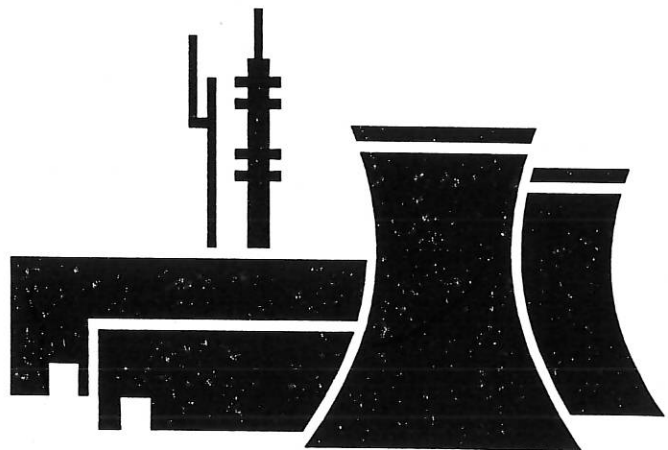
The generation part of the industry is where the most changes will occur and, in fact, are already occurring. Already, independent power producers (IPPs) have set up generation capacity to service the new wholesale wheeling market. In addition, traditional electric utility companies with generating capacity are selling excess power on the wholesale market. Some large electricity users have already lined up electricity generators to supply them with power under what they believe is the inevitable march toward retail wheeling.

In states where retail wheeling has already been approved, some utilities are divesting themselves of generation capacity with the ultimate goal of getting out of that business and sticking to distribution and other electricity related services.

There is also a tremendous amount of corporate change going on in the industry. A number of companies are merging, such as Western Resources and KCPL, in order to create more market power and economies of scale. Some of these mergers have resulted in corporations that can supply both electricity and gas. In states where retail wheeling has already been approved, some utilities are divesting themselves of generation capacity with the ultimate goal of getting out of that business and sticking to distribution and other electricity related services.

While the generation industry is consolidating, the marketing of electricity is fragmenting. Some of the major energy companies do their own direct marketing. But, especially under retail wheeling, there may also be a number of brokers, some literally operating out of their kitchen, that line up generation capacity and match it to demand. With such fragmented marketing it will be important to assure the reliability of contracts and purchases.

Besides the proliferation of direct marketers there may also be "aggregators", parties that assemble consumers in order to assemble a larger load in order to gain a better price in the market place. Local governments may even become aggregators. However, it is not just the size of the demand that will be important, but when it is needed. Electricity may well be priced on an hourly basis with power at peak times costing much more than power at off-peak times, such as in the middle of the night when generators have considerable unused, less expensive capacity.



DEREGULATION ISSUES

As the states and federal government take up the issue of deregulating the electric utility industry, a host of differing interests have brought forward their concerns. These interests include investor owned utilities, municipal owned utilities, rural electric cooperatives, energy providers and marketers, large energy users, small business, labor, homeowners, and, of course, local government. Even within these groups there is often widely divergent interests and issues.

Among the large number of issues the state and federal legislators and regulators must consider, the following are the most significant: stranded costs, cost to the customer, taxes, municipal utilities and cooperatives, and time.

Stranded costs will not go away so the question becomes, which costs will be stranded and who will pay for them during the transition to a competitive market?

Stranded Costs

Stranded costs are the investments or commitments that utilities have made in a regulated environment that will not be economical in a deregulated, competitive environment. The prototypical example is nuclear power plants which have proven to be quite expensive in terms of construction and decommission costs. Under the current regulated system utilities are allowed to recover the full costs of such plants through the rates that the state ratifies.

However, in a deregulated, competitive economy, utilities will not be able to charge the rates necessary to operate and retire the debt on these nuclear plants. Utilities also have other assets and commitments that may be uneconomical in a competitive market, such as long term fuel contracts or experimental new technologies. These uneconomical assets and commitments are called stranded costs because these are costs that will be unproductive in a competitive market.

These stranded costs will not go away so the question becomes, which costs will be stranded and who will pay for them during the transition to a competitive market? There are several approaches a state can take in addressing this issue:

- All rate payers throughout the state can pay for these costs through a surcharge placed on all utility bills (this is the approach California is using).
- Ratepayers from a single utility area can pay the stranded costs for that utility instead of spreading the cost over the entire state.
- The utility investors can be held responsible for the stranded costs. (Many of these investors are retirees and pension funds because utility investments in a regulated industry were so secure.)
- Rate payers and investors can share in the stranded costs. The Consumer Federation of America is advocating a 50/50 sharing of costs.
- Customers that leave their local utility can pay a surcharge to that utility for its stranded costs.

This is an important issue because large amounts of stranded costs could result in a significant surcharge during transition, financial hardship and possibly bankruptcy of some utilities and their investors if this burden is placed on the utilities.

The whole point of retail wheeling is to lower the cost of electricity to the consumer.

Cost to the Consumer

The whole point of retail wheeling is to lower the cost of electricity to the consumer. However, there are many unanswered questions regarding who will actually benefit from retail wheeling.

During transition, while stranded costs are being paid, electricity costs will be higher until the stranded costs have been retired. The extent of this transition cost and who pays it depends on how each state, or the federal government, handles stranded costs.

Beyond transition costs is the issue of who will benefit from a competitive market. In a wholly open market, large electric users with off-peak demand would probably benefit the most because they can guarantee high demand at times when generators have idle capacity. It is not clear how residences and small businesses would fare in this competitive environment. Consumers may actually pay higher costs because they have little market power and use electricity at the time of highest demand and cost. There is also a concern regarding national averaging of electricity prices with currently high cost regions benefiting and low cost regions paying more.

Predicting how the market will shape itself is difficult. The exact amount and distribution of benefits depends on the cost savings that can be realized in the generation of electricity, the amount of market power concentrated in large energy suppliers and users, and the mechanisms that arise to provide small customers more market power, such as aggregation of load. There is also an issue of volatile prices with fluctuation in the price of electricity from hour to hour.

Many question the availability of affordable electricity for all citizens, regardless of their location and economic circumstances. Under our current regulated system, universal service has been a given and utilities have covered costs associated with providing such service in their rates. Under a market system, will rural and low income residents receive affordable, accessible power?

The result will not be a wholly market driven electricity industry. Many say that what is being proposed is actually reregulation of the electric utility industry, not deregulation. It is likely that states and the federal government will require universal service funded through a surcharge, as Kansas is doing now for telecommunications. A number of states' retail wheeling legislation requires cost savings for all rate payers through the transition period. The private sector and local governments can be authorized to act as aggregators of load, thus giving small consumers more market power and choice.

States will want to lower the tax burden on their state utilities as much as possible so that they can compete in the national market.

Taxes

Deregulation of the electric utility industry will change the tax landscape with regard to this utility, just as deregulation of the telecommunications industry has changed the tax picture for that industry, a situation that is still being sorted out. Primary issues include how the current tax structure will affect the competitiveness of local utilities and how deregulation will impact state and local revenue.

As a monopoly industry, how utilities were taxed and how much they were taxed has not been a significant issue, since the utilities could always pass these costs on to ratepayers. However, in a competitive environment, differential tax burdens from state to state could affect how competitive a utility will be in the market place. States will want to lower the tax burden on their state utilities as much as possible so that they can compete in the national market.

Since the utility industry is a very capital intensive one, the states, and some localities, could be impacted significantly by changes in property tax collections. Kansas provides a good example of some of these issues. Currently, Kansas property assessment ratios, the percent of market value that is used to set assessed valuations, is 33% for utilities and 25% for industrial and commercial property. It is possible that in order to keep Kansas utilities competitive the assessed valuation rate for utilities will be reduced from 33% to 25%. This action would result in a 25% loss in utility property tax revenue from utilities.

However, losses could be even greater because some of the utility industry's assets, particularly nuclear plants, could be considerably devalued further lowering the assessed valuation. Such losses could have a severe impact on local communities that rely on property taxes from a generating plant, such as Burlington, Kansas, the site of the Wolf Creek nuclear plant. Such a loss could also impact state revenues and state revenue sharing programs, such as school aid formulas.

While most metropolitan local governments do not depend on property taxes from utilities for a significant portion of their revenue, many of them do depend on franchise taxes. A survey of Kansas City metropolitan local governments showed that reliance on the franchise tax from electricity varied from 1% of general fund revenue to 16%. A 1995 Missouri Municipal League study, *Taxation and Revenue in Missouri Municipalities*, indicated that franchise taxes produced on average 18.5% of all revenue for cities over 10,000 and rose to 22%, on average, for cities under 2,500 in population.

Deregulation of the electric utility industry could impact these franchise taxes, and sales taxes, in several ways. If the cost of electricity declines then franchise revenue will decline, since in almost every instance the franchise tax is based on a percentage of gross receipts.

However, a bigger concern is local government's ability to apply the franchise tax to electricity coming in from outside the local utility. This particular issue is significant for a couple of reasons. If local governments are unable to apply the franchise tax to imported electricity then franchise fees could drop significantly. This is already an issue in the natural gas industry where communities have had a difficult time applying their franchise fee to imported natural gas, and have lost significant revenue because of it. The second reason this issue is significant is that in order to create a level playing field for competitive electricity sales, all suppliers, whether local or out-of-state, must be taxed at the same rate.

This issue will probably require a change in how local franchise taxes are collected. Although one possibility is to extend the gross receipts tax to all electricity, whatever its origin, this may be difficult to apply and monitor, since the local utility may not know the amount of receipts collected by different electricity providers. An alternative would be to apply a franchise tax based on the quantity of electricity that is delivered or simply tax the distribution system. Whatever the approach, local governments want to ensure that the method does not adversely impact revenues and thus impact a local government's ability to provide services. Local governments are also concerned that they be able to charge an adequate amount to electricity distributors, transmitters, and generators for the use of the public's right-of-way.

State regulators will have to figure out how to treat municipal utilities and cooperates as they compete with large, investor owned, power generators.

Municipal Utilities and Cooperatives

An important issue for state regulators will be how to treat municipal utilities and rural electric cooperatives if they decide to implement retail wheeling. The concern is that these entities, most of which are small, will not be able to compete with large, investor owned, power generators.

Municipal utility electricity generators must face the same issues that are facing IOUs; can they compete in a deregulated electricity generation market? However, they face additional issues, including how they will finance investments and will their debt continue to be tax exempt. In addition, there are issues of local control and local benefits. For example many municipal utilities transfer a significant amount of revenue to the local government to pay for municipal programs. Such transfer payments are estimated to be over \$37 million a year in Kansas.

Rural Electric Cooperatives have similar concerns. However, they are owned by their rate payers. There are concerns that deregulation won't actually reduce electric rates for their customers (this was highlighted in a report done by The Docking Institute of Public Affairs and paid for by Kansas RECs). Missouri RECs have a unique situation because not only do they have 41 distribution RECs, but also seven generation and transmission cooperatives, to which all of the distribution cooperatives belong. Each distribution REC has a contract with their generation and transmission cooperative committing to buy all their electricity from them. If retail competition causes RECs to cancel these contracts this will undermine the generation and transmission cooperatives ability to raise financing, which in large part is based on these "all requirements" contracts.

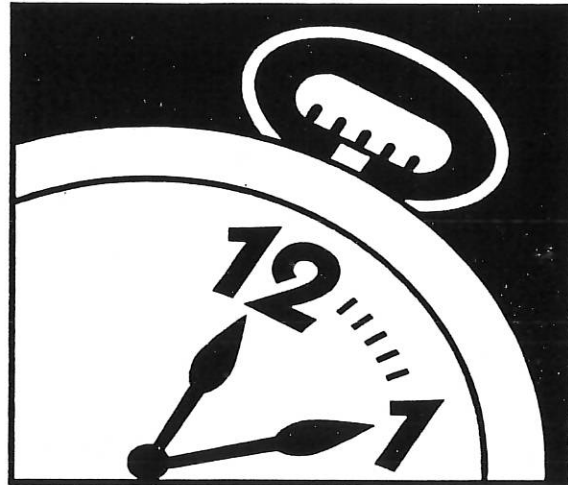
States have several options for handling municipal utilities and RECs. They can treat them similarly to IOUs expecting them to fend for themselves in the new market place. This could easily be the case for distribution-only utilities. They could give utilities the option of joining competition or keeping their exclusive territory. If they decide to keep their monopoly they would not be allowed to sell excess capacity or in any other way participate in retail wheeling. Such utilities would also be under considerable pressure from ratepayers, especially large electric users.

The issue of how quickly deregulation should be implemented is a major point of contention in proposed federal legislation.

Time

A critical issue is the transition period: how will it be structured and, in particular, how much time will be given for the transition from a regulated electric economy to a deregulated one. Those that want a slow change argue that time is needed for all parties to adjust to the new system, to pay off stranded debt, and to test and adjust components of the mixed regulated/market system. Some argue that waiting to see how wholesale wheeling works out is the best approach.

Others advocate more rapid change arguing that every year of delay is a year that consumers are not benefiting from the cost savings that deregulation will bring. The first wave of state deregulation, principally in states with high electricity rates, has had fairly rapid implementation and transition periods. For example, California will start retail wheeling in January, 1998 and its transition period is 5 years. However, more recent deregulation plans, such as one passed recently in Oklahoma, have had more cautious implementation schedules. The issue of how quickly deregulation should be implemented is also a major point of contention in proposed federal legislation.



Other issues that will have to be considered as deregulation is implemented include: reliability, generation capacity, transmission capacity, environment and alternative energy.

Other Issues

There are a host of other issues that will have to be considered as deregulation is implemented. Following are a few of these issues:

- **Reliability** Will the deregulated power system be as reliable as the current system? Who will be responsible for assuring reliability?
- **Generation Capacity** Will the deregulated system have adequate generation capacity for peak loads? Now regulators allow and even encourage investment in excess capacity to assure energy availability and allow utilities to charge for that excess capacity in their rates. As inefficient plants are shut down who will invest in new capacity, especially capacity for peak load that may only be used occasionally? Or will the market take care of this by placing more emphasis on volatile, time sensitive pricing and discounts for service that can be interrupted to reduce peak demand.
- **Transmission Capacity** Does the current transmission system have the capacity to handle the increased traffic that might be generated by a deregulated electricity generation system or will there be little difference from current demand generated through the national grid?
- **Environment & Alternative Energy** Will the competitive market encourage the use of cheap, dirty electricity as opposed to cleaner, but possibly more expensive electricity? How will we encourage the use of alternative energy sources? Some believe the market will adequately handle these issues, with a "green" market developing, while others believe there will have to be federal or state law to address these issues. The Chairman of the FERC recently called for a surcharge on transmission to pay for conservation programs.

Local Government Issues

■ **Franchise Taxes** Local governments are dependent on franchise tax revenue. Deregulation of the telecommunications and natural gas industries have eroded this important source of local revenue. Deregulation of the electric utility industry could have an even more substantial impact. Of particular concern is whether and how "foreign" electricity suppliers will pay the franchise tax required of local suppliers.

■ **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-of-way.

■ **Cost of Electricity** Local governments are substantial consumers of electricity and price changes can substantially impact expenditures. Although a competitive electricity market may bring lower prices, it requires local governments to be more knowledgeable about energy purchases, load distribution and metering, and new tools assuring adequate market power.

■ **Impact on Residences and Business** Deregulation of the electric utility industry will have a significant impact on residences, small businesses, and large corporate 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.

■ **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 or 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?

STATUS OF DEREGULATION

There is an estimated 50/50 chance that legislation mandating retail wheeling will be passed by Congress in 1998 .

The federal government and almost every state government is considering or has already adopted some form of retail wheeling. Utilities and energy corporations are assessing their current operations, becoming involved in rule making, and preparing for a deregulated electricity industry. This will surely be an issue for a number of years to come.

The Federal Government

Several bills have been introduced in Congress in the last year. The two most significant are the "Electric Consumers Power to Choose Act of 1997" introduced by Representative Dan Schaefer of Colorado and the "Electric Consumers Protection Act of 1997" introduced by Senator Dale Bumpers of Arkansas.

Representative Schaefer's bill would require full retail wheeling by the end of the year 2000. Although it would leave particulars such as how to deal with stranded costs to the states, it would mandate that they adopt a retail wheeling plan within six months of the passage of the act. Senator Bumper's bill would mandate full competition by 2003. It guarantees full stranded cost recovery. The Department of Energy has also released a draft bill that would not require deregulation, but would require states to hold hearings and, if they decide not to implement deregulation, provide written documentation as to why.

Estimates have been made that there is a 50/50 chance that some kind of legislation will be passed by Congress in 1998 mandating retail wheeling. Some states have actually adopted retail wheeling legislation, or are considering it, in hopes of preempting the federal bill and grandfathering in certain policies, procedures, and time frames.



Missouri and Kansas have many more small municipal utilities and RECs than do most of the states that have adopted retail wheeling.

The States

California and northeast states such as Pennsylvania have led the way in adopting retail wheeling legislation. Some states, such as California, will have full choice available as early as January 1998. Others have adopted more lengthy implementation schedules. Oklahoma recently adopted retail wheeling legislation with a multi-year implementation schedule.

These states have adopted a variety of policies and procedures to deal with the issues addressed herein. However, since none of these programs is actually in operation yet, it is impossible to know what works and what doesn't. Also the circumstances in each state are different. For example, Missouri and Kansas have many more small municipal utilities and RECs than do most of the states that have adopted retail wheeling. In addition, many of the issues, such as local franchise taxes, have been completely ignored in the adopted retail wheeling plans, with some states now going back to address these issues.

Missouri

The Missouri Public Service Commission has authorized several retail wheeling experiments. One, requested by Utilicorp United, involves deregulating electricity sales to McDonalds within the Utilicorp United service area. However, the most significant action taken by the Missouri Public Service Commission was establishment in the spring of 1997 of the Retail Electric Competition Task Force.

The Retail Electric Competition Task Force is composed of 35 members, including ten representatives of the utility industry, (IOUs, munis, and RECs), two municipalities, four General Assembly members, three energy marketers or providers, and representatives of state agencies, the public, and consumers. Several representatives are from the Kansas City area.

The Task Force has established four working groups:

- Market Structure & Market Power
- Public Interest Protection
- Stranded Costs
- Reliability

Missouri and Kansas have both established task forces to study deregulation of the electric utility industry.

The Public Service Commission has asked that the Market Structure work group complete its work by November 4, 1997, so that the other work groups can use its information. All groups are to complete their studies by February 15, 1998. The Retail Electric Competition Task Force held its first meeting June 25, 1997.

The Missouri legislature has established a Joint Interim Committee on Telecommunications and Energy. This committee, comprised of seven senators and seven representatives, had its first meeting in July 1997. The committee is charged with investigating deregulation of the electric utility industry and taxation of utilities.

Kansas

In 1996, the Kansas Legislature established the Kansas Retail Wheeling Task Force. The Task Force consists of 23 members: including six legislators; a number of utility interests, including munis and RECs; and academic, state government, and consumer representatives. There is no specific local government representation on the Task Force.

An interim report was prepared for the 1997 Kansas Legislature identifying a number of key issues for further study:

- transitional issues
- economic impact
- service considerations
- environmental issues
- impact on state and local revenue

The Task Force has hired the McFadden Consulting Group to provide a report on these issues by the end of summer 1997. The Task Force has scheduled bill drafting for September 1997 with hearings in October. It plans to present draft legislation to the two newly created House and Senate Utility Committees in 1998.

PREPARING FOR DEREGULATION

It is important for local governments to understand that there are a number of actions that can be taken to prepare for the changes brought about by deregulation.

Because deregulation of the electric utility industry will have significant impacts on local governments and constituents, it is important for local governments to understand that there are a number of actions that can be taken to prepare for these changes. The Kansas City Manager's Roundtable, a forum for local government managers, and the Mid-America Regional Council has decided that the most effective response is a regional one. Such an approach allows local governments to help each other gather information and develop legislative and market influence.

The Manager's Roundtable has developed a regional deregulation strategy. This strategy has four primary components:

1.) Help Set the Rules

Local governments need to make their interests known to state and federal 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.) Prepare Your Local Government for Deregulation

There are basic actions that local government can take to prepare themselves for a deregulated energy environment. In its **Keeping the Lights On** Primer (see bibliography), Public Technology, Inc. (PTI) recommends a number of steps that local governments can take to address energy needs and opportunities:

Step 1: Analyze Current Energy Usage, Costs, and Billing

- ♦ Identify facilities, including street lighting, that the local government manages
- ♦ Identify the number 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, and which is their supplier
- ♦ Identify which accounts are estimated, which are metered, and which are unmetered
- ♦ Compare energy costs to the regional average
- ♦ Identify billing errors
- ♦ Identify how utility bills are monitored

The key to success for local governments and constituents in the deregulation process will be informed engagement and informed action.

Step 2: 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

Step 3: 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

Step 4: Audit each utility contract and determine if there are opportunities in the contract or that could be incorporated into the contract for saving energy or costs.

Step 5: 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.) Educate 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. The key to success will be **informed** engagement and **informed** action.

Local governments must understand their interests in deregulation, how their interests connect with other interests, how their interests can be incorporated into action, and how to articulate these interests to others.

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 also will local residents and businesses. *Economists frequently assume the parties must have "perfect" knowledge for a market to operate properly.* It is likely that our knowledge, especially in such a complex market, will be less than perfect, but that is all the more reason that it be as complete as possible.

4.) Develop Strategies for Deregulation and Competition

If we are to have some form of deregulation then local governments will have 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.

Some of the options that local governments might want to pursue include:

- Aggregating load among local governments
- Aggregating load for residents and businesses
- Municipalizing the distribution system
- Developing energy efficiency or green power programs
- Developing alternative energy sources
- Forming partnerships with local public or private partners to accomplish one or more of the above

Implementing the Regional and Local Strategy

The Government Innovations Forum of the Mid-America Regional Council, working with the Manager's Roundtable, has implementation of this regional strategy as one of its key priorities. They have taken the following steps to implement this strategy:

- Kansas City, Missouri and Johnson County, Kansas, on behalf of the region, and through MARC, have applied for and received a \$50,000 grant from Public Technology Inc and the Department of Energy, through its Urban Consortium Energy Task Force. This grant will allow the Government Innovations Forum to devote staff time to this issue and to purchase information and consultant services to assist in implementing the strategy.
- The Government Innovations Forum, in conjunction with the Manager's Roundtable, has developed a Kansas City Metropolitan Electricity Deregulation Position Statement. This statement, once adopted by a number of local governments, will be shared with the state legislative and regulatory panels and our congressional delegation. The full statement can be found at the end of this handbook.
- The Government Innovations Forum has conducted a franchise survey of local governments to determine the extent of dependence of local revenues on franchise and other utility revenues and the cost of utility services.
- MARC, through its Government Training Institute and the Government Innovations Forum, has presented what will be the first of a number of workshops on deregulation and retail wheeling.
- The Government Innovations Forum has assembled this handbook for local government officials so that they may be better informed on a key issue affecting their government.
- The Government Innovations Forum has worked with the Kansas and Missouri Retail Wheeling Task Forces, state regulatory agencies, state municipal leagues, and other organizations to understand and inform our constituents.

CONCLUSION

The intent of this handbook is to present local government elected and appointed officials with information on the potential impacts of and responses to deregulation of the electric utility industry. The basic premise of the response that is articulated in the hand book is that a regional approach will be both more efficient and effective.

What will happen next:

- Local governments will become informed of the issue and will adopt the position statement which is in the back of this handbook.
- The Government Innovations Forum and individual local governments will inform state and federal task forces and legislators of the local government position and will continue to monitor and participate in these discussions.
- Through the PTI grant the Government Innovations Forum will provide training and assistance to local governments on how to assess their energy picture and develop a local energy strategy.
- The Government Innovations Forum will continue to provide information on this issue to local governments.
- Through the PTI grant the Government Innovations Forum will develop a set of energy deregulation options for local government.
- The Government Innovations Forum will work with local governments to develop new, innovative approaches to franchise taxes, franchise agreements, and right-of-way management.

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DEREGULATION
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1301 Pennsylvania Ave., N.W.
Washington, D.C. 20004-1793
800/852-4934

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Keeping the Lights On

A Primer for Local Governments
1996

Public Technology, Inc.

An excellent, brief (14 pages) overview of the retail wheeling issue. Cost \$10.

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A series of articles on the retail wheeling issue.

“Electrical Storm”

Governing

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July 1996, Pg 20

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“Electricity and Local Governments”

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Nation Cities Weekly

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Scott Ridley

1996

American Public Power Association

2301 M. St., N.W.

Washington, D.C. 20037-1484

Excellent history of the power industry.

**The Value of a Public Power Distribution System: Increasing,
Not Decreasing**

David Penn

1996

American Public Power Association

Competition and Restructuring in the Electric Utility Industry
1996

American Public Power Association
Reference Notebook. Cost \$50.

The Electricity Journal

Subscriptions are \$285/yr. (800/326-1676)

The City and Electric Industry Deregulation

March, 1997

City of Phoenix

A summary of the issue a recommendations for action prepared by the Phoenix staff for their elected officials.

The Electric Industry Restructuring Series

October, 1996

National Council on Competition and the Electric Industry

**Affected With the Public Interest: Electric Utility Restructuring
in an Era of Competition**

National Association of Regulatory Utility Commissioners

A Shock to the System

1996

Resources for the Future

A general background on the issues. Cost \$18.95

The Utility Series

1995

National Conference of State Legislatures

1560 Broadway, Suite 700

Denver, Colorado 80202

Early, but thorough review of the issue.

Various Articles

International Municipal Lawyers Association

202/466-5424

This organization has various articles on issues affecting municipalities including deregulation, right-of-way, and franchises. Call for a listing or use their web site at www.imla.org.

State Regulatory Contacts:

Kansas

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Kansas Corporation Commission
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Topeka, Kansas 66612-1571
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Fax: 913/271-3100

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Fax: 913/296-3824

Missouri Public Service Commission

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Missouri Public Service Commission
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Jefferson City, Missouri 65102
(Electric Retail Competition Task Force moderator)

**ELECTRIC UTILITY
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WEB SITES**

UTILITIES

Board of Public Utilities

<http://www.bpu.com/>

Kansas City Power & Light

<http://www.kcpl.com/>

Utilicorp United

[http://www.utilicorp.com/cgi-bin
cgibuilder.cgi?energyone2.html](http://www.utilicorp.com/cgi-bin/cgibuilder.cgi?energyone2.html)

Western Resources

<http://www.wstnres.com/>

REGULATORY AGENCIES

Kansas Corporation Commission

<http://www.kcc.state.ks.us/>

Missouri Public Service Commission

<http://www.ecodev.state.mo.us/psc/>

Federal Energy Regulatory Commission

<http://www.fedworld.gov/ferc/ferc.html>

ASSOCIATIONS

American Public Power Association (the association of municipal utilities)

<http://www.APPAnet.org/>

Edison Electric Institute (the investor owned utility association)

<http://www.eei.org/>

The Electric Power Research Institute

<http://www.epri.com/>

LOCAL GOVERNMENT RESOURCES

ICMA's Utility Restructuring and Competition Consortium

<http://www.icma.org/utilities/index.html>

PTI's Urban Consortium Energy Task Force

<http://pti.nw.dc.us/etf.htm>

San Francisco Bay Area Council of Governments home page for their power pool. Also web links.

<http://www.abag.ca.gov/services/power/>

NEWS RESOURCES

Energy Central

<http://www.energycentral.com/cf/dbml.exe?template=/ecentral/aboutec.dbm>

ELECTRICITY LINKS (The following sites have links to other electricity web sites. Also see ICMA, PTI, APPA, Edison Institute)

<http://www.njin.net/~swayze/energy/energy.html>

<http://www.energy.ca.gov/earthtext/other.html>

<http://home.ptd.net/~sjrubin/pubutil.htm>

<http://www.magicnet.net/~metzler/>

GLOSSARY

Numerous terms has been created to encapsulate new concepts, challenges and opportunities in electricity restructuring and competition. Some of the terms that will be employed throughout the workshop are defined below.

A

Access Charge A charge levied on a power supplier, or its customer, for access to a utility's transmission or distribution system. It is a charge for the right to send electricity over another utility's lines.

Aggregator An entity that puts together customers into a buying group for the purchase of a commodity service. The vertically-integrated investor-owned utility, municipal utilities, and rural electric cooperatives perform this function in a restructured power market. This is opposed to marketer which will be defined as an entity that represents different suppliers.

Analog Transmission The transmission of a continuously-variable signal. As signals are transmitted in an analog system, the signal strength eventually weakens or attenuates. Amplifiers are installed in the system to amplify the signal, but because there is no way to differentiate between and analog and noise, both are amplified. As such, noises are evident in an analog transmission system.

American Public Power Association The American Public Power Association is a trade association representing the interests of municipal utility owners.

Average Cost The revenue requirement of a utility divided by the utility's sales. Average cost typically includes the costs of existing power plants, transmission, and distribution lines, and other facilities used by a utility to serve its customers. It also included operating and maintenance, tax, and fuel expenses.

Avoided Cost The cost the utility would incur but for the existence of an independent generator or other energy service option. Avoided cost rates have been used as the power purchase price utilities of independent suppliers.

B

Broker A retail agent who buys and sells power. The agent may also aggregate customers and arrange for transmission, firming, and other ancillary services as needed.

Bulk Power Supply Often this term is used interchangeably with wholesale power supply. In broader terms, it refers to the aggregate of electric generating plants, transmission lines, and related-equipment. The term may refer to those facilities within one electric utility, or within a group of utilities in which the transmission lines are interconnected.

C

Capacity Release A secondary market for capacity that is contracted by a customer which is not using all of its capacity.

Captive Customer A customer who does not have realistic alternatives to buying power from the local utility, even if that customer had the legal right to buy from competitors.

Community Access A model for aggregating consumers into geographic communities that would collectively negotiate more favorable prices and terms from electricity suppliers

than would be available to individual customers.

Competitive Franchise A model for allowing individual municipalities, or community service districts, to determine the terms of a contract put out for competitive bidding by electricity suppliers.

Competitive Local Exchange Carrier A communications company whose primary business is local service (in competition with a franchised Local Exchange Carrier).

Co-op This is the commonly-used term for a rural electric cooperative. Rural electric cooperatives generate and purchase wholesale power, arrange for the transmission of that power, and then distribute the power to serve the demand of rural customers. Co-ops typically become involved in ancillary services such as energy conservation, load management, and other demand-side management programs in order to serve their customers at lowest cost.

D

Deregulation The elimination of regulation from a previously-regulated industry or sector of an industry.

Derivatives A specialized security or contract that has no intrinsic overall value, but whose value is based on an underlying security or factor as an index. A generic term that, in the energy field, may include options, futures, forwards, etc.

Digital The method of representing information as numbers with discrete values, usually expressed as a sequence of binary digits.

Direct Access The ability of a retail customer to purchase commodity electricity directly from the wholesale market rather than through a local distribution utility.

Disaggregation The functional separation of the vertically-integrated utility into smaller, individually-owned business units (i.e., generation, dispatch/control, transmission, distribution). The terms "deintegration," "disintegration," and "delamination" are sometimes used to mean the same thing.

Distributed Generation A distributed generation system involves small amounts of generation located on a utility's distribution system for the purpose of meeting local (substation level) peak loads and/or displacing the need to build additional (or upgrade) local distribution lines.

Distribution The delivery of electricity to the retail customer's home or business through low voltage distribution lines.

Distribution Utility The regulated electric utility entity that constructs and maintains the distribution wire connecting the transmission grid to the final customer. The Disco can also perform other services such as aggregating customers, purchasing power supply and transmission services for customers, billing customers and reimbursing suppliers, and offering other regulated or non-regulated energy services to retail customers. The "wires" and "customer service" functions provided by a distribution utility could be split so that two totally separate entities are used to supply these two types of distribution services.

Divestiture The stripping off of one utility function from the others by selling (spinning off) or in some other way changing the ownership of the assets related to that function. Most commonly associated with spinning-off generation assets so they are no longer owned by the shareholders that own the transmission and distribution assets.

E

Edison Electric Institute The association for investor-owned electric companies. Formed in 1933 "to exchange information on industry

developments and to act as an advocate for utilities on subjects of national interest.”

Electricity Consumers Resources Council (ELCON) ELCON is an association of 28 large industrial consumers of electricity. ELCON members account for over five percent of all electricity consumed in the United States. ELCON was formed in 1976 “to enable member companies to work cooperatively for the development of coordinated, rational, and consistent policies affecting electric energy supply and pricing at the federal, state, and local levels.”

Embedded Costs Exceeding Market Prices

Embedded costs of utility investments exceeding market prices are: 1) costs incurred pursuant to a regulatory or contractual obligation; 2) costs that are reflected in cost-based rates; and, 3) cost-based rates that exceed the price of alternatives in the marketplace. ECEMPS may become “stranded costs” where they exceed the amount that can be recovered through the asset’s sale. Regulatory questions involve whether such costs should be recovered by utility shareholders, and if so, how they should be recovered. “Transition costs” are stranded costs which are charged to utility customers through some type of fee or surcharge after the assets are sold or separated from the vertically-integrated utility. “Stranded assets” are assets which cannot be sold for some reason. The British nuclear plants are an example of stranded assets which no one would buy.

EPAct The Energy Policy Act of 1992 addresses a wide variety of energy issues. The legislation creates a new class of power generators, exempt wholesale generators (EWGs), that are exempt from provisions of the Public Utilities Holding Company Act of 1935 and grants the authority to FERC to order and condition access by eligible parties to the interconnected transmission grid.

Exempt Wholesale Generator Created under the 1992 Energy Policy Act, these wholesale generators are exempt from certain financial and legal restrictions stipulated in the Public Utilities Holding Company Act of 1935.

F

Federal Energy Regulatory Commission Federal agency responsible for regulating the price, terms, and conditions of power sold in interstate commerce and regulates the price, terms, and conditions of all transmission services. FERC is the federal counterpart of state utility regulatory commissions.

Futures Market Arrangement through a contract for the delivery of a commodity at a future time and at a price specified at the time of purchase. The price is based on an auction or market basis. Standardized, exchange-traded, and government-regulated hedging mechanism.

G

Generation Company (Genco) A regulated or non-regulated entity (depending upon the industry’s structure) that operates and maintains existing generating plants. The Genco may own the generation plants or interact with the short-term market on behalf of plant owners. In the context of restructuring the market for electricity, Genco is sometimes used to describe a specialized “marketer” for the generating plants formerly owned by a vertically-integrated utility.

Generation Dispatch and Control Aggregating and dispatching (sending off to some location) generation from various generating facilities, providing backup and reliability services. Ancillary services include the provision of reactive power, frequency control, and load following.

Grid A system of interconnected power lines and generators that is managed so that the generators are dispatched as needed to meet

the requirements of the customers connected to the grid at various points. Grid company is sometimes used to identify an independent company responsible for the operation of the grid.

I

Independent Power Producer (IPP) A private entity that operates a generation facility and sells power to electric utilities for resale to retail customers.

Independent System Operator A neutral operator responsible for maintaining instantaneous balance of the grid system. The ISO performs its function by controlling the dispatch of flexible plants to ensure that loads match resources available to the system.

M

Marginal Cost In the utility context, the cost to the utility of providing the next (marginal) kilowatt-hour of electricity, irrespective of sunk costs.

Market-Based Price A price set by the mutual decisions of many buyers and sellers in a competitive market.

Market Power The ability of one dominant company to engage in behavior that discourages the entrance of competitors or gives the company an unfair advantage in soliciting business.

Municipalization The process by which a municipal entity assumes responsibility for supplying utility service to its constituents. In supplying electricity, the municipality may generate and distribute power or purchase wholesale power from other generators and distribute it.

N

National Association of Regulatory Utility Commissioners (NARUC) An advisory

council composed of governmental agencies of the fifty States, the District of Columbia, Puerto Rico, and the Virgin Islands engaged in the regulation of utilities and carriers. "The chief objective is to serve the consumer interest by seeking to improve the quality and effectiveness of public regulation in America.

National Conference of State Legislatures A national advisory council which provides services to state legislatures "by bringing together information from all states to forge workable answers to complex policy questions."

Notice of Proposed Rulemaking (NOPR) A designation used by the FERC for some of its dockets.

Non-utility generator (NUG) A generation facility owned and operated by an entity who is not defined as a utility in that jurisdictional area.

O

Options An option is a contractual agreement that gives the holder the right to buy (call option) or sell (pull option) a fixed quantity of a security or commodity (for example, a commodity or commodity futures contract), at a fixed price, within a specified period of time. May either be standardized, exchange-traded, and government-regulated, or over-the-counter customized and non-regulated.

P

Power Pool An entity established to coordinate short-term operations to maintain system stability and achieve least-cost dispatch. The dispatch provides backup supplies, short-term excess sales, reactive power support, and spinning reserve. Historically, some of these services were provided on an unpriced basis as part of the members' utility franchise obligations. Coordinating short-term operations includes the aggregation and firming of power from

various generators, arranging exchanges between generators, and establishing (or enforcing) the rules of conduct for wholesale transactions. The pool may own, manage, and/or operate the transmission lines ("wires") or be an independent entity that manages the transactions between entities. Often, the power pool is not meant to provide transmission access and pricing, or settlement mechanisms if differences between contracted volumes among buyers and sellers exist.

Poolco Poolco refers to a specialized, centrally-dispatched spot market power pool that functions as a short-term market. It establishes the short-term market clearing price and provides a system of long-term transmission compensation contracts. It is regulated to provide open access, comparable service, and cost recovery. A poolco would make ancillary generation services, including load following, spinning reserve, backup power, and reactive power, available to all market participants on comparable terms.

Public Utility Regulatory Policies Act of 1978 (PURPA) Among other things, this federal legislation requires utilities to buy electric power from private "qualifying facilities" at an avoided cost rate. This avoided cost rate is equivalent to what it would have otherwise cost the utility to generate or purchase that power themselves. Utilities must further provide customers who choose to self-generate a reasonably-priced back-up supply of electricity.

Public Utility Holding Company Act of 1935 (PUHCA) This act prohibits acquisition of any wholesale or retail electric business through a holding company unless that business forms part of an integrated public utility system when combined with the utility's other electric business. The legislation also restricts ownership of an electric business by non-utility corporations.

Public Technology, Inc. (PTI) Public Technology, Inc. is the non-profit technology

resource and development organization of the National League of Cities, the National Association of Counties, and the International City/County Management Association.

Q

Qualifying Facility Under PURPA, qualifying facilities are allowed to sell their electric output to the local utility at avoided cost rates. To become a QF, the independent power supplier had to produce electricity with a specified fuel type (cogeneration or renewables), and meet certain ownership, size, and efficiency criteria established by the Federal Energy Regulatory Commission.

R

Real-time Meters Electricity meter located in the consumer's home or business that communicate information on the time, demand and quantity of electricity consumed. The meter also can allow a consumer to view changing electricity prices over time.

Real-time Pricing The instantaneous pricing of electricity based on the cost of the electricity available for use at the time the electricity is demanded by the customer.

Renewable Resources Renewable energy resources are naturally replenishable, but flow-limited. They are virtually inexhaustible in duration but limited in the amount of energy that is available per unit of time. Some (such as geothermal and biomass) may be stock-limited in that stocks are depleted by use, but on a time scale of decades, or perhaps even centuries, they can probably be replenished. Renewable energy resources include: biomass, hydro, geothermal, solar, and wind. In the future, they could also include the use of ocean thermal, wave, and tidal action technologies. Utility renewable resource applications include bulk electricity generation, on-site electricity generation, distributed electricity generation, non-grid-

connected generation, and demand-reduction (energy efficiency) technologies.

Restructuring The reconfiguration of the vertically-integrated electric utility. Restructuring usually refers to separation of the various utility functions into individually-operated and -owned entities.

Retail Competition A system under which more than one electric provider can sell to retail customers and retail are allowed to buy from more than one provider. (See also "Direct Access.")

Retail Market A market in which electricity and other energy services are sold directly to the end-use customer.

Regional Transmission Group A voluntary organization of transmission owners, users, and other entities interested in coordinating transmission planning, expansion, operation, and use on a regional and inter-regional basis. Such groups are subject to FERC approval.

S

Self-service Wheeling Primarily an accounting policy comparable to net-billing or running the meter backwards. An entity owns generation that produces excess electricity at one site, that is used at another site or sites owned by the same entity. It is given billing credit for the excess electricity (displacing retail electricity costs minus wheeling charges) on the bills for its other sites.

Stranded Benefits Public interest programs and goals which could be compromised or abandoned by a restructured electric industry. These potential "stranded benefits" might include: environmental protection, fuel diversity, energy efficiency, low-income ratepayer assistance, and other types of socially-beneficial programs.

Stranded Costs/Stranded Assets See Embedded Costs Exceeding Market Prices.

System Benefits Charge A non-bypassable levy on users of the distribution system that collects funds for the purpose of supporting energy efficiency, low-income and research and development activities.

T

Taking Reducing the value of someone's property through government action without just compensation.

Technology Convergence The integration of two or more distinct technology or systems to advance their efficiency, application and capability.

Transmission-Dependent Utility (Transco) This is a regulated entity which owns, and may construct and maintain, wires used to transmit wholesale power. It may or may not handle the power dispatch and coordination functions. It is regulated to provide non-discriminatory connections, comparable service, and cost recovery. According to EPA, any electric utility, qualifying cogeneration facility, qualifying small power production facility, or Federal power marketing agency which owns or operates electric power transmission facilities which are used for the sale of electric energy at wholesale.

U

Unbundling Disaggregating electric utility service into its basic components and offering each component separately for sale with separate rates for each component. For example, generation, transmission, and distribution could be unbundled and offered as discrete services.

Universal Service Electric service sufficient for basic needs (an evolving bundle of basic service available to virtually all members of the population regardless of income).

V

Vertical Integration An arrangement whereby the same company owns all the different aspects of making, selling, and delivering a product or service. In the electric industry, it refers to the historically-common arrangement whereby a utility would own its own generating plants, transmission system, and distribution lines to provide all aspects of electric service.

W

Wheeling The transmission of electricity by an entity that does not own or directly use the power in transmitting. Wholesale wheeling is used to indicate bulk transactions in the wholesale market, whereas retail wheeling allows producers direct access to retail

customers. This term is often used colloquially as meaning transmission.

Wholesale Competition A system whereby a distributor of power would have the option to buy its power from a variety of power producers, and the power producers would be able to compete to sell their power to a variety of distribution companies.

Wholesale Transmission Services The transmission of electric energy sold, or to be sold, at wholesale in interstate commerce (from EPAct).

Wires Charge A broad term which refers to charges levied on power suppliers or their customers for the use of the transmission or distribution wires.

Glossary Source: Public Technology, Inc.

**RECOMMENDED by the MANAGER'S ROUNDTABLE
and the
MID-AMERICA REGIONAL COUNCIL**

KANSAS CITY METROPOLITAN AREA RETAIL WHEELING POSITION STATEMENT

Federal and state governments are considering deregulating portions of the electric utility industry to increase competition in the retail electric market and, therefore, reduce costs and improve electric service for consumers. This deregulation is commonly referred to as retail wheeling. Local governments support these goals, but also understand that deregulation of the electric utility industry will impact their communities in a number of different ways. It is important that legislators and regulators thoroughly understand these impacts and structure deregulation so that it does not adversely impact local governments and their constituents and that it provides the maximum opportunity for them to take advantage of increased competition.

The following positions represent the culmination of considerable study and discussion by local governments in the eight county, bi-state Kansas City metropolitan area. They are based on an approach that will best serve the broad community interest. This community interest includes the interest of individual constituents and utility consumers, the community as a whole, and the local governments that serve them. The positions that follow maximize the benefits to these interests and minimize adverse impacts by maintaining the community's ability to make informed decisions and take informed action.

Local governments in the Kansas City Metropolitan Area are unified in their support of the following specific positions that achieve the stated goals to:

- **Protect and Maintain the Public's Right-of-Way**
Local governments must be able to enact appropriate policies and ordinances to protect and maintain the public's right-of-way. This includes assuring that there is adequate information on the location and nature of utilities using the public's right-of-way, assuring that there is timely and appropriate relocation of utilities within the public's right-of-way when the public good requires such relocations, and assuring that use of the public's right-of-way is appropriately compensated for in terms of costs for maintenance, disruption to the public, and use of a scarce and valuable resource..
- **Protect Local Government Revenue**
Local governments must be able to enact appropriate policies and ordinances, as the public deems desirable, to levy taxes and fees upon utility related commerce within their boundaries as compensation for use of the right-of-way. These revenues are used to finance public services. In particular, it is important that deregulation of the electric utility industry not result in a loss of revenue which then must be compensated for by reducing services or raising taxes. In addition, state and local taxes should be structured in such a manner as to assure that local utilities, out-of-jurisdiction utilities, and out-of-state utilities all have an equal tax obligation for similar service.

- **Assure Affordable Service for All Rate Payers**
Deregulation of the electric utility industry must be done in such a fashion as to assure equitable, universal, affordable access to electric energy services for all residents and businesses. Mechanisms must be put in place to protect vulnerable rate payer classes such as individual residents and small businesses. In particular, stranded costs, costs that are uneconomical in a competitive market, must be fairly allocated among investors and the various classes of rate payers.

- **Provide Communities Opportunities to Participate in Competition** In order to take full advantage of competition, and assure that their residents and businesses can also take full advantage of competition, local governments must have the authority to initiate and implement appropriate energy generation, distribution, and acquisition strategies, including partnerships with other local governments and/or the private sector. In particular local governments must be permitted to:
 - ▶ Aggregate load with other local governments
 - ▶ Aggregate load for residents and businesses
 - ▶ Municipalize its local electric distribution system
 - ▶ Develop generating capacity, individually or in partnership,

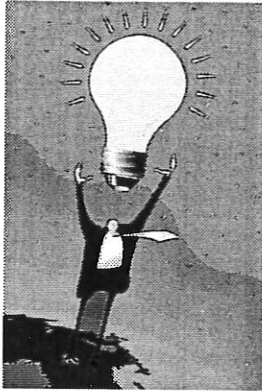
- **Assure Fiscal and Service Competency.** Local governments must be able to enact appropriate policies and ordinances to assure the fiscal, service, and technical competency of any utility providing service to its constituents, as long as each utility is treated in a nondiscriminatory fashion.

- **Assure that Municipal Utilities Have the Tools to Compete.** Municipally owned utilities must have the appropriate tools and authority to successfully operate in a deregulated environment and protect the interests of their constituents. In particular, they must have access to appropriate financing tools and debt retirement schedules that allow them to compete on a level playing field with investor owned utilities.

Local governments in the Kansas City Metropolitan Area represent over one and a half million people and over 40,000 businesses. Currently these ratepayers enjoy some of the most affordable electric rates in the country with a high degree of reliability. Deregulation must assure that these rate payers continue to have access to affordable, reliable electric power.

Because local governments will be significantly impacted by retail wheeling of electricity and because local governments have an interest in seeing that their constituents, both residents and businesses, benefit from deregulation, they feel it is essential that they take an active part in the retail wheeling discussions and present a clear statement of their position on this issue. This position statement has been adopted by the Board of Directors of the Mid-America Regional Council and the following Kansas City metropolitan area local governments:

Attach. C



An Analysis of the Impacts of Retail Wheeling on the State of Kansas

August 18, 1997

PREPARED FOR:

Kansas Retail Wheeling Task Force
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EXECUTIVE SUMMARY

McFadden Consulting Group, Inc. (McFadden Consulting) and Resource Data International, Inc. (RDI), collectively referred to herein as McFadden Consulting/RDI, were retained by the Kansas Economic Development Institute (KEDI or Institute) on behalf of the Retail Wheeling Task Force (Task Force) to provide technical assistance and analysis to the Task Force in connection with issues pertaining to electric utility restructuring in Kansas. This report contains the results of our analysis.

OVERVIEW OF INDUSTRY CHANGES

The traditional role of the U.S. electric utility are being dramatically reshaped. In the process, the scope and character of government regulation is being redefined, creating opportunities for new participants and daunting challenges for current market players. State and federal level initiatives to unbundle and restructure the electric utility industry into a fully competitive marketplace also gives new and sometimes baffling options to customers.

The electric utility industry is responding to these changes by experimenting with a host of business strategies: aggressive efforts to reduce costs, corporate restructuring, creation of non-regulated marketing subsidiaries, strategic alliances, and consolidation through mergers and acquisitions. Emerging from these changes is a more diversified and, above all, much more competitive industry. It is an industry that during the next several years will evolve from its role of providing a limited number of energy options to customers into a heterogeneous structure where electricity is delivered to end-use customers under myriad new business and contractual arrangements.

But the evolution from the current regulatory environment to a more open, more competitive market is strewn with huge, entrenched obstacles. Their removal may be more difficult than assumed. Key thorny issues include disagreement over rules governing access to transmission and distribution systems; division of regulatory authority between state and federal agencies; and questions of cost allocation, cost recovery, and system reliability. How these questions are resolved dictates the pace and scope of change and shapes the answer to the key question asked by all regulators: How should the restructuring be accomplished to ensure maximum economic benefit for customers, while maintaining system reliability and integrity?

PROJECT SCOPE AND OBJECTIVES

It was in this environment of uncertainty about how best to accomplish restructuring that House Bill No. 2600 was approved by the Kansas Legislature in April, 1996 establishing the Task Force. The primary purpose of the Task Force is to analyze and report on issues related to the restructuring of electric service in Kansas. The purpose of this project is to assist the Task Force in analyzing and reporting on issues related to the restructuring of the electric utility industry in Kansas. Specifically, the Task Force wishes to address the impact that might be experienced if retail wheeling of electric power were allowed in Kansas. This report is intended to provide input to the Task Force as it tries to reach a consensus on the advisability, inevitability, and/or the requirements pertaining to retail wheeling in Kansas.

In general, the purpose of this project is to:

- identify the issues and areas of concern related to retail wheeling
- assess the economic and financial impact of the issues and areas of concern
- formulate multiple policy options with supporting documentation for Task Force consideration.

We viewed our task as providing information, data, and expertise to the decision-makers so that they can determine what is best for the citizens of Kansas. As such, this report is intended to provide one set of inputs into the decision-making process.

OUR APPROACH

Our approach in completing this analysis was to divide it into two parts, as follows:

- qualitative identification of the issues and policy alternatives
- quantitative assessment of the impact of the issues and policy alternatives on the various stakeholders.

In the qualitative identification of the issues and policy alternatives, we attempted to identify all major issues and policy alternatives for addressing those issues. We accomplished this task by:

- reviewing activities taking place in jurisdictions other than Kansas
- conducting focus group discussions with residential and small commercial customers
- reviewing information provided by various stakeholders to the Task Force

- interviewing the larger stakeholders, such as the investor-owned utilities (IOUs), municipally-owned systems (munis), and cooperatively owned systems (co-ops), regulatory commissions, trade associations, and consumer groups.

Utilizing this process we believe all major pertinent issues, and the various policy alternatives for addressing the issues, were identified. It also provided the foundation for the second step; quantitatively assessing the impact of the various policy alternatives.

Our approach in conducting this analysis was to act as a *conduit of information as opposed to a filter*. As such, we considered each stakeholders' assessment of the various issues and their impacts. If appropriate, each issue and policy alternative, was included in the qualitative assessment of the impacts on the various stakeholders.

BENEFITS OF RETAIL WHEELING

We identified a number of potential benefits of electric industry restructuring initiatives. This is not intended to be an exhaustive list, but merely the major factors espoused by proponents of retail wheeling.

Economic or Financial Benefits. Many experts believe restructuring of the electric utility industry will provide economic benefit to customers. Our analysis in this report supports that conclusion for the customers in Kansas. However, the treatment of stranded costs in the transition from a regulated environment to a competitive environment will be the critical factor in realizing those benefits.

Economies of Scale. Large power suppliers will realize economies of scale that benefit the customers. Many express doubt multiple suppliers will provide service more efficiently and less expensively in a specific utility's service territory than the utility itself. After all, if you divide up a utility's service territory among a number of suppliers, an individual supplier could not operate more efficiently and effectively than someone who provides service to all the customers. However, the regulated, monopolistic electric utility operates only in its service territory and the number of customers served are limited to the number of customers connected to its system.

Power supply aggregators and marketers, on the other hand, are not limited to geographic territories. In theory, as the market evolves, they will accumulate customers on electric distribution systems. For example, an aggregator could have millions of customers in a dozen major metropolitan areas. With a large number of customers spread across different geographic regions, it would be possible to manage its power supply portfolio in a more effective and efficient manner than a utility that is tied to a specific geographic area.

Bundled Utility Services. Unbundled electric service are part of a bigger picture in which a package of various services will be offered to customers. Such a package could include the following services:

- natural gas
- telephone
- cable television
- connection to the Internet
- home security systems
- remote control of appliances
- water
- sewer
- garbage.

Many believe bundling such services will provide the opportunity for significant cost savings to customers. Power supplies could be bundled with various energy efficiency systems to help customers reduce overall power costs. For example, heating, lighting, and air conditioning firms might bundle power supplies with control systems to reduce the customer's overall power costs. Of course, the bundling of these services may take some time to develop.

Competition Replaces Regulation. Competition is more effective than regulation at maintaining discipline in the marketplace. Currently, regulatory oversight ensures monopoly utility service does not take advantage of captive customers. By inducing a competitive marketplace for power supplies, competition will replace regulation for at least that portion of utility services. The fact that a customer can choose another power supplier will force all power suppliers to maintain discipline in the market and operate as efficiently and effectively as possible. In fact, just the threat of competition can be an effective deterrent to rising prices. Of course, there will remain a need for regulatory oversight of distribution and transmission services, which would continue to operate in a monopolistic environment.

Investors, Not Customers, Pay Consequences of Failed Business Strategies. Customers will no longer be liable for poor business decisions over which they have very little input and control. In the current regulatory environment, customers are required to pay for investments that were deemed prudent. For example, the decision to invest in a nuclear power plant may have been deemed prudent. However, it may not have been a good business decision. In the competitive market place, investors pay the consequences of business strategies that fail, not the customers.

Customer Choice. Many believe customers want choices in the products they purchase. Providing a choice of power suppliers will encourage communications between the customer and the supplier and will lead to customers getting the products and services they need and want: not the “one-size-fits-all” products which evolved in the regulated environment.

Many also believe customers can make intelligent decisions regarding their power supply needs. Certainly, the large industrial and commercial customers have, or will acquire, the level of sophistication required to make intelligent decision regarding power suppliers. For the vast majority of smaller customers, the choice of power suppliers is not a life and death decision, and heavy-handed regulation of competitively priced commodities is not required. Consumers’ decisions on home mortgages can have a significantly greater financial impact on their lives, and decisions on life or health insurance can be more critical than the choice of energy providers. Yet there is no heavy-handed regulatory oversight of prices for those products and services.

Innovation. A competitive market encourages innovation and creativity in meeting customers’ needs. As suppliers compete for customers’ needs, new products, services, and pricing options will be developed. For smaller customers there will probably be new marketing programs designed to attract customers, such as free frequent flier miles, reduced Internet connection fees, or other customer loyalty building tools. Creative pricing programs are likely to develop, such as a flat cost per month regardless of usage, or perhaps different rates for consumers with different power requirements or different load profiles.

We have already seen evidence of this creativity in the natural gas industry. For example, in several Wyoming towns, one supplier is offering consumers a program called “Weather Proof” in which consumers pay a flat amount per month, regardless of level of usage. Of course, there is a premium for this service, but customers are willing to pay the premium. Other customers have the choice of purchasing gas supplies on an index basis in which the price changes month to month. While other customers have chosen a per unit cost that is fixed for a one year period. Restructuring in the electric utility industry will unleash the same type of innovation and creativity.

RISKS OF RETAIL WHEELING

There are several major risks associated with retail wheeling. These risks fall into two broad categories: economic and operational. We touch on each of these below. However, these risks are directly tied to the issues identified in the complete analysis and are the underlying reason for performing this analysis. As such, the discussion below is intended to introduce the risks and provide a bridge to the discussion of the issue presented in the main body of this report.

Economic. The fundamental economic risk associated with retail wheeling is the failure of a competitive power supply market to develop. If this were to occur, it is possible competition would not replace regulation in assuring that consumers are protected from unfair pricing practices. Therefore, it is advisable that policy makers take a deliberate approach to restructuring to ensure alternate suppliers are not discouraged or inhibited from the market place.

Operational. The overwhelming operational risk is that power supplies are not delivered to the customers, compromising the reliability and integrity of the transmission and distribution systems. It is important to remember that the failure to deliver required supplies to individual customers will affect all customers, even those that have not opted to utilize an alternate supplier.

SUMMARY OF RESULTS - KEY FINDINGS

The results our quantitative assessment imply several conclusions regarding the policy cases analyzed. The case without stranded cost recovery indicates:

On an average statewide basis, prices in a deregulated market will be lower than in a regulated environment.

Comparison of the base case, which assumes continued regulation, against full access without stranded cost recovery shows substantial reductions in delivered power costs. Most of these reductions result from the non-recovery of stranded costs, or about \$3.1 billion on a net present value basis over the 10 years. Stranded costs are about 18% of total delivered costs in the base case. This savings to customers is at the expense of utility shareholders. The amount of savings declines steadily from year to year, as the generating assets would be depreciated in the regulated environment, and ends when the last asset with stranded costs would be fully depreciated.

The long run price decreases realized by customers result from market efficiencies.

With the increased efficiency in the wholesale market provided by electronic trading and reduced transaction costs, a larger number of economy energy transactions will be advantageous every day. This will reduce the overall cost of supply in Kansas.

With full wholesale competition, generation owners are incited to reduce their costs, fixed as well as variable. This will be a lasting, long-term impact of restructuring. The magnitude of this reduction is difficult to quantify. This study assumed that generation fixed costs would be reduced gradually over time, reaching a reduction of 10% by 2002.

Deregulation eliminates cross-subsidization of generation costs between customer classes.

Under existing rate structures, there is significant cross-subsidization between customer classes. Residential and commercial customers of investor owned utilities are, to varying degrees, subsidizing industrial customers. Residential customers of distribution coops and munis are on average subsidizing industrial customers. Allowing all customers in all classes direct access to wholesale markets will completely eliminate the potential for cross-subsidization.

There is a risk that some customers of low cost utilities will see price increases.

Some utilities have negative stranded costs, resulting from a portfolio of generating assets with embedded costs less than the market value of the power they produce. In the regulated environment, the customers of these utilities would pay only the embedded costs. But in the deregulated environment these customers would have to pay the higher market prices, unless a special provision were imposed on these companies to rebate to their customers the difference between market prices and their embedded costs.

The treatment of stranded cost recovery affects the timing and magnitude of the benefits.

Stranded cost recovery is the factor with the greatest impact on delivered costs. A 5-year recovery of stranded costs shows that longer-term reductions can be bought at the expense of short-term rate increases, without imposing any of the stranded costs on utility investors.

With full stranded cost recovery, customers' prices decline to the extent of increased market efficiency and competition-induced reductions in production costs.

With full stranded cost recovery customers realize only the components of savings resulting from efficient wholesale trading and full wholesale competition, until the stranded costs are recovered. After stranded costs are recovered the full benefits of retail wheeling will be realized.

The level of and mechanism for recovery has implications regarding the goals of restructuring; for example, allowing full recovery provides no incentive for utilities to reduce costs.

Utilities may not have any incentive to control costs if they are assured of 100% stranded cost recovery, with stranded costs calculated on the basis of actual costs.

If only a portion of a utility's customers are granted early access to retail markets, remaining customers need to be protected from paying for the stranded costs of departing customers.

If only industrial customers are allowed wholesale access, for any length of time, and if the utility is allowed to recover from other customer classes the stranded costs it incurs by its industrial customers, then the other customers will be significantly harmed.

A small but prolonged gas price swing could have a large effect on the level of stranded costs in Kansas.

In a high fuel price regime, market energy prices will be higher. Market energy prices in Western System Power Pool are driven primarily by natural gas prices and by the heat rates of incremental generation. Kansas utilities' generation costs are dominated by coal. Thus market prices increase more than generation costs. For utilities with positive stranded costs, the gap between generation costs and market prices will narrow, and stranded costs will be correspondingly reduced. The mirror image of these changes occurs under low fuel prices.



Tax Implications of Electric Industry Restructuring

ATTACH 6

A Series by the NCSL Partnership on State and Local Taxation of the Electric Industry

Payments in Lieu of Taxes in the Changing Electric Industry

As with the telecommunications, natural gas and airline industries, the electric utility industry is in the midst of a fundamental transformation. Indeed, one no longer can accurately characterize it as solely the utility industry. Wholesale competition is robust today, with dozens of sellers of electricity as a result of the Public Utility Regulatory Policies Act of 1978, the Energy Policy Act of 1992 and the actions of the Federal Energy Regulatory Commission in orders 888 and 889. As shown in figure 1, retail customers in at least a dozen states will be able to choose their electricity providers as the result of legislation or comprehensive regulatory packages enacted in those states. It is not only utilities that now are selling electricity. Electric companies that operated in the retail electricity sales business as state-regulated monopolies for more than 50 years will face competition not only from each other, but also from other companies that previously sold no retail electricity.

The effect of electric industry restructuring on state and local taxes should be part of these policy debates because electric industry restructuring may cause a shift in expected revenues and thereby affect state and local budget planning. In a restructured electric market, policymakers may need to revise the state's tax system to more fully reflect the economic activity being taxed.

This paper deals with direct effects of electric industry restructuring on payments in lieu of taxes (PILOTs). If restructuring fulfills the promise of lower rates and greater economic activity, it will lead to economic growth, new investments and a larger tax base. These effects on PILOTs are difficult to quantify with a useful degree of accuracy and it is not the purpose of this paper to make assertions about the potential benefits of restructuring. This paper should be taken in that context.

Payments in Lieu of Taxes (PILOTs)

PILOTs are used by many local governments to raise revenue for the general fund and to obtain services for the municipality. Utility restructuring presents two main issues related to PILOTs:

The National Conference of State Legislatures' Partnership on State and Local Taxation of the Electric Industry was formed in 1997 as a forum for those with various roles in restructuring the electric industry. The partners include key state legislators, experienced state legislative staff and sponsors of NCSL's Foundation for State Legislatures who chose to participate in this project.

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SENATE Utilities
1-20-98
6-1

ELECTRIC INDUSTRY COMPOSITION

Investor Owned Utilities (IOUs). IOUs are taxable corporations owned by shareholders. The rates that investor-owned utilities charge for electric service are regulated on a cost-of-service basis by federal or state and local regulatory agencies. Most, if not all, IOUs currently are vertically integrated, i.e., in the past they owned the generation, transmission and distribution assets required to serve the end user.

Rural Electric Cooperatives. Rural electric cooperatives are owned by their customers. As not-for-profits they do not own generation property. Rates charged by rural electric cooperatives are subject to regulation in some jurisdictions. Although most rural electric cooperatives are exempt from federal and state income taxes, they pay all other types of state and local taxes. Rural electric cooperatives are not vertically integrated, but may own generation property through generation and transmission (G&Ts) organizations. G&Ts are cooperative organizations that own power plants, generate electricity and transmit it at wholesale prices to distribution cooperatives, which are members of the G&T and provide distribution services to deliver power to end users. The formation of G&Ts allowed member systems to gain the benefits of sharing larger, more economical power plants while retaining the advantages of local ownership, control and operation. Distribution systems generally are bound to their G&Ts by an all-requirements contract, under which the distribution system agrees to purchase—and the G&T agrees to provide—all the distribution co-op's power needs. The distribution system agrees to pay rates sufficient to cover all the G&T's cost.

Public Power Systems. Public power systems, which are predominantly municipal utilities, are extensions of state and local governments. As such, they are generally not subject to federal or state income taxes. Depending on state laws, public power systems may pay sales taxes or gross receipts taxes. These organizations also may provide payments in lieu of taxes (transfers to the general fund and contributions of services to state and local governments). Public power systems can join to form joint action agencies; these consist of two or more electric utilities (usually municipally owned) that have agreed to join under enabling state legislation to carry out a common purpose—usually the provision of bulk power supply, transmission and energy-related services. This arrangement allows the utilities to operate as separate entities.

Federal Electric Utilities. Most of the electricity produced by these entities is sold for resale. These utilities generally are exempt from federal, state and local taxes. Bonneville Power Administration is an example of a federal electric utility.

Independent Power Producers. These producers include exempt wholesale generators (EWGs) and other nonutility generators. Independent power producers are subject to federal, state and local taxes, but the rates assessed may be different than those for other power producers.

Power Marketers. Power marketers negotiate electricity sales between the power producer and consumer. Power marketers are not defined as utilities, and therefore may be subject only to taxes levied on businesses and business transactions in the state.

- The effect of competition on PILOTs, and
- The effect of PILOTs on effective competition.

Although PILOTs have been decided at the local level, state policymakers may want to consider the following points as they determine how PILOTs fit into a restructured system:

- The way local governments assess PILOTs will affect the competitiveness of different electricity retailers.
- Public power systems may see a decrease in electricity sales, but could still be required by local governments to provide local governments with PILOTs equal to those before restructuring.
- Changes in state taxation could impose new taxes on electricity providers without taking account of their current level of payments and contributions to local governments. Therefore, legislators should be aware of PILOTs and the role they play in local government operations.
- The effect changes in the PILOT system will have on local tax administration and collection efforts.
- The potential of overlapping new taxes in a restructured electric system with PILOTs already in place.
- State legislators cannot eliminate PILOTs, but may be able to limit them.

A Definition of Payments in Lieu of Taxes

A payment in lieu of tax or transfer to the local government's general fund is a cash payment or services provided at no charge by an electric utility to its local government. In the case of public power systems, the utility is a part of local government; it is not subject to local property taxes. Instead, the local government establishes an annual payment or transfer in lieu of tax revenues based upon the public power system's general revenues. There may be a formula for computing the payment, or it may be an amount negotiated each year. Some jurisdictions differentiate between payments that are computed by formula or set by contract (payments in lieu of taxes), and payments that are determined on an annual basis (transfers to the general fund), but typically these two terms are used interchangeably.

Various services also may be provided to municipal governments as PILOTs. Examples of these services include free street lighting, holiday lights, traffic control lighting, highway lighting, electricity for local government facilities, use of utility employees and unbilled services for special events. In some cases, the monetary value of these services is worth as much as several million dollars annually.

Who Pays Pilots?

PILOTs are, to a large extent, paid by public power systems. However, other electricity pro-

viders also may pay them, including investor owned utilities, rural electric cooperatives and federal electric utilities.

Public power systems, predominantly municipal utilities, are extensions of state and local governments that operate on a not-for-profit basis. As such, public power systems generally are not subject to federal or state income taxes, or local property taxes within the municipal boundaries. Historically, it has been sound public policy that one level of government does

not tax another level of government in recognition of the legitimate purposes and services provided by each. For one level of government to mandate a tax on another would result in a shifting of taxpayer money and essentially would impose a tax on self service.

Public power systems provide a dividend to the owner-customers (residents of the municipality) in the form of a payment to the general fund (PILOT), reduced rates, or a combination of the two.

Payments in Lieu of Taxes and Electric Industry Reform: A Hypothetical Example

The following example illustrates how utilities and others in the electric industry pay PILOTs and how those payments could be affected by electric industry restructuring. The example is a useful tool for explaining the topic. Questions for state policymakers are interspersed with the example. The answers to these questions will help

policymakers determine how to address this issue in their individual states. Any solutions described in the example should be considered only as illustrative and not as recommendations for policy actions.

Federal Actions Affecting the Electricity Market

The Public Utility Regulatory Policies Act of 1978 (PURPA). PURPA was passed in response to the oil embargoes and natural gas shortages of the early 1970s, and was designed to encourage alternative generation sources. PURPA requires utilities to purchase power produced by small cogeneration or renewable energy facilities at contractual rates set out or approved by state utility commissions.

The Energy Policy Act of 1992 (EPACT). Proponents of competitive market mechanisms encouraged Congress to introduce competition into wholesale electric markets. EPACT encourages competition in several ways. It creates a new class of power company, the exempt wholesale generator, that can compete against electric utilities to supply electricity. In addition, owners of transmission lines will be required to let any electric generator use the lines at an approved and published price. In compliance with EPACT, the Federal Energy Regulatory Commission issued orders 888 and 889, which permitted utilities access to the transmission grid to enhance the sale and purchase of energy for resale. They do not apply to the retail or end-user customer.

Private Use Restrictions. The Tax Reform Act of 1986 (P.L. 86-272) directed the Internal Revenue Service to promulgate rules restricting the use of tax-free financing for private projects. As a result, public power providers who finance generation, transmission, or distribution may be unable to compete outside their service territory boundaries because of private use restrictions.

6-4

Example A

City Power, a public power system (municipally owned) operates in State A's capital city. City Power has been responsible for providing electricity to the municipality since 1898. Two other utilities are located in State A—Rural Power, a rural electric cooperative, and Amalgamated Electric, an investor owned electric corporation. City Power, Rural Power and Amalgamated Electric all own power plants that are located in State A.

Amalgamated Electric and Rural Power pay property taxes. Amalgamated also pays federal and state income taxes. City Power is exempt from income taxes, but it provides the municipal government with several payments in lieu of taxes (PILOTs). City Power PILOTs include:

- A \$6 million payment to the municipal government's general fund.
- Street lighting (valued at \$750,000 annually).
- Unbilled services for special events, such as holiday lighting (valued at \$100,000 annually).
- Specialized equipment and personnel to assist other municipal departments (valued at \$250,000 annually).

City Power pays property and gross receipts taxes as part of the cost of the electricity it purchases under wholesale agreements with the state joint action agency and Amalgamated Electric.

Payments in Lieu of Taxes after Restructuring

With passage of State A's new legislation allowing competition among electricity providers, City Power, Amalgamated Electric and Rural Power are competing with each other and with other power providers that have entered the market. The other providers now include First National Power, an investor owned utility located in State B, and Marketer Inc., a power marketer. Power marketers purchase power from the power producer and sell it to the customer.

In a restructured electricity market, public power providers may see their sales increase, decrease or remain relatively stable. Each scenario could have a different implication for PILOTs, depending on how they are calculated. If sales remain stable, municipal jurisdictions could continue to impose PILOTs similar to those currently in place. However, potential changes in public power market share should be considered by state and local policymakers. In particular, a loss in market share could result in a decrease of revenues to local government if the PILOT is calculated as a percent of gross electric revenue. If the PILOT is calculated as a percent of net assets, the payment to the city may remain constant, but the financial viability of the utility may be affected. If the utility then needs to raise rates, it may continue to lose market share. PILOTs also may be assessed in a flat amount. In this case, the utility may lose

Questions for state policymakers:

- *Who pays PILOTs in your state?*
- *What percentage of electricity providers pay PILOTs?*

*Questions for
state
policymakers:*

- *What are the values of Payments in Lieu of Taxes to local governments in your state?*
- *Does your state have any jurisdiction over limiting or setting PILOTs?*

market share, but it would not be evident in the PILOT. In this situation, a utility would still need to try to recoup its losses, and may raise its rates.

Before State A's restructuring initiatives, City Power began building a power plant. The new plant came online in 1997. With the increased generation capacity, City Power no longer needed a wholesale contract with Amalgamated Electric. In fact, it became a wholesale electricity provider to Municipal Electric, a public power company in State B. City Power lost 17 percent of its competitive electricity market share to other power providers, but increased its customer base by attracting retail customers outside its service territory. In the cases where City Power did not have transmission and distribution capacity, it was able to use the transmission and distribution facilities of other electricity providers. As a result, City Power increased its gross revenue by 2 percent.

When the annual agreement between the municipality and City Power was up for review, the city council determined that the PILOTs should be increased. Rather than increasing City Power's cash payment, the city council required them to provide energy for traffic control (valued at \$45,000).

The restructuring efforts in State B had a different effect on Municipal Power's ability to provide PILOTs. State B is a home rule state. Broadly defined, home rule allows for local self-government. Local governments, unlike states, have only derivative powers and constitutional and legislative provisions for home rule are enacted for the purpose of giving authority to counties and municipalities over certain matters. In State B, the municipal home rule powers are constitutionally based. The state constitution also limits the sales that Municipal Power can make outside city or village limits to a percentage of their total load. Therefore, notwithstanding a revision in State B's constitution, while Municipal Power will continue to have home rule authority, it also will continue to be limited in the power sales it can make in a restructured electric industry.

As retail customer choice becomes widespread in State B and nationwide, Municipal Power finds that a number of its customers inside city limits that are part of national chains come to city council and announce their desire to purchase power from Marketer Inc., which has secured arrangements for the national accounts. As a result, during the first year of restructuring, Municipal Power's market share decreases by 12 percent. They are stepping up customer retention and economic development efforts, but plan to ask city council to reduce their PILOTs based on sales figures.

Options for State and Local Policymakers

These hypothetical examples illustrate some of the issues state policymakers need to examine during discussions of the effects of electric industry restructuring on state and local taxation. If there are PILOTs in your state, some of the following options may be useful to consider.

State Policymaker Options

- *States may have the authority to limit PILOTs.* The question of how to ensure a continued revenue stream to local government without unduly draining revenues from its public power system is an issue that by necessity must be decided at the local, rather than the state level. However, in some instances state legislators do have the ability to limit PILOTs, and should take into account PILOTs and other contributions made by electricity providers to their local governments when considering any changes to the current tax system.
- *Impose a state tax on all electric energy use in the state.* Proposals have been made in some states (such as Minnesota) to eliminate a portion of the property tax that currently is paid by investor owned utilities. This could be replaced by a per kilowatt-hour tax paid by all utilities. The revenues would be collected by the state and redistributed to local governments on a revenue-neutral basis. However, this has raised concerns that customers of electric providers who pay PILOTs would be required to pay a new tax without receiving any of the benefits.

Local Policymaker Options

- *Include all PILOTs in distribution wheeling component.* This option would still require the local public power utility to make the payments or provide the services, but it would be collected from all retail customers or other providers using the distribution system.
- *Replace PILOTs with a local franchise fee payable by all providers.* While PILOTs are only between different segments of local government, franchise fees could apply to all electricity providers. This fee could be structured as a rate per commodity delivered.

Question for state policymakers: Are public power providers in your state limited in their ability to make electricity sales outside municipal limits?

NCSL Electric Industry Tax Partners

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Minnesota House of Representatives

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to the Partnership.

The National Conference of State Legislatures' Partnership on State and Local Taxation of the Electric Industry was formed in April 1997 to provide a communications forum for those who have various roles dealing with restructuring of the electric industry, but who rarely have an opportunity to work together. The partners include key state legislators, experienced state legislative staff and sponsors of NCSL's Foundation for State Legislatures who chose to participate in the project. The Partnership has focused on several issues that legislators need to examine concerning state and local taxation of the electric industry in a restructured system. The resulting eight documents, designed to assist legislators in making informed policy decisions in their respective states, include:

- *Utility Taxation Overview*
(ISBN 1-55516-589-3—Item #4129)
- *Introduction to Electric Industry Taxation*
(ISBN 1-55516-590-7—Item #4130)
- *Gross Receipts Taxes in the Changing U.S. Electric Industry* (ISBN 1-55516-591-5—Item #4131)
- *Property Taxes in the Changing U.S. Electric Industry* (ISBN 1-55516-592-3—Item #4133)
- *Franchise Fees in the Changing U.S. Electric Industry* (ISBN 1-55516-593-1—Item #4132)
- *Net Income and Franchise Taxes in the Changing U.S. Electric Industry*
(ISBN 1-55516-594-X—Item # 4134)
- *Sales Taxes in the Changing U.S. Electric Industry*
(ISBN 1-55516-595-8—Item #4135)
- *Payments in Lieu of Taxes in the Changing U.S. Electric Industry*
(ISBN 1-55516-596-6—Item #4136)

Series authored by Kelly Hill and
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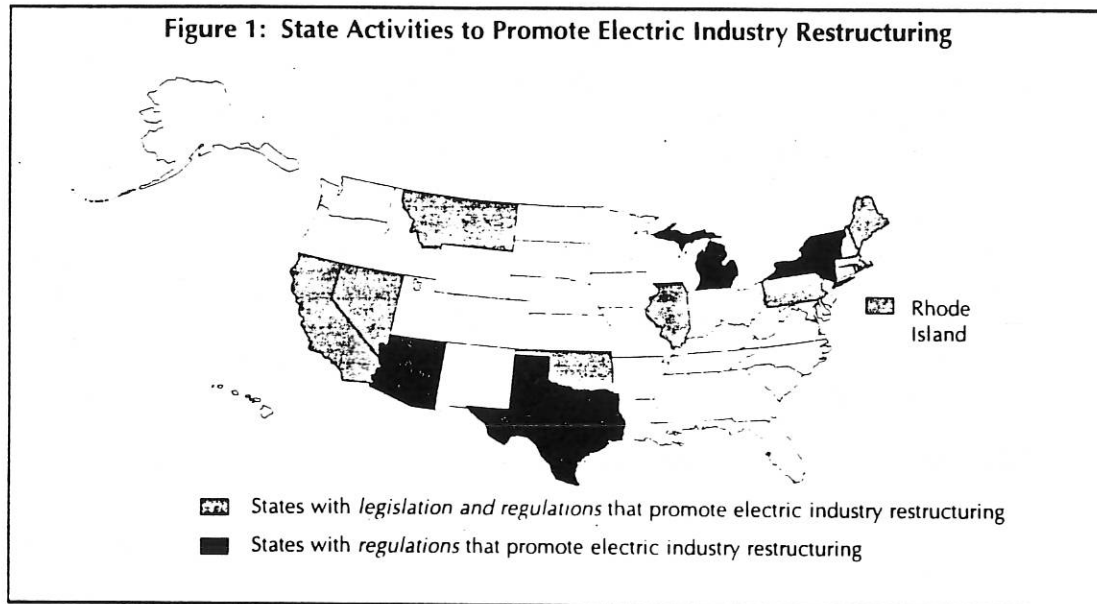
Tax Implications of Electric Industry Restructuring

A Series by the NCSL Partnership on State and Local Taxation of the Electric Industry

Overview of Effects of the Changing Electric Industry on State and Local Taxes

As with the telecommunications, natural gas and airline industries, the electric utility industry is in the midst of a fundamental transformation. Indeed, one no longer can accurately characterize it as solely the utility industry. Wholesale competition is robust today, with dozens of sellers of electricity as a result of the Public Utility Regulatory Policies Act of 1978, the Energy Policy Act of 1992 and the actions of the Federal Energy Regulatory Commission in orders 888 and 889. As shown in figure 1, retail customers in at least a dozen states will be able to choose their electricity providers as the result of legislation or comprehensive regulatory packages enacted in those states. It is not only utilities that now are selling electricity. Electric companies that operated in the retail electricity sales business as state-regulated monopolies for more than 50 years will face competition not only from each other, but also from other companies that previously sold no retail electricity.

Figure 1: State Activities to Promote Electric Industry Restructuring



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Why Are States Considering Competition among Electricity Generators?

Possible Federal Action

At least six proposals are circulating in the U.S. Congress that would require states to allow competition among electricity providers. Some of these proposals include a grandfather clause that allows states that have already begun competition to continue with their own plans. This is not guaranteed, however, especially if the federal proposal differs significantly from the state plan. Some federal legislation would mandate states to allow competition, but would give states the authority to design many elements of their competition plan on their own, as long as the state plans meet federal guidelines.

Changes in Technology, a Market Glut of Power and Decreasing Fuel Prices

Many states' new approaches to regulating the industry are in response to changes in the business of generating electricity. New technologies have decreased the cost of generating electricity, and steadily decreasing natural gas prices¹ have further reduced the cost of generating electricity with natural gas turbines. In addition, many new power plants began operation in the late 1980s, creating far more generating capacity than needed. This oversupply of electricity pushed the spot market, short-term price of electricity to historic lows. It now is possible to obtain power from this spot market or these new power plants at a price lower than many utilities are selling it for at retail. Some electricity consumers have argued that the current system of regulated monopolies should be eliminated. Advocates for competition argue that a system of price regulation—in which each utility is allowed a geographically-defined service territory and can pass its approved costs to customers—is not as efficient as an electric market in which customers can shop for their electricity provider. By 1998 the system that regulated these monopolies will have begun a fundamental change from state regulation of prices to market-based regulation of prices; at least 2.5 million Americans will have the opportunity to choose their electricity supplier.

This transformation is affecting the market for generating electricity, but is having relatively little effect on the physical system of delivering power to customers through transmission and distribution wires. The wires system that delivers electricity to customers is likely to continue to operate as a price-regulated monopoly, at least in the immediate future. Consequently, the effort to restructure the electric market focuses on bringing competition to the generation segment of the industry.²

Utility Restructuring and Taxes

A little-noticed aspect of the early stages of electric industry transformation has been its effect on state and local taxes. Many state legislatures are now beginning to focus on:

- The effect of restructuring on state and local tax revenues, and
- The effect of tax policy on competition.

States are approaching the issue in different ways:

- *Pennsylvania and New Jersey* have made changes to their electric-industry tax system in an attempt to make it more compatible with a competitive electric industry.
- *Nevada and Oklahoma* have asked their state revenue departments to study the issue and report to them, even as they make the transition to competition.
- State legislatures in *Minnesota, Arizona and New Mexico* have delayed the transition from regulation to competition in part because they want to understand the effect of electric industry restructuring on taxes, and the effect of taxes on competition.

Purpose of These Reports

The objective of this series of brief documents is to help state policymakers understand the potential effect of the changes in the electric industry on state and local tax revenues, the effect of state and local tax policy on competition and the policy options available to them.

Armed with these documents, states that choose to restructure their electric industry may be able to do so with a better understanding of the implications of that reform on their tax policy. Any effects of the tax structure on competition or potential effects of competition on tax revenues should be the result of the states' informed choices instead of inadvertent consequences of uninformed choices.

Federal Actions that Affect the Electricity Market

The Public Utility Regulatory Policies Act of 1978 (PURPA). PURPA was passed in response to the oil embargoes and natural gas shortages of the early 1970s, and was designed to encourage alternative generation sources. PURPA requires utilities to purchase power produced by small cogeneration or renewable energy facilities at contractual rates set out or approved by state utility commissions.

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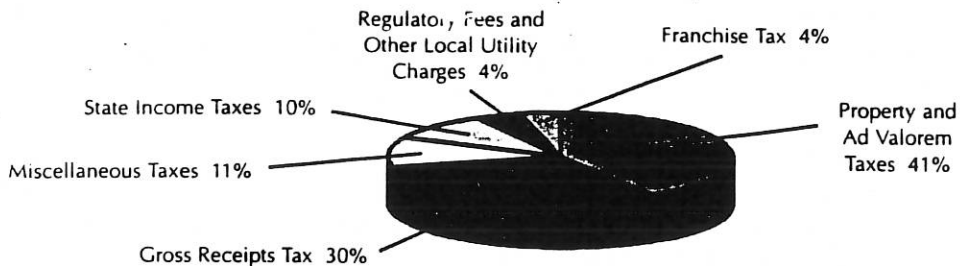
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Power Marketers. Power marketers are nonregulated, competitive buyers and sellers of electricity that may or may not produce the electricity they sell.

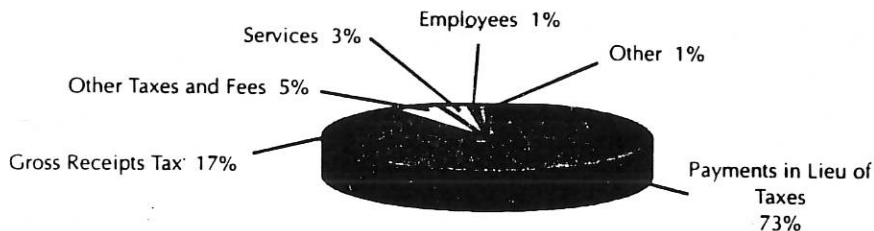
Figures 2 through 4 show the types of taxes assessed by states and localities on various electricity producers.

Figure 2: State and Local Taxes for Investor Owned Electric Utilities (1994)



Source: Compiled by Edison Electric Institute from Table 74, Detail of Taxes—Electric Department Only Investor Owned Electric Utilities, EEI Statistical Yearbook of the Electric Utility Industry, 1994, and Federal Energy Regulatory Commission Form 1.

Figure 3. Types of Payments and Contributions from Public Power Systems to State and Local Governments



Source: American Public Power Association Study, 1994 data.

Figure 4: State and Local Taxes for Electric Co-ops



Source: National Rural Electric Cooperative Association, 1996 data.

How to Determine if Electric Industry Taxation Is an Issue in Your State

Just as every state's electric industry is different, so, too, is every state's system of taxing the electric industry. As a consequence, tax policy will require a great deal of scrutiny in some states, somewhat less attention in other states and only minor adjustments in the rest. State policymakers may find it helpful to review the following questions to determine the importance of tax concerns to the electric industry restructuring debate.

Compare Your State to Others in Your Region

- New technologies and other pressures are rapidly changing the business of generating electricity. All states and the U.S. Congress are considering the merits of reforming the electric industry. How is your state considering retail competition?
- How far have other states in your region moved toward allowing competition among electricity generators and providers?
- How do taxes in your state compare to those of other states in your region? Might taxes be a factor in convincing electricity generators or electricity providers to locate inside or outside your state?

Examine the Effect of Tax Policy on Competition

- The competitive electric industry will be characterized by new types of providers selling electricity from both within and outside your state. Are electric utilities in your state taxed or assessed at a different rate from other in-state electricity providers or other manufacturing businesses?
- Are effective tax rates for utilities higher than those for other businesses?
- Competition also may result in out-of-state providers entering the market in your state. Are out-of-state electricity providers taxed differently from in-state providers? If so, how similar are the tax burdens?
- Does your state tax law adequately address nexus, which is your ability to tax companies or transactions that may be located outside your state?
- Does your state adequately address interstate electricity sales?

- How will the restructuring of the electric industry affect tax payments from all types of electricity providers (power marketers, public power systems, rural electric cooperatives, investor owned utilities) in your state?

Examine the Effect of Restructuring on State and Local Tax Revenues

- How much of your state and local revenues are derived from electric utilities?
- Have you considered the possibility of increased fluctuations in your tax revenues as a result of industry restructuring? Is your tax and revenue department or ways and means committee aware of this possibility?
- Are there power plants in your state that may lose value in a competitive electric market? Are there power plants or other electric utility resources that may become more valuable in a competitive electric industry?
- In some states, property tax revenue will decrease as a result of the lower value of power plants in a competitive electric industry. In some states property tax revenue also may increase. To what extent do the taxing jurisdictions in your state depend on property taxes to fund their activities?
- Are your local governments' franchise fees based on gross receipts? Does your state levy a gross receipts tax on utilities?
- Does your state or do local governments in your state have bonding and borrowing limitations that are based on a predicted tax revenue stream or a specified percentage of assessed valuation?
- If your goal is tax revenue neutrality after restructuring your electric industry, what are the candidate taxes to replace your current tax revenues, and who (homeowners, businesses, etc.) will pay them?
- How much do state and local governments now pay in electricity bills, how much might they expect to save as a result of restructuring, and could those savings offset any tax revenue losses?
- Are there jurisdictions in which power plants make up a large share of the property tax base?

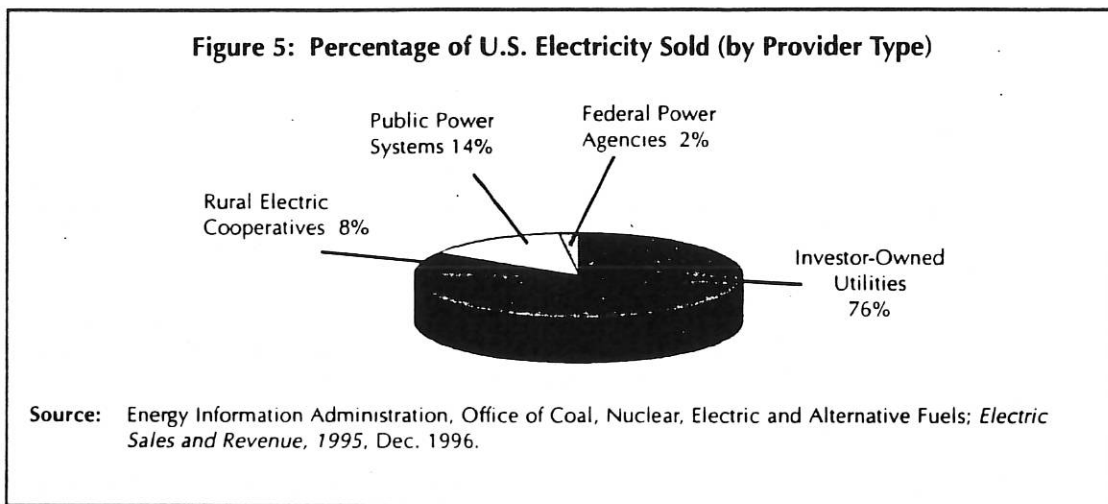
Other Concerns

- Does your state use electric rates to finance social policies and goals such as energy efficiency, renewable energy and low-income assistance programs?

Because of the possible shift from monopoly to competition in many states, the way that states tax electricity generators and electricity providers may gradually begin to have more in common with the way that they tax other businesses that are not run as monopolies. Considerations that have heretofore been less paramount in electric industry taxation—such as comparative tax burdens on competing energy industries or the burden of taxes on households, commercial businesses or industry—will become increasingly important as the electric industry continues this transformation.

Overview of State Tax Policy and Electric Industry Restructuring Policy

When state legislatures created regulations and agencies to govern the electric industry in the first part of this century, their goal was to shape an industry that would provide reliable electricity at a reasonable price. As figure 5 shows, the industry that formed around these state—and later federal—laws grew to serve 98 percent of the American public through four types of electricity providers.



When state legislatures wrote these laws, they concluded that the electric industry—the nation's most capital-intensive industry—was a natural monopoly that was closely entwined with the public interest. As a result most states gave each retail seller of electricity a service territory in which it could sell electricity without competition. In exchange for receiving this monopoly, the retail sellers agreed that the state could regulate many aspects of their business. This regulation applied in almost every state to investor owned utilities. In varying degrees in different states, rural electric cooperatives and public power systems are regulated at the local or state level.

In general, the states moved quickly to regulate the investor owned utilities' electricity prices through cost of service regulation. One objective of this action was to regulate the prices of these monopoly providers of electricity.

Cost of service regulation allows utilities to recover the costs of their reasonable and prudent investments in power plants, power lines, offices and equipment. The system also allows them to pass their approved expenses—like personnel or state and local taxes—to their ratepayers. In addition to recovering their costs, utilities also could earn a reasonable profit on certain investments—power plants or power lines, for example. These investments collectively make up what is known as the utilities' rate base. State regulatory commissions decide what is a reasonable profit and what are reasonable investments. In this cost of service regulatory system, a power company might build a power plant for \$100 million and recover \$5 million each year for 20 years plus a return of 11 percent. The utilities' ratepayers pay for this power plant, the utilities' other reasonable costs, plus the reasonable rate of return.

Utility commissions can disallow some expenditures from the rate base if they appear too high or unnecessary. Major investments—like electric power plants—undergo the most scrutiny, and sometimes are only partially allowed into the rate base. The cost of service approach has not been sufficient to prevent significant disparities in rates among electric utilities even within the same state. These disparities have arisen because of management decisions by individual utilities, because of different timing of the need for new power plants among utilities, because of state and federal regulatory decisions, and for various other reasons.

Other expenditures receive less scrutiny in some states, and utility commissions have long allowed them to be passed to customers as a matter of course, with the understanding that the utilities have little control over these expenses. Utility taxes are an example of this type of expense. In this respect, utilities are different from other business taxpayers, which attempt to pass tax expenses to their customers, but have less opportunity to pass those expenses on to their customers. Utilities became tax collectors for the state, rather than taxpayers, because they have almost always had the legal right to pass their tax expenses to their customers. Utilities became an attractive means through which state legislatures could quietly raise rev-

enues. These taxes that utilities essentially collected for the state became known as hidden taxes.

With the exception of the sales tax, most taxes that states or other governmental units levy on electric utilities are included as part of the electric rate, assumed to be simply part of the cost of generating, transmitting and distributing power. The utilities have been a politically convenient means through which to levy taxes. For their part, while many electric utilities fight these taxes in the legislature, they know that they will be able to pass their tax expenses to their captive retail customers and that they face no competition from other electricity retailers with a different tax burden.

As a result of this situation, utilities have become a surrogate tax collector for the government in many states. To the extent that these taxes are passed to customers in their electric rates, it is the ratepayers who have borne this burden some parts of the country; taxes have become a significant proportion of utility rates. In a market where utilities have little or no competition, these organizations have become an important source of cash for state and local governments.

Investor owned utilities, rural electric cooperatives and public power systems each are affected by this tax burden, but each to a different extent and each by different taxes. Rural electric cooperatives and investor owned utilities pay many of the same taxes, although sometimes at different rates from one another. Public power systems pay some traditional taxes, but more often make payments in lieu of taxes, or payments to the local government of which they are a part. The rate at which public power systems pay these taxes and the method that is used to determine them vary significantly from one political subdivision and state to another. Like the investor owned utilities, both rural electric cooperatives and public power systems have become a source of revenue for state governments and their political subdivisions.

Utilities in some states have spent little time or energy fighting these taxes, while in other states the utilities have vigorously opposed them. If, as in some states, electric rates are capped (held by legislation or regulation below a certain level) the utility may not be able to pass the tax costs to customers. Utilities are becoming increasingly sensitive to their taxes in a restructured, competitive environment because their state and local tax burden is large. For example:

- At Consolidated Edison in New York City, 21 percent of the price of each kilowatt-hour (kWh) charged to consumers consists of state and local taxes.
- At Chicago's Commonwealth Edison, 15 percent of the per kWh electricity price charged to consumers consists of state and local taxes.

- Industrial customers of Wichita-based Kansas Gas and Electric pay a 26 percent state and local tax load per kWh.

The Relationship between Taxes and Electric Industry Restructuring

The relationship between state and local governments and the utility monopoly may have to change now that utilities in many states no longer will have state sanctioned monopolies. Investor owned utilities, rural electric cooperatives and public power systems—both in-state and out-of-state—may change their structure to compete in the generation of electricity with each other as well as with a new type of competitor called a power marketer. Power marketers will buy electricity from any company that is willing to sell it, and then will resell the power to its own customers. These power marketers may own no power plants, have little other tangible property and may operate from an office in a state that has no income tax. In many states, all these competitors will be taxed differently and, in some cases, may be taxed at rates lower than the utilities.

The Effect of Competition on Tax Revenues

Some states may find that their tax revenues will decrease if they use a tax code that originally was set up to deal with regulated monopolies to now tax a competitive electric marketplace. Several organizations have posited figures by which tax revenues could fall. These estimates will vary depending upon the methodology used to make the estimates and upon who makes them, but it appears clear that some states will lose some revenue if they move to competition without also changing their tax system. Other states may actually see an increase in tax revenues as a result of competition. Just how much revenue each state loses or gains will depend a great deal upon how the state tax system currently is set up and what changes it makes to accommodate electric industry competition.

Some electricity taxes are based on the gross receipts of the electricity sellers. If the price of electricity falls, so also will the receipts of the electric companies. California, for instance, predicts that restructuring will reduce the price of electricity by 20 percent. Rhode Island has suggested that it will save 10 percent, and others have estimated similar savings. If utility revenues do fall by 10 percent to 20 percent, the gross receipts tax revenues will decrease by the same amount unless the consumption of electricity rises enough to compensate for the decrease in price, or unless governments save enough money on their own electric bills to make up for the tax revenue loss.

A few states may find that the tax revenues shift, so that those who are accustomed to receiving the revenues—often school districts, parks or local governments—may no longer receive the revenue. In other words the revenues from some taxes—such as property taxes and franchise fees and taxes—that dedicate their receipts to distinct geographic areas or distinct purposes could decrease, while the revenues from other taxes with revenues directed to the states' general fund could increase. This means that some states may have to examine ways to reallocate revenues from a few taxes to compensate for decreasing revenues from others.

The Effect of Tax Policy on Competition

In a business in which the largest consumers of electricity might choose their electric company based on a quarter-cent difference in price, the tax burden on competing electricity providers will affect just how effective competition is at eliminating the most inefficient electricity suppliers.

Electricity prices may differ because of varying tax burdens among sellers. As a result, the tax structure may make it difficult to determine the effectiveness of competition

Most states will need to determine how to reform their tax policy to align it with competitive electric markets. This reform will require careful thought and negotiation. Some states may find it useful to define the goal of the tax policy changes according to the following suggestions.

Tax Policy Considerations

Tax Revenue Neutrality

Without changes to the tax code, some states will lose or gain tax revenues when the industry moves from monopoly to competition. Meeting a goal of tax revenue neutrality would guarantee that the state or local governments do not see a decline or increase in their tax revenues as a result of competition.

Neutrality of Effect on Various Taxpayer Classes

New taxes will affect taxpayers differently. Meeting a goal of neutrality of effect on the various taxpayer classes would guarantee that homeowners, industrial companies and commercial companies of all income levels will at least be no worse off under competition than they were under the monopoly system and that the change in tax burden will not fall disproportionately on any one class of taxpayers. Some suggest that states should focus on the hidden taxes.

Competitive Neutrality

One general principle of a quality revenue system is that taxes should be neutral in their effect upon behavior. Taxes should not affect a consumer's choice between two products or the

choice of one production technique over another. Competition in the electric industry will mean that companies and organizations now may have a choice of buying from a range of electricity providers that may be located in state or out of state. Meeting a goal of competitive neutrality would mean that tax policy would not affect the consumer's choice by affecting the price. In other words, the goal would be that tax policy not determine which type of producer wins market share.

Tax Policy to Meet Larger Societal Goals

States use tax incentives to promote environmental or other social goals. A tax policy designed to meet larger societal goals would attempt to guarantee that, for instance, some renewable energy resources receive a tax break to encourage fuel diversity in the state.

Tax Policy as an Economic Development Tool

States use tax policy to bring jobs to the state and to increase the tax base. A tax policy designed to encourage economic development goals might, for instance, encourage power plants to locate in the state. Tax policy, electricity prices and other factors can combine to form a good or bad economic development climate for all businesses in a state.

State tax policy goals probably will be a combination of these goals. Indeed, it is unlikely that states will be able to meet any of these goals with precision or perfection. The objective of this NCSL Partnership is to give states guidance to make informed decisions without unexpected tax consequences, and to allow competitive electric markets to operate efficiently, with tax policy not the determinant of the market's efficiency.

Notes

1. The price of natural gas has generally been declining; some seasonal price increases do occur, however, as happened during the winter of 1996.
2. For convenience, many talk of deregulating the generation component of electric sales. Actually, generation, the sale of power and many power-related services are being unbundled and deregulated. There may be power marketers that do not generate power and there will be many generators who do not sell their power at retail.

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The National Conference of State Legislatures' Partnership on State and Local Taxation of the Electric Industry was formed in April 1997 to provide a communications forum for those who have various roles dealing with restructuring of the electric industry, but who rarely have an opportunity to work together. The partners include key state legislators, experienced state legislative staff and sponsors of NCSL's Foundation for State Legislatures who chose to participate in the project. The Partnership has focused on several issues that legislators need to examine concerning state and local taxation of the electric industry in a restructured system. The resulting eight documents, designed to assist legislators in making informed policy decisions in their respective states, include:

- *Utility Taxation Overview*
(ISBN 1-55516-589-3—Item #4129)
- *Introduction to Electric Industry Taxation*
(ISBN 1-55516-590-7—Item #4130)
- *Gross Receipts Taxes in the Changing U.S. Electric Industry* (ISBN 1-55516-591-5—Item #4131)
- *Property Taxes in the Changing U.S. Electric Industry* (ISBN 1-55516-592-3—Item #4133)
- *Franchise Fees in the Changing U.S. Electric Industry* (ISBN 1-55516-593-1—Item #4132)
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- *Sales Taxes in the Changing U.S. Electric Industry*
(ISBN 1-55516-595-8—Item #4135)
- *Payments in Lieu of Taxes in the Changing U.S. Electric Industry*
(ISBN 1-55516-596-6—Item #4136)

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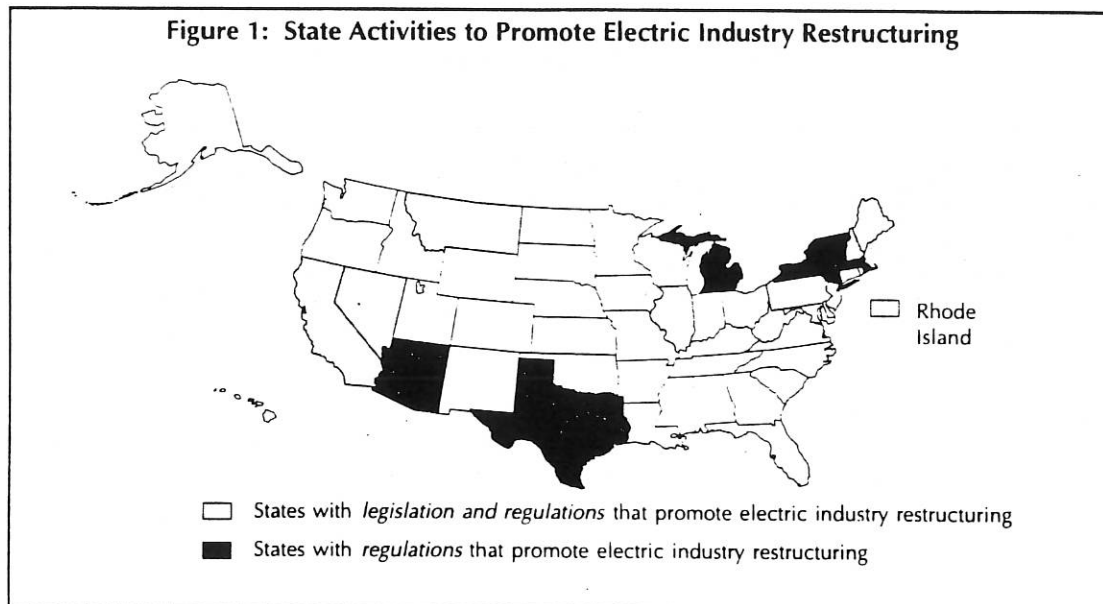
Tax Implications of Electric Industry Restructuring

A Series by the NCSL Partnership on State and Local Taxation of the Electric Industry

Property Taxes in the Changing Electric Industry

As with the telecommunications, natural gas and airline industries, the electric utility industry is in the midst of a fundamental transformation. Indeed, one no longer can accurately characterize it as solely the utility industry. Wholesale competition is robust today, with dozens of sellers of electricity as a result of the Public Utility Regulatory Policies Act of 1978, the Energy Policy Act of 1992 and the actions of the Federal Energy Regulatory Commission in orders 888 and 889. As shown in figure 1, retail customers in at least a dozen states will be able to choose their electricity providers as the result of legislation or comprehensive regulatory packages enacted in those states. It is not only utilities that now are selling electricity. Electric companies that operated in the retail electricity sales business as state-regulated monopolies for more than 50 years will face competition not only from each other, but also from other companies that previously sold no retail electricity.

Figure 1: State Activities to Promote Electric Industry Restructuring



The National Conference of State Legislatures' Partnership on State and Local Taxation of the Electric Industry was formed in 1997 as a forum for those with various roles in restructuring the electric industry. The partners include key state legislators, experienced state legislative staff and sponsors of NCSL's Foundation for State Legislatures who chose to participate in this project.

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*Questions for
State
Policymakers:*

- Where are electric generating stations located in your state?*
- Are the generating stations likely to do well or poorly in a competitive electricity market place?*
- Does your state have taxing jurisdictions that rely heavily on property tax revenues from electric-generating stations?*

A few states have begun to examine the taxation issues raised by this transition. Among these, one of the most complex is property taxes. Property taxes generate a great deal of revenue for political subdivisions of the state—local governments, counties, schools and other special taxing districts such as parks, hospitals or watersheds. In some cases, the state also receives revenues from the property tax. Although local governments often collect the tax, state governments frequently assess, or value, utility property. States tax different types of property, use various methods to assign value to property and levy taxes on the property values in diverse ways. As a result, each state may have to analyze property taxes and restructuring in a context that reflects its own historical approach to taxing utility and other property.

This paper deals with the direct effects of electric industry restructuring on property tax revenues. If restructuring fulfills the promise of providing lower electricity rates and greater economic activity, it may lead to economic growth, new investments and a larger tax base. The effects of such growth and investments on the property tax base are difficult to quantify with a useful degree of accuracy and it is not the purpose of this paper to make assertions about the potential effects of restructuring. Restructuring also could yield lower electric rates, which would, in turn, offset some tax revenue losses. This paper should be taken in that context.

The objective of this paper is to give state policymakers the tools to understand the effects of electric industry reform on property taxes in their states. It will help policymakers participate in an informed debate and enhance their ability to make decisions with information about the property tax consequences of electric industry reform.

Context for Analysis of Property Taxes

The property tax is fundamentally a local tax—in most cases it raises revenues for political subdivisions of the state, not for state governments. But state statutes—and sometimes state constitutions—lay down the rules that govern how these political subdivisions levy property taxes. State governments are involved more actively in public utility property taxation than they are for most other kinds of property. As a result, despite the local character of property taxes, the responsibility for modifying the property tax structure lies largely with state legislatures.

Because the property tax funds local budgets rather than state budgets, restructuring will affect local revenues and local property taxpayers. Its effects may be noticeable where power plants are costly or inefficient; some states, therefore, will have only a small number of school districts or other political subdivisions of the state that will experience property tax revenue losses. Many areas have benefited for years from these power plants' property tax payments, during which time the power plants have contributed almost all their property tax revenues.

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As a result, the effect of restructuring on property taxes will be dramatic but highly concentrated on those political subdivisions of the state. State budgets will be affected only if the legislature decides to offer additional state aid to the troubled subdivisions.

Some will observe that manufacturers or other businesses succeed, fail or change their shape or size as a result of changes in technology along with a wide range of economic and social factors. All these forces have a considerable effect on the property tax base. Observers further assert that the generation of electricity should be no different. Others will argue that it is the state-mandated change from monopoly to competition that is affecting property taxes, and that the state should address the property tax issue along with its restructuring legislation. State policymakers might consider property tax revenue losses within the context of potential restructuring benefits such as savings to government and increased property tax revenues. The issue is complex and deserving of attention; states, however, have a number of options at their disposal that may help them resolve the issue.

Property taxes contribute a great deal of revenue to political subdivisions of the state. Utility restructuring presents three issues related to property taxes:

- The effect of electric industry restructuring on property tax revenues.
- The effect of property taxes on effective competition among different types of electricity providers.
- The fact that property tax effects of restructuring could be highly concentrated on certain locations that host high-cost power plants. State budgets could be affected to the extent that they must provide aid to those locations.

Federal Actions Affecting the Electricity Market

The Public Utility Regulatory Policies Act of 1978 (PURPA). PURPA was passed in response to the oil embargoes and natural gas shortages of the early 1970s, and was designed to encourage alternative generation sources. PURPA requires utilities to purchase power produced by small cogeneration or renewable energy facilities at contractual rates set out or approved by state utility commissions.

The Energy Policy Act of 1992 (EPACT). Proponents of competitive market mechanisms encouraged Congress to introduce competition into wholesale electric markets. EPACT encourages competition in several ways. It creates a new class of power company, the exempt wholesale generator, that can compete against electric utilities to supply electricity. In addition, owners of transmission lines will be required to let any electric generator use the lines at an approved and published price. In compliance with EPACT, the Federal Energy Regulatory Commission issued orders 888 and 889, which permitted utilities access to the transmission grid to enhance the sale and purchase of energy for resale. They do not apply to the retail or end-user customer.

Private Use Restrictions. The Tax Reform Act of 1986 (P.L. 86-272) directed the Internal Revenue Service to promulgate rules restricting the use of tax-free financing for private projects. As a result, public power providers who finance generation, transmission, or distribution may be unable to compete outside their service territory boundaries because of private use restrictions.

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ELECTRIC INDUSTRY COMPOSITION

Investor Owned Utilities (IOUs). IOUs are taxable corporations owned by shareholders. The rates that investor-owned utilities charge for electric service are regulated on a cost-of-service basis by federal or state and local regulatory agencies. Most, if not all, IOUs currently are vertically integrated, i.e., in the past they owned the generation, transmission and distribution assets required to serve the end user.

Rural Electric Cooperatives. Rural electric cooperatives are not-for-profit corporations owned by their customers. Rates charged by rural electric cooperatives are subject to regulation in some jurisdictions. Although most rural electric cooperatives are exempt from federal and state income taxes, they pay all other types of state and local taxes. Rural electric cooperatives are not vertically integrated, but may own generation property through generation and transmission (G&Ts) organizations. G&Ts are cooperative organizations that own power plants, generate electricity and transmit it at wholesale prices to distribution cooperatives, which are members of the G&T and provide distribution services to deliver power to end users. The formation of G&Ts allowed member systems to gain the benefits of sharing larger, more economical power plants while retaining the advantages of local ownership, control and operation. Distribution systems generally are bound to their G&Ts by an all-requirements contract, under which the distribution system agrees to purchase—and the G&T agrees to provide—all the distribution co-op's power needs. The distribution system agrees to pay rates sufficient to cover all the G&T's cost.

Public Power Systems. Public power systems, which are predominantly municipal utilities, are extensions of state and local governments. As such, they are generally not subject to federal or state income taxes. Depending on state laws, public power systems may pay sales taxes or gross receipts taxes. These organizations also may provide payments in lieu of taxes (transfers to the general fund and contributions of services to state and local governments). Public power systems can join to form joint action agencies; these consist of two or more electric utilities (usually municipally owned) that have agreed to join under enabling state legislation to carry out a common purpose—usually the provision of bulk power supply, transmission and energy-related services. This arrangement allows the utilities to operate as separate entities.

Federal Electric Utilities. Most of the electricity produced by these entities is sold for resale. These utilities generally are exempt from federal, state and local taxes. Bonneville Power Administration is an example of a federal electric utility.

Independent Power Producers. These producers include exempt wholesale generators (EWGs) and other nonutility generators. Independent power producers are subject to federal, state and local taxes, but the rates assessed may be different than those for other power producers.

Power Marketers. Power marketers negotiate electricity sales between the power producer and consumer. Power marketers are not defined as utilities, and therefore may be subject only to taxes levied on businesses and business transactions in the state.

State policymakers may consider several major issues as they deal with property taxes. Among these are:

- The effect of restructuring on property tax revenues will vary depending on the approach that states use to value electric generating property and other facilities.
- Property tax revenues will change as a result of the status and disposition of in-state power plants or other electric company property.
- The property tax affects economic development. Its effect on economic development will become more important as electricity providers begin to operate more frequently across state boundaries. Property taxation policy may affect power plant developers' decisions to purchase or build power plants in particular states.
- Different valuation, assessment and tax rate setting methods can have a substantial effect on the competitive position of incumbent utilities and other electricity providers.
- States in which some political subdivisions face substantial property tax losses from the closure or revaluation of electric generating plants will need to consider how best to make up for that revenue loss through substitute taxes, increased property taxes for remaining taxpayers, reduced or more efficient government services or some combination of changes.
- Where change is necessary, it may require state legislation because most of the rules that govern revenue departments' activities are set in state statutes.

A Definition of Property Taxes

A property tax is imposed on the value of taxable property located in a state or taxing jurisdiction. Governments place property into categories, defining it as real, personal, tangible and intangible. Real property is usually land, buildings or objects. Personal property generally is an object that can be moved, such as a vehicle, table, chair or even, in some states, transmission lines. Intangible property is usually property that does not exist in physical, concrete form, such as trademarks, copyrights, trade names or patents.

Each state—and, in some cases, local governments—has its own definition of taxable property. Ohio, for instance, defines real property as land and improvements to the land. Real property in Ohio does not include the generation, transmission or distribution equipment of electric utilities. Ohio does not view this highly specialized equipment as an improvement to the land, and defines it as tangible personal property. In Ohio and many other states, it is the treatment of personal property that requires closest examination under restructuring.

Whether property is defined as real or personal may determine whether it is subject to tax and how it will be taxed. Some states tax real but not personal property. Others tax both types of property.

In addition to differentiating between real and personal property, states also distinguish between tangible and intangible property. Although many states do not tax the intangible property of most taxpayers, some states do assess and tax utilities' intangible property. The treatment of intangible property could assume much greater importance in a competitive marketplace than it now does in a regulated system.

Central vs. Local Assessment

Often, a state agency such as the department of revenue centrally assesses the real and personal property of regulated utilities. In states such as Connecticut, however, local tax assessors value utility property.

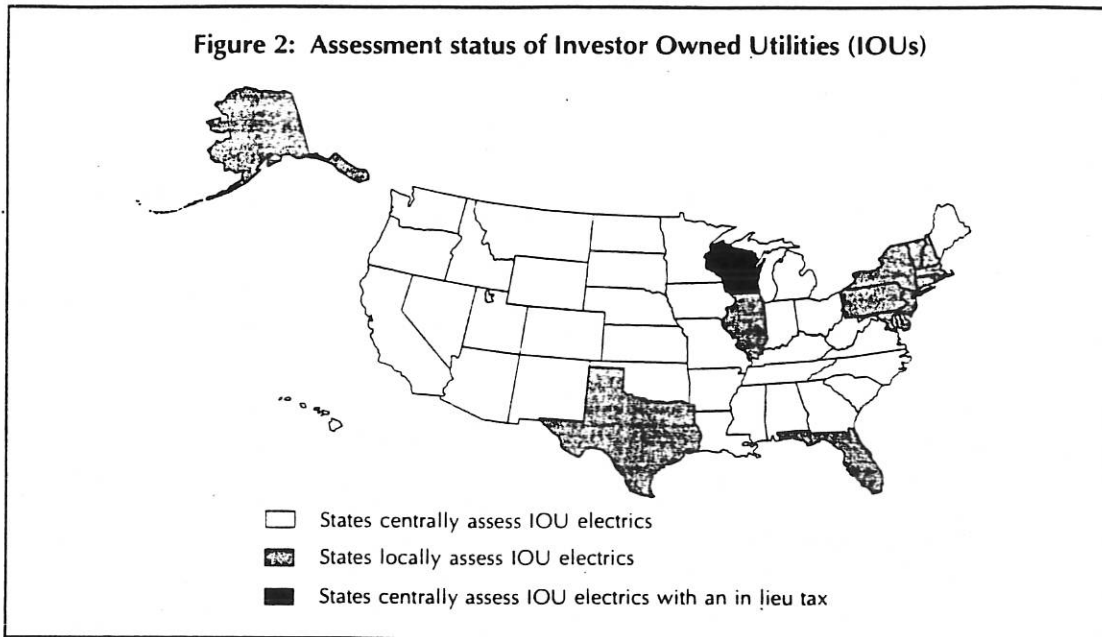
Central assessment refers to the process whereby a central agency such as a state department of revenue assigns a value to property. States use central assessment for property located throughout the state or country, in which all the parts are connected into an integrated entity. States often centrally assess railroads or utilities.

State statutes usually require local assessment on almost all types of property except railroads and utilities. Local assessment is more often applied to property that is located completely within a taxing jurisdiction. It also generally applies to businesses with locations in many parts of a state—such as supermarkets—in which each store of a 25-store chain might be seen as a free-standing operation. The chain's owner could sell one store and not affect the value of the other 24 supermarkets in the chain. Local assessors value the property.

Some states mix the central and local assessment process, even for the same utility property. In Minnesota, for example, a utility's structures, machinery and other personal property are centrally assessed, while local assessors value the utilities' land and nonoperating utility property.

A centrally assessed system often—but not always—uses the unit value method of assessment. The unit value approach considers the value of the entity as an integrated whole, not the sum of its parts. The theory behind unit valuation is that—in the example of a railroad—the sum of the value of a railroad company's track does not reflect the true value of the track to the company. That track comprises a critical component of the company's total operation as a unit. The unit value approach captures the value of the whole integrated company, and allocates a part of the company's value to each political subdivision in the state. As shown in

figure 2, some states centrally assess all utilities but use the unit value method only for investor owned utilities, not for cooperative utilities or public power systems.



Questions for State Policymakers:

- Does your state centrally or locally assess utility property?
- Does your state centrally or locally assess nonutility property?
- Does your state include intangible property value in both the central and local assessments?

Whether states use a local or a central assessment process, the effect of restructuring will be concentrated on political subdivisions with large power plants. These political subdivisions sometimes derive as much as 85 percent of their tax revenue from a single power plant. These towns and cities have the most to gain or lose from electric industry restructuring, while political subdivisions with no major utility facilities will see little direct effect on their property taxes as a result of restructuring. The value of the transmission and distribution—or “wires”—system also will have an effect on tax revenues; in some cases there may be proposals to increase the value of the transmission and distribution system to offset some of the decrease in the value of power plants. The discussion of property taxes and electric industry restructuring is unique among the taxes examined in this series of papers in that it deals primarily with *local* and *localized* effects, such as effects on local school districts, that may require state-based solutions.

Who Pays Property Taxes?

Almost every retail electricity seller pays property taxes, although often in different ways and on a different basis. Because utilities have operated as regulated monopolies and can fre-

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*Questions for
State
Policymakers:*

- Do the public power systems in your state participate as members of a joint action agency?*
- If so, are property taxes paid by the joint action agency passed to its members?*
- How do the methods used to assess property taxes on joint action agencies compare to the methods used to assess property taxes on other electricity providers?*

quently pass their tax expenses to their consumers, their property tax burden generally has been higher than that of other nonutility businesses. If the industry shifts from regulation to competition, these differences will become quite important.

Investor owned utilities pay property taxes on all property that they own, including power plants, power lines and other property such as office space. In addition, sometimes they may be taxed on vehicle fleets and intangible property.

Rural electric cooperatives generally pay property taxes on all property they own, although they frequently are distribution companies that own and operate power lines and office space, not power plants. They pay property taxes on power plants through the wholesale power prices that they pay when they buy electricity from their own generation and transmission companies, investor owned utilities, power marketers or other suppliers.

Generation and transmission (G&T) organizations pay property taxes on their power plants and power lines. G&Ts are cooperative organizations that own power plants, generate electricity and transmit it at wholesale prices to distribution cooperatives, which are members of the G&T and provide distribution services to deliver power to end users. The formation of G&Ts allowed member systems to gain the benefits of sharing larger, more economical power plants while retaining the advantages of local ownership, control and operation. Distribution systems generally are bound to their G&Ts by an all-requirements contract, under which the distribution system agrees to purchase—and the G&T agrees to provide—all the distribution co-op's power needs. The distribution system agrees to pay rates sufficient to cover all the G&T's costs.

Public Power Systems

Municipally owned electric utilities generally do not pay local property taxes on utility property located within their assigned service territories because, in essence, the local government would be taxing itself. Like the cooperatives, they pay property taxes through the wholesale power prices they pay when they buy from an entity that pays property taxes. It is, therefore, important to learn the tax load of the municipal utility's electricity suppliers. Public power systems procure their power from joint action agencies, from their own generation facilities, from federal power agencies, rural electric generation and transmission organizations, or investor owned utilities. The proportion of power they procure from each of these entities varies within states and between states. In some cases, the municipal utilities pay payments in lieu of taxes (see accompanying paper on these payments) that are tied to a property tax they might otherwise be paying.

Joint action agencies consist of two or more electric utilities (generally municipally owned) that have agreed to join together under enabling state legislation to carry out a common purpose—usually the provision of bulk power supply, transmission and energy-related services. Joint action agencies generally pay the same property taxes as investor owned and cooperative utilities, and these taxes are passed to members of the joint action agency through the wholesale electric rates that the joint action agency charges the municipal utility. This arrangement allows the utilities to maintain separate identities. There currently are approximately 60 joint action agencies nationwide, with members in 34 states.

Nonutility generators pay property taxes on their property. Sometimes state statutes treat this property like utility property, while other times they treat it like general business property.

Power marketers pay property taxes like other nonutility businesses on any property that they own.

Changes in the Electric Industry that Could Be Reflected in Taxes

Restructuring the electric industry will result in major changes in the way that all types of electricity providers and their customers conduct business. The structure of their organizations may change, they may begin to try to sell power outside their state and traditional service territories, they will face competition in their own service territories, they may break their integrated companies into distinct parts, and they will begin to notice even more the taxes they pay. Many of the changes in the electric industry that are resulting from restructuring will have an effect on property taxes. These changes include:

- *New electricity providers.* New types of companies that previously have not sold electricity to retail customers will enter the retail electric market.
- *Restructuring the corporation.* Utilities may reconfigure their corporate structure and separate their generation, power delivery, customer service and billing or other functions into separate companies or subsidiaries. The power delivery, or wires, companies will remain regulated utility functions and will continue to be taxed as such.
- *Stranded costs or uneconomic assets.* In a restructured industry, the power plant owners will compete with each other to sell electricity at the retail level. Plants that can sell power cheaply will thrive, while high-cost power plants will have more difficulty recovering their costs. In this new system, utilities no longer will earn a return on their power plants simply by keeping them in use, as is the case under the current regulatory system. Some of these power plants may lose value because of the transition to the new system. Some observers refer to utilities' investments in these plants as stranded costs, while others

Questions for State Policymakers:

- *Are property tax rates on investor owned utilities, rural electric cooperatives and government utilities the same or different?*
- *Are rural electric cooperatives members of a G&T organization?*
- *If so, are G&T property taxes passed to its members?*
- *How do property tax assessment methods for G&Ts compare to methods to assess property taxes on other electric utility providers?*

refer generically to high-cost power plants as uneconomic assets. The ways in which states address these issues may affect property values.

- *Sale of power plants.* Some utilities will sell their power plants to other utilities or to companies that are not utilities. Several of these sales already have taken place, most notably in New England, where New England Electric System sold its power plants to U.S. Generating Company, a subsidiary of California-based Pacific Gas and Electric. If nonutility generators are taxed differently from utilities, property tax assessments and revenues would be affected.

How to Determine Property Taxes

A combination of state governments and political subdivisions of the state use the following basic process to determine property taxes. This process varies from state to state and even among the 30,000 state political subdivisions throughout the country that receive funding from a property tax.

Define what Property to Tax. Jurisdictions tax real, personal, tangible or intangible property, and typically define in state statute the type of property that is included in each category.

Determine Property Values. States generally use three approaches to determine property values—the cost, income and market approach. Local governments or state departments of revenue carry out this task, usually with direction from a state statute.

Determine an Assessment Ratio for the Property. Some states have a classification system for different types of property. As a result, in some states utility property is assessed at a higher proportion of its value than nonutility property. This system classifies property according to its

Book and tax value reflect the fact that companies keep two sets of accounting books—one reflects the development of tax laws and regulations and the other reflects the development of generally accepted principles for nontax reporting purposes. The set of books for tax purposes reflect federal and state laws and regulations, while the books for “book” purposes reflect generally accepted accounting principles (GAAP). “Book” income is the income reported in the company’s annual report and in filings to the Securities and Exchange Commission. Companies have an incentive to show good performance and ever-increasing income for these purposes. Companies have an incentive to show lower income to the state and federal taxing authorities, because their tax bill is based on their income. One important difference between tax and book income is its treatment of depreciation. Under book depreciation, a company with an asset worth \$1 million might charge \$100,000 against its income for 10 years (this is known as straight line depreciation). For its tax books the company might use a different depreciation method, charging its income more for the first few years and less in later years. This method reduces the company’s income for tax purposes during the early years of owning the property. The different approaches to depreciation also mean that power plants will have different values on the utilities’ book and tax accounting books.

use, so that one class might pay a property tax on 10 percent of its property's value while another class might pay on 75 percent of the property's value.

Identify the Location of the Property Values. Once a state assessor determines property values in a centrally assessed system, the value must be attributed to various taxing jurisdictions. States parcel out these values based on miles of power lines within each jurisdiction, the net book value of power plants and other methods. State statute or rules and regulations of the state revenue department usually set the method used to allocate utility property values.

Determine the Tax Rate or Mill Rate. This rate is determined by dividing the taxing jurisdiction's budget (that portion of the jurisdiction's budget that will be funded by property taxes) by the total taxable value in the area. States have different approaches to setting these rates. Some set the rates in statute, while others require voters to approve any increase in tax rates.

Restructuring and Property Taxes

Electric industry reform could affect each part of the property taxation process. The extent to which these reforms affect property taxes depends on each state's property taxing practices.

Define what Property to Tax

Most states define by statute which types of property they tax. These statutes define what is real and what is personal property. They also define which taxpayers pay a tax on each type of property. Many states define utility property differently from other business property. States generally tax real property, which includes land and most structures. Some states tax personal property. Most states include transmission and distribution lines in their definition of personal property, as well as attached machinery. Attached machinery, like a boiler or electricity generating turbine, constitutes a substantial portion of utility property. Some states also tax intangible property. The definitions that states set out in statute are one important part of the property tax issue.

Determine Property Values

Many states consider three approaches to determine property's value, and probably have developed unique computations for these approaches. Each also probably relies on one approach more heavily than others. State statutes and, sometimes, revenue department regulations usually dictate how to value utility and other property. The three approaches—cost, income and market—are defined as follows

- The *cost approach* uses replacement cost or reproduction cost, less depreciation, as its basis (the property's historical cost figures heavily in this valuation),

Questions for State

Policymakers:

• *What types of property are subject to the property tax in your state (real, personal, tangible or intangible property)?*

• *Do you treat utility property differently from nonutility property?*

• *If intangible property is subject to tax, how does your state define intangible property?*

Questions for
State
Policymakers:

- On which of these approaches does your state rely most heavily for utility property?
- Are utility and nonutility property valued using the same approach?

- The *income approach* is based on a company's projected net operating income,
- The *market approach* uses as its basis market indicators such as sales of comparable assets or the company's stock and debt value.

A state may or may not use all three approaches when determining unit value. States generally use cost and income as the two primary factors, but also may use the market approach. The key, however, is how a state weights the factors. Minnesota, for example, centrally assesses investor owned electric utilities using the unit value approach, but uses only the cost and income approaches for determining actual value. After the state computes the total unit value of the company, it apportions the value on those two factors, with 90 percent assigned to the value derived from cost and 10 percent assigned to the value based on income.

The degree to which states weight each approach varies widely, and each state determines its own weighting formula independently. It is important to know the weighting formula when discussing property values. If, for example, the value from stock and debt is only weighted at 10 percent, then its effect on the overall total value is negligible. If all three factors are used and weighted equally, then all three have significant effects on the overall value of the property.

The Cost Approach

The cost approach relies on the sum of the adjusted cost, minus depreciation, of the taxpayer's assets. Local assessors almost always—and state assessors sometimes—use the cost approach. Inherent in the cost approach is the concept of property having some value if it is still in use. Therefore, property still in use will never be depreciated to a value of zero.

State laws or regulations usually require that electric generating property be assessed on one of two bases: (a) the property's historical cost, adjusted for inflation, minus depreciation and obsolescence, in which case the newer power plants pay a higher property tax than the older power plants; and (b) the cost to reproduce a similar piece of property, taking into account changes in technology. Few states use reproduction cost to value utility property, while some may not adjust property values for inflation. The cost approach is most sensitive to:

- Declining or increasing property values that result from the sale of utility assets,
- Different approaches to valuing utility and nonutility property, and
- Closure of a power plant that is unable to compete.

Sale of power plants. States and political subdivisions of the state will incur some tax consequences from the sale of power plants. Some sales, for instance, will require that the power plant be assessed at a new value that reflects its sales price.

Although Massachusetts-based New England Electric System has sold many of its power plants and several other large utilities have announced that they will sell power plants, overall there have been so few sales of power plants that it is difficult to determine with certainty how their sale will affect their taxable value. It is possible that selling a power plant will require recognition of a new value.

If a utility sells one of its power plants for \$40 million less than the plant's tax value, for instance, that sale forces recognition of a new, lower value that is \$40 million less than its previous taxable value. In some cases, utilities may sell their power plants and realize a gain on the sale. In these situations, the power plant's new owners may recognize a new and higher taxable value for the plant.

Closure of a power plant. Some power plants that have been operating in a regulated market will be unable to stay open under competition. If these plants close, their tax value falls to zero because they are no longer in use.

Power plants that utilities do not sell. If utilities restructure into holding companies with generation, distribution and other affiliates, the generation affiliate may no longer be classified as a utility for tax purposes.

Could power plants' value increase? Since the cost approach is based on either the historical cost or the cost of replacing power plants, it does not reflect greater market values unless the property is sold.

Property tax values of the regulated transmission and distribution system. The business of operating and maintaining the transmission and distribution wires will likely stay regulated for a number of years. Some argue that the value of this system will increase and perhaps offset some property tax revenue losses from devalued power plants. The value of the wires system might increase because of the importance of the wires network to the smooth operation of the market and because of the difficulty of siting and building new power lines. The power lines' owner controls a unique and valuable part of the utility system.

Unless the utility sells the lines, however, the cost approach to value will not yield a new taxable value for those power lines. The foundation of the cost approach is the historical cost of the property, with adjustments for the property's obsolescence and some other factors. The historical cost of the wires determines their value under the cost approach.

Questions for State Policymakers:

- *In some states, some types of property are not included in the valuation if property is owned by nonutilities, but is included in value if the property is owned by a utility. Do valuations for utilities and nonutilities include all the same types of property?*
- *For tax purposes, does your states' definition of utilities include competitive generating affiliates of holding companies?*

That historical cost could change if a utility sold its power lines at a higher price that reflected those power lines' higher value. One proposal that surfaced in New England became known as the "Grand Bargain," because it sought to offset the decreasing value of utilities' power plants with increasing values of the transmission and distribution wires. It is, therefore, possible that the system of utility wires may possess a greater value than is now recognized on their owners' books. The cost approach will recognize this higher value only if the utility sells its wires system for a profit.

The Income Approach

The income approach considers the net present value of utilities' projected net operating income. Some approaches simply take the company's previous year's income, assuming its income will remain constant, as an indication of its future income. Other approaches try to project the utilities' income for the next 20 years to 30 years. Net present value is the value, today, of the company's total net operating income for a number of years. The net present value reflects a discount rate that takes into account the estimated risk that the taxpayer's income could vary from projected levels. Under this analysis, a dollar earned tomorrow is less valuable than a dollar earned today; a dollar earned in three years is even less valuable. Further, income that is subject to greater risk will be discounted more heavily than income that is more secure.

Questions for State Policymakers:

- What are the stranded cost or un-economic asset estimates in your state?
- How are the values of the power plants in your state likely to be affected by a move to competition?

The income approach is most sensitive to:

- Increased risk for electricity generators;
- Declining or increasing electricity prices, leading to reduced or increased net income,
- Increase in market share and, probably, increase in net income as a result,
- The loss of in-state or out-of-state sales to power providers that sell electricity from out of state;
- Loss of market share to in-state, nonutility providers that are not taxed as utilities, and
- Write-offs that may result from stranded costs.

Increased risk for electricity generators. Some analysts project that the business of generating electricity is likely to grow more risky as it moves from a regulated monopoly rate-of-return system to one based on market-set prices. A 1996 Bear Stearns report predicts that generating companies' bond ratings may fall, as a result, from their current "A" level to a level of "BBB."

This increased risk will translate to a higher discount rate that, when used to create a net present value of the generator's income, will produce a lower net present value of the income than in an (apparently) more predictable, regulated system.

The income approach depends not only on the income base of the taxpayer, but also on the dependability of that income base. The discount rate that is applied to the projected stream of income reflects that level of risk.

Electricity prices. If electricity prices decline, some—but not all—utility taxpayers' net income also may decline. Net income does not decline in direct proportion to electricity prices, however, because some companies may reduce their costs (become more efficient) even as electricity prices decline. By the same analysis, if electricity prices and net income increase, the company's value also may increase.

Loss of market share to out-of-state providers. If utilities lose in-state market to an out-of-state electricity provider, their in-state net income and taxable value probably will decrease. Unless the out-of-state utility owns taxable property in the state, the state's tax revenue would decrease as a result.

Increase in in-state or out-of-state sales. If cost-efficient utilities focus on increasing their sales to retail customers within their borders and also to neighboring states, their total net income may increase. If their total net income increases, the income approach will give the company a higher taxable value.

Loss of market to in-state, nonutility providers. If an in-state utility lost market share in its own state to an out-of-state utility, a power marketer or a nonutility generator, the state could lose tax revenues.

Property tax values of the regulated transmission and distribution system. Most analysts expect the business of operating and maintaining the transmission and distribution wires to stay regulated for a number of years. A wires company that is responsible only for maintaining and operating the power delivery system probably will continue to operate this system. The revenues of this wires company will likely remain subject to traditional price regulation by both state regulatory commissions and the federal government. As a result, this wires company will earn a predictable, low-risk and regulated return on its investment in its facilities.

This regulated return will yield a steady stream of income, but one that will be much different from that which today's integrated electric utilities earn from their investments in their wires system. As a result, the income approach to property valuation is unlikely to recognize a greater value for transmission and distribution assets.

Question for State Policymakers:
• *What are the projections for how the electricity retailers in your state will fare in a competitive electric marketplace?*

The Market Approach

A few states rely on the market—or stock and debt—approach to assess utility property. The market approach relies on the utility's market value, plus its outstanding debt, to establish a value for the entire company. Because this value depends partly on the stock value of the company, the value will mirror the stock market's estimate of the future worth and income of the company. Stock and debt generally are not used because of the difficulty of separating the value of the company's electric operations from its nonelectric utility activities. Some utilities, in other words, are engaged in businesses other than the sale of electricity.

It is possible that property assessors will rely more heavily in the future on the market value of particular power plants. Also called the comparable sales approach, this approach relies on data from the sale of similar properties. The selling price of an office building of a certain size, age and condition located in the downtown area might serve as a guide for the property value of a similar office building. The market for electric power stations is not very active and, despite several recent sales of power plants in New England, there is little data on which to base a market value.

The market approach is most sensitive to any factors that could affect the company's stock value such as:

- Projected increases, decreases or volatility in the utilities' net income,
- Write-offs of stranded costs or uneconomic assets that may be reflected in net income,
- Loss of in-state companies' market share to out-of-state companies that have little or no taxable property in the state;
- Increase of in-state companies' market share in new markets that result in increased net income, and
- Increasing or decreasing power plant values that may be established as a result of comparable sales of power plants.

To the extent that the stock market value of a utility reflects its income projections, the market approach will track its income. If utilities develop new markets they are likely to fare well in the stock market. If a utility loses market share to other electricity providers, its income will dip and its prospects in the stock market will fall, as well.

Property tax values of the regulated transmission and distribution system. Most analysts expect a regulated wires company that is responsible only for maintaining and operating the

power delivery system to continue to operate the power delivery system. The revenues of this wires company likely will remain subject to traditional price regulation by both state regulatory commissions and the federal government. As a result, this wires company will earn a predictable, low-risk, regulated return on its investment in its facilities. The stock market will treat this wires company much as it treats today's integrated electric utilities, observing the risk that regulators might reduce its return on investment, but assuming that price generation will yield a steady stream of income.

Given the fact that these companies will continue to earn a regulated return on their investments, it is unlikely that the stock market's valuation of these wires companies will lead to a higher property tax value under the market approach to value.

Different approaches to valuing utility and nonutility property. Changing ownership of a power plant from a utility to a nonutility will mean that the property could be assessed locally instead of centrally on a unit value basis. In addition, nonutilities and utilities may have different assessment ratios. Finally, sales of power plants will have tax implications.

Decide what portion of that value to tax (classification of property). Some states classify property according to its use. In practice, this has meant that states sometimes treat utility property differently from nonutility property. Thus, a utility might pay a tax on 35 percent of the value of its property, while a nonutility business might pay a tax on 25 percent of the value of its property. In Ohio, electric generating property of investor owned utilities is assessed at 100 percent of its value while their transmission and distribution property of is assessed at 88 percent of its value.

As a result, not only the *type* of property but also the *amount* of property that is taxed varies among different electricity retailers. The description below illustrates different state approaches to classifying utility and other property.

Define the Location of Property Values. States that centrally assess utility property allocate property values among taxing jurisdictions. They use various methods to make this allocation, including the original cost of the property, the number of miles of electric line in the taxing jurisdiction, the book value of power plants and other factors. Ohio apportions 70 percent of the value of generating plant to its location, while the remaining 30 percent, along with the value of the rest of the utility's property, is distributed in accordance with the location and cost of the utility's transmission and distribution system. This approach to allocation of property values has worked where utilities have been fully integrated, with generation, transmission and distribution property. In a restructured environment, utilities are less likely to be fully integrated entities.

Question for State Policymakers:

• *If nonutilities begin to sell electricity to retail customers, should your state change its definition of utilities for property tax purposes or redefine utilities as any business that sells power?*

Question for State Policymakers:

• *How are property tax values apportioned among taxing jurisdictions in your state?*

Since high-cost power plants are the ones that are most likely to be worth less in a competitive market, and since their values are likely to decrease, towns that host high-cost power plants will lose a portion of their tax base, especially if the state uses book value to apportion property values.

Determine Tax Rate. Divide that portion the jurisdiction's budget funded from property taxes by the total taxable value in the area to determine a tax rate or mill rate.

Where utility property decreases in value, tax burdens will shift more heavily to nonutility property; jurisdictions will have to find replacement revenues or decrease their spending. These effects will be localized to jurisdictions with high-cost power plants. Jurisdictions that host low-cost plants or that have no power plants will see little of the direct effects illustrated below.

Taxing jurisdictions divide their total budget that is funded by property taxes by the total taxable value in their jurisdiction to arrive at a tax rate. For this example, assume:

- City budget: \$1 million
- Taxable value in jurisdiction \$100 million
- Tax rate: 1 percent of value

The tax is collected as follows:

• Utility (taxable property value of \$80 million) would pay	\$ 800,000
• A homeowner with a house valued at \$100,000 would pay	\$ 1,000
• Other business and residential taxpayers would pay	<u>\$ 199,000</u>
Total city tax collections	\$1,000,000

If the utility sells this power plant at half its assessed value to a nonutility generator, the power plant's new assessed value may fall. If, for instance, the assessed value of the plant falls to \$40 million, then the city will lose \$400,000 in property tax revenues.

This will be the situation in states that have constitutional or other limits on government's ability to raise property taxes.

• Utility (taxable property value of \$40 million) would pay	\$400,000
• A homeowner with a house valued at \$100,000 would pay	\$1,000
• Other business and residential taxpayers would pay	<u>\$199,000</u>
Total city tax collections	\$600,000

Some states allow property tax rates to be adjusted each year. In these states, the new formula would be as follows, assuming the same city budget.

• City levy:	\$1 million	
• Taxable value in jurisdiction:	\$60 million	
• Tax rate:	1.6 percent of value, or a 60 percent increase	
• Utility (taxable property value of \$40 million) would pay		\$ 640,000
• A homeowner with a house valued at \$100,000 would pay		\$ 1,600
• Other business and residential taxpayers would pay		<u>\$ 358,400</u>
Total city tax collections		\$1,000,000

This will be the situation in states with constitutional or other limits on government's ability to raise property taxes.

If the city continues to levy \$1 million, the tax shifts more heavily to nonutility property.

Bonding

Devaluation of utility property will affect some local governments' abilities to issue new general obligation bonds. Jurisdictions that contain significant utility property that loses value as a result of restructuring are more exposed to this issue.

The ability of the locality that hosts the nonutility company that now owns the power plant to issue new bonds is limited to 5 percent of the value of the property in the town. If that valuation decreases as a result of the devaluation of the power plant, the town's ability to issue new bonds will be restricted. This issue, like many property tax issues, will generate much greater concern in the localities that have high-cost power plants that may be devalued after restructuring. Political subdivisions that do not have these high-cost power plants or have low-cost power plants will not face this problem.

Options

States have several options that may help solve their property tax issues. The options described below assume that states have identified a problem with their current property tax system, have examined the possible property tax revenue decreases and the possible property tax revenue increases, and the possible government savings from less expensive electric providers.

Eliminate the property tax on the competitive electric industry and replace it with a different tax

The state could eliminate the property tax on all utility property and replace it with another tax. Iowa is considering the following proposal.

- Eliminate property taxes and implement a replacement tax based on energy or miles of transmission line. There would be a component for generation based on the amount of energy generated, a second component based on miles of transmission line and a third for energy consumed by the ultimate consumer. Each utility would have a different rate based on its current tax burden in the area in which it currently provides service.

For example, if a competitor came into Utility A's territory, that competitor would pay tax at the same rate as Utility A. If that competitor came into Utility B's service area, the competitor would pay tax at the same rate as Utility B (which will be different than Utility A's rate). This same basic methodology is proposed to be used for PILOTs where each municipal utility will have a rate for itself and others selling to the ultimate consumer in its current service territory.

A base amount of taxes to be collected would be established based upon payments in the most current year or an average of recent years. Reports showing the amount of taxes due would be provided to the Iowa department of revenue by each utility and by any competitor required to pay the tax. The utilities would continue to make payments directly to the local taxing jurisdictions based upon property taxes currently being paid. For example, if County X receives 15 percent of the property taxes currently paid by Utility A, it will receive 15 percent of the replacement taxes paid by Utility A.

The goals that were established in developing this methodology were:

- Revenue neutrality for local jurisdictions,
- Revenue neutrality among utilities, i.e., there should not be shifting of tax burden from the current system,
- Ease of administration, and
- Removal of tax costs as a factor in a competitive environment.

The state collects \$150,000 in property taxes from all utilities. The \$150,000 pays for the costs of administering the replacement tax system. Leaving this property on the tax rolls eliminates potential problems with local governments' bonding limitations.

Treat all types of electricity providers in the same way for purposes of property taxation as a way to reduce the influence of differing tax burdens on competitive electric markets

To the extent that electricity generators compete with each other, yet bear different tax burdens, some states may consider treating like property alike, regardless of who owns the property. Assessments would be based on the same types of property, for instance, and utilities no longer would be classified differently from other electricity providers. This approach will place all retailers in the state on the same basis. The difficulty of this approach is determining the common basis. Could it involve increasing other providers' electric rates to the level of the utilities? Or might it involve reducing the utilities' rates to those of other business property taxpayers? This approach also will require state policymakers to focus carefully on the different ways in which various entities pay taxes.

Shift property tax burden to the remaining monopoly functions

Much as integrated utilities have frequently had the ability to pass their tax expenses through to their customers, so will the remaining monopoly function of delivering power. States could examine possible methods of placing heavier tax burden on the wires companies that operate the transmission and distribution function.

Reduce the tax on in-state power plants

This approach may be appropriate for states that are attempting to attract power plants to their state. It will require careful consideration of the merits of attracting a power plant—even one that produces less tax revenue—and whether a property tax reduction will influence business location decisions compared with such factors as the proximity of the power plant to transmission lines, fuel sources, other power plants or large electric loads.

Increase state aid to the local jurisdictions whose tax revenues from utility property will substantially decrease

States may offer transitional state aid to jurisdictions that are hard-hit by property tax losses as a result of devalued or closed power plants. Funded either through the state general fund or perhaps through a non-bypassable fee that every electricity customer in the state would pay, this state aid would be designed to make up part or all of the property tax revenue losses in the areas that do experience such losses. State policymakers will need to address how long to continue this state aid, and at what level to offer it.

Decrease government expenditures

Political jurisdictions of the state may respond to the loss of revenue by becoming more efficient, offering fewer services or reducing the cost of the services that they offer to their customers.

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Shift tax burden to non-utility property

Political subdivisions may elect to increase property taxes for the taxpayers that remain in the jurisdiction. Perhaps practical only in areas with minimal property tax revenue losses, this option may be combined with a concerted effort to reduce government expenditures.

NCSL Electric Industry Tax Partners

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The National Conference of State Legislatures' Partnership on State and Local Taxation of the Electric Industry was formed in April 1997 to provide a communications forum to those having various roles dealing with restructuring of the electric industry who rarely have an opportunity to work together. The partners include key state legislators, experienced state legislative staff and sponsors of NCSL's Foundation for State Legislatures who chose to participate in the project. The Partnership has focused on several issues that legislators need to examine concerning state and local taxation of the electric industry in a restructured system. The resulting eight documents, designed to assist legislators in making informed policy decisions in their respective states, include:

- *Utility Taxation Overview* ISBN 1-55516-589-3 Item #4129
- *Introduction to Electric Industry Taxation* ISBN 1-55516-590-7 Item #4130
- *Gross Receipts Taxes in the Changing U.S. Electric Industry* ISBN 1-55516-591-5 Item #4131
- *Property Taxes in the Changing U.S. Electric Industry* ISBN 1-55516-592-3 Item #4133
- *Franchise Fees in the Changing U.S. Electric Industry* ISBN 1-55516-593-1 Item #4132
- *Net Income and Franchise Taxes in the Changing U.S. Electric Industry* ISBN 1-55516-594-X Item # 4134
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Matthew H. Brown & Kelly Hill



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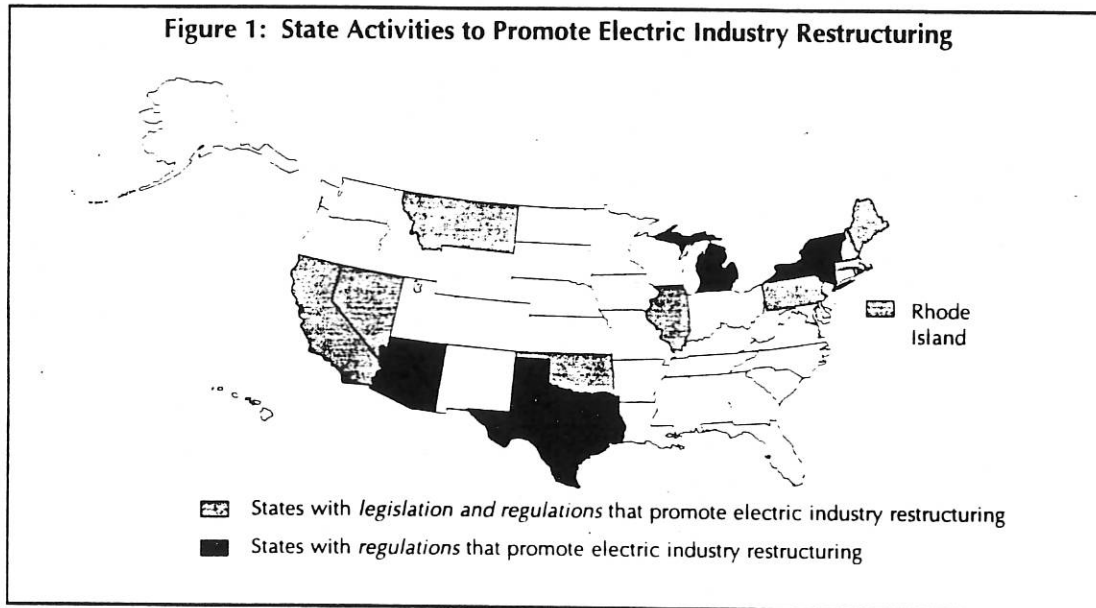
Tax Implications of Electric Industry Restructuring

A Series by the NCSL Partnership on State and Local Taxation of the Electric Industry

Introduction to Electric Industry Taxation

As with the telecommunications, natural gas and airline industries, the electric utility industry is in the midst of a fundamental transformation. Indeed, one no longer can accurately characterize it as solely the utility industry. Wholesale competition is robust today, with dozens of sellers of electricity as a result of the Public Utility Regulatory Policies Act of 1978, the Energy Policy Act of 1992 and the actions of the Federal Energy Regulatory Commission in orders 888 and 889. As shown in figure 1, retail customers in at least a dozen states will be able to choose their electricity providers as the result of legislation or comprehensive regulatory packages enacted in those states. It is not only utilities that now are selling electricity. Electric companies that operated in the retail electricity sales business as state-regulated monopolies for more than 50 years will face competition not only from each other, but also from other companies that previously sold no retail electricity.

Figure 1: State Activities to Promote Electric Industry Restructuring



The National Conference of State Legislatures' Partnership on State and Local Taxation of the Electric Industry was formed in 1997 as a forum for those with various roles in restructuring the electric industry. The partners include key state legislators, experienced state legislative staff and sponsors of NCSL's Foundation for State Legislatures who chose to participate in this project.

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Restructuring the electric industry requires legislators to address a number of issues. One component of discussions concerning electric industry restructuring is its effect on state and local taxes. Policymakers may want to assess the effect of restructuring on tax receipts and revenue demands in a manner that more fully reflects the new competitive marketplace. This report will give state policymakers historical background about electric industry taxation. It discusses the competitive position of different electric suppliers with different tax burdens, defines the types of taxes traditionally levied upon the electric industry (tax definitions may vary within the states) and gives legislators options to consider during discussions of the changing tax structure in a restructured system. Because each state has unique circumstances, electric industry tax decisions should be made in that context.

Electric Industry Taxation

Taxation of a regulated industry usually differs in several key respects from the taxation of unregulated entities. One of the major differences lies in the predictability of a regulated system revenue stream. For example, a regulated utility has a defined, exclusive service territory that provides a stable and predictable customer base.

As a result, hidden taxes are common in a regulated monopoly industry. Hidden taxes, generally, are taxes levied directly on an industry that then passes them on to the consumer as part of the overall price of the product. Such taxes are not listed as a specific line item on the consumer's bill. For example, if a 6.5 percent gross receipts tax is levied on an investor owned utility (IOU), the IOU may then increase its bill by 6.5 percent, but not show that amount as an incremental line item on the bill. That 6.5 percent is a hidden tax for consumers. Hidden taxes on a regulated monopoly have been an attractive option for policymakers because they allow revenues to be raised with little controversy.

Taxation of the electric industry is unique because many principles of taxation that apply to other industries are not applicable. For example, electric industry taxation differs from taxation of other nonutility industries in rates, assessment methods and valuation methods. The taxes also can vary within the industry based upon the utility's ownership. In addition, there are three separately taxable components to the industry—generation, transmission and distribution. The generation component of the industry is being restructured. At least initially, transmission and distribution are likely to remain regulated monopoly enterprises.

As the electric industry restructures, the participants in the marketplace will change. Therefore, state and local governments should determine how restructuring will affect their tax bases. Governments must determine what revenues may be increased in a competitive environment, what revenues may be reduced and methods they may want to use to address these

revenue changes. States may need to reevaluate their tax codes on a regular basis as the electric industry changes.

There has been a complex history of utility industry taxation in the states because each state addresses the issue individually. For example, Ohio assessment rates for utility property are substantially higher than for nonutility property. Investor owned utilities in Ohio annually pay about \$1 billion in personal property taxes and gross receipts taxes. At the local level, this results in about \$240 million in funding for school districts. In a competitive environment, electric providers will insist on taxation equal to other types of businesses. Given the potential decrease in revenue, including the possibility that some noncompetitive electric generating facilities may close, Ohio has begun to examine the effect restructuring would have on funding for the local education system.

Definition of Taxes

Although there are differences among the states, the types of taxes and fees levied on utilities generally fall into the following categories:

- Property tax
- Gross receipts tax
- Corporate income tax
- Franchise tax
- Franchise fees
- Consumption tax
- Sales and use tax
- Commodity tax
- Payments in lieu of taxes
- Regulatory or public service consumer fees

Several of these taxes may be levied in combination. Alabama, for instance, imposes seven taxes on electric utilities—a utility gross receipts tax, a utility service use tax (ranging from 2 percent to 4 percent of gross receipts), a license tax of 2.2 percent of gross receipts, a corporate franchise tax of \$10 on each \$1,000 of capital stock, a corporate net income tax, a privilege tax on businesses that manufacture and

Federal Actions that Affect the Electricity Market

The Public Utility Regulatory Policies Act of 1978 (PURPA). PURPA was passed in response to the oil embargoes and natural gas shortages of the early 1970s, and was designed to encourage alternative generation sources. PURPA requires utilities to purchase power produced by small cogeneration or renewable energy facilities at contractual rates set out or approved by state utility commissions.

The Energy Policy Act of 1992 (EPACT). Proponents of competitive market mechanisms encouraged Congress to introduce competition into wholesale electric markets. EPACT encourages competition in several ways. It creates a new class of power company, the exempt wholesale generator, that can compete against electric utilities to supply electricity. In addition, owners of transmission lines are required to let any electric generator use the lines at an approved and published price. In compliance with EPACT, the Federal Energy Regulatory Commission issued orders 888 and 889, which permitted utilities access to the transmission grid to enhance the sale and purchase of energy for resale. They do not apply to the retail or end-user customer.

Private Use Restrictions. The Tax Reform Act of 1986 (P.L. 86-272) directed the Internal Revenue Service to promulgate rules restricting the use of tax-free financing for private projects. As a result, public power providers that finance generation, transmission, or distribution may be unable to compete outside their service territory boundaries because of private use restrictions.

ELECTRIC INDUSTRY COMPOSITION

Investor Owned Utilities (IOUs). IOUs are taxable corporations owned by shareholders. The rates that investor-owned utilities charge for electric service are regulated on a cost-of-service basis by federal or state and local regulatory agencies. Most, if not all, IOUs currently are vertically integrated, i.e., they own the generation, transmission and distribution assets required to serve the end user.

Rural Electric Cooperatives. Rural electric cooperatives are not-for-profit corporations owned by their customers. Rates charged by rural electric cooperatives are subject to regulation in some jurisdictions. Although most rural electric cooperatives are exempt from federal and state income taxes, they pay all other types of state and local taxes. Rural electric cooperatives are not vertically integrated, but may own generation property through generation and transmission (G&Ts) organizations. G&Ts are cooperative organizations that own power plants, generate electricity and transmit it at wholesale prices to distribution cooperatives, which are members of the G&T and provide distribution services to deliver power to end users. The formation of G&Ts allowed member systems to gain the benefits of sharing larger, more economical power plants while retaining the advantages of local ownership, control and operation. Distribution systems generally are bound to their G&Ts by an all-requirements contract, under which the distribution system agrees to purchase—and the G&T agrees to provide—all the distribution co-op's power needs. The distribution system agrees to pay rates sufficient to cover all the G&T's cost.

Public Power Systems. Public power systems, which are predominantly municipal utilities, are extensions of state and local governments. As such, they are generally not subject to federal or state income taxes. Depending on state laws, public power systems may pay sales taxes or gross receipts taxes. These organizations also may provide payments in lieu of taxes (transfers to the general fund and contributions of services to state and local governments). Public power systems can join to form joint action agencies; these consist of two or more electric utilities (usually municipally owned) that have agreed to join under enabling state legislation to carry out a common purpose—usually the provision of bulk power supply, transmission and energy-related services. This arrangement allows the utilities to operate as separate entities.

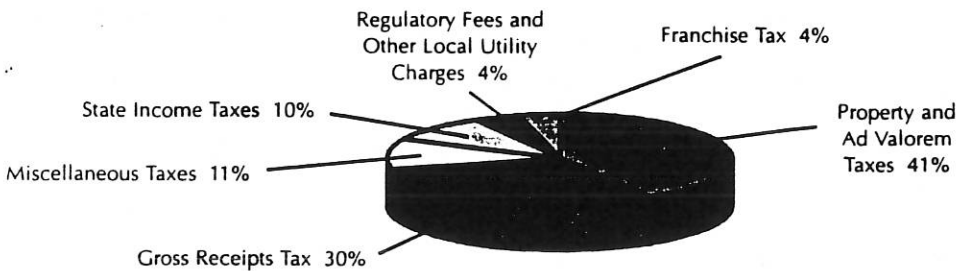
Federal Electric Utilities. Most of the electricity produced by these entities is sold for resale. These utilities generally are exempt from federal, state and local taxes. Bonneville Power Administration is an example of a federal electric utility.

Independent Power Producers. These producers include exempt wholesale generators (EWGs) and other nonutility generators. Independent power producers are subject to federal, state and local taxes, but the rates assessed may be different than those for other power producers.

Power Marketers. Power marketers are nonregulated, competitive buyers and sellers of electricity that may or may not produce the electricity they sell.

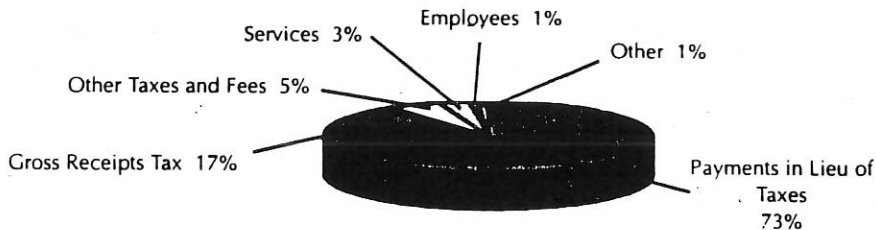
sell hydro power and a property tax. Some states, such as California, assess other environmental charges and fees on utilities in addition to taxes. Figures 2 through 4 show the types of taxes assessed by states and localities on various electricity producers.

Figure 2: State and Local Taxes for Investor-Owned Electric Utilities (1994)



Source: Compiled by Edison Electric Institute from Table 74, Detail of Taxes—Electric Department Only Investor-Owned Electric Utilities, *EI Statistical Yearbook of the Electric Utility Industry, 1994*, and Federal Energy Regulatory Commission Form 1.

Figure 3. Types of Payments and Contributions from Public Power Systems to State and Local Governments



Source: American Public Power Association study, 1994 data.

Figure 4: State and Local Taxes for Electric Co-ops



Source: National Rural Electric Cooperative Association, 1996 data.

To have a common understanding of the kinds of taxes imposed on the electric industry, it is useful to define those taxes. Although the definitions can vary by state, the following definitions will be applied in this series.

Property Tax

A property tax is imposed on the value of real or personal property located within the taxing jurisdiction. Some states have their own, often unique, definition of real and personal property. Whether property is defined as real or personal may determine whether it is subject to tax, how it will be classified and valued for assessment, how assessments are equalized and at what rate it will be taxed. Some states tax real property only and other states tax both real and personal property. The real and personal property of regulated utilities typically is centrally assessed by a state agency, generally the state's department of revenue. However, in some other states, utility property is assessed locally.

Gross Receipts Tax

A gross receipts tax generally is a levy applied to total revenues from a company's sales without the benefit of any deductions. The tax is imposed directly on the seller based upon total revenue receipts and is considered a general business cost. It differs from a sales tax in that it is a tax on the selling company rather than on the purchaser. However, the gross receipts tax usually is passed to the customer indirectly in the form of increased energy cost.

Corporate Income Tax

A corporate income tax is imposed on the net income of a corporation earned within a state. In the case of multi-state companies, states are afforded great latitude in determining the income earned within their borders. Generally, states compute income by starting with federal taxable income. Some states view each company as a separate trade or business (separate company states) and compute income on a company-by-company basis. Other states regard a trade or business as a single entity regardless of the corporate structure and will compute income and apportionment on the unitary business.

Corporate Franchise Tax (Capital Stock Tax)

A corporate franchise tax is a tax imposed on companies that conduct business in the taxing state. Generally, a corporate franchise tax is based on the net worth of the corporation. The tax is considered a general business cost. However, some states impose a corporate franchise tax based on the net income of the corporation. Commerce Clause limitations arising under Article 1, Section 8 of the U.S. Constitution may restrict a state's ability to impose a franchise tax on an out-of-state business.

Franchise Fee

Franchise fees are paid as part of a service agreement between state and local governments

and a utility company. Service agreements outline the terms under which utility companies provide service to customers in a specific service territory. As part of a service agreement, state and local governments impose a franchise fee. Franchise fees work much like a gross receipts tax. Specifically, a franchise fee usually is calculated on a percentage of the revenues derived from sales of electricity to customers in the franchise territory. A franchise fee generally is imposed in lieu of licenses or permits that otherwise would be required.

Consumption Tax

A consumption tax is a tax on the consumption of an item or service by an end consumer. A consumption tax can be a set amount for each unit consumed or produced or it can be based on a percentage of the total cost of purchasing the items or services. Some states limit the tax to specific types of commodities, while other states impose the tax regardless of how the item or service is produced.

Sales and Use Taxes

A sales tax is a tax imposed on the retail sales price of tangible personal property purchased for use or consumption in the taxing state. Sales and use taxes are counterparts. States that tax sales also impose use taxes at the same rates. The use tax was designed to capture revenues on purchases not subject to the state sales tax, namely purchases by out-of-state vendors that are not responsible for collecting tax on interstate transactions. If a sale is subject to the state sales tax, it generally would not be subject to the state use tax, and vice versa.

Sales tax is withheld and remitted by the seller of goods, while the use tax is remitted by the consumer. State sales and use taxes generate significant tax revenues for the states. States may impose their sales and use taxes on the sale of electricity. This tax is collected from the customer by the electric supplier and passed to the state. Historically, states have exempted many energy and nonenergy items from state sales and use taxes. But electric suppliers are responsible for sales taxes assessed on their purchases (such as office equipment, vehicles or other nonexempted supplies).

Commodity Tax

A commodity tax is a tax imposed on the delivery of a commodity to an end consumer for use within a state. The tax is usually a rate per unit (e.g. kilowatt hour) rather than a tax based upon income or gross receipts. The tax normally is imposed on the company that makes final delivery to the end consumer within a state. Typically, a commodity tax is imposed on and included in the price of such items as gasoline, oil, electricity, natural gas, cigarettes and alcohol.

Payment in Lieu of Taxes (PILOT)

A payment in lieu of taxes or transfer to the general fund is a cash payment or comparable free services made by a utility to the local government jurisdiction in which it is located. In the case of public power systems, for example, the utility is not subject to local property taxes because it is owned by the municipality. Often, the local government will establish an annual payment or transfer in lieu of receiving property tax revenues. There may be a formula for computing the payment, or the amount may be negotiated each year. Some jurisdictions differentiate between payments that are computed by formula or set by contract (payments in lieu of taxes), and payments that are determined on an annual basis (transfers to the general fund), but typically these two terms are used interchangeably.

Regulatory or Public Service Fee

A regulatory or public service fee is imposed on utilities to cover the costs of regulatory activities. This fee is based on the gross receipts of a utility. The rate of the tax is significantly less than a standard gross receipts tax. Most states set an upper limit on a regulatory fee.

Federal Constitutional Issues

When examining the implications restructuring may have on state and local taxation, state policymakers should be aware of the federal constitutional issues that may arise because a state's ability to impose a tax is restricted by constitutional and statutory limitations. The major constitutional issues concerning a state's ability to impose taxes relate to the Equal Protection Clause, the Due Process Clause, the Commerce Clause, the Supremacy Clause and the Import/Export Clause protections.

Equal Protection Clause Limitations on State Taxation

The Equal Protection Clause of the 14th Amendment to the U.S. Constitution provides that no state shall deny to any person within its jurisdiction equal protection under the law. The Equal Protection Clause prohibits discrimination among taxpayers within the same classification. The Equal Protection Clause does not prevent a state from treating one class of individuals or entities differently from others. Discriminatory taxation is permitted under the Equal Protection Clause if the discrimination is rationally related to a legitimate state purpose.

Due Process Limitations on State Taxation

The 14th Amendment to the U.S. Constitution provides that no state can deprive anyone of life, liberty or property without due process of law. This limitation has been interpreted to mean that no state may levy any tax unless there is "some definite link, some minimum connection, between the state and the person, property or the transaction it seeks to tax" (*Miller Bros. Co. vs. Maryland*, 347 U.S. 340, 344 [1954]). This minimum connection is commonly referred to as nexus. The U.S. Supreme Court (the Court) has stated that the due process test is

"whether the taxing power exerted by the state bears fiscal relation to protection, opportunities and benefits given by the state" (*Wisconsin vs. J.C. Penney Co.*, 311 U.S. 435 [1940]). Furthermore, the Court ruled that "purposeful availing of an in-state market by an out-of-state company will satisfy the due process nexus requirement (*Quill Corp. vs. North Dakota* 504 U.S. 623 [1992]).

The due process limitation has been litigated extensively in the state tax area. A review of the Court's case law on the issue of nexus reveals that some physical presence in the taxing state is required to justify a tax. However, issues of intangible property and economic presence have been hotly debated in recent years. Typically, any due process challenge related to a state tax is coupled with a Commerce Clause argument.

Commerce Clause Limitations on State Taxation

The Commerce Clause provides that Congress shall have the power to regulate commerce between the states. The purpose of the Commerce Clause is to promote a national and international economy that is insulated from impediments by the states. The Commerce Clause has been used to declare unconstitutional any tax that imposes an undue burden on interstate commerce.

The mere fact that a state imposes a tax that affects interstate commerce is not, per se, a violation of the Commerce Clause. Since Congress has not yet addressed the issue, Supreme Court decisions have been used to define the parameters of the Commerce Clause. The Court uses a four-pronged test to determine the constitutionality of a tax affecting interstate commerce. A state tax will survive scrutiny under the Commerce Clause if: 1) substantial nexus exists, 2) the tax is fairly apportioned, 3) the tax does not discriminate against interstate commerce and 4) the tax is fairly related to the services and benefits provided by the state. What constitutes "substantial nexus" under the Commerce Clause requirement remains a matter of considerable controversy and litigation between taxpayers and state governments.

Supremacy Clause Limitations on State Taxation

Article 6 of the Constitution provides that "This Constitution, and the laws of the United States ... shall be the supreme law of the land." This provision is commonly referred to as a Supremacy Clause. The Supremacy Clause embodies the doctrine of immunity, which is used to prohibit direct state taxation of the federal government and its agencies. The Supreme Court has considered the Supremacy Clause's effect on numerous state taxes. In *U.S. vs. New Mexico*, 455 U.S. 720 (1982), the Court ruled on the constitutionality of a sales tax on the sale of tangible personal property to a government contractor. The Court held that immunity is appropriate only "when the levy falls on the United States itself, or an agency or institution so closely connected to the government that the two cannot realistically be viewed as separate entities" (*U.S. vs. New Mexico*, 455 U.S. 738 [1982]). The court found that the legal inci-

dence of the tax fell on the contractor rather than the federal government, even though the federal government bore the cost of the tax.

Import/Export Clause Limitations on State Taxation

Article 1, section 10, clause 2 of the U.S. Constitution provides that "no state shall, without the consent of the Congress, lay any imposts or duties on imports or exports, except what may be absolutely necessary for executing its inspecting Laws; and the net Produce of all Duties and Imposts laid by any State on Imports or Exports, shall be for the Use of the Treasury of the United States; and all such Laws shall be subject to the Revision and Control of the Congress." Generally, the Import/Export Clause prohibits states from imposing taxes on imports and exports. Under the Court's decision in *Michelin Tire Corp. vs. Wages*, 423 U.S. 276 (1976), a nondiscriminatory tax on goods may be sustained where the tax is imposed on an import that no longer is in transit or where the tax is imposed on an export before it has physically begun transit to a foreign destination (*Michelin Tire Corp. vs. Wages*, 423 U.S. 295 [1976]).

Conclusion

Some flexibility in state policies may be necessary to accommodate the changing electric industry. States have begun to modify those policies in anticipation of electric industry restructuring and in response to the restructuring of other utilities. For example, New Jersey was one of the first states to take action to change its tax code. New Jersey eliminated the gross receipts and franchise tax collected by the electric, gas and telecommunication utilities and replaced it with a corporate business tax.

As states explore tax issues in more depth, they will be better equipped to determine which taxation options are appropriate to meet their needs. They then can be prepared to implement those taxes in the new system.

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The National Conference of State Legislatures' Partnership on State and Local Taxation of the Electric Industry was formed in April 1997 to provide a communications forum to those having various roles dealing with restructuring of the electric industry who rarely have an opportunity to work together. The partners include key state legislators, experienced state legislative staff and sponsors of NCSL's Foundation for State Legislatures who chose to participate in the project. The Partnership has focused on several issues that legislators need to examine concerning state and local taxation of the electric industry in a restructured system. The resulting eight documents, designed to assist legislators in making informed policy decisions in their respective states, include:

- *Utility Taxation Overview* ISBN 1-55516-589-3 Item #4129
- *Introduction to Electric Industry Taxation* ISBN 1-55516-590-7 Item #4130
- *Gross Receipts Taxes in the Changing U.S. Electric Industry* ISBN 1-55516-591-5 Item #4131
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The effect of electric industry restructuring on state and local taxes should be part of these policy debates because electric industry restructuring may cause a shift in expected revenues and thereby affect state and local budget planning. In a restructured electric market, policymakers may need to revise the state's tax system to more fully reflect the economic activity being taxed.

This paper deals with the direct effects of electric industry restructuring on franchise fee revenues. If restructuring fulfills the promise of providing lower electricity rates and greater economic activity, it may potentially lead to economic growth, new investments and a larger tax base. The effects of such growth and investment on the franchise fee are difficult to quantify with a useful degree of accuracy. This paper should be taken in that context.

Franchise Fees

Franchise fees are implemented as part of a service agreement usually executed between local governments and a utility company. Local governments require utility companies to execute

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ELECTRIC INDUSTRY COMPOSITION

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Rural Electric Cooperatives. Rural electric cooperatives are owned by their customers. As not-for-profits they do not own generation property. Rates charged by rural electric cooperatives are subject to regulation in some jurisdictions. Although most rural electric cooperatives are exempt from federal and state income taxes, they pay all other types of state and local taxes. Rural electric cooperatives are not vertically integrated, but may own generation property through generation and transmission (G&Ts) organizations. G&Ts are cooperative organizations that own power plants, generate electricity and transmit it at wholesale prices to distribution cooperatives, which are members of the G&T and provide distribution services to deliver power to end users. The formation of G&Ts allowed member systems to gain the benefits of sharing larger, more economical power plants while retaining the advantages of local ownership, control and operation. Distribution systems generally are bound to their G&Ts by an all-requirements contract, under which the distribution system agrees to purchase—and the G&T agrees to provide—all the distribution co-op's power needs. The distribution system agrees to pay rates sufficient to cover all the G&T's cost.

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Independent Power Producers. These producers include exempt wholesale generators (EWGs) and other nonutility generators. Independent power producers are subject to federal, state and local taxes, but the rates assessed may be different than those for other power producers.

Power Marketers. Power marketers negotiate electricity sales between the power producer and consumer. Power marketers are not defined as utilities, and therefore may be subject only to taxes levied on businesses and business transactions in the state.

service agreements to ensure service to all customers in a geographic area. Electric industry restructuring presents two main issues related to franchise fees:

- The effect of competition on franchise fee revenues, and
- The effect of franchise fees on effective competition.

State policymakers may want to consider the following issues as they determine how franchise fees fit into a restructured system:

- Which local governments assess franchise fees?
- The competitive position of incumbent utilities.
- Status and disposition of in-state power plants.
- How out-of-state electricity providers and power marketers fit into the local franchise fee assessment.
- The effect changes in the franchise fee system will have on state and local tax administration and collection efforts.
- Where changes in the tax are necessary, it may require state legislation, because many state statutes enable local governments to collect franchise fees.

A Definition of Franchise Fees

Franchise fees are implemented as part of a service agreement executed between local governments and a utility company. These service agreements are executed to ensure service to all customers in a territory. Service agreements outline the terms under which utility companies provide service to customers in a specific territory. These fees are intended to reimburse local governments for use of public rights-of-way and other public services. Franchise fees work much like a gross receipts tax. Specifically, a franchise fee typically is calculated on a percentage of the revenues derived from sales of electricity to customers in that territory. A franchise fee generally is imposed in lieu of licenses or permits that would otherwise be required.

In a restructured system, it is likely that local governments will no longer have only one electricity provider in their jurisdiction. Therefore, they may need to reconsider their franchise fee system to account for the multiple providers and may work with the state to achieve revenue neutrality in tax revenues.

Who Pays Franchise Fees?

Although there is variation among the states, franchise fees can be paid by investor owned utilities (IOUs), rural electric cooperatives and public power systems. When possible, franchise fees then are passed to the customer as a cost of doing business.

Franchise Fees and Electric Industry Reform: Some Hypothetical Examples

The following examples illustrate how utilities and others in the electric industry pay franchise fees and how those payments could be affected by electric industry restructuring (as shown in figure 1). The examples are a useful tool for explaining the topic. Questions for state policymakers are interspersed with the examples. The answers to these questions will help policymakers determine how to address this issue in their individual states. Any solutions described in the examples should be considered only as illustrative and not as recommendations for policy actions.

Franchise Fees Before Restructuring—Example A

Residents of the city of Metro, centrally located in State B, have purchased power from First National Power (a state-regulated, investor owned utility) for more than 25 years. As a condition of the service agreement between the city and the utility, First National Power pays Metro a franchise fee based on the percentage of revenues First National Power derives from customers in the city. The franchise fee has averaged about \$1 million annually. Revenue from the franchise fee is placed in Metro's general fund.

Federal Actions Affecting the Electricity Market

The Public Utility Regulatory Policies Act of 1978 (PURPA). PURPA was passed in response to the oil embargoes and natural gas shortages of the early 1970s, and was designed to encourage alternative generation sources. PURPA requires utilities to purchase power produced by small cogeneration or renewable energy facilities at contractual rates set out or approved by state utility commissions.

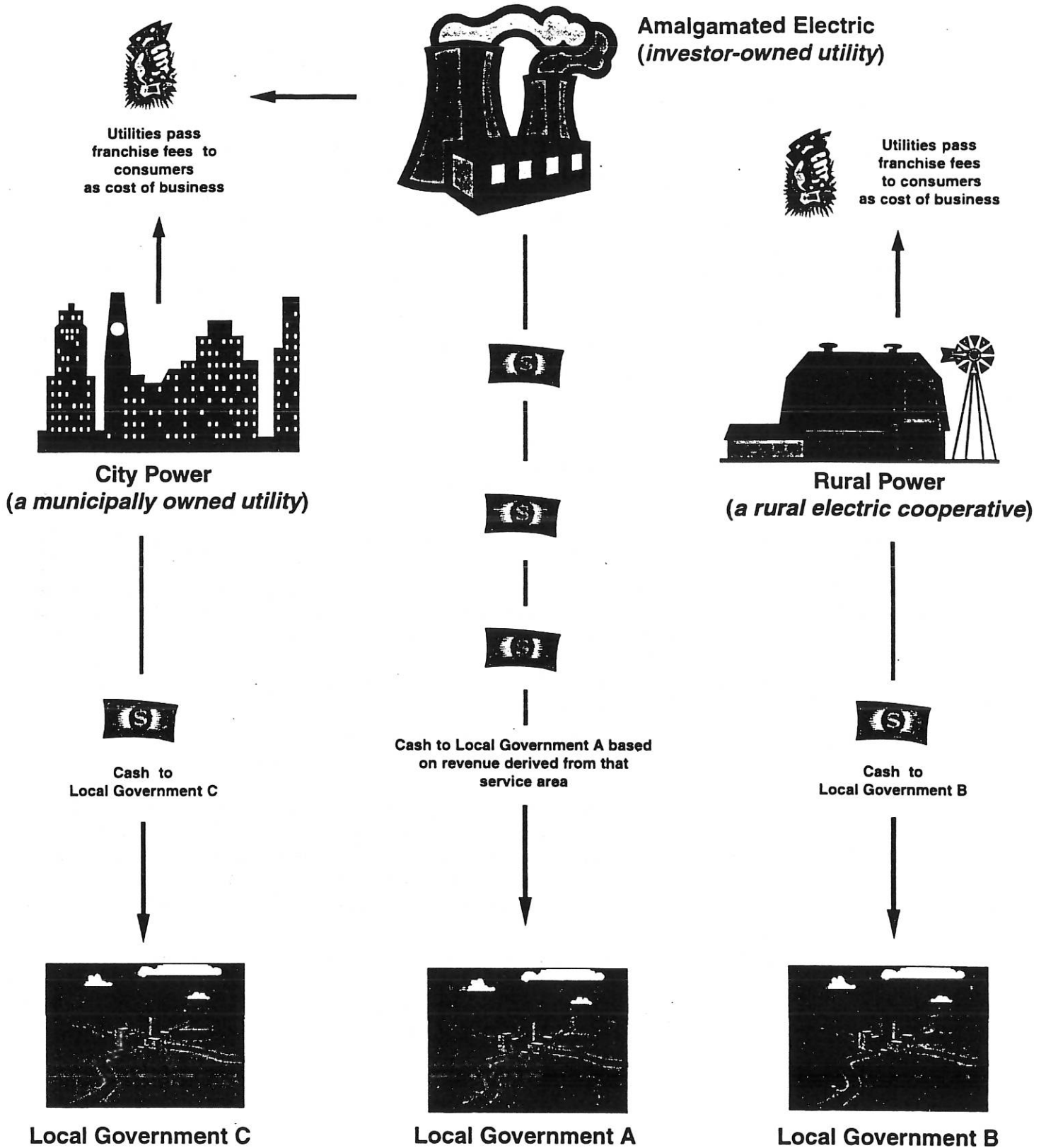
The Energy Policy Act of 1992 (EPACT). Proponents of competitive market mechanisms encouraged Congress to introduce competition into wholesale electric markets. EPACT encourages competition in several ways. It creates a new class of power company, the exempt wholesale generator, that can compete against electric utilities to supply electricity. In addition, owners of transmission lines will be required to let any electric generator use the lines at an approved and published price. In compliance with EPACT, the Federal Energy Regulatory Commission issued orders 888 and 889, which permitted utilities access to the transmission grid to enhance the sale and purchase of energy for resale. They do not apply to the retail or end-user customer.

Private Use Restrictions. The Tax Reform Act of 1986 (P.L. 86-272) directed the Internal Revenue Service to promulgate rules restricting the use of tax-free financing for private projects. As a result, public power providers who finance generation, transmission, or distribution may be unable to compete outside their service territory boundaries because of private use restrictions.

Franchise Fees After Restructuring— Example B

State B recently enacted legislation that opened the electric industry in the state to competition. As a result, many out-of-state electricity providers began vying for business throughout the state. In Metro this meant that many consumers decided to purchase power from providers other than First National Power. For example, Amalgamated Electric, an investor owned utility in State A, offered a lower electric rate to residents in State B, and as a result, gained a 10 percent market share in the

Figure 1. Franchise Fees (for exclusive service territory)—How They Currently Work



Question for State Policymakers: Do local governments in your state impose a franchise fee on utilities?

Question for State Policymakers: How will local government revenues from franchise fees be affected by the changing electric industry?

Question for State Policymakers: Can local governments recover any losses in franchise fees from out-of-state and out-of-jurisdiction electric providers?

state. Amalgamated now supplies power to 20 percent of the Metro residents. Power marketers also have entered the electricity supply market in State B. One power marketer in particular—Marketer Inc.—has gained a 5 percent market share in the state. Marketer Inc. negotiates electricity sales between power producers and consumers. Marketer Inc.'s offices are located in State B, outside the city limits of Metro. Ten percent of Metro's residents have agreements to purchase electricity through Marketer Inc. Therefore, in the Metro market, First National has lost 30 percent of its revenue base from electricity generation.

The loss in customer base for First National Power has caused a decline in the amount of First National franchise fee payments to Metro. Metro is examining its franchise fee structure to determine if there are other means by which it recover this deficit. Metro does not have nexus to collect a franchise fee from Marketer Inc. and Amalgamated because the companies do not have a physical presence in the city.

Nexus

Nexus is the minimum connection the taxing state must have with the corporation or the activity being taxed in order to collect taxes from that corporation or activity. To legally uphold its authority to impose a tax, a state's interpretation of nexus cannot violate the Due Process Clause or the Commerce Clause of the U.S. Constitution. The concept of nexus was litigated in the 1992 case, *Quill Corporation v. North Dakota*, 504 U.S. 623 (1992), in the context of the mail-order catalog business. In that decision, the U.S. Supreme Court ruled that some kind of physical presence was necessary to support imposition of sales and use tax collection responsibility. Physical presence generally refers to having property or people in the state, either directly or through certain kinds of agency relationships.

Similar issues of jurisdiction are likely to arise in states that open their electric industry to competition. A state or local government may have jurisdiction to tax the company that resides within its borders, but not the business transactions that company performs with out-of-state companies or business transactions performed in it by an out-of-state company.

Because First National Power has been the sole electricity provider for much of State B, it has built a transmission and distribution infrastructure throughout the state. Amalgamated and Marketer Inc. have contracted with First National for use of its transmission and distribution capacity, including the distribution facility in Metro. The state regulatory commission regulates the fees First National Power charges to use its distribution system. The Federal Energy Regulatory Commission regulates the fees First National Power charges to use its transmission system. In other words, transmission and distribution remain regulated utility functions.

The loss in customer base for First National has caused an annual decline in the amount of First National's franchise fee payment to Metro. In expectation of future declines in First

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National Power's market share within the city, Metro must determine if there are other means by which it can recover this deficit. The city plans to change its service agreement with First National Power so that the franchise fee payment is assessed on the value of electricity distributed through First National's Metro distribution facility rather than on the revenue derived from customer payments. The franchise fee will be assessed at \$0.01 per each kilowatt hour of electricity passing through the facility. Metro's city managers forecast that, under this new agreement, First National will pay \$1 million annually. First National will likely pass this cost on to Amalgamated and Marketer Inc. in the form of increased charges for use of its distribution facility.

Question for State Policymakers: Do local changes in franchise fee collection require changes in state statutes?

Options for State and Local Policymakers

These hypothetical examples illustrate some of the issues state and local policymakers need to examine during their discussion of the effects of electric utility industry restructuring on state and local taxation. The following options have been considered by states that have implemented restructuring

- *Limit the amount of franchise fees.* Because franchise fees are assessed by local governments, state legislators cannot eliminate them. However, they can impose an upper limit on the amount of franchise fees. If states limit franchise fees, they may need to consider redistributing some state tax revenues to local governments to make up for local deficits.
- *Assess an exit fee on customers that leave the electricity provider that pays the franchise fee.* In an attempt to prevent the erosion of franchise fees paid by a utility to a municipal government, the California Legislature adopted legislation that allows a surcharge to be applied to natural gas and electricity suppliers that replaces, but does not increase, franchise fees that would have been collected before restructuring occurred. The California Public Utilities Commission establishes the surcharge, which is collected by the utility through distribution billing.
- *Impose the franchise fee on a different base.* In the hypothetical example, Metro imposed the franchise fee on the value of the electricity distributed from the distribution facility because Metro did not have the nexus to tax power providers that are located outside its limits. The franchise fee also could be reconfigured so that taxes are levied on the distribution facility revenues. This design should be considered on a state-by-state basis.
- *Eliminate the franchise fee and replace it with another form of taxation.* If the franchise fee is eliminated, some local governments could see a considerable decline in the amount of their general treasury funds. Therefore, policymakers may consider imposing a state tax on electricity providers and distributing the revenues to local governments. Issues

such as nexus should be considered when discussing how the state and local taxation system could be most effectively redesigned.

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The National Conference of State Legislatures' Partnership on State and Local Taxation of the Electric Industry was formed in April 1997 to provide a communications forum for those who have various roles dealing with restructuring of the electric industry, but who rarely have an opportunity to work together. The partners include key state legislators, experienced state legislative staff and sponsors of NCSL's Foundation for State Legislatures who chose to participate in the project. The Partnership has focused on several issues that legislators need to examine concerning state and local taxation of the electric industry in a restructured system. The resulting eight documents, designed to assist legislators in making informed policy decisions in their respective states, include:

- *Utility Taxation Overview*
(ISBN 1-55516-589-3—Item #4129)
- *Introduction to Electric Industry Taxation*
(ISBN 1-55516-590-7—Item #4130)
- *Gross Receipts Taxes in the Changing U.S. Electric Industry* (ISBN 1-55516-591-5—Item #4131)
- *Property Taxes in the Changing U.S. Electric Industry* (ISBN 1-55516-592-3—Item #4133)
- *Franchise Fees in the Changing U.S. Electric Industry* (ISBN 1-55516-593-1—Item #4132)
- *Net Income and Franchise Taxes in the Changing U.S. Electric Industry*
(ISBN 1-55516-594-X—Item # 4134)
- *Sales Taxes in the Changing U.S. Electric Industry*
(ISBN 1-55516-595-8—Item #4135)
- *Payments in Lieu of Taxes in the Changing U.S. Electric Industry*
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Tax Implications of Electric Industry Restructuring

A Series by the NCSL Partnership on State and Local Taxation of the Electric Industry

Franchise Taxes and Corporate Net Income Taxes in the Changing Electric Industry

As with the telecommunications, natural gas and airline industries, the electric utility industry is in the midst of a fundamental transformation. Indeed, one no longer can accurately characterize it as solely the utility industry. Wholesale competition is robust today, with dozens of sellers of electricity as a result of the Public Utility Regulatory Policies Act of 1978, the Energy Policy Act of 1992 and the actions of the Federal Energy Regulatory Commission in orders 888 and 889. As shown in figure 1, retail customers in at least a dozen states will be able to choose their electricity providers as the result of legislation or comprehensive regulatory packages enacted in those states. It is not only utilities that now are selling electricity. Electric companies that operated in the retail electricity sales business as state-regulated monopolies for more than 50 years will face competition not only from each other, but also from other companies that previously sold no retail electricity.

In states that reform their electric industry, utilities no longer will be restricted to service territories in which they operate as monopolies. These utilities, whether they be investor owned, public power systems or rural electric cooperatives, may find themselves in competition with each other and with other new electricity providers like power marketers, aggregators or independent power producers. The utilities may begin to sell electricity across service territories and state boundaries to customers that previously had no choice among electric companies. They also may break away from their regulated, vertical structure—where one company owned and coordinated the power generation, transmission, distribution, back office and customer service functions—into separate companies. Some may even sell these functions so that they can focus on just one business activity. The states that are encouraging this restructuring are doing so for different reasons. States with high-cost electricity hope that competition will reduce its cost. States with low-cost power producers often see the potential for growth in their companies' market share outside their state.

These changes may, indeed, produce benefits. In many states they also will require a reexamination of the tax system that has developed around regulated monopoly businesses. Two similar taxes that are likely to be affected by the greater number of interstate electricity sales

The National Conference of State Legislatures' Partnership on State and Local Taxation of the Electric Industry was formed in 1997 as a forum for those with various roles in restructuring the electric industry. The partners include key state legislators, experienced state legislative staff and sponsors of NCSL's Foundation for State Legislatures who chose to participate in this project.

Distributed by the National Conference of State Legislatures

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Question for state policymakers:

•Does your state assess a corporate net income tax on electric utilities?

•Does your state assess a corporate net income tax on non-utility businesses?

Does your state assess a franchise tax on electric utilities or on non-utility businesses?

•How much revenue does your state derive from each of these taxes?

•What proportion of this revenue is derived from electric utilities?

and the restructuring of today's electric utilities are the state or local franchise tax and the income tax.

This paper deals with the direct effects of electric industry restructuring on income and franchise tax revenues. If restructuring fulfills the promise of providing lower rates and greater economic activity, it will lead to economic growth, new investments and a larger franchise and income tax base. These effects on the tax base are difficult to quantify with a useful degree of accuracy and it is not the purpose of this paper to make assertions about the potential effects of restructuring. This paper should be taken in that context.

In a restructured market, franchise and income tax revenues will increase in some places and decrease in others. The objective of this paper is to give state policymakers the tools to understand the effects of electric industry reform on these taxes. It will aid policymakers to participate in an informed debate and enhance their ability to make decisions with information about the franchise and income tax consequences of electric industry reform.

Franchise Taxes and Net Income Taxes

Main Findings

Corporate franchise and income taxes contribute less revenue to state governments than other taxes such as the property tax or the sales tax. Often, however, tax payments from utilities constitute a large percentage of the total corporate net income tax collections. Utility restructuring presents two issues related to these taxes:

- The effect of restructuring on franchise and income tax revenues, and
- The effect of franchise and income taxes on effective competition.

The franchise tax and corporate income tax are susceptible to changes in the electric industry as a result of the three general factors discussed below.

Income Base and Net Worth

- A decrease in net taxable income will lead to a decrease in tax receipts for the income tax and, depending on its base, for the franchise tax. An increase in net taxable income will lead to an increase in tax receipts.
- For franchise taxes based on the net worth of the taxpayer, a decrease in net worth will lead to a decrease in tax receipts. An increase in net worth will increase tax receipts.

Nexus

- States may not be able to tax many out-of-state electricity providers. It may be more difficult to levy an income tax on out-of-state electricity providers than to levy a franchise tax on out-of-state providers.

Apportionment

The increase in interstate sales of electricity will have a major effect on franchise tax and net income tax revenues.

- The allocation and apportionment formula that states use will be an important factor in the effect of electric industry reform on both franchise taxes and corporate income taxes.
- States that are home to utilities that increase their out-of-state market share probably will see an increase in their franchise tax and income tax revenues.
- States that rely heavily on the property and payroll of the taxpayer as a way to apportion income may face income tax revenue losses as a result of restructuring.
- States' ability to tax some new forms of electricity providers will be determined by whether they tax on a unitary or separate company basis.
- Where change is necessary, it will require state legislation because most of the rules that govern revenue departments' activities can be found in state statute.

Corporate Franchise Tax

The net income and franchise taxes are often very similar. A corporate franchise tax is a tax imposed on companies that conduct business in the taxing state. In a few states it is used as a substitute for an income tax. Generally, a corporate franchise tax is based on the net worth of the corporation. However, some states impose a corporate franchise tax based on the taxable net income earned by the corporation. Commerce Clause limitations may restrict a state's ability to impose a franchise tax on an out-

Federal Actions Affecting the Electricity Market

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The Energy Policy Act of 1992 (EPACT). Proponents of competitive market mechanisms encouraged Congress to introduce competition into wholesale electric markets. EPACT encourages competition in several ways. It creates a new class of power company, the exempt wholesale generator, that can compete against electric utilities to supply electricity. In addition, owners of transmission lines will be required to let any electric generator use the lines at an approved and published price. In compliance with EPACT, the Federal Energy Regulatory Commission issued orders 888 and 889, which permitted utilities access to the transmission grid to enhance the sale and purchase of energy for resale. They do not apply to the retail or end-user customer.

Private Use Restrictions. The Tax Reform Act of 1986 (P.L. 86-272) directed the Internal Revenue Service to promulgate rules restricting the use of tax-free financing for private projects. As a result, public power providers who finance generation, transmission, or distribution may be unable to compete outside their service territory boundaries because of private use restrictions.

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ELECTRIC INDUSTRY COMPOSITION

Investor Owned Utilities (IOUs). IOUs are taxable corporations owned by shareholders. The rates that investor-owned utilities charge for electric service are regulated on a cost-of-service basis by federal or state and local regulatory agencies. Most, if not all, IOUs currently are vertically integrated, i.e., in the past they owned the generation, transmission and distribution assets required to serve the end user.

Rural Electric Cooperatives. Rural electric cooperatives are owned by their customers. As not-for-profits they do not own generation property. Rates charged by rural electric cooperatives are subject to regulation in some jurisdictions. Although most rural electric cooperatives are exempt from federal and state income taxes, they pay all other types of state and local taxes. Rural electric cooperatives are not vertically integrated, but may own generation property through generation and transmission (G&Ts) organizations. G&Ts are cooperative organizations that own power plants, generate electricity and transmit it at wholesale prices to distribution cooperatives, which are members of the G&T and provide distribution services to deliver power to end users. The formation of G&Ts allowed member systems to gain the benefits of sharing larger, more economical power plants while retaining the advantages of local ownership, control and operation. Distribution systems generally are bound to their G&Ts by an all-requirements contract, under which the distribution system agrees to purchase—and the G&T agrees to provide—all the distribution co-op's power needs. The distribution system agrees to pay rates sufficient to cover all the G&T's cost.

Public Power Systems. Public power systems, which are predominantly municipal utilities, are extensions of state and local governments. As such, they are generally not subject to federal or state income taxes. Depending on state laws, public power systems may pay sales taxes or gross receipts taxes. These organizations also may provide payments in lieu of taxes (transfers to the general fund and contributions of services to state and local governments). Public power systems can join to form joint action agencies; these consist of two or more electric utilities (usually municipally owned) that have agreed to join under enabling state legislation to carry out a common purpose—usually the provision of bulk power supply, transmission and energy-related services. This arrangement allows the utilities to operate as separate entities.

Federal Electric Utilities. Most of the electricity produced by these entities is sold for resale. These utilities generally are exempt from federal, state and local taxes. Bonneville Power Administration is an example of a federal electric utility.

Independent Power Producers. These producers include exempt wholesale generators (EWGs) and other nonutility generators. Independent power producers are subject to federal, state and local taxes, but the rates assessed may be different than those for other power producers.

Power Marketers. Power marketers negotiate electricity sales between the power producer and consumer. Power marketers are not defined as utilities, and therefore may be subject only to taxes levied on businesses and business transactions in the state.

of-state business. The tax is considered a general business cost. In some states, an upper limit is set on a single taxpayer's franchise tax payment; in Illinois, for instance, the franchise tax payment is capped at \$1 million.

Income Tax

A corporate income tax is imposed on a corporation's net income that is earned within a state. As with the franchise tax, commerce clause limitations may restrict a state's ability to impose an income tax on an out-of-state business. States are afforded great latitude in determining the income earned within their borders. Generally, states compute income by starting with federal taxable income. Some states view each company as a separate trade or business—separate company states—and compute income on a company-by-company basis. Other states regard a trade or business as one entity regardless of the corporate structure and will compute income and apportionment on the unitary business. This income base is further modified to allow or deny other deductions.

Businesses that conduct trade in several states often pay taxes in all the states in which they do business. In the case of both the income and the franchise tax, once the multistate business's overall income or net worth base is established, the tax is apportioned or allocated among the states. Typically, the apportionment is based upon a combination of factors, including property, payroll and sales. Different states rely more heavily on one or another factor to allocate each tax among states; however, many states rely more heavily on property and sales to allocate the franchise tax. An apportionment formula requires the computation of the percentage of property, payroll and sales within a state or political subdivision as compared to the total for the company. This percentage would be applied to the modified income to determine income earned within a state or political subdivision.

The state (or political subdivision) collects the franchise or income tax revenues, which are deposited directly to the general fund. They are not sent by a formula to political subdivisions of the state, nor are the revenues from the income tax generally designated for one purpose, such as school funding. Corporate income taxes and franchise taxes generally do not comprise a large proportion of states' total business taxes. In Minnesota, for instance, corporate franchise taxes based on net income comprise about 6.4 percent of total state general fund revenues. However, income tax receipts from utilities often represent a significant portion of total corporate income taxes that states collect, because utilities generally conduct a large proportion of their business inside their home state. Minnesota's utilities make about 9.5 percent of those total franchise tax payments.

A major issue confronting all states that impose an income tax or a franchise tax that is based on net income, in addition to constitutional limitations, is the statutory limit that Public Law 86-272 imposes upon a state's ability to levy an income tax on a business that conducts opera-

tions in a multistate environment. Public Law 86-272 provides that a state cannot impose an income tax on a business if the company's activities within the state are limited to mere solicitation of sales. This higher standard to which the income tax is held could make it more difficult to impose an income tax on out-of-state electricity sales, although this has not been tested in the courts. Scholars disagree as to the reach of PL86-272. Specifically, many scholars believe PL86-272 only provides protection to sellers of tangible personal property. If this is true, an issue arises as to whether or not electricity is tangible personal property. States are divided on the nature of electricity as tangible personal property. This issue typically has been addressed for sales tax purposes. The corporate franchise tax is not subject to this higher standard.

Who Pays the Corporate Franchise and Income Taxes?

- *Investor owned utilities* are subject to the income tax and the corporate franchise tax.
- *Power marketers* are subject to the income tax and the corporate franchise tax.
- *Public power systems*, as not-for-profit organizations, do not pay the corporate income or franchise tax. See the accompanying paper on payments in lieu of taxation for a discussion of payments that public power systems do make.
- *Rural electric cooperatives* and their generation and transmission organizations generally do not pay the corporate income or franchise tax because they are not-for-profit organizations. Some cooperatives are taxable and therefore are subject to corporate income tax; all non-profit entities are subject to the unrelated business income tax.

Corporate Franchise and Net Income Taxes and Electric Industry Reform: A Hypothetical Example

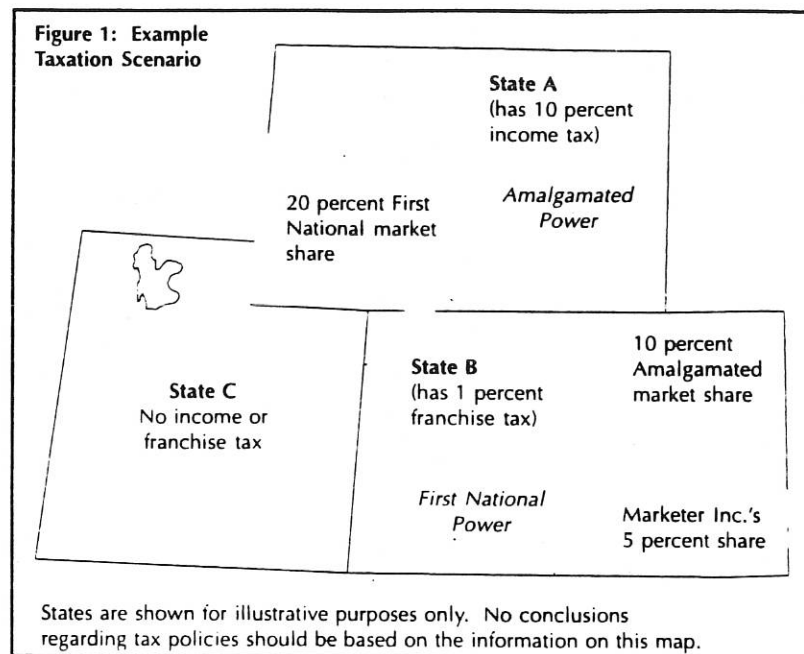
The following example illustrates how utilities and others in the electric industry pay the income and franchise taxes and how these payments could be affected by restructuring of the electric industry. Any solutions described in the example should be considered only as illustrative and not as recommendations for policy actions. Questions for state policymakers are interspersed with the example. The answers to these questions will help policymakers determine how to address this issue in their individual states. Below, examples A, B and C describe the relationship between income and franchise taxes and restructuring.

Taxes Before Restructuring

Consider Amalgamated Electric, Rural Power and City Power, three electricity providers in

State A's newly competitive electric marketplace. Until recently, these three organizations operated in their own service territories, selling power to customers that had little choice but to buy from them. With passage of State A's new legislation allowing competition among electricity providers, these three utilities now are competing with each other, with a power marketer that has begun doing business in the state and with a utility—First National Power—that has a power plants in State B, but none in State A. First National Power also has restructured its company, and is considering the merits of establishing a holding company in State C. State C has no corporate franchise or income tax. Both Amalgamated Electric and First National Power have an identical net income of \$100 million and a net worth of \$1 billion.¹ First National Power captured 20 percent of the competitive electric market in State A.

Since State B also passed legislation to allow competition in the electric industry, Amalgamated Electric is selling to customers in its market and has done well enough that it has taken 10 percent of the competitive electric market in State B. The power marketing company—Marketer Inc.—has captured an additional five percent of the competitive market in State B. Both states A and B have corporate net income taxes on utilities. State C has no corporate income tax.



State A figures its corporate income tax on the basis of Amalgamated Electric's revenues minus its expenses. Like the difference between book and tax values for property, Amalgamated Electric's taxable income is different from the income that it shows in its annual or quarterly report for book purposes.

State B figures its corporate franchise tax partly on the basis of a taxpayer's net worth—or, essentially, the market value of its outstanding stock—and partly on the basis of the taxpayers' net income.

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More sales of electricity across state borders or utility service territories could make it difficult for many states or local governments to maintain their current revenues from either the income or franchise tax.

Since Amalgamated Electric began operation as a regulated monopoly, it has paid income tax on the basis of 100 percent of its net income because it made all its sales in State A and because 100 percent of its property and payroll also were located in that state. Similarly, because State B allocates the corporate franchise tax on the basis of the taxpayers' property and sales, and because First National Power's sales and property have long been almost exclusively in State B, nearly 100 percent of First National Power's franchise tax payments have gone to State B. Until the new restructuring laws in States A and B, the income tax situation was relatively simple.

Franchise Taxes and Income Taxes After Restructuring

Nexus

Amalgamated Electric has also lost some market share to The Marketer Inc. and to First National Power. Neither of these companies located offices in State A. In attempting to tax these out-of-state providers, State A encounters a nexus problem.

Nexus is the minimum connection the taxing state must have with the corporation or the activity being taxed to collect taxes from that corporation or activity. To legally uphold its taxing authority, a state's interpretation of nexus cannot violate the Due Process Clause or the Commerce Clause of the U.S. Constitution. The concept of nexus was litigated in the 1992 case, *Quill Corporation v. North Dakota*, 504 U.S. 623 (1992) in the context of the mail-order catalog business. In that decision, the U.S. Supreme Court ruled that some kind of physical presence was necessary to support imposition of sales and use tax collection responsibility. Physical presence generally refers to having property or people in the state, either directly or through certain kinds of agency relationships. Similar issues of jurisdiction are likely to arise in states that open their electric industry to competition.

The income tax is unique among taxes that involve the nexus issue in that states must meet a higher nexus standard to establish nexus over a company or a transaction. Indeed, it can be difficult to establish nexus over a company in the new electric marketplace. Public Law 86-272 states that mere solicitation of sales is not sufficient to establish nexus. This narrower definition of nexus is meant to allow the free flow of commerce among states, without requiring a seller based in one state to pay income tax to the multiple states in which it has customers. In the case of electricity sales, it may mean that out-of-state power marketers or out-of-state utilities will not often be subject to income taxes in the state in which they are selling electricity. Until Public Law 86-272 is tested in the courts, it will not be certain that it will apply to electricity sales.

In the hypothetical example of Western Power and The Broker Inc. selling to customers in State A, it is unlikely that State A will be able to collect a corporate income tax on either

Western's or The Marketer Inc.'s sales in that state.

Although the standard for establishing nexus is not as high for a franchise tax that is based on net worth, many of the same nexus concerns apply. It may not always be possible to assert nexus on out-of-state companies in order to levy a franchise tax.

Apportionment, Tax Revenues and Restructuring

States' methods of apportioning income or net worth among themselves, for multi-state utilities, will affect the amount of income or franchise tax they collect from these multi-state companies. The example below is simplified in an effort to explain the influence of different apportionment formulas, and the effect of the loss or gain of market share on state or local tax revenues.

Now that Amalgamated Electric has captured 10 percent of State B's market, but lost 20 percent of the market in its own state to First National Power. State A's and State B's tax situation will be as follows.

Both State A and State B assess income taxes on Amalgamated Electric based on a formula² that includes:

- The property that Amalgamated Electric has in State A,
- The payroll that Amalgamated Electric has in State A, and
- The sales that Amalgamated Electric makes in State A.

State A levies a 10 percent income tax on taxable income. State B levies a 1 percent franchise tax on net worth of the taxpayer.

In Amalgamated Electric's case:

- Property in State A: 100 percent.
- Payroll in State A: 100 percent.
- Sales in State A: 90 percent (the remainder are in State B, as a result of retail wheeling).
- Average: 96.6 percent.

The average of these three is 96.6 percent, so State A will be able to collect income taxes on

A. Question for state policymakers: Will your state be able to establish nexus over the companies that will be selling electricity in your state?

Questions for state policymakers:

- *On what basis does your state impose an income or franchise tax?*
- *Does it rely more heavily on property, payroll or sales taxes?*

96.6 percent, or \$96.6 million of Amalgamated Electric's income. Its income tax revenue from Amalgamated will be \$9.66 million.

State B collects a franchise tax via a formula that looks at:

- Property located in State B,
- Sales that take place in State B.

In First National Power's case:

- Property: First National Power maintains 100 percent of its property in State B;
- Sales: First National Power makes 70 percent of its sales in State B.

Therefore, State B will be able to collect a franchise tax on 85 percent (\$850 million) of First National Power's net worth. Its franchise tax revenue from First National Power will be \$8.5 million.

By focusing on a large sales force and offices located within its borders, State A may be able to assert nexus over First National Power. Its tax collections from First National Power will not make up for its losses from Amalgamated Electric.

- Property: First National Power maintains 1 percent of its property in State A.
- Payroll: First National Power maintains 2 percent of its payroll in State A.
- Sales: First National Power makes 20 percent of its total sales in State A.

State A will be able to tax 7.66 percent (\$7.66 million) of First National Power's income, making its income tax revenue from First National Power \$766,000.

Further Loss of Market for Amalgamated Electric, Gain of Market for First National Power

Effect on State A

If First National Power takes 40 percent of Amalgamated Electric's market share, State A will collect some additional income tax revenue from First National Power, but will lose income tax revenue from Amalgamated Electric.

Amalgamated Electric:

- Income: \$80 million, with reduced sales in-state.

- Property: 100 percent in State A.
- Payroll: 100 percent in State A.
- Sales: 90 percent of Amalgamated's sales are in-state, but its total sales are reduced.
- Average: 96 percent.

State A will collect income tax on the basis of 96 percent of Amalgamated's total income, but its collections will decrease because Amalgamated's total income decreases to \$80 million. It collects its 10 percent income tax on the basis of \$77.3 million, for net collections of \$7.73 million, a reduction of \$1.93 million.

First National Power:

- Income with increased sales in Amalgamated Electric's former territory: \$120 million.
- Property in State A: 1 percent.
- Payroll in State A: 2 percent.
- Sales in State A: 40 percent.
- Average: 14.3 percent.

State A now will collect taxes on the basis of 14.3 percent of First National Power's net income. First National Power now will pay State A on the basis of 14.3 percent of \$120 million in income—or \$1.68 million in income taxes—an increase of \$950,000 in collections from First National Power.

This tax on First National Power's income will not compensate for the loss of Amalgamated's income tax revenues. In fact, State A loses \$980,000 as a result of its own utility's loss of market to First National Power. This loss results not only from Amalgamated Electric's decreased income, but also from State A's apportionment formula. State A's formula yields a lower tax base from income taxes from electricity providers that have no property or payroll in the state.

Effect on State B

State B, with a utility that flourishes in a competitive market, gains revenue with First National Power's success out of state. It now collects revenue from First National Power's higher net worth. It also gains from use of the same apportionment formula, which relies heavily on First National's property, which is located in State B, and from First National's sales.

First National Power:

- Property in State B: 100 percent.
- Sales in State B: 50 percent.

Question for state policymakers: Is your state's method of apportioning income and net worth among multi-state electric-ity providers set up such that your tax collections will decrease or increase after restructuring? (The answer to this question depends both on the way your state apportions income and on the success of your state's elec-tricity provid-ers, both in and out of state.)

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State B will be able to collect corporate franchise tax on 75 percent of First National Power's net worth, as opposed to previously collecting on 85 percent of its net worth. Even if First National Power's net worth increases by 15 percent to \$1.15 billion, State B will collect its 1 percent franchise fee on \$862.5 million of the company's net worth, resulting in a slight increase of \$12.5 million.

Net Income Taxes and the Holding Company

Some electricity providers will alter their corporate structure to make it possible to reduce their total tax bill. If the federal and state legislative laws that govern the structure of utility businesses change as a result of electric industry restructuring, First National Power and many other utilities will be able to alter their corporate structure in ways that heretofore have been impossible.³ Some utilities may choose to form a holding company that has various subsidiaries that perform different functions and meet different tax planning needs.

For example, suppose First National Power forms a holding company, based in State C, with two subsidiaries. State C has no income or franchise tax. The operating subsidiary operates in State B. It runs power plants, power lines and customer service functions. It also operates on a very slim margin of profit. Meanwhile, all payments are remitted to another subsidiary company based in State C. This company is connected to the operating subsidiary through its holding company parent, but it may be very difficult for State B to establish nexus over the profit-making subsidiary. These profits, meanwhile, are not taxed in State C.

State B's ability to levy a tax on the net income or the net worth of the State C-based subsidiary will lie in State B's definitions of how it taxes a company. If it taxes companies as unitary corporations, then it levies income taxes based on the net income of the holding company's combined income and apportionment factors. In this case, State B would be able to tax First National Power's income.

*Question for
state
policymakers:
Does your
state tax on a
separate
company or a
unitary basis?*

If State B taxes companies as separate corporations, it may be able to tax only the income of the operating subsidiary over which it has nexus in State B. It will have no ability to tax the profit-generating subsidiary that is based in State C, and cannot claim a connection on the basis of the parent company. Separate reporting states usually have provisions in their laws that allow tax administrators to attach these transfer pricing issues (i.e., if First National Power is artificially shifting its profits to the subsidiary in state C). These provisions are difficult to administer, because they require proving that the formula apportionment does not reflect economic reality. States occasionally do use these provisions, but typically only in extreme cases.

Options for Policymakers

- *Evaluate who is currently subject to the corporate income tax, and expand the number of entities that are subject to that tax to include companies that were previously exempt from the tax.*

In conjunction with eliminating its gross receipts tax, New Jersey made many other companies subject to the income tax that had not previously been subject to it .

- *Change the method of apportionment to be more heavily weighted to sales.*

This option is likely to benefit states that predict they will lose market share to out-of-state providers. It will not be beneficial to states that predict that their in-state utilities will be successful out-of state. This change would have broad implications that may be considered in a larger context than simply electric industry taxation.

- *Change from separate to unitary method of taxation.*

This option may assist states that are attempting to capture tax revenues from companies that have structured themselves as holding companies in which an in-state operating company generates little income, and any income is generated out of state by a sales company. This change would have broad implications that may be considered in a larger context than simply electric industry taxation.

- *Address the nexus issue by requiring electricity providers that sell electricity in the state to set up an office in the state.*

New Jersey passed legislation with this requirement. The requirement in New Jersey is based on the health and welfare of the citizens of the state, deeming electricity to be an essential product that is important to the interests of the state and, therefore, different from other products, such as clothing available from mail order. Several other states are considering this requirement, but it has not been tested in the courts.

- *Consider other alternative replacement taxes as a way to replace lost revenue from the income or corporate franchise tax.*

See other papers in this series for details on these possibilities.

Notes

1. These identical net worth and income figures are simplifications made to ease the comparison of the two companies' tax burdens.
2. States use various formulas to allocate income and corporate franchise taxes. In general, states rely more heavily on property and sales to allocate the franchise tax. Some states, such as Arizona, rely exclusively on sales to allocate taxpayers' income. Many also weight their formula so that it relies most heavily on sales.
3. The federal government is considering major changes to, or the repeal of, the Public Utility Holding Company Act, which in part governs the structure of investor owned utilities in the United States

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The National Conference of State Legislatures' Partnership on State and Local Taxation of the Electric Industry was formed in April 1997 to provide a communications forum to those having various roles dealing with restructuring of the electric industry who rarely have an opportunity to work together. The partners include key state legislators, experienced state legislative staff and sponsors of NCSL's Foundation for State Legislatures who chose to participate in the project. The Partnership has focused on several issues that legislators need to examine concerning state and local taxation of the electric industry in a restructured system. The resulting eight documents, designed to assist legislators in making informed policy decisions in their respective states, include:

- *Utility Taxation Overview* ISBN 1-55516-589-3 Item #4129
- *Introduction to Electric Industry Taxation* ISBN 1-55516-590-7 Item #4130
- *Gross Receipts Taxes in the Changing U.S. Electric Industry* ISBN 1-55516-591-5 Item #4131
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Tax Implications of Electric Industry Restructuring

A Series by the NCSL Partnership on State and Local Taxation of the Electric Industry

Sales Taxes in the Changing Electric Industry

As with the telecommunications, natural gas and airline industries, the electric utility industry is in the midst of a fundamental transformation. Indeed, one no longer can accurately characterize it as solely the utility industry. Wholesale competition is robust today, with dozens of sellers of electricity as a result of the Public Utility Regulatory Policies Act of 1978, the Energy Policy Act of 1992 and the actions of the Federal Energy Regulatory Commission in orders 888 and 889. Retail customers in at least a dozen states will be able to choose their electricity providers as the result of legislation or comprehensive regulatory packages enacted in those states. It is not only utilities that now are selling electricity. Electric companies that operated in the retail electricity sales business as state-regulated monopolies for more than 50 years will face competition not only from each other, but also from other companies that previously sold no retail electricity.

In states that reform their electric industry, utilities no longer will be restricted to service territories in which they operate as monopolies. These utilities—whether they be investor owned, public power systems or rural electric cooperatives—may find themselves in competition with each other and with new electricity providers like power marketers or independent power producers. The utilities may begin to sell electricity across service territories and state boundaries to customers that previously had no choice of electric companies. They also may break from their regulated vertical structure—in which one company owns and coordinates the power generation, transmission, distribution, accounting, billing and customer service functions—into separate companies. Some may even sell these functions so they can focus on only one business activity. Many mergers already have occurred, both between utilities and between utilities and companies that do not produce electricity. Some electric companies suggest they will not remain electric companies but will offer, for a single price, an array of services to their customers, including internet access, electricity, telephone and cable service and even security services. In time, the electric utility bill may bear little resemblance to its current appearance.

The National Conference of State Legislatures Partnership on State and Local Taxation of the Electric Industry was formed in 1997 as a forum to advise with various states on restructuring the electric industry. The partners include key state legislators, experienced state legislative staff and sponsors of NCSL's Foundation for State Legislatures who chose to participate in this project.

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Questions for state policymakers:

• Does your state assess a sales tax on electric utilities or other electric-ity providers' purchases?

• Does your state assess a sales tax on the sale of electricity at retail?

• Which transactions are exempt from the sales tax?

Questions for state policymakers:

• How much revenue does your state derive from the sales tax.

• What proportion of this revenue is derived from electric utilities?

In many states' these changes will require a reexamination of the tax system that has been applied to regulated monopoly businesses. The sales tax is likely to be affected by the greater number of interstate electricity sales, new billing options, the combination of electric utilities with other non-electric businesses and other elements of the restructuring of today's electric utilities.

This paper deals with direct effects of electric industry restructuring on sales tax revenues. If restructuring fulfills the promise of lower rates and greater economic activity, it will lead to economic growth, new investments and a larger sales tax base. These effects on the tax base are difficult to quantify with a useful degree of accuracy and it is not the purpose of this paper to make assertions about the potential benefits of restructuring. This paper should be taken in that context.

In a restructured market, sales tax revenues will increase in some places and decrease in others. The objective of this paper is to give state policymakers the tools to understand the effects of electric industry reform on these taxes. It will aid policymakers to participate in an informed debate and enhance their ability to make decisions with information about the franchise and income tax consequences of electric industry reform.

Main Findings

The sales tax is susceptible to changes in the electric industry as a result of three general factors:

- *Electricity Prices.* A decrease in electricity prices will lead to a decrease in sales tax revenues. An increase in electricity prices will produce greater sales tax revenues.
- *Nexus.* States may not be able to require out-of-state electricity providers to collect their sales tax.
- *Information Quality and Availability.* New methods of billing for electricity may make it difficult to ascertain an electricity price on which to base a sales tax.

Allowing companies other than the monopoly distribution company to bill for electricity and collect sales taxes may make it more difficult to collect the sales tax. There are, nonetheless, other policy factors aside from the sales tax that have led many states to encourage that billing be done by nonutilities.

Where change is necessary, it will require state legislation; most of the rules that govern revenue departments' activities can be found in state statute.

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Sales and use tax

A sales tax is imposed on the retail sales price of tangible personal property that is purchased for use or consumption in the taxing state. Sales and use taxes are counterparts. If a sale is subject to the state sales tax, it generally would not be subject to the state use tax and vice versa. State sales and use taxes generate significant tax revenues for states. States may impose their sales and use tax on the sale of electricity. Historically, states have exempted many energy and nonenergy items from state sales and use taxes. Almost every state exempts some form of energy or energy-related equipment.

Electric utilities collect sales taxes from their customers and send their collections to the state or taxing jurisdiction. Electric utilities also pay sales tax on many of their equipment purchases. The sales tax revenues go directly to the state general fund. They are neither returned by a formula to political subdivisions of the state, nor are the revenues from the sales tax generally designated for one purpose, such as school funding. The sales tax often is a very significant part of state or local governments' tax revenue stream.

Who Pays the Sales Tax?

Customers of all electricity providers pay the sales tax. The companies that distribute electricity to those customers collect the tax as a part of the electric bill, and remit the tax revenues to the state or political subdivision of the state. State law exempts some state transactions or customers from the sales tax. Many states levy a sales tax on commercial or business customers and exempt residential electricity users. Some states subject only a portion of the bill to a sales tax—for example, only the generation or only the transmission and delivery component of the bill may be subject to a sales tax. Customers of all types of electricity providers pay a sales tax, including power marketers, regulated investor owned utilities, rural electric cooperatives and public power systems. In most states customers pay this tax at the same rate, regardless of the type of company from which they buy their power.

Federal Actions Affecting the Electricity Market

The Public Utility Regulatory Policies Act of 1978 (PURPA). PURPA was passed in response to the oil embargoes and natural gas shortages of the early 1970s, and was designed to encourage alternative generation sources. PURPA requires utilities to purchase power produced by small cogeneration or renewable energy facilities at contractual rates set out or approved by state utility commissions.

The Energy Policy Act of 1992 (EPACT). Proponents of competitive market mechanisms encouraged Congress to introduce competition into wholesale electric markets. EPACT encourages competition in several ways. It creates a new class of power company, the exempt wholesale generator, that can compete against electric utilities to supply electricity. In addition, owners of transmission lines will be required to let any electric generator use the lines at an approved and published price. In compliance with EPACT, the Federal Energy Regulatory Commission issued orders 888 and 889, which permitted utilities access to the transmission grid to enhance the sale and purchase of energy for resale. They do not apply to the retail or end-user customer.

Private Use Restrictions. The Tax Reform Act of 1986 (P.L. 86-272) directed the Internal Revenue Service to promulgate rules restricting the use of tax-free financing for private projects. As a result, public power providers who finance generation, transmission, or distribution may be unable to compete outside their service territory boundaries because of private use restrictions.

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ELECTRIC INDUSTRY COMPOSITION

Investor Owned Utilities (IOUs). IOUs are taxable corporations owned by shareholders. The rates that investor-owned utilities charge for electric service are regulated on a cost-of-service basis by federal or state and local regulatory agencies. Most, if not all, IOUs currently are vertically integrated, i.e., in the past they owned the generation, transmission and distribution assets required to serve the end user.

Rural Electric Cooperatives. Rural electric cooperatives are owned by their customers. As not-for-profits they do not own generation property. Rates charged by rural electric cooperatives are subject to regulation in some jurisdictions. Although most rural electric cooperatives are exempt from federal and state income taxes, they pay all other types of state and local taxes. Rural electric cooperatives are not vertically integrated, but may own generation property through generation and transmission (G&Ts) organizations. G&Ts are cooperative organizations that own power plants, generate electricity and transmit it at wholesale prices to distribution cooperatives, which are members of the G&T and provide distribution services to deliver power to end users. The formation of G&Ts allowed member systems to gain the benefits of sharing larger, more economical power plants while retaining the advantages of local ownership, control and operation. Distribution systems generally are bound to their G&Ts by an all-requirements contract, under which the distribution system agrees to purchase—and the G&T agrees to provide—all the distribution co-op's power needs. The distribution system agrees to pay rates sufficient to cover all the G&T's cost.

Public Power Systems. Public power systems, which are predominantly municipal utilities, are extensions of state and local governments. As such, they are generally not subject to federal or state income taxes. Depending on state laws, public power systems may pay sales taxes or gross receipts taxes. These organizations also may provide payments in lieu of taxes (transfers to the general fund and contributions of services to state and local governments). Public power systems can join to form joint action agencies; these consist of two or more electric utilities (usually municipally owned) that have agreed to join under enabling state legislation to carry out a common purpose—usually the provision of bulk power supply, transmission and energy-related services. This arrangement allows the utilities to operate as separate entities.

Federal Electric Utilities. Most of the electricity produced by these entities is sold for resale. These utilities generally are exempt from federal, state and local taxes. Bonneville Power Administration is an example of a federal electric utility.

Independent Power Producers. These producers include exempt wholesale generators (EWGs) and other nonutility generators. Independent power producers are subject to federal, state and local taxes, but the rates assessed may be different than those for other power producers.

Power Marketers. Power marketers negotiate electricity sales between the power producer and consumer. Power marketers are not defined as utilities, and therefore may be subject only to taxes levied on businesses and business transactions in the state.

Electricity providers of all types sometimes pay a sales tax on purchases of equipment or other property. Many states exempt these purchases from a sales tax. Certain municipal utilities may not pay a sales tax on equipment purchases made within their own municipal boundaries.

Sales Taxes and Electric Industry Reform: A Hypothetical Example

The following example illustrates how utilities and others in the electric industry pay sales taxes and how those payments could be affected by restructuring electric industry. The example is a useful tool for explaining the topic. However, it should not be taken as a recommendation to pursue a specific policy. Questions for state policymakers are interspersed with the example. The answers to these questions will help determine how to address this issue in their individual states.

Sales Taxes Before Restructuring: A Hypothetical Example

Consider Amalgamated Electric, a hypothetical electricity provider in State A's newly competitive electric marketplace. Before the restructuring of the electric industry in State A, Amalgamated Electric collected the sales tax from its customers. This sales tax was based on 5 percent of the customer's electric bill. Embedded in the customers' electric rate is another sales tax, the one Amalgamated Electric pays its own suppliers for purchases of equipment. The sales tax has been easy to levy and collect, because Amalgamated Electric is a convenient and willing sales tax collector. In addition, it has been easy to ascertain the amount and price of electricity for which its customers have paid.

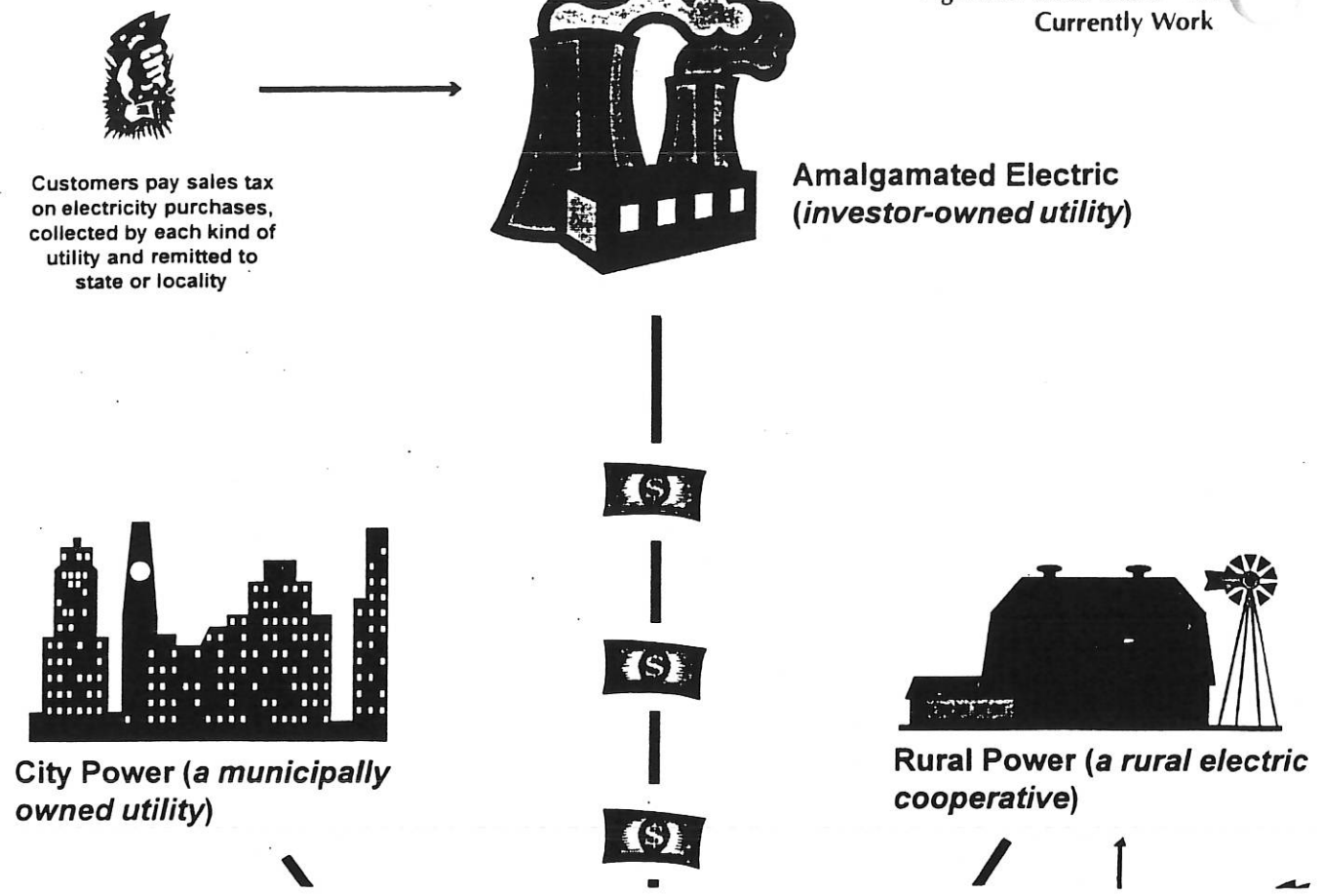
AMALGAMATED ELECTRIC	CUSTOMER NAME	ELECTRIC SERVICE		
ACCOUNT NO. 1234567890	JOHN SMITH	09/29/97 READING	10000 ACTUAL	
DUE DATE OCT 13, 1997	ENERGY TOTALS	08/28/97 READING	9000 ACTUAL	
AMOUNT DUE \$84.00	TOTAL ELECTRIC	32 DAYS	1000 KWH	
DATE OF BILL OCT 01, 1997	AVERAGE/DAY		@ \$.08/KWH	\$80.00
	TAX INFORMATION	SALES TAX	5.00%	\$ 4.00
		TOTAL CHARGES		\$84.00

Figure 1: Sample Bundled Electric Bill

With restructuring, the sales tax becomes more complex. Many state tax issues are actually related to the way in which electricity providers bill for their products and services. These new bills may reflect new corporate structures or new methods of addressing an issue such as

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Figure 2: Sales Taxes—How Currently Work



stranded costs. Some parts of the formerly bundled electric bill may no longer be subject to the sales tax.

Sales Taxes After Restructuring

Since restructuring, Amalgamated Electric separated its company into several smaller ones under a holding company that is still called Amalgamated Electric. Amalgamated Generation only generates electricity, and has become a wholly-owned subsidiary of the holding company, Amalgamated Electric. Deregulated Amalgamated Generation now competes for new business with Marketeer Inc. and Western Power, another electricity provider based in State B. Amalgamated Generation, Western Power and the Marketeer Inc. sell electricity at market regulated prices. Each sends power through lines that are owned and operated by Amalgamated Transmission and Distribution (ATD), another member of the Amalgamated Electric family of companies. Amalgamated Transmission and Distribution remains a regulated monopoly.

These electric providers' customers will probably continue to pay for and receive the same services they received under a regulated industry, and they may still pay for all those services on one bill. After State A allows competition in electricity generation, the bill will be divided among different functions, and payments will go to different entities. Not all elements of the unbundled electric bill will be subject to tax.

These companies' electric bills appear different, too. Amalgamated Generation, Marketeer Inc. and Western Power break their bills into several parts that might look like figure 3:

AMALGAMATED ELECTRIC	CUSTOMER NAME	ELECTRIC SERVICE		
ACCOUNT NO. 1234567890	JOHN SMITH	POWER DELIVERY		\$.02
DUE DATE OCT 13, 1997	ENERGY TOTALS	GENERATION		\$.04
AMOUNT DUE \$81.90	TOTAL ELECTRIC	COMPETITION TRANSITION CHARGE		\$.015
DATE OF BILL OCT 01, 1997	AVERAGE/DAY	PUBLIC BENEFITS CHARGE		<u>\$.003</u>
	TAX INFORMATION	TOTAL		\$.078
		32 DAYS	1000 KWH @ \$.078/KWH	\$78.00
		SALES TAX	5.00%	\$ 3.90
		TOTAL CHARGES		\$81.90

Figure 3: Sample Unbundled Electric Bill

Customers now receive a bill that separates and itemizes several different charges that previously had been bundled together in one rate. This itemized bill reflects different, separate charges from the regulated electricity delivery company, Amalgamated Transmission and Dis-

Questions for state policymakers:

- Who currently pays the sales tax?
- Who is exempted?
- On what part of the electric bill does your state levy the sales tax?

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Question for state policymakers: Will your state be able to establish nexus over the transactions made out-of-state to sell electricity to customers in your state?

tribution; the state-administered energy efficiency, low-income customer and renewable energy support program¹; the price of energy from Western Power; and the sales tax.

Who Will Collect the Sales Tax?

Amalgamated Electric, as the only company billing customers for their electricity use, has long collected the sales tax for State A. With competition, Amalgamated Electric may no longer be the only company to bill customers for their electricity use. Marketeer Inc. or Western Power also may bill their customers for electricity use, as might other electricity suppliers, including Amalgamated Generation.² These companies use their electric bill as a way to communicate with their customers. Green power marketers, for instance, who may charge their customers a premium price for power from environmentally-friendly sources, might use their bills and bill inserts to communicate with their customers about the factors contributing to the premium that is paid for this type of electricity.

State A may not be able to require out-of-state electricity providers—such as State B-based Western Power—to collect its sales tax. If State A allows companies other than Amalgamated Transmission and Distribution to bill customers, it will be more difficult to collect a sales tax. In attempting to require Western Power to collect a sales tax, State A could encounter a nexus problem.

Nexus

Nexus is the minimum connection the taxing state must have with the corporation or the activity being taxed. To legally uphold its authority to impose a tax, a state's interpretation of nexus cannot violate the Due Process Clause or the Commerce Clause of the U.S. Constitution. The concept of nexus was litigated in the 1992 case *Quill Corporation vs. North Dakota*, 504 U.S. 623 (1992) in the context of the mail-order catalog business. In that decision the U.S. Supreme Court ruled that some kind of physical presence was necessary to support imposition of sales and use tax collection responsibility. Sales tax is similar to a gross receipts tax in that it is assessed on the company's revenue. Physical presence generally refers to having property or people in the state, either directly or through certain kinds of agency relationships.³

Similar issues of jurisdiction are likely to arise in states that open up their electric industry to competition. A state may have jurisdiction to tax the company that resides within its borders, but not the business transactions that the company performs with out-of-state companies or business transactions performed in the state by an out-of-state company.

What Can States Tax?

During the electric industry restructuring process, some states may choose to allow utilities to recover partially, the prudently incurred, verifiable and non-mitigable uneconomic assets, often referred to as stranded costs. Should state A allow for the recovery of Amalgamated

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Electric's stranded costs, the portion of the bill that is earmarked to pay for these costs may not be subject to sales tax. Some argue these funds simply flow to Amalgamated Electric as an additional state assessment on the price of electricity and should therefore not be subject to sales tax.

Sales Tax on Generation

Some states define the sales tax as one that is levied on sales from a regulated utility. If electricity generation no longer is state-regulated, the Amalgamated Generation, Western Power or Marketeer Inc. portion of the bill may not be subject to sales tax. Instead, the tax might be levied only on the regulated entities' portion of the bill—that being Amalgamated Transmission and Distribution. In the example above, only \$.02 per kWh, would, therefore, be subject to sales tax.

State-Required Charges for Renewable Energy, Energy Efficiency or Low-Income Customer Support

Western Power collects fees that are dedicated to State A's programs to help preserve energy efficiency, renewable energy or other public benefit programs. State A's government might operate those programs with the money that these fees provide. If these fees are broken out on the bill and are dedicated to a specific government-administered program, should they then be subject to tax? To the extent that these fees are no longer part of the price of electricity, but are instead an additional charge that the government requires to be levied on the product, they may not be taxable. In the example above, \$.003 per kWh might no longer be subject to sales tax.

Stranded Cost Securitization

California, Pennsylvania, Montana and Rhode Island legislatures have let electric utilities securitize some of their costs related to uneconomic assets. If State A allows securitization of part of Amalgamated Electric's stranded costs, the portion of the electric bill that repays the securitized bonds may not be subject to sales tax.

This securitization would affect the 1.5 cents per kilowatt-hour (kWh) that all customers in State A pay to compensate Amalgamated Electric for its stranded costs. If Amalgamated Electric securitizes 100 percent of its stranded costs, customers instead might pay 1.4 cents per kWh. Now, however, the 1.4 cents is pledged, as a state-legislatively guaranteed property right, to pay off bonds that either a state authority or Amalgamated Electric issued. State legislation structures these bonds so that they are secure and highly rated. In fact, the 1.4 cents per kWh flows through Amalgamated Electric directly to a third party, a special purpose entity designed especially to pay off these bonds. Amalgamated Electric does not have access to these funds, and legislation has pledged them to pay off specific bonds. Some may argue that these funds simply flow through Amalgamated Electric as an additional state assessment on

the price of electricity and, therefore, should not be subject to sales tax.

What Components of the Bill Will States Know?

In a regulated monopoly system, states approve electric rates and utility companies bill their customers for electricity and sales taxes on electricity. Historically, states have had access to information about the price of electricity.

However, in a competitive environment, State A and the federal government might approve only the price of delivering—not generating—electricity. Particularly when out of state retailers like Western Power use Amalgamated Transmission and Distribution's lines to sell to State A customers, Amalgamated Transmission and Distribution or State A may not know the price that Western Power charges for energy.

Western Power may argue that it should not have to divulge its price to ATD and in fact, Western may argue that ATD's holding company, Amalgamated Electric, has an unfair benefit because it can gain access to more information about Western Power's pricing strategies than Western Power can about Amalgamated Electric's pricing. Knowing what Western Power charges for electricity could give Amalgamated the opportunity to offer Western Power's customers a price just slightly below that of Western, while Western does not have the equivalent information about Amalgamated's customers to be able to do the same.

As a result, it is possible that states will have access only to information about the price of delivering electricity, not generating it, and they may not be able to collect a tax on the generation component of the energy bill.

What Billing Options Might Competitive Electric Providers Use?

Mergers, New Services and the Price of Electricity

If Amalgamated Generation follows the lead of many electric companies, it later may merge with a natural gas, telephone, internet, cable or even a security services provider. Known as convergence mergers, these mergers will allow customers to work with one company for all services and pay a single bill, as shown in figure 4.

That bill could differ significantly from the electric bill now sent out by Amalgamated Electric. For instance, it might offer a bundle of services at a fixed price. However, it might not express a charge per kilowatt hour of electricity that the consumer uses. If State A bases its sales tax on a price per kilowatt hour of electricity, new billing techniques that make it difficult, if not impossible, to define an electricity price could also make it difficult to define a sales tax.

AMALGAMATED ELECTRIC	CUSTOMER NAME JOHN SMITH	TOTAL DUE FOR SECURITY, INTERNET ACCESS AND ELECTRICITY	\$150.00
ACCOUNT NO. 1234567890			
DUE DATE OCT 13, 1997	TAX INFORMATION	SALES TAX(?)	_____
AMOUNT DUE \$150.00		TOTAL CHARGES(?)	_____
DATE OF BILL OCT 01, 1997			

Figure 4: Sample Electric Bill With a Fixed Charge for Several Services

What Will Happen to the Price of Electricity?

Sales tax revenues fluctuate with electricity prices. Because sales taxes are based on a percentage of the price of electricity, a higher electricity price will produce greater sales tax revenues and lower electricity prices will generate lower sales tax revenues. It is unlikely, however, that many people would consider lower prices undesirable simply because they generate less sales tax revenue.

Options for State and Local Policymakers

- *Address the nexus issue by requiring electricity providers that sell electricity in the state to set up an office in the state.* New Jersey passed legislation with this requirement. The requirement in New Jersey is based on the health and welfare of the citizens of the state, deeming electricity to be an essential product, one that is important to the interests of the state and, therefore, different from other products, such as clothing available from mail order. Several other states are considering this requirement, but it has not been tested in the courts.
- *Examine sales tax exemptions, and alter the mix of companies and transactions that currently are subject to the sales tax.* Consider alternative taxes as a way to replace lost revenue from the income or corporate franchise tax (see other papers for details on these possibilities).
- *Assume a price for electricity, and levy a tax based on that assumed price.* In cases where states do not know the price of electricity, it may be possible to assume a price, and levy a tax based on that assumed price. That assumed price could be a regional average price or a price based on the price of electricity in a particular year.

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Notes

1. These additional charges might be charges that all customers are required to pay—so-called non-bypassable charges such as fees to cover stranded costs, or other fees to cover public benefits programs such as energy efficiency, or low-income customer support. These charges, formerly included in the electric company's electric rate, but are stated separately on the electric bill.

2. States have a choice. They may either require the "distribution company" such as Amalgamated Transmission and Distribution, to do all the billing for all electricity consumers, or the state may allow all electricity providers to do their own billing.

NCSL Electric Industry Tax Partners

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Matthew H. Brown & Kelly Hill



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Tax Implications of Electric Industry Restructuring

A Series by the NCSL Partnership on State and Local Taxation of the Electric Industry

Gross Receipts Taxes in the Changing U.S. Electric Industry

As with the telecommunications, natural gas and airline industries, the electric utility industry is in the midst of a fundamental transformation. Indeed, one no longer can accurately characterize it as solely the utility industry. Wholesale competition is robust today, with dozens of sellers of electricity as a result of the Public Utility Regulatory Policies Act of 1978, the Energy Policy Act of 1992 and the actions of the Federal Energy Regulatory Commission in orders 888 and 889. As shown in figure 1, retail customers in at least a dozen states will be able to choose their electricity providers as the result of legislation or comprehensive regulatory packages enacted in those states. It is not only utilities that now are selling electricity. Electric companies that operated in the retail electricity sales business as state-regulated monopolies for more than 50 years will face competition not only from each other, but also from other companies that previously sold no retail electricity.

The effect of electric industry restructuring on state and local taxes should be part of these policy debates because electric industry restructuring may cause a shift in expected revenues and thereby affect state and local budget planning. In a restructured electric market, policymakers may need to revise the state's tax system to more fully reflect the economic activity being taxed.

This paper deals with the direct effects of electric industry restructuring on gross receipts tax (GRT) revenues. If restructuring fulfills the promise of providing lower electricity rates and greater economic activity, it may potentially lead to economic growth, new investments and a larger tax base. The effects of such growth and investments on the gross receipts tax base are difficult to quantify with a useful degree of accuracy and it is not the purpose of this paper to make assertions about the potential benefits of restructuring. This paper should be taken in that context.

The National Conference of State Legislatures Partnership on State and Local Taxation of the Electric Industry was formed in 1997 as a forum for those with various roles in restructuring the electric industry. The partners include key state legislators, experienced state legislative staff and sponsors of NCSL's Foundation for State Legislatures who chose to participate in this project.

Gross Receipts Taxes

Gross receipt taxes (GRT) are used by several states to raise revenue for the general fund. Some states earmark GRTs to fund specific programs such as education or to distribute revenues to municipal local governments. Utility restructuring presents two main issues related to GRTs:

- The effect of competition on GRT revenues, and
- The effect of GRT on effective competition.

State policymakers may want to consider the following points as they consider GRTs in a restructured system

- How states assess GRTs could affect the competitiveness of different electricity suppliers.
- GRT revenues are likely to decrease as an indirect result of lower electricity costs but, if overall electricity consumption increases as a result of restructuring, GRT revenues may increase if lower electricity costs are offset by increased competition.
- If a state cannot collect GRT on out-of-state electricity providers, GRT revenues may decrease if in-state electricity providers lose market share to out-of-state sellers and taxable receipts do not increase.
- In states where the GRT applies only to utilities, GRT revenues are likely to decline as the market opens to more non utility retailers.
- Securitization could have an effect on GRT revenues.
- The impact of changes in the GRT system in a competitive electricity market on local government revenues should be considered by states where local governments levy GRT.
- The effect of changes in the GRT system on state and local tax administration and collection efforts.
- Where change is necessary, it will require state legislation because most of the rules that govern revenue departments' activities are in state statute.

A Definition of Gross Receipts Tax

A gross receipts tax is a levy applied to total revenues from a company's sales without the benefit of any deductions. The tax is imposed directly on the seller as based upon total revenues and is considered a general business cost. It differs from a sales tax in that it is a tax on the selling company rather than on the purchaser. However, the gross receipts tax generally is passed to the customer indirectly in the form of increased energy cost. In some states, local jurisdictions also can impose the GRT.

Not every state has a GRT, but those that do usually deposit the proceeds in the state treasury without particular designations or purposes. However, a few states earmark GRT revenues generated from utilities for specific programs, including education, the public utility commissions, county health and social service programs, as a local tax replacement and as general funds distributed directly to local jurisdictions.

Electric industry restructuring could have mixed results for state GRT revenues. In a monopoly electric market, the utility providing electricity controlled all aspects of power generation, transmission and distribution. Restructuring efforts may unbundle these into separate systems by specifically focusing on opening generation capacity to competition. States may need to reexamine their current GRT system to determine how these individual components of the electric industry will be taxed.

States may see a fluctuation in GRT revenues in a restructured environment. For example, those states with low-cost power generation could see an increase in GRT revenues because the competitive market will favor these low-cost power companies. Similarly, states with high-cost power plants may see a decrease in GRT revenues. Such a decrease could have a potentially significant effect on programs for which those funds are earmarked or may require a tax rate increase on remaining monopoly functions. However, legislatures that have restructured their state's electric industry have done so with the intent that competition will increase economic growth in the state. This economic growth could offset some or all of the losses in electric industry taxation revenue. The true results of restructuring on GRT revenues may not be known until competition is in place, and could vary over time.

Who Pays Gross Receipts Taxes?

Although there is variation among the states, GRT can be paid by investor owned utilities (IOUs), rural electric cooperatives, public power systems and independent power producers.

Federal Actions Affecting the Electricity Market

The Public Utility Regulatory Policies Act of 1978 (PURPA). PURPA was passed in response to the oil embargoes and natural gas shortages of the early 1970s, and was designed to encourage alternative generation sources. PURPA requires utilities to purchase power produced by small cogeneration or renewable energy facilities at contractual rates set out or approved by state utility commissions.

The Energy Policy Act of 1992 (EPACT). Proponents of competitive market mechanisms encouraged Congress to introduce competition into wholesale electric markets. EPACT encourages competition in several ways. It creates a new class of power company, the exempt wholesale generator, that can compete against electric utilities to supply electricity. In addition, owners of transmission lines will be required to let any electric generator use the lines at an approved and published price. In compliance with EPACT, the Federal Energy Regulatory Commission issued orders 888 and 889, which permitted utilities access to the transmission grid to enhance the sale and purchase of energy for resale. They do not apply to the retail or end-user customer.

Private Use Restrictions. The Tax Reform Act of 1986 (P.L. 86-272) directed the Internal Revenue Service to promulgate rules restricting the use of tax-free financing for private projects. As a result, public power providers who finance generation, transmission, or distribution may be unable to compete outside their service territory boundaries because of private use restrictions.

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ELECTRIC INDUSTRY COMPOSITION

Investor Owned Utilities (IOUs). IOUs are taxable corporations owned by shareholders. The rates that investor-owned utilities charge for electric service are regulated on a cost-of-service basis by federal or state and local regulatory agencies. Most, if not all, IOUs currently are vertically integrated, i.e., in the past they owned the generation, transmission and distribution assets required to serve the end user.

Rural Electric Cooperatives. Rural electric cooperatives are owned by their customers. As not-for-profits they do not own generation property. Rates charged by rural electric cooperatives are subject to regulation in some jurisdictions. Although most rural electric cooperatives are exempt from federal and state income taxes, they pay all other types of state and local taxes. Rural electric cooperatives are not vertically integrated, but may own generation property through generation and transmission (G&Ts) organizations. G&Ts are cooperative organizations that own power plants, generate electricity and transmit it at wholesale prices to distribution cooperatives, which are members of the G&T and provide distribution services to deliver power to end users. The formation of G&Ts allowed member systems to gain the benefits of sharing larger, more economical power plants while retaining the advantages of local ownership, control and operation. Distribution systems generally are bound to their G&Ts by an all-requirements contract, under which the distribution system agrees to purchase—and the G&T agrees to provide—all the distribution co-op's power needs. The distribution system agrees to pay rates sufficient to cover all the G&T's cost.

Public Power Systems. Public power systems, which are predominantly municipal utilities, are extensions of state and local governments. As such, they are generally not subject to federal or state income taxes. Depending on state laws, public power systems may pay sales taxes or gross receipts taxes. These organizations also may provide payments in lieu of taxes (transfers to the general fund and contributions of services to state and local governments). Public power systems can join to form joint action agencies; these consist of two or more electric utilities (usually municipally owned) that have agreed to join under enabling state legislation to carry out a common purpose—usually the provision of bulk power supply, transmission and energy-related services. This arrangement allows the utilities to operate as separate entities.

Federal Electric Utilities. Most of the electricity produced by these entities is sold for resale. These utilities generally are exempt from federal, state and local taxes. Bonneville Power Administration is an example of a federal electric utility.

Independent Power Producers. These producers include exempt wholesale generators (EWGs) and other nonutility generators. Independent power producers are subject to federal, state and local taxes, but the rates assessed may be different than those for other power producers.

Power Marketers. Power marketers negotiate electricity sales between the power producer and consumer. Power marketers are not defined as utilities, and therefore may be subject only to taxes levied on businesses and business transactions in the state.

Gross Receipts Taxes and Electric Industry Reform: Some Hypothetical Examples

The following examples illustrate how utilities and others in the electric industry pay GRT and how those payments could be affected by electric industry restructuring (see also figure 1). Questions for state policymakers are interspersed with the examples. The answers to these questions will help policymakers determine how to address this issue in their individual states. Any solutions described in the examples should be considered only as illustrative and not as recommendations for policy actions.

Example A

Amalgamated Electric Company is an investor owned electric corporation that operates primarily in State A, but has begun selling electricity across state boundaries in wholesale and retail markets. Two other utilities also are located in State A—Rural Power, a rural electric cooperative and City Power, a public power system. Amalgamated Electric, Rural Power (in this example, Rural Power is a member of a generation and transmission cooperative¹) and City Power all own power plants that are located in State A.

State A imposes a 2 percent GRT on utility sales with the revenues going to the state's general fund. All three pay the GRT and pass the cost to their consumers as a cost-of-business figured into the rate charged for electricity.

Gross Receipts Taxes After Restructuring

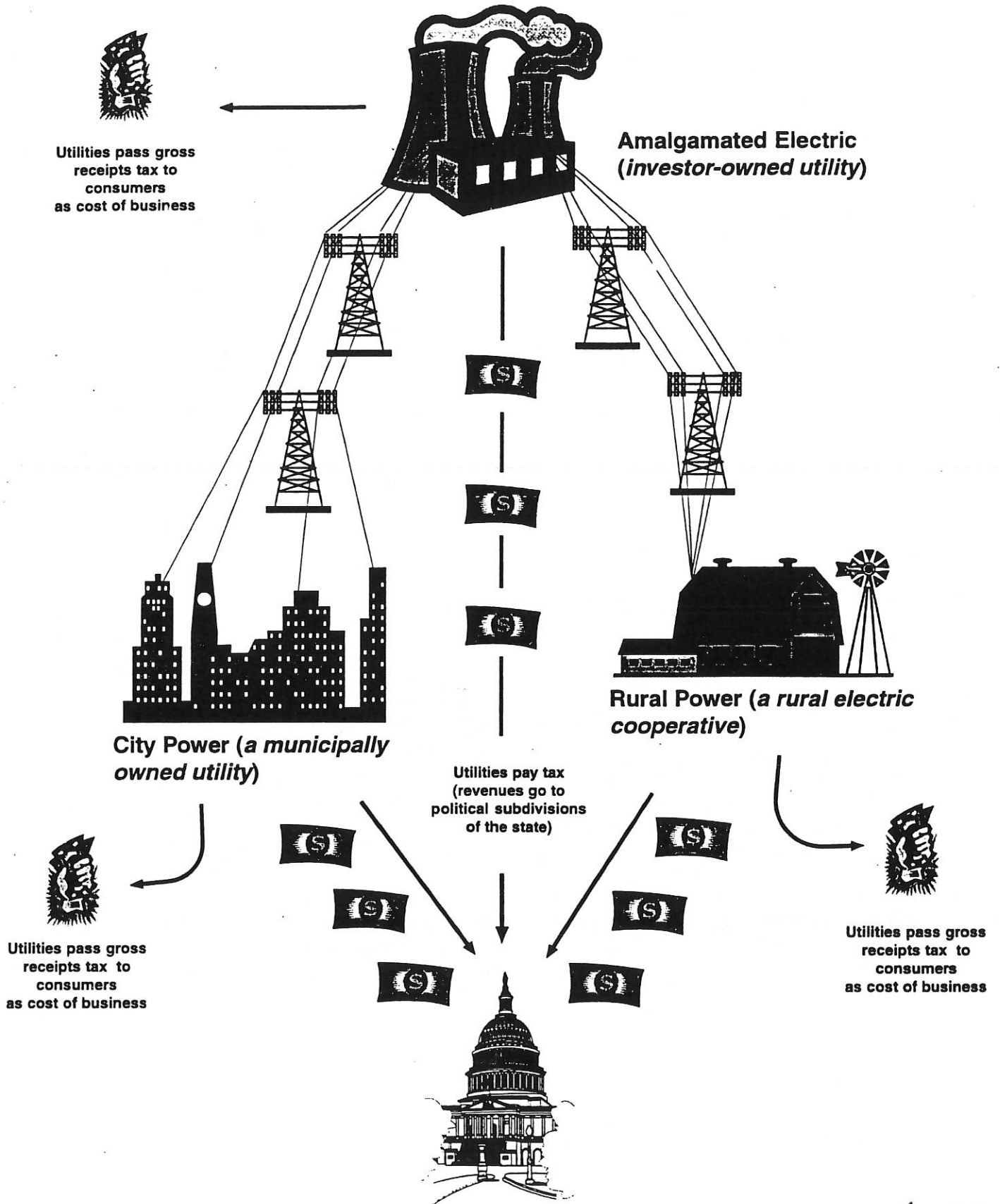
Example B

Amalgamated Electric has served the residential customers in State A since its establishment early in the century. It now operates some power plants that have built a reputation for dependable, consistent and inexpensive operation. Recently, one of the states (State B) in which Amalgamated sells electricity in the wholesale market has opened its electricity markets to retail competition. Amalgamated sees a financial opportunity to sell electricity across the border and begins marketing its services to these potential retail customers. Because the power plant used by the main power producer in State B—First National Power—is old and inefficient, Amalgamated is able to offer a lower electricity price and gains a 10 percent market share in that state. Another 5 percent of the market share was gained by a power marketer—Marketer Inc.—that negotiates electricity sales between the power producer and consumer. Since power marketers are not defined as utilities in State B, and since the GRT in State B applies only to utilities, the sales by power marketers are not subject to GRT. For purposes of the example, it is assumed that the total amount of electricity consumed in State B remains constant.

Questions for State Policymakers:

- Does your state impose a gross receipts tax?
- Do the local jurisdictions in your state impose GRT?
- How much revenue is raised by the GRT?

Figure 1. Gross Receipts Taxes—How They Currently Work



These changes in State B's electricity markets cause changes in State B's GRT revenues because the revenues from the generation of electricity out-of-state may not be subject to the GRT. Policymakers in State B need to determine if they have nexus to tax these revenues.

Nexus

Nexus is the minimum connection the taxing state must have with the corporation or the activity being taxed in order to collect taxes from that corporation or activity. To legally uphold its authority to impose a tax, a state's interpretation of nexus cannot violate the Due Process Clause or the Commerce Clause of the U.S. Constitution. The concept of nexus was litigated in the 1992 case, *Quill Corporation vs. North Dakota*, 504 U.S. 623 (1992), in the context of the mail-order catalog business. In that decision, the U.S. Supreme Court ruled that some kind of physical presence was necessary to support imposition of sales and use tax collection responsibility. Sales tax is similar to GRT in that it is assessed on the company's revenue. Physical presence generally refers to having property or people in the state, either directly or through certain kinds of agency relationships.

Similar issues of jurisdiction are likely to arise in states that open up their electric industry to competition. A state may have jurisdiction to tax the company that resides within its borders, but not the business transactions that company performs with out-of-state companies or business transactions performed in it by an out-of-state company.

Example C

State B imposes a 5 percent GRT on utility sales that are earmarked for the state public education fund. State B's GRT generates \$10 million annually. In this example, before restructuring, State B did not have to worry about the potential revenue loss because First National Power was the primary electricity provider. Restructuring legislation changed this and now Amalgamated Electric, an out-of-state company, can sell power in State B. Although State B can impose a GRT on the electric companies within its borders, it may not have the nexus to tax Amalgamated for the 10 percent of sales that occur in State B. If State B cannot establish nexus, its GRT revenues will decline by 10 percent.

Example D

State B has jurisdiction to tax the power marketer—Marketer Inc. The power marketer is headquartered in State B, but it is taxed as an in-state business, not as a utility, because it is only brokering sales, not actually generating electricity from its own plant. As a result, a GRT is no longer paid on the 5 percent of electricity sales conducted by Marketer Inc. Because State B earmarks its utility GRT for school funding, there is now a 5 percent reduction in those revenues. If less expensive electric rates result from State B's restructuring efforts, increased growth in other sectors of the economy may offset the loss in GRT revenues.

Question for State Policymakers:
•How does unbundling of generation, transmission and distribution capacities affect state GRT revenues?

Question for State Policymakers:
•Do you have nexus to tax out-of-state electricity providers?

Question for State Policymakers:
•Are gross receipt tax revenues in your state earmarked for specific programs?

Question for
State
Policymakers:
• Is the gross
receipts tax
in your state
assessed on
all businesses
or only on
utilities?
• If it is as-
sessed on all
businesses, is
the rate
different for
utilities?

Question for
State
Policymakers:
• If
securitization
is being used
to finance
utilities'
stranded
costs, are the
revenues
earmarked to
pay the
bondholders
and are they
considered
taxable
revenue?

Example E

First National Power, the primary electricity provider in State B before restructuring, has found itself with an aging power plant and higher taxes (including GRT) than its competitors. It is now considering forming a holding company that will be located in State C, which has no GRT. First National Power would be reconfigured into a holding company that controls a generation facility (First National Power's plant in State B), a wires company and a sales company, all located in State C. First National Power will continue to produce electricity and sell it to consumers in State B, much as it has for the past 60 years. However, all the revenues generated by electricity sales from the First National Power plant would go to State C and not be subject to the GRT; if State B lacks the nexus to collect GRT on those electricity sales, State B will see a large reduction in the GRT revenues. State B may see the need to reconfigure its tax system to try to collect a tax on sales made by the out-of-state company. Numerous utilities may explore ways to revise their corporate structure to reduce their total tax bill.

Taxable Revenue

Other aspects of electric industry restructuring may have an indirect effect on taxable revenues. Competition in the electric industry is meant to lower customers' electricity costs by opening the marketplace to multiple providers. However, lowering costs may indirectly lower GRT revenues. For example, California's restructuring legislation requires a 10 percent reduction in residential electricity rates. If consumption levels remain stable, tax revenues are likely to decline by 10 percent as well. But if less expensive electricity rates result in growth in other sectors of the economy the loss in revenue may be partially offset through other taxes.

Example F

Policymakers in State A have been observing the implementation of electric industry restructuring in State B and have decided to move forward with it in their state. One question that arose during restructuring debates in State A is how Amalgamated will recover the stranded costs on its power plant.² Amalgamated argued that, in the past, the state public utility commission allowed it to recover its costs over a 30-year period by passing these costs to consumers. In a restructured system, the utility no longer operates in a state-designated service territory and, therefore, no longer has the assured customer base from which to recover its costs. After determining that Amalgamated Electric is indeed entitled to be compensated for some of its stranded costs, as determined by the Public Utilities Commission, the legislature decided securitization was the best way to address this concern.

Example G

Amalgamated Electric makes the argument that the funds it collects to pay off the securitization bonds are earmarked solely to pay off these bonds and should not be counted as taxable revenue for the utility. If this argument prevails, securitization will, in effect, siphon off a portion of the taxable revenue.

Options for Policymakers

These hypothetical examples illustrate some of the issues state policymakers need to examine during discussions of the effects of electric utility industry restructuring on state and local taxation. The following options have been considered by states that have implemented restructuring:

- *Replace the GRT with other taxes, or limit it to regulated components of the electric industry such as the transmission or distribution sectors.* The state GRT could be eliminated and replaced with a tax that can be assessed equally on all electricity providers. Although New Jersey has not restructured the electric industry in the state, the deregulation of other utilities in the region prompted it to eliminate its GRT over a five-year period. Assembly bill 2825 (1997) eliminates the GRT and franchise taxes previously collected by electric, gas and telecommunications utilities. Instead, these utilities will be subject to the state's corporate business tax. Additionally, the state's existing sales and use tax, with certain exceptions, will be applied to retail sales of electricity and natural gas, and a transitional energy facility assessment will be applied on these utilities.
- *Determine which areas of the state or local budgets will be most seriously affected by a reduction in GRT. Possibly earmark a portion of the taxes levied upon out-of-state sources toward that deficit.* For example, when New Jersey eliminated the GRT it also revised its method for distributing funds to local municipalities from state taxation of gas and electric public utilities and certain telecommunication companies, and from sales of electricity, natural gas and energy transportation service. Assembly bill 2824 (1997) guarantees local municipalities an annual state aid distribution of at least \$730 million from tax revenues that will replace the GRT, franchise taxes and unit-based energy taxes.
- *Explore the nexus issue to determine if there is a way to offset the losses in GRT.*
- *If local jurisdictions in the state collect GRTs, states may want to consider how local governments will be affected in a restructured system, and determine whether the state should take steps to redesign the GRT system and find replacement taxes.* Pennsylvania recently enacted legislation with a revenue neutrality provision. Section 4 of HB 1509 (1997) specifically states that, "It is the intention of the General Assembly to establish this revenue replacement at a level necessary to recoup losses that may result from the restructuring of the electric industry and the transition thereto." Starting January 1, 1999, the act extends the GRT to nonutility suppliers as well as to municipal utilities and cooperatives for sales outside their established service territories.

By December 1, 1998, and from October 1, 1999, through 2002, the Pennsylvania Revenue Department must publish the tax rate in the state bulletin. The 2002 rate continues indefinitely. The department must adjust the rate to reflect changes in electricity sales above a 1995 base and total gross receipts. The adjustment can result in a surcharge or credit.

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Notes

1. G&Ts are cooperative organizations that own power plants, generate electricity and transmit it at wholesale to distribution cooperatives. The distribution cooperatives are members of the G&T and provide distribution services for the delivery of power to end users. The formation of G&Ts allowed member systems to gain the benefits of sharing larger, more economical power plants while retaining the advantages of local ownership, control and operation. Distribution systems (in this case Rural Power) generally are bound to their G&Ts by an all-requirements contract, under which the distribution system agrees to purchase—and the G&T agrees to provide—all the distribution co-op's power needs. The distribution system agrees to pay rates sufficient to cover all the G&T's cost. By guaranteeing the G&T a sufficient revenue stream, the all-requirements contract provides the primary security for nearly all G&T borrowings.

2. Stranded costs are those costs a utility would have recovered through rates under a regulated system, but won't be able to recover in a competitive system. Examples of these costs include new power plants and transmission systems.

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Pennsylvania Public Utility Commission

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Consumer's Dictionary for Electric Competition

Affiliate A company that is controlled by another or that has the same owner as another company.

Aggregator A firm, licensed by the commission, that signs up a large group of consumers to bargain on their behalf for the lowest possible price for electricity. The firm "aggregates" or combines many smaller customers into one large customer for purposes of negotiation. It purchases the electricity for the group.

Base Load The minimum energy level a company must provide to its customers on a constant basis.

Basic Service The four charges for generation, transmission, distribution and transition that all customers must pay in order to retain electric service.

Broker A firm, licensed by the commission, that acts as an agent or "middle man" in the sale and purchases of electricity but never owns the electricity and typically does not own generating facilities.

Bulk Power Market Wholesale purchases and sales of electricity.

Chapter 56 The Public Utility Commission's regulations that establish rules for payment of utility bills, requests for service, payment of deposits, billing, termination of service and complaint handling. These regulations are to protect residential customers of regulated electric, gas, water, steam heat, and sewer companies in Pennsylvania.

Commission The Pennsylvania Public Utility Commission

Conservation Reducing a customer's electricity use to decrease the need to generate electricity.

Consumer Education Efforts to provide consumers with skills and knowledge to use their resources wisely in the marketplace.

Customer Assistance Programs (CAPS) Alternative collection program set up between a utility company and a customer that allow customers to pay utility bills on a percentage-of-the-bill they owe or percentage-of-customer-income instead of paying the full amount owed. These programs are for low income people who can't pay their bills. These customers must agree to make regular monthly payments based on their new payment plans.

Daily Peak The maximum amount of energy or service demanded in one day from a company or utility service.

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Demand A measure of customer or system load requirements over a measured period of time.

Departing Member A member consumer served at retail by an electric cooperative corporation that has given notice of intent to receive generation service from another source or that is otherwise in the process of changing generation suppliers. These persons shall nonetheless remain members of the electric distribution cooperative corporation for purposes of distribution service.

Deregulation Removal or relaxation of regulations or controls governing a business or service operation such as utilities.

Distribution The local wires, transformers, substations and other equipment used to distribute and deliver electricity to end-use consumers from the high-voltage transmission lines.

Distribution Charges Part of the basic service charges on every customer's bill for delivering electricity from the electric distribution company to your home or business. The distribution charge is regulated by the Public Utility Commission. This charge will vary according to how much electricity you use.

Distribution Line The local part of an electric system that delivers electricity to most customers.

Distributive Power A packaged power unit located at the point of demand. While the technology is still evolving, examples include fuel cells and photovoltaic applications.

Electric Distribution Company (EDC) The company that owns the power lines and equipment necessary to deliver purchased electricity to the customer.

Energy Conservation To reduce or manage energy consumption in a cost-effective manner.

Energy Services Company (ESCO) A company offering specialized or customized services for efficiency or financial savings to customers.

Escape Provision A contract provision which allows a party, such as an electric customer, to get out of it. Usually, there is a penalty.

Fixed Price A price which remains the same, usually for a set time period.

Flat Rate A fixed charge for goods and services that does not vary with changes in the amount used, volume consumed, or units purchased.

Formal Complaint A written dispute or disagreement about a utility problem filed by a consumer with the Public Utility Commission. A formal complaint is assigned to an Administrative Law Judge (ALJ) who holds hearings to develop a record. After the hearings, the judge issues a decision. (See informal complaint.)

Generation Production of electricity from a power plant.

Generation Charges Part of the basic service charges on every customer's bill for producing electricity. Generation service is competitively priced and is not

regulated by the Public Utility Commission. This charge depends on the terms of service between the customer and the supplier.

Green power or Greencos Demand side management and other non-polluting sources of energy generation.

Grid A network for the transmission of electricity throughout the state or nation.

Gross Receipts The total revenue for a calendar year for all electric distribution companies and electric generation suppliers which are derived from the sales of electric energy.

Hourly Metering or Time of Use Metering Tracking or recording a customer's consumption during specific periods of time that can be tied to the price of energy.

Informal Complaint A dispute or disagreement about a utility problem filed by a consumer with the Public Utility Commission's Bureau of Consumer Services (BCS). A BCS investigator reviews the informal complaint and provides the customer with a response to their dispute. Most responses are in the form of a decision that the customer or company can appeal. If an informal complaint is appealed, it becomes a formal complaint. (See Formal Complaint.)

Intangible Transition Charge The amounts on all customer bills, collected by the electric utility to recover transition bond expenses.

Interruptible Rate A special utility rate given to those who agree to have their service reduced or temporarily stopped as part of an agreement with the utility company. Circumstances for service interruptions can be periods of high demand or high cost periods of short supply for the utility and/or system emergencies.

Investor-owned Utility A utility company owned and operated by private investors.

Kilowatt (kW) (1) A measure of demand for power during a preset time--minutes, hours, days, months; (2) 1,000 watts--Ten 100 watt light bulbs use one kW of electric power.

Kilowatt-hour (kWh) The basic unit of electric energy for which most customers are charged. The amount of electricity used by ten 100-watt light bulbs left on for 1 hour. Consumers are charged for electricity in cents per kilowatt-hour.

Load The amount of electricity being used at one time by a customer, circuit or system.

Load Profile Information on a customer's usage over a period of time, sometimes shown as a graph like the one on the bill.

Load Management Shifting use of electricity from periods of high demand to periods of lower demand, when the cost of electricity usually is lower.

Marketer A company, licensed by the Commission, that buys and resells electricity, but that typically does not own generating facilities.

Non Basic Service Any category of service not related to basic services (generation, transmission, distribution and transition charges).

Office of Consumer Advocate (OCA) A government office that represents the interests of residential utility consumers before the Public Utility Commission in rate and service cases and before other state and federal regulatory agencies and courts.

Office of Small Business Advocate (OSBA) A state government office that represents the interests of small business consumers by participating in PUC rate cases and other state and federal regulatory cases.

Off-Peak/On-Peak Blocks of time when energy demand and price is low (off-peak) or high (on-peak).

Pilot A utility program offering a limited group of customers their choice of certified or licensed energy suppliers on a one year minimum trial basis.

Power Pool Combining electric power supplies. Two or more interconnected electric systems planned and operated to supply power in the most reliable and economical manner. (POOLCO)

Price Cap Situation where a price has been determined and fixed.

Public Input Hearings Meetings where consumers can give input to the PUC. Sworn or unsworn testimony to the PUC judge and to the utility, consumer advocate and PUC staff. The PUC conducts hearings in the service area of the utility who requested the rate increase. Sometimes consumers can point out problems with the quality of the utility's service, management, or policies which could affect the outcome of a case.

Public Utility Code The law which sets the powers and duties of the PA Public Utility Commission. It also sets many of the guidelines the PUC uses for utilities' rates and service standards.

Public Utility Commission (PUC) The state regulatory agency that provides oversight, policy guidance and direction to electric public utilities.

Real-time Pricing Rates that reflect the actual cost of providing service at a given time creating fluctuating prices.

Regulation A rule or law established by the federal or state government which sets procedures that a utility must follow.

Reliability The providing of adequate and dependable generation, transmission and distribution service.

Renewables Includes technologies such as solar photovoltaic energy, solar thermal energy, wind power, low head hydro power, geothermal energy, landfill and mine based methane gas, energy from waste and sustainable biomass energy.

Resellers Companies that purchase utility service from a wholesaler and resell it to consumers.

Restructuring The reorganization of traditional monopoly electric service to

allow operations and charges to be separated or "unbundled" into generation, transmission, distribution and other services. This will permit customers to buy generation services from competing suppliers.

Retail Wheeling Also known as retail customer choice--A utility company is required to transport electricity from a generating plant it does not own directly to its retail customers. This gives retail customers the ability to purchase electricity from sources they choose.

Retail Customer Choice See Retail Wheeling

Rural Electric Cooperative Customer-owned electric utility that distributes electricity to members and that receives lower-cost financing through the federal government.

Securitization The act of pledging assets to a creditor through a note, lien or bond.

Spot Market Short-term purchases of electricity from surpluses available for a short time.

Stranded benefits Special collection programs, renewable energy and demand side management programs, lifeline rates and other utility resources funded by a monopoly utility that may not be funded if the utility's competition does not have similar costs.

Stranded commitment Assets and contracts associated with shifting to competition which are above market prices and hence result in non-competitive conditions for the utility.

Stranded investments or stranded costs A utility investment, such as in facility and equipment, that is not supported by market prices.

Supplier (Electricity Supplier) A person or corporation, generator, broker, marketer, aggregator or any other entity, that sells electricity to customers, using the transmission or distribution facilities of an electric distribution company (EDC).

Title 52 The section of the Pennsylvania Code that governs utilities.

Transition Charge A charge on every customer's bill designed to recover an electric utility's transition or stranded costs as determined by the Public Utility Commission.

Transmission Interconnecting electric lines which move high voltage electricity from where it is produced to the point of distribution to customers.

Transmission Charges Part of the basic service charges on every customer's bill for transporting electricity from the source of supply to the electric distribution company. The Public Utility Commission regulates retail transmission prices and services. This charge will vary with your source of supply.

Unbundling Breaking down services offered into parts so each part can be billed separately.

Universal Service Policies, protections and services that help low-income

customers maintain electric service.

Utility Competition Two or more electric suppliers providing the same or similar goods or services in the same market place and for the same customers.

Variable Price A price which can change, by the hour, day, month etc.

Weatherization Modifying a home or structure to conserve energy. Methods include: sealing window and door frames with caulking or gaskets, installing storm doors and windows, and adding or increasing the insulation.

Wheeling The transmission of power that has been generated by one entity over the lines of another utility system.

Wholesale Competition A market structure where municipal and other utilities can exercise choice in electricity suppliers in order to meet customer needs.

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Questions or problems regarding the Public Utility Commission Internet Web Site should be directed to



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