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JOHN F. KENNEDY SCHOOL OF GOVERNMENT

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Section One: Public Sector Strategy Options in the Face of Restructuring

Government entities at all levels will have to respond to the introduction of competition in the electricity market. A variety of strategies are available to public power managers to meet this challenge. What is the appropriate public policy role for public power entities in a restructured world? Should they serve as a creditor, an owner of assets or a representative of customers? Should new forms of public entities be allowed and encouraged?

Speaker One:

Discussions about public power invariably fail to consider the TVA and the power marketing administrations as separate entities. TVA differs markedly from PMAs, and even the individual PMAs vary widely. The role of the smaller PMAs, such as the Western Area Power Administration, South Western, and South Eastern, has remained essentially unchanged since the New Deal. The PMAs market surplus hydro from federal dams, at a cost-based rate to municipalities and rural co-ops under the preference clause. Western is the largest of these smaller PMAs, extracting 10,000 megawatts from federal dams on the Missouri River, the Colorado River, and from Central Valley in California. South Western produces 2,000 megawatts of capacity, South Eastern produces 3,000. However, these small PMAs have difficulty acquiring resources, since their legal authority to buy additional power is limited. Therefore, they do not come close to fulfilling their customers' requirements. For example, Western's customers only receive 17 percent of their power from Western, South Western's receive 21 percent, and South Eastern's only 3 percent. The South Eastern customers who are served by TVA receive an small additional allocation.

The small PMAs do not compete so much as perform a defined function. This function could, however, easily be assumed by competing utilities, and PMAs' importance are diminishing as the size of the market increases. PMAs are subject to Sections 211 and 212 of the Federal Power Act even though they are not legally required to observe Order 888. They lack the authority to discriminate in transmission area, but are generally supportive of open act proposals. PMAs' below-market rates help them avoid stranded costs, and allow them to allocate their power prudently, so as not to offend policy makers. These small PMA's have a good deal of discretion in allocating their power, restricted only by a clause in the flood control act that forces them to sell power to public entities. Therefore, PMA customers currently lack the right of renewal, although the contracts are being renegotiated. The noncompetitive nature of the smaller PMAs make them better able to adapt to potential alternative structures, unless kilowatt hours become sold exclusively at the market rate. The PMAs' cost-based approach would then come under attack as noncompetitive and anachronistic.

Bonneville markets power from 23,000 megawatts of capacity. It sells half of the power consumed in the Northwest and owns and operates 75 percent of the region's high voltage transmission system. Bonneville is large enough to wield market power in a competitive environment in transmission and perhaps even in generation as well. Bonneville, to its credit, is running an open access system, although it is not legally required to do so. It possesses such latitude of action in many areas, from discriminating in order to recover stranded cost from their customers, to moving water through the Columbia River to protect salmon. The murkiness of its authority will doubtlessly inspire litigation. Unlike the PMAs, Bonneville can acquire resources, although it cannot own resources like TVA- However, while Bonneville must serve load to all utilities, public and private, it is not a franchise, and thus the utilities it serves do not have to buy from Bonneville alone. Thus, there is significant opportunity to increase its market share if it is allowed to acquire additional resources in a restructured environment. The general consensus, however, is that Bonneville should eschew buying additional resources, and focus on marketing Columbia River hydro.

Unlike the other PMAs, Bonneville has a potential stranded cost problem. Its present whole sale rate to preference utilities is $.024 per kWh, and its direct service rate is $.022 per kWh. These rates are still, incredibly, above market in the west, primarily because of the Washington Public Power Supply System's 500 million dollar yearly costs. Bonneville cannot afford to allocate power passively, but must instead compete on a market level and litigate on stranded cost issues.

TVA is more an independent entity than part of the Department of Energy. Its board is appointed by the President, but has a great deal of freedom. The primary difference between TVA and the PMAs is that TVA essentially has an exclusive federal wholesale power franchise within its service territory. However, TVA is not allowed to venture outside this specified service area. TVA owns and operates its own resources independently, and its rates are not regulated. While the PMAs are capable of participating in competition and supporting open access to some degree, TVA is not permitted to do so under the current structure. TVA does not have a short term stranded cost problem due to ten-year contracts with distributors which make it extremely difficult for them to acquire

the alternative resources to leave TVA's service area. However, if TVA's special status were to end, its cost-based rate, four cents a kilowatt hour over market, will create long term financial problems.

Although some change in public power is inevitable, in the short term munis and co-ops will continue to serve customers within their own service territory through low cost resource, and the PMAs will continue to perform their traditional duties. Munis and co-ops will have to seek stranded cost remedies from state legislatures, Congress, or the courts. In litigating these stranded costs, utilities will be allowed to market outside their service territory under the condition that they join an ISO and offer retail access.

Finally, beyond serving customers or participating in the competitive market, public power must embrace its new role as an entrepreneur. Is public power capable of successfully competing in an entrepreneurial market, and is it even desirable that a publicly owned institution adopt such competitive characteristics? Can public power shed its bureaucratic tendencies and begin to accept financial risk? The best solution is to wait and see how public power performs on a business, political, and economic level, before reaching a judgment. Public power will certainly play a large role in a competitive electricity industry, but what that role will be is impossible to predict.

Speaker Two:

Should public power serve as a creditor, asset owner, or customer representative? Each public power entity should be judged on whether it is working in the local community's best interest. New forms of public entities should be encouraged for the good of the consumer. There are approximately two thousand locally owned, nonprofit entities, the vast majority of which are community-owned electric utilities. Public power serves one of every seven U. S. residents, comprises 14 percent of the country's electricity sales, and twelve and a half percent of the revenues. Seventy percent of public power systems are distribution-only.

With 85 percent of the industry in the hands of private interest, the context of U.S. electricity restructuring is much different than in other countries and than other American industries which underwent privatization. The assumption that consumers will benefit from competitive restructuring is universally accepted, and advancing the interests of all consumers should be restructuring's overriding goal. Robust competition is not an inevitable outcome of deregulation, and successful industry restructuring must be organized and comprehensive. Competition creates a market structure characterized by the absence individual competitors holding market power. While competition would serve consumer interests, this scenario, given that the underlying market structure is monopolistic, is unlikely to occur. Eliminating regulation will not automatically remove such impediments to competition as market power and its inherent tendency to sustain itself. The assumption that competition is a natural order of things, equipped with its own innate equilibriums, fails to recognize that the ultimate goal of the competitors is to achieve a monopoly. Economist Robert Cutner describes the market process as progressing from excess capacity to vigorous competition, to corporate consolidation and the resulting monopoly power. Some economists argue that open access transmission tariffs and retail consumer choice can counter these economic cycles, but these steps are insufficient to even mitigate

existing market power. The electricity generation industry is increasingly dominated by utility affiliates at the expense of independent power producers. Ten utilities control 30 percent of the entire country's generation. The number of merger applications indicate this number is likely to rise. The telecommunications market has seen tremendous corporate consolidation, with no decrease in overall consumer prices. The record in other industries, such as banking and airlines, is similarly spotty.

Public power must focus on promoting competition to increase the benefits of its local systems. The primary strength of public power is that its issues are addressed publicly and locally, with a high degree of accountability, and are linked closely with the overall goals of the community. Furthermore, public power has 15% lower costs and prices, largely because of its nonprofit status, and the intense local scrutiny. Public power systems also can borrow money using bonds that are tax-exempt, although only one-fifth of public power's cost advantage stems from this status.

Public power also plays an important social role for consumers, one which will be increasingly vital in a restructured environment. It provides consumers the benefits of diversity, comparison, and insurance. Such diversity forces market participants to develop technologies to facilitate customer service improvements, and greatly lessens the likelihood of industry-wide mistakes. Restructuring can accomplish good things for U.S. electricity consumers if implemented correctly, however, poor handling of the transition could result in reconsolidation, market power and price manipulation. Regardless of restructuring's success, the transition to successful competition will take ten to fifteen years, but public power will continue to be socially beneficial to customers during this time.

Municipal electric utilities comprise a small share of the industry's load, an even smaller share of generation, and do not project to increase their holds through consolidation. Therefore, the relentless questioning and analysis of public power's role is disproportionate to its influence. In Order 888, FERC has simply erected another barrier against existing public power entities. With all the calls fora "level playing field," it's the private power companies receive the majority of the tax benefits and subsidies. That private power wants to focus undue attention on public power is not surprising, but FERC's targeting of public power, particularly in Order 888, is particularly disheartening. FERC has abandoned federalist principles by centralizing stranded cost recovery for new municipal utilities. Its meddling in community affairs has even extended to annexation. FERC's reaction to public power is inconsistent with its stated goals about competition by countering desirable local controls without legal foundation.

Speaker Three:

The success of competitive markets will depend on their ability to achieve economic savings while maintaining focus on environmental and social goals. The public interest must be translated into market terms and forces to provide consumers with leverage in the future. Issues of franchise power and aggregation are particularly pertinent in Barnstable County, Massachusetts, also known as Cape Cod. The inconsistency of Cape Cod's seasonal economy, particularly the collapse of the fishing industry, has resulted in forty percent of its full-time residents living below the poverty line. These conditions

allow the regional utility to have residential rights of fourteen cents per kilowatt hour, the fifth highest in the country. The utility possesses sixty percent surplus capacity, one of the largest amounts in the country, and declared two billion dollars in stranded investments to the state legislative committee. The restructuring process's primary concern is to avoid cost shifting in order to protect local consumers. The state's regulatory proceedings convinced the DPU to consider legislation which would enact municipal aggregation and create a partnership between local governments and the state. Under this legislation, private aggregators would have to provide nondiscriminatory service conditions, accountability, open bidding practices, and pricing transparency.

Concerns about cost shifting and aggregating consumers invokes the larger issue of the autonomy and influence of local government. Traditionally, local government has been involved in aggregation and franchising beyond the rule of co-ops and municipal power systems. Local governments and franchises have always served as the building blocks of the electricity industry. The oversight policies of state regulatory commissions altered the balance of power between state and local government, particularly in 1921 when rate setting became mandatory. Now state regulators, rather than local governments, controlled the economic aspects of the industry. Local governments maintained the authority to aggregate consumers and issue franchises.

Aggregation or franchise power helps provide balance in the market place. Its presence advances social and environmental goals, and sets visible consumer-oriented standards to which private aggregators must adhere. Suppliers who wish to bid on contracts must meet these conditions not merely to comply with state regulatory orders but to survive in a competitive arena. Suppliers should be required to provide transparent information to prevent blocks of consumers competing against each other, and to create efficient bundling of services. Marketers relish having a stable block of consumers they can communicate with through a public representative. By utilizing long term contracts and financing, employing improved predictions and management of load, marketers can bring stability into the industry. Local and state officials can use the policy to achieve social and environmental benefits unattainable through regulatory proceedings. Open bidding laws, public accountability, and the utility's nonprofit status grants the consumer significantly more leverage than under the previous system. Local governments will still control the poles and wires, but the new legislation provides an opportunity to translate public interest into the market.

Speaker Four:

Will public power thrive in the new marketplace, adopt a more limited role, or gradually become extinct? Public power can overcome its anticipated demise at the hands of infallible economic forces to carve out a significant role in the new marketplace. Public power is based on local control, which provides benefits such as franchise competition, control of rate levels, and low-cost power. Investor-owned utilities have been known to lower their costs and rates to deter municipalities from forming new utilities. Since public power channels the benefits of the low-cost rate directly to its consumers, a competitive "ripple" effect emerges. Public power does channel a percentage of intakes from increased prices to

these visible public benefits, consumers may choose under competition to obtain their power elsewhere or even to sell a distribution system.

Franchise competition is also a traditional role of public power. The passage of the 1992 Environmental Policy Act raised concern of massive takeovers of public power systems, which has thankfully proved unwarranted. Recent attempts to restrict municipalization have failed to some degree, but new municipals do have to consider stranded costs and entry payments. Order $88 severely restricts formation of new municipal systems. Many industrial consumers will embrace the lower rates available under direct retail access rather than the formation of a municipal system. However, franchise competition's traditional role in bringing lower rates to the consumer will continue since municipal utilities lack profit incentive.

The largest issue for franchise competition as the competitive era approaches is the question of local control. Local utilities are not as local any more, which is prompting towns to form their own smaller, independent utilities. Industrial and larger commercial consumers within municipalities should have the ability to purchase power directly, but some municipals with lower costs also may choose to compete with private suppliers for these customers. Municipally owned utilities and electrical cooperatives should restore their earlier policy of representing the smallest consumers, since there will be no competitive forces working to serve low-income consumers. The aggregation function has been historically performed by investor-owned utilities in the context of an exclusive service territory. In the future, municipalities and cooperatives can aggregate their own load for smaller customers while joining with towns outside their service

area to form utilities. However, this development may compromise local accountability and expertise. A municipally owned electric utility, serving outside and within their territory, through joint action entities that municipalities and cooperatives have previously formed for power supply, could represent not only their service territories but also others within the state.

Discussion:

Since the generation part of this business is no longer a natural monopoly, it should be made subject to market forces. Competition should be applied wherever possible, and to the greatest extent that is effective. However, it is simplistic to assume that the market is infallible and will iron out flaws even in ill-conceived systems. The evolution from a regulated monopoly to competition requires more than simply preventing the increase of new market power, which is now a sufficient standard for merger approvals. Market power must be reduced, for the competition is being comprised by the excessive number of mergers. A reasonable coordinating institution that is efficient, transparent, and nondiscriminatory also needs to be installed to mitigate the market. Consumer protections, certification, and contractual issues need to be addressed. The concept of a natural monopoly for generation never made sense.

A competitive market for generation should be as transparent as possible, occurring within view of all potential participants and consumers. The market should issue price signals with regard to the cost of electric energy so that consumers choose companies which use generation assets efficiently. Transmission assets should be operated on the premise of common carriage. Since transmission is a natural monopoly, it should be broadly organized to facilitate the greatest

possible number of generators. To bring the benefit of these savings to consumers, the existing distribution utilities would be obligated to purchase the electricity out of this transparent market for generation.

The future of the industry will be shaped in large part by the industry's existing culture, which has been characterized by its participants trying to evade every rule on the books. Therefore, the exchange or the pool would have to be monitored closely, and the rules transparent pricing defined precisely. Relationships between generators and distribution companies could also fall prey to the industry's deal-oriented culture.

Theoretically, competition would focus on the distribution level, and on whether the benefits of low-cost power are sufficient to avoid adding stranded costs. The validity of public power's competition remains to be seen.

Any model should stress accountability to customers in terms of social and environmental decisions. The industry has traditionally been misunderstood by consumers, and without broad agreement on a model beforehand, the structure will evolve without substantial support or input. The theory of central purchasing and passing on the energy at cost is the basis of the preference clause and public power as a whole.

The implementation process is critical because once rules and structures are in place, they become increasingly difficult to change. Municipals are arguing for more complex markets, and also for cost shifting which is at odds with the tenets of the competitive market. Is municipalization seeking aggregation for the sake of the customers? Yet a complex market lessens the customers desire for leverage. A transparent, simple market would allow those customers without clout and leverage to participate knowledgeably without the assistance of aggregators. To be fair, municipals are perhaps voting against market change because they are beholden to the interests of the bureaucrats who represent them.

Public power's members are quite diverse and represent countless interests and approaches. In California, municipals are in favor of transparent markets, and of low transaction costs. However, even if consumers have access to information, they are unlikely to bother with conducting their own distribution transactions. No matter how transparent and simple the system, consumers will be unable to make comparisons on their own. Although progress has been made from the days of monopoly control, consumers still have little leverage in the market.

Municipals are hesitant to vote not because they are beholden to special interests but because they are just formulating stances on the issues. The experience of consumers in the electric industry has been marked by abuse and mistrust. Any model needs full divestiture to succeed, which FERC and the state commissions are unwilling to order. Therefore, the culture of mistrust will continue to discourage customers from making choices.

The argument that municipal utilities lack information or are just beginning to formulate stances on the issues does not explain why they are actively voting against legislation. As a general rule, traditional utilities are in favor of what ever deregulatory advocates are against. Existing utilities realize that, given FERC's current agenda, a competitive market with a transparent system is the best they can hope for. Many munis are nonetheless voting against a transparent market.

The distribution utilities will ultimately be the primary decision makers in the market, which will reduce individual choice and local control. Municipalities may exercise their free choice by ceding their autonomy to external public power distributors, but this choice should not be imposed on co-ops and munies. Large industrial customers will fiercely resist losing their freedom of choice, and the federal government will have to override local control to enforce their program and avoid reaching saturation on the transmission system.

Public power entities currently receive many tax preferences relative to investor-owned utilities, in addition to increased access to federal power. Are tax payers receiving fair market value from their investments?

Preference power must be sold to end users served by the contracted entity, and there are limitations on using tax-exempt financing to serve outside native loads. Public power systems have strict private-use limitations. They cannot sell power out of generating facilities and cannot lease their transmission facilities to private interests. Public power is also handicapped if it owns generation, for it cannot litigate stranded costs without great expense. Independent system operators or regional institutions need for the private-use tax restrictions to be lifted if they are to deal in transmission.

The pool clearing price should be subject to an irrevocable assessment that it is fair and reasonable so that regulating pool purchases after the fact would no longer occur. It is unusual that the industry's relevant markets are being defined by the transmission grid. Every generator within the transmission grid has the opportunity by displacement to compete. Restructuring of the electric services industry is designed to promote greater efficiency in the use of this massive capital investment.

Electricity prices have been coming down in real terms since the early 1980s. The U.S. is competing effectively in the global electricity market, so restructuring does not have to pursued recklessly. There is no justification for not taking time to develop rational models and evaluate its possible weaknesses.

Consumers willing to pay for stable prices. Aggregators of public power entities can help individual consumers express that demand to the market. The managed chaos model creates a better opportunity for customers to receive benefits beyond market commodity.

Section Two: The Future Direction of Public Power

Public power will also be a market participant in the new electricity markets. What are the best business strategies for public power to pursue? Would partnerships with private entities be beneficial? Should they take on new ownership of generation, transmission, or distribution or should they sell existing holdings? Should integrated entities unbundle these functions?

Speaker Five:

Local cooperatives are governed by a local board of directors. A cooperative is theoretically owned by the consumers, yet the owners will admit that they are often not as responsive as the customers would prefer. There is a debate among cooperative utilities whether they are indeed public entities, when in many cases they are at least partially privately owned. Cooperatives are required by the laws of the states in which they operate to provide electricity at cost. Their organizational structure lends itself to responding to feedback from the public. There are nine hundred and sixty electric co-ops serving about thirty million members in 46 states. Co-ops serve 10.8 percent of the national population, represent 8 percent of kilowatt hours sold, and five percent of all electricity generated in the U.S.

Cooperatives' customer and asset portfolios are different from many investor-owned utilities. Fifty-nine percent of co-op sales are to residential consumers, 16 percent to commercial accounts, 23 percent to industrial accounts. Co-ops run almost half the electric distribution lines in the country to distribute a relatively small amount of electricity. Maintaining these lines keeps costs high, and requires tax subsidies and access to low cost imbedded power. Co-ops serve areas which private utilities do not consider profitable. Co-ops energy use includes 10% nuclear, 75% coal , 10% gas, 3% oil, and 2% hydro. The generation mix heavily impacts how co-ops approach restructuring issues. Clean air act amendments are obviously very significant to a company which has 75 percent coal power generation. Co-ops assets exceed 62 billion dollars, despite averaging a mere 5.8 consumers per mile of line, for an average of 7,000 dollars per mile. Investor-owned utilities serve 35 consumers per mile, municipal systems serve 48 and average 7,200 dollars per mile of line. Serving remote customers places co-ops at an immediate competitive disadvantage. As a result, the cooperative approach to the restructuring debate is the polar opposite of the municipal and investor-owned utility strategy.

Generation and transmission (G&T) systems provide 40 percent of co-ops' power. Separating a co-op's distribution system from the G&T can be as difficult as an investor-owned utility to disaggregate. Co-ops finance their generation with all-requirements contracts. Typically there is little equity at the generation level and utilities serve the role of a Wall Street bank by providing the necessary financing on the basis of all requirements contracts, which have withstood challenges in court.

Margins are allocated to the individual system owner which restricts the amount of potential

business with cooperatives. Many in the industry would say the system of distribution systems owning the generation and requirement contracts permitting low cost load equity at the generation level was an appropriate model.

Alternatively, co-ops may seek financing from the federal government's Rural Utility Service (RUS) which offers targeted assistance through reduced cost loans. New business requires the approval of the rural utility service, which is a difficult and lengthy process, and one which invites corruption. Members have asked whether they wish to borrow from the rural utility services any more, whether the marginally preferential rate they receive is worth all its surrounding difficulties.

Cooperatives are examining the potential alternatives, such as mergers and diversification, which investor-owned utilities have been looking at for some time. Co-ops are seeking to precisely define their mission, and commodities other than electricity, such as security systems, may weigh into that. The current debate about the separation of serve codes is one of the most pressing public issues facing the co-ops, for it challenges them to serve their customers' fullest needs, not just their electric requirements.

Probably the most serious question facing the industry at the moment is whether the G&Ts will be relevant in the future market? The G&Ts may adopt a role similar to an aggregator, and combine their loads to obtain power. The different electrical systems could threaten reliability however. "Branding," a type of image-building concept, is another idea which will soon see greater exposure. Local ownership is resisting the merging of individual co-ops into a greater structure, despite the greater advertising potential.

Speaker Six:

If the consumer-owned utility is to garner support, it needs to be defined more accurately. Public power might have some benefits in the emerging electricity market. The history of deregulation shows that public power increases diversity. As the number and types of electric providers increases, they are better able to produce, exchange, market, and deliver power to the customer. For example, independent power producers were a novelty twenty years ago, but they are now responsible for providing a significant proportion of generating capacity. That electricity is now a commodity, bought and sold by brokers who don't own wires, is a concept that was unthinkable until recently.

Furthermore, it makes less sense today than ever to have more than one set of wires, poles or conduits to serve customers. Construction costs and environmental concerns justify the continued operation of many of the existing consumer-owned distribution systems. Those investors predicting the demise of the local public utility are nonetheless offering to buy municipal and co-ops at more than book value, realizing that local public power distributors have strong relationships with their customers, generally lower rates, and minimal debt burdens. Finally, the persistent belief in American culture in local control will hamper efforts to abolish public utilities.

While change is inevitable, TVA's integral role in its region transcended electricity, and its shifting role will be accompanied by a great deal of uncertainty. The Nashville Electric Service (NES) is a municipal public power system established in 1939. It's one of the ten

largest public utilities in the United States, and one of TVA's largest distributors. NES actively participates the Tennessee Municipal Electric Power Association and the Tennessee Valley Public Power Association (TVPPA). TVPPA includes TVA's distributors, both munies and co-ops. These organizations will not necessarily survive restructuring, now that service territory boundaries are gone, competition will produce winners and losers.

TVA is at once unregulated, yet the regulator for its distributors by having final approval of rates. It appears that TVA and its distributors will compete for the same customers and power in the future, so clearly TVA's regulatory function must end. TVA cannot be allowed to regulate their competition. Oversight of TVA operations has been handled by congressional appropriation hearings, however, with funding of the resource budget eliminated, what little regulation of TVA that currently exists will disappear.

While federal legislation is pending, the NES is actively strengthening its position to prepare for the future. The NES should renegotiate its contracts with TVA which can currently only be broken by invoking a ten year cancellation clause, an absurd amount of time in a competitive environment. The contracts restrict the purchase of electricity from any entity but TVA, and does not allow utilities to generate electricity on their own, creating noncompetitve prices.

The existing TVA distributor contract should be modified to allow at least some portion of utilities' power needs to come from alternate sources including co-generation, self-generation, and purchase on the open market. The contract should also allow utilities over the rates and prices we're charged and that we charge. Furthermore we feel that a more reasonable term than the ten year term needs to be set in the contract, or as a contract term. The growing national trend towards competition is actively promoting the elimination of the TVA fence by asserting that its removal would benefit both TVA and its distributors. Access to alternative power sources will allow TVA distributors to purchase power on the open market at a lower price. TVA will be able to attract customers from higher price producers by spreading their fixed cost.

The customers of NES and those of other TVA distributors will benefit more if we move a little faster to confront the challenges of competition and the challenges of the future. The distribution segment of the business will have the most reasonable chance of success under the deregulation. Those public or private utilities that have expensive generating plants and the associated heavy burdens of debt are at the greatest risk. For a consumer-owned distributor like NES with minimal debt burden a fully competitive future does not hold as much uncertainty or risk. While it is true that the margin will be narrow for a predominantly wires only company, public power's mission is to deliver electricity at the lowest reasonable cost to it's owners, not necessarily to make a profit for them.

The most likely scenario however as restructuring unfolds as far as it relates to the class of distributors, especially those in the Tennessee Valley region, is that they will both deliver power purchased from a number of different suppliers and provide some full retail service to those customers who are neither large nor have been aggregated into some special kind of group, and those customers who choose to remain with us. In a deregulated environment, distributors who have flexible power purchase agreements will

become customers that can purchase power on the open market at the best possible price. It doesn't make sense to have duplicate sets of wires running down the streets. Therefore, even if a customer decides to buy electricity from somebody else, they will pay the distributor to have it delivered. If the rates are structured properly, a distributor should not suffer significantly as a result of a customer choosing to purchase power from another entity.

In order to promote the viability of public power in a competitive world, it is reasonable for a political jurisdiction to expect appropriate payments in lieu of taxes, since electric revenues cannot be used to subsidize the general fund without the undesirable effect of making the utility noncompetitive. In addition, public power companies will have to compete for talented employees as well as customers, and, therefore, cannot be hampered by unrealistic restrictions on hiring, promotion and compensation packages. Furthermore, a business cannot be run by government public disclosure rules. Some limits will have to be placed on open meetings and records requirements if a level playing field for public powers in a competitive environment is to occur.

Finally, public utilities will have the flexibility to expend in their service territories through mergers, acquisitions and contracts with strategic partners to reduce costs and increase revenues, purchase power on the open market, and offer new services related and even unrelated to their core businesses. Presently, the Tennessee Valley is enjoying the luxury of observing other states implement retail wheeling and NES is not wasting this opportunity. NES is doing many of the standard things to control cost and be competitive, such as streamlining operations, improving reliability, and enhancing customer service functions. This should improve NES's ability to deal with the challenges that lie ahead and also position the company to take advantage of some of the opportunities. NES is also finding ways to earn more on current assets to reduce pressures for increasing rates. For example, NES is leasing space on its poles for competitive access providers to string their fibre optic cables. This provides the company with additional revenues and- allows it to improve internal communications without the usual degree of capital investment. As NES enters a more challenging future, it will be continually looking to expand upon opportunities to provide customers with more service options and to maintain prices at a competitive level.

Speaker Seven:

The future of public power should also not be evaluated on ideological grounds. Public power will continue in some form, since its advocates, customers, co-op owners, and municipal entities, area formidable presence in the restructuring debate. Since it is accepted that public power will persist, the debate should focus on integrating the various players into the market fairly. TVA has changed remarkably over the years. It used to derive 100% of its energy from hydropower and flood control, now only 15% of TVA's energy comes from hydropower. Indeed, only 2% of its total revenue fulfill TVA's original purposes. The U.S. utility industry has reason to be optimistic; over the last 100 years its mix of public and private entities has become the world's model for supplying electrical power. While there is room for improvement, and the industry has its share of problems, the U.S. is quite successful in the global market. While inaction is not acceptable, electricity is such an important and different type of commodity that

deliberation is essential, for a hasty realignment could prove disastrous. In a public policy debate, bickering over which entity has a competitive advantage is not very productive. The debate so far has concentrated on taxes, subsidies, and which entity is more favored by the government, but more attention must be paid to reliability issues, the obligation of public power to keep the lights on. Both the IOUs and public power have advantages that cannot be totally eliminated, but can be mitigated to a large extent. For example, all utilities might be subject to the same tax structure.

Decision-making will shift from the managers of public power and the corporate executives of the IOUs to the policy makers in Washington and the State Houses. They will, at least initially, be unfamiliar with what need to be done, and the possibility of error will be high. Since the future of the industry hinges so heavily on present decisions, the industry deserves a public policy debate which focuses on providing benefits to all customers without petty concerns of self-interest.

Consumer-owned power serves about 25 percent of U.S. users, 15 percent are government-owned public utilities, ten percent are co-ops. Public power has less vertical integration than in the private sector, and has enormous variations in size. TVA generates more electricity than even the largest IOU, although it only serves 160 distributors, 67 major industrial users, and a few federal installations. TVA distributors are created by local charter or federally authorized rural electric cooperators. A portion of TVA's production is sold off-system, although the amount is restricted by a 1959 amendment to the TVA Authorization Act designed to protect investor-owned utilities from federal competition. This amendment, combined with TVA's exempt status from the provisions of the 1992 National Energy Policy Act, is often called the "fence." Until recently the fence effectively insulated the seven state TVA region from deregulation, but now the process is irreversibly underway at the federal level, and TVA's fence is soon to fall.

One constant theme of the debate is that utilities are trying to figure out how to avoid paying fixed stranded costs. Since it is accepted that someone will have to, utilities are also actively trying to pawn the costs off onto the customers or the government. The restructuring debate needs to consider more than just the stranded cost issue, although its ramifications are quite significant. Stranded costs should be handled so that the contract between the customers, the utilities, and the regulatory authorities is honored. The costs should be mitigated as much as possible, and then allocated to those who received the benefits of the system thus far. Since public power is a creature of the government, the government must absorb stranded costs. A fair allocation of stranded investment is in the industry's best interest, as is resolving the issue early in the restructuring process so that other problems can be more easily confronted.

Industrial rates should be set as low as possible so that residential customers do not have to subsidizing them to some degree. While residential rates would be low, jobs would be lost. Public power will not and cannot continue in its current form. Customer choice will prevail, manifested by the emergence of a diverse multi-player, fair electricity market. The customer will demand multiple choices of energy providers.

Speaker Eight:

In its report, the Commission advocated the implementation of wholesale competition. This is to be accomplished by separating the operation of the electrical system from the control of Ontario Hydro. Some of the issues which we wrestled with are nuclear power, the electricity exchange, and ownership of the transmission system. These issues are also present in the electricity restructuring debate in the U. S.

Over a year ago, the Provincial Government of Ontario created the McDonald's Commission to investigate electric utility restructuring in Ontario. The Commission recommended methods of pursuing electricity reform. Although the report was issues in March 1996, the government has not even commented on the report, primarily because they are presently consumed by a number of high profile, controversial issues. Electricity reform cannot compete for attention in that context. Public apathy towards restructuring has been cultivated by the public sector labor unions. On the other hand, industry, from municipal utilities to consumer advocate groups, universally want change, and support the report's recommendations. The biggest conflict is that Ontario Hydro believes that restructuring should involve consolidating to build even a larger monopoly. They argue that centralized command control can handle stranded assets and debt better than investment and diversity. Continental competition is a difficult concept to sell to the public; the advantages aren't financial, and the union's effective advertising campaigns has neutralized any nascent public interest. The government is therefore receiving no external pressure to act.

Municipal utilities are against full retail access, the large utilities are for it. Many in the industry argue that the system has traditionally performed well, and that change is unnecessary, and may well worsen the situation. However, the conditions under which the system succeeded has changed dramatically. The system worked well under expansion world when average costs declined, but lately the system has proved cumbersome and inflexible.

General Discussion

If local control is such a crucial element of public power, why are local entities merging and becoming larger? How can the desire of public power to sustain itself through mergers be reconciled with its support of community control?

Mergers do decrease local control, although even amalgamated public power is more locally based than the competition. It is debatable whether the same savings can be achieved by sharing services among the merged utilities while keeping headquarters based locally. No matter how large the utility, the board of directors will be elected by the consumer owners. The board could have representatives from every county, and have offices in those towns.

There is a dilution of the rational rules for public ownership. Publicly owned entities are not allowed to provide services outside its franchise area. Public power becomes an anachronism at this point, since to the people served by the entity outside the franchise area, public power is no different than an investor-owned utility. Nevertheless, the essence of public ownership is that the customers are the share holders, and this remains unchanged regardless of the dilution of the rational rules.

What is the view in Canada about the potential development of competition with the United States and possibly an entire North American Market? Are reciprocity provisions of NAFTA major issues in deregulation's future?

Exports are an important aspect of the industry, and Canada would not want to lose that as a source of potential revenue. Earlier comments argues that the U.S. is lagging behind in terms of deregulation with its North American trading partners. Canada believes that the U.S. is setting the direction and pace of deregulatory reform, and that Canada essentially has to comply with FERC to compete. Technically, there are no reciprocity provisions in NAFTA, for it states that countries must treat outsiders the same as natives.

If the transmission planning function belongs to the public or independent system operator, who oversees the actual building of plants, and who will allot such authority? The ISO could mishandle this position by giving all utilities incentive to build, which would result in too big of a capital investment, and excess capacity. Whoever decides when building is needed should not benefit from that building. This restriction eliminates everyone except the ISO. Offers for construction could be competitively tendered along the lines of the Australian model.

There appear to be a number of parallels between TVA and Ontario Hydro. Both are a mix of generation sources controlled by a single entity. Yet the McDonald commission recommended breaking up Ontario Hydro's generation function. Does a similar fate await TVA?

A few aspects, such as the mix of generation and who sets the price, differ between the two entities. The marginal price of each system will determine what level the price setting can be set to ensure competition. The size of the system compared to its neighbors is also relevant. Ontario's small interconnectors would have hampered competition if internal adjustments had not been made. Many of the same dynamics that occurred in the Northwest U.S. are being played out in Ontario. As in the McDonald's Commission experience, nothing the Bonneville Regional Review Commission recommended has been implemented. The Bonneville meetings included a great deal of administrative details, and also provided a forum in which many diverse parties found common ground. Environmental advocates recognized that compromise was essential to achieving their goals. The entire process was productive and educational. Could something similar happen in the Tennessee Valley region given that the issues are so difficult and involve so many parties?

The issue has been raised whether it's the same fora municipal to serve outside its territory as an IOU. The envisioned model presents local aggregation in which different municipalities act as one. Since municipalities would be acting in concert in the aggregation function, they would preserve their right to serve as a municipality, which is fundamentally different than as an investor-owned utility.

In the McDonald Commission Report, what was the recommended interrelationship between the confidential, bilateral contracts and the power exchange?

The contracts-with-differences system, with the spot market price serving as a visible price discovery tool, was recommended.

Congressman Clement has proposed that a commission study the potential TVA

restructuring situation and how TVA should be dealt with in federal legislation. That concept seems reasonable given that there are presently few available options and perhaps a study would provide TVA with some alternatives.

TVA is trying to work with its customers through an organization called the Tennessee Valley Industrial Commission. Their input helps TVA's ongoing dialogue with other utilities. There is also an ongoing working group with TVPPA concerning what the valley as a whole should advocate in federal legislation. Most customers, particularly the industrials, mainly want to see choice. TVA is attempting to galvanize its constituency over its future, however, TVA is not at this point opening up the process to specific interest groups.

The process itself is providing some crucial benefits to the debate, such as the amalgamation of some municipal utilities, and the internal restructuring of Ontario Hydro. Since FERC had denied a similar application for the power marketers list by D.C. Hydro and Pacific Coast because they did not provide full access, an internal electricity exchange has been established to increase competition.

"Selling Assets"

Could all of TVA's generation could be collectively taken to the market in some future restructured TVA? FERC's market power tests, especially their formula for analyzing horizontal market power, are fairly rigorous. Could such a screen achieve market-based pricing with TVA's generation under one control?

Passing the market power test would be very tough. Depending on how things go at the federal level, even if an open market is created, TVA cannot simply decide to sell 8,000 megawatts of generation. FERC might require, as they do IOUs, public power utilities to prove they don't have market power. TVA could not honestly argue that they don't currently have market power.

In order to create a level playing field between private and public power, some industry observers had suggested the notion of an equivalent payment in lieu of taxes. To whom would the payment be made? Who decides to spend the funds? Are these notions widely supported by the public power business and what differentiates the payment from the original tax?

If such payments are imposed on municipal utilities, they will need to be calculated fairly, and IOUs in the same locale must pay the same amount. For example, TVA's taxes are based on the revenues it generates rather than on property taxes on its facilities. TVA may be paying a few tenths of a percent more or less than other companies, but the amount is essentially identical. The general perception, however, is that public power pays less because it technically does not pay taxes, and because government entities such as TVA are so heavily subsidized. A simple levy on public and private companies, administered identically for both, with public entities and IOUs subject to income tax, would help dispel the that public power does not give money back to the community. The total amount of collected revenue will remain essentially unchanged.

In addition to payments in lieu of taxes, the munies also transfer money to the local communities' general funds. In effect, that is a tax, as it takes money from the utility to support the operation of local government. Sometimes these contributions are substantial,

and in many cases threatens the competitiveness of public utilities throughout the country.

There are differences of opinion in the public utility community regarding tax-exempt financing for publicly owned utilities. Many generated transmission entities with large investments in power and stranded costs, want to sell power to customers off their existing system. They're willing to forego the advantages of tax-exempt financing to have access to the power. On the contrary, munies that don't own generation are not willing to back away from access to tax-exempt financing. They view distribution wires as infrastructure investments that deserve local tax support.

Recently, TVA proposed to do away with the appropriations received through arrangements with the corps of engineers and the Chamberland System. TVA's appropriated budget is 106 million dollars, 25 million of which goes to the accommodation of land between the lakes, and the economic development and environmental research centers. The largest of these centers has a commitment from the federal budget the next two years, leaving approximately 70 million dollars of taxpayers money to fulfill TVA's responsibilities. TVA is trying to have more of its budget assumed by the federal government and less by the power system and the valley's rate payers.

Should the TVA fence come down when in lieu payments increase, or when some accommodation with the parties has been reached?

The fence is a central issue and adjustments to it would involve precise timing based on economic forecasts to avoid TVA's going out of business or some class of customers winding up with an undeserved benefit.

The rural electric cooperatives have indicated interest in the forthcoming branding program. Is this a program an effort to distinguish one group of co-ops from another, or co-ops from IOUs, or co-ops from independent marketers? In the states that are already implementing retail competition, independent marketers are approaching the state regulators and suggesting that affiliates have an unfair advantage using this name. They also argue that they are an infant industry which deserves special protection.

The rules for branding will certainly have to be part of the public policy debate. Some believe that a company can't compete because they are somehow biased if they have any affiliation, and this perspective would disallow co-ops from branding. The co-ops haven't finished weighing in on the public policy debate, but are likely to object to object to individual co-ops establishing brands. There won't be a prohibition against creating a generic campaign like the milk moustache used by the dairy association. It's an effort to distinguish companies and their product from others, and not just IOU's but other co-ops.

General Discussion

In generation, nuclear power has remained public primarily because its market value is below the book value. The government handles the risks of ownership since the public perception of the nuclear program is so unpopular. Public opinion believes that the private sector is less capable of handling the hazards of nuclear plants than the public sector. However, the recommendation to keep nuclear public is more based on its ability to glean the greatest economic value out of the

sun costs. Keeping plants public also has as much to do with the advocacy of the labor unions as financial concerns. However, keeping plants public can prevent effective competition, which requires diverse ownership.

In terms of long range policy, the objective of restructuring is to extract equity from the system. Since the transmission system is an integrated entity, ownership of the system is a useful safety valve during the transitional phase from a centralized to a competitive power system. It allows greater flexibility during the restructuring process. It is recommended that distribution ownership be expanded by amalgamating the existing municipally-based ownership. There is no impetus to change local government ownership, which works well while being cost-effective. Regulators serving as monopoly suppliers now places them in competition with the systems it regulates. The same problem exists in Ontario, and it was thought that Ontario Hydro, the regulator and monopoly provider, would have to be taken out of the retail market completely, and in the process lose the market to a municipally-based utility.

An independent system operator and an electricity exchange should be established as two separate entities. These organizations would definitely have conflicting objectives which would prevent either from becoming too influential. The independent system operator would act as a publicly owned entity which would dispatch generation and provide long range planning. The electricity system exchange would be member-owned, regulated by a Securities Commission rather than an

energy committee. Confidential bilateral contracts will be permitted. The split in functions between the ISO and the Exchange are seen fulfilling the ISO's public stewardship responsibilities for short-range reliability and long-term availability. These considerations are often at odds with market-driven forces. Thus, by division of labor, the two entities will be forced to put aside their differences to reach their shared goals. Conflicts over commercial imperatives and technical advances will be debated openly rather than decided by internal politics.