

Public Power: Perspectives in Electricity Restructuring

Salvador A. Martinez

Department of Economics and Public Utility Research Center

University of Florida

Gainesville, FL

martinsa@chip.cba.ufl.edu

1. Introduction

The electric utility industry in the United States is undergoing dramatic changes with a myriad of issues at debate.¹ At the center of the restructuring process are evolving competitive forces in the electricity generation markets. Even though the generation markets in the future are likely to be competitive, the transmission and distribution parts of the industry, or “wires industry”, are likely to be regulated at the federal and state levels, respectively. One issue is the extent to which an operator of regulated wires that has ownership of generation plants (a competitive market) might provide favorable treatment to its own plants while discriminating against competitors’ generation facilities. In response to this issue and to retail competition programs being implemented in several states, a new wires industry is evolving under government policy initiatives. Investor-owned utilities (IOUs), local public power systems, rural electric cooperatives, and federally owned utilities are all developing new long-term strategies.

This paper identifies major restructuring issues facing public power² and federally owned utilities with an emphasis on the new wires industry. After presenting a brief background of restructuring initiatives related to transmission access, I first examine unique transmission issues facing public power in the context of the ISO vs. Transco debate and the Notice of Proposed Rulemaking on Regional Transmission Organizations issued by the U.S. Federal Energy

¹ An overview of the electricity industry can be found in Warkentin (1998). Also, a primer from Resources for the Future explaining the restructuring process is Brennan et al. (1996). A shorter treatment is Joskow (1997).

Regulatory Commission.³ I then consider tax and finance issues for public power in relation to transmission in the new wires industry. Following a survey of the transmission access and pricing issues faced by the Tennessee Valley Authority (TVA) and federal power marketing administrations (PMAs), I present some concluding observations.

2. Recent Background

A major step in the current restructuring process came with the Congressional passage of the Energy Policy Act of 1992. Along with creating a new class of entities, exempt wholesale generators, which are exempt from the limits of the Public Utilities Holding Companies Act (PUHCA) and the qualified facilities requirement of the Public Utilities Regulatory Policy Act (PURPA), the Energy Policy Act (EPA) amended sections 211 and 212 enacted by PURPA and added section 213. Collectively, these changes gave the Federal Energy Regulatory Commission (FERC) broader authority to require transmission-owning utilities to provide wholesale transmission services to any electric utility in a reasonable, nondiscriminatory form while requiring the owners to provide additional transmission information. Since several customers did not receive flexibility and timeliness of service from transmission-owning utilities, FERC issued Orders 888 and 889 in April 1996, with the former requiring utilities-owning transmission facilities to use the same tariffs for their own wholesale transactions as those applied to other users of the transmission facilities. Transmission-owning utilities were required to file a *pro forma* tariff that specified terms of conditions of transmission service to all customers. Also, Order 888 provided eleven principles⁴ for the establishment and operation of

² See Schap (1986) and Kwoka (1996) for comprehensive examinations of public power.

³ See Federal Energy Regulatory Commission, "Notice of Proposed Rulemaking: Regional Transmission Organizations," *Docket No. RM 99-2-000* (Washington, D.C.: May 13, 1999) [hereinafter NOPR].

⁴ See Federal Energy Regulatory Commission, Promoting Wholesale Competition Through Open Access Non-discriminatory Transmission Service by Public Utilities, *Order No. 888* (Washington, D.C.: April 1996): 279-287.

Independent System Operators (ISOs), one institutional arrangement to comply with the commission's non-discriminatory transmission tariff requirements.

With traditional forms of grid management possibly unable to handle the development of competitive electricity markets⁵, FERC recently issued a Notice of Proposed Rulemaking (NOPR) on Regional Transmission Organizations (RTOs), a proposition to "require that each public utility that owns, operates, or controls facilities for the transmission of electric energy in interstate commerce make certain filings with respect to forming and participating in an RTO".⁶ A final rule from the commission is expected near the end of 1999. Let us turn to the basic transmission models which may be allowed under a final rule in the NOPR that would urge the formation of RTOs, focusing on the unique challenges for public power.

3. A New Wires Industry: Unique Issues Facing Public Power

The NOPR suggests that an RTO must possess four minimum characteristics and perform seven minimum functions for the entity to operate as a regional transmission organization which would ensure the RTO to be independent and able to provide reliable⁷, nondiscriminatory access and efficient pricing in competitive bulk power markets. Although FERC does not indicate the preference of any transmission model, the ISO and Transco models are the two types of entities that could satisfy the RTO characteristics and functions.

⁵ As of November 1, 1999, twenty-one states have had restructuring legislation enacted, while three states have had comprehensive regulatory orders issued. In addition, nineteen states have legislation or a regulatory order allowing retail competition as of April 1999. See Energy Information Administration, www.eia.doe.gov/cneaf/electricity/chg_str/regmap.html.

⁶ NOPR, *supra* note 3: 1.

⁷ The tremendous growth in the volume of trading in the wholesale electricity market has raised concerns about the reliability of the bulk transmission systems. A report ("Reliability Assessment 1998-2007," September 1998: 6-7) from the North American Electricity Reliability Council (comprised of ten regional councils responsible for reliability on the three transmission grids) suggests numerous near- and long-term concerns for the bulk transmission grids. Several of these relate to the movement toward competitive electricity markets.

The ISO is a nonprofit entity that controls but does not own the bulk transmission facilities.⁸ Transmission owners would yield facilities over to an independent organization for control/operation but would retain ownership. Proposals for five ISOs have been submitted to FERC and approved (or conditionally approved)⁹. The ISOs vary in governance, functional responsibilities, and market operations although they are consistent with Order 888 principles and may satisfy the minimum characteristics and functions of RTOs. New England ISO, PJM ISO and New York ISO are the only independent system operators to operate centralized power markets and as a standard control area.¹⁰ Numerous questions regarding investment decisions in transmission facilities, stakeholder governance, management incentives, and regulation of operations are currently being analyzed as FERC develops its final rule. While the ISO model has many proponents, many analysts support the Transco model.

The approach of the Transco model entails the separation of generation, transmission, and distribution by creating grid companies through divestiture. In short, proponents of this model suggest incentives within the company are more clear; hence, the use of performance based regulation may be appropriate.¹¹ Since the Transco would internalize transmission pricing

⁸ See Energy Information Administration, "The Changing Structure of the Electric Power Industry: Selected Issues, 1998" (Washington, D.C.: 1998): 29-50, for a detailed description of ISO proposals. Legal implications can be found in Angle and Cannon (1998).

⁹ The five ISOs are the following: California ISO (evolved from state mandated with separate power exchange), Pennsylvania-New Jersey-Massachusetts (PJM) ISO (evolved from tight power pool with combined ISO and power exchange), ISO-New England (evolved form tight power pool with combined ISO and power exchange), New York ISO (newest ISO to begin operation in November 1999 that evolved from tight power pool with separate ISO and power exchange), and Midwest ISO (not yet in operation). See NOPR, *supra* note 3: 26.

¹⁰ A control area is comprised of one or more electrical systems where a control center matches the power output of generators within the electric power system (given transmission constraints) and energy purchased outside the electric power system with the current load of the power system. A recent discussion of ISOs and spot markets can be found in Larry E. Ruff, "Competitive Electricity Markets: Why They Are Working And How To Improve Them" (NERA: May 12, 1999).

¹¹ A synopsis of the ISO vs. Transco approaches in the proposed RTO framework with a discussion of performance-based rates is Hebert and Rokach (1999). Also, see Lenard (1998). The public power perspective is presented by McCamant et al. (1999). The NOPR on RTOs specifically requests comments on the use of performance based regulation (PBR). Paul Joskow addresses a PBR framework and the ISO vs. Transco debate in "Comments of Professor Paul L. Joskow," Comments in Response to the Notice of Proposed Rulemaking: Regional Transmission Organiations (August 16, 1999).

decisions into its earnings considerations, this model may provide lower transmission prices than under an ISO design. In addition, it has been suggested that the Transco model can fully capture the value in transmission assets by becoming the practical solution to transmission congestion problems.¹² We next examine some of the current transmission issues facing public power that relate to constitutional, legal, and political constraints.

Public power is comprised of more than 2,000 public power systems, including municipals, public power districts, state authorities, irrigation districts, and other state organizations. About 94% of these systems are cities and municipal governments. Even though there are about eight times as many public power than investor-owned utilities, the IOUs own about 70% of the transmission lines which are 138 KV or higher.¹³ Public power accounted for nearly 13% of all revenues from sales to final customers in 1997.¹⁴ In addition, public power purchases close to 70% of the power for its final customers. The majority of municipals only participate in the distribution part of the “wires industry”. Hence, any actions by taken by IOUs that may adversely affect public power may be challenged. Conversely, municipal utilities have undertaken actions that may be scrutinized from the private power perspective.

In August 1999, a U.S. district court judge ruled in favor of Florida Municipal Power Agency (FMPA), a nonprofit, joint action agency formed by municipal electric utilities, in a lawsuit filed by FMPA in 1991 against Florida Power & Light (FPL). The lawsuit was filed against FPL for breaching a contract to provide network transmission service and for violating antitrust laws. At the time the lawsuit was filed, FMPA needed the network service, which FPL

¹² Nasser (1999).

¹³ Michael Kurtz, “Testimony on Behalf of the American Public Power Association before the House Commerce Committee”, Subcommittee on Energy Power, Hearing on Market Power (May 6, 1999): 3.

¹⁴ Energy Information Administration, “Financial Statistics of Major U.S. Publicly Owned Electric Utilities,” U.S. Department of Energy (Washington, D.C.: December 1998): 3.

provided for itself, to coordinate the operations of its municipal utilities.¹⁵ The American Public Power Association has recently submitted a motion to intervene, protest, and request for investigation and hearing in Docket Number ER99-4470-000 where Commonwealth Edison Company (ComEd) has proposed to re-functionalize more than 40% of its transmission assets to distribution without proper supporting information for the proposed action by ComEd. This action by ComEd comes at a critical time as the Midwest ISO is being formed with ComEd as a significant participant. The loss of this transmission capacity may implicitly form an additional transmission constraint that could adversely affect public power in Wisconsin. On the other side, some municipals have proposed municipalization plans as a method to avoid competitive transition charges for the recovery of stranded costs. Municipalization, generally described as the acquisition of an existing private utility's distribution system by a government unit, can occur through condemnation, construction of duplicative facilities, annexation, or through provision of minimal facilities. In many cases, the municipal utilities are seeking treatment as wholesale customers under Order 888.¹⁶ The NOPR process has allowed transparent representation from all stakeholders and analysts, including public power.

The American Public Power Association (APPA), national service organization representing the interests of non-profit publicly owned utilities in the United States, acknowledges some differences in opinions from different public power entities and those of the organization.¹⁷ Public power organizations are not in agreement on the optimal type of RTO

¹⁵ See Fla. Mun. Pwr. Agency v. FP&L, Case No. 92-35-Civ-Orl-22C, August 18, 1999 (Mid.Dist., Fla., Orlando Div.)

¹⁶ See Doane and Spulber (1997) and Basheda et al. (1998) for related discussions.

¹⁷ In APPA's response to the NOPR, it states "Frankly, APPA's membership is divided on the issue of public power participation in RTOs. Most systems - both transmission dependent and transmission owning utilities - believe that FERC lacks the legal authority to require our participation on a legal basis. Most members also believe FERC lacks an appreciation of the very real barriers to public power participation and the changes needed to eliminate these barriers. Most members also believe that RTOs are inevitable and that public power's participation will be valuable

model. APPA suggests a possible solution to the ISO-Transco debate is the ISO-Gridco hybrid, where a single ISO operates the transmission facilities for a number of transmission companies. The Gridco, owner of the transmission facilities, would directly provide transmission capability to the ISO while the Gridco is independent of other market participants. This method may provide independent operation of the grid and non-discriminatory transmission services.¹⁸ In a 1998 report by the Large Public Power Council (LPPC), an organization of 21 of the largest locally owned and controlled power systems in the United States with its members owning 10% of the nation's interconnected transmission network, the organization suggests a "not-for-profit Transco" as the solution:

The term "not-for-profit TransCo" is a relatively broad concept that would encompass a variety of organizational and governance structures. Generally speaking, a not-for-profit Transco would look like a conventional ISO except that it could own, lease or contract for transmission assets, and it would be responsible for the planning and operational responsibilities associated with those assets. The not-for-profit TransCo may or may not be in the form of a government entity. Put another way, in terms of organization and governance, the not-for-profit TransCo might look more like a traditional municipal utility or it might look more like a traditional electric cooperative.¹⁹

The City of Tallahassee, a municipal that operates a NERC-designed control area and owns both interstate and intrastate transmission, indicates a preference for Transcos, which provide stronger incentives for efficient operation. In addition, the municipal suggests the Commission should consider allowing regions to form government-owned, non-profit Transcos.²⁰ Also, Los Angeles Department of Water and Power (LADWP) suggests the implementation of Transcos, especially non-profit Transcos as RTOs in a place like the western

to our customers and to the nation." In "Comments of the American Public Power Association," Comments in Response to the Notice of Proposed Rulemaking: Regional Transmission Organizations (August 23, 1999): 12.

¹⁸ Id.: 25.

¹⁹ Large Public Power Council, "Uncrossing the Wires: Transmission in a Restructured Market" (December 1998): 12.

United States where about half of the transmission assets are owned by non-profit organizations.²¹ As the largest municipal utility in the United States and the third largest utility in California, LADWP is currently preparing for competition. The restructuring bill in California, AB 1890, gives publicly owned utilities the option to enter retail competition or not. Stranded cost recovery through competitive transition charges is available to municipal systems only if they join the state ISO. In the last two years, the municipal has reduced generation debt of \$4 billion by \$1.5 billion and has recently signed long-term contracts worth more than \$1 billion over about 10 years as the utility prepares for competition. Jacksonville Electric Authority (JEA), the largest municipal utility in Florida and the eighth largest in the United States, supports the formation of a publicly owned, non-profit Transco to meet the Commission's objectives. Also, JEA would prefer a single RTO to serve the whole state of Florida since it has its own NERC reliability council.²² However, there exist several legal obstacles that must be addressed before several municipalities can enter RTOs.

In comments submitted to FERC on the NOPR on RTOs, the LPPC explicitly identifies examples of legal requirements affecting members' participation in the ownership of RTOs, ability to sell or lease transmission facilities, and authority to transfer operation of facilities by contract. As an example of a constitutional constraint that would prevent participation in an RTO, Public Utility District No. 1 of Chelan County in the state of Washington, is bound by the Washington Constitution (art. VIII, § 7) which provides:

No county, city, town, or other municipal corporation shall give any money or property, or loan its money or credit to or in aid of any individual, association,

²⁰ City of Tallahassee, FL, "Comments of the City of Tallahassee, Florida," Comments in Response to the Notice of Proposed Rulemaking: Regional Transmission Organizations (August 17, 1999): 7.

²¹ Los Angeles Department of Water and Power, "Initial Comments of Los Angeles Department of Water and Power," Comments in Response to the Notice of Proposed Rulemaking: Regional Transmission Organizations.

²² Jacksonville Electric Authority, "Comments of JEA," Comments in Response to the Notice of Proposed Rulemaking: Regional Transmission Organizations (August 13, 1999).

company or corporation, or become directly or indirectly the owner of any stock in or bonds of any association, company, or corporation.²³

Also, Chelan is subject to public meetings and public disclosure laws that may prevent ratepayers from having full information if Chelan's facilities were transferred to a non-public RTO.²⁴

The constitutional restrictions vary among the LPPC members regarding the authority to sell or lease transmission facilities. Colorado Springs Utilities is subject to a law which "(a) authorizes a city to sell and dispose of electric light works or other public utilities, subject to voter approval" (Colo. Rev. Stat. § 31-5-15-713(1)). In the charter for Jacksonville Electric Authority, city council approval is required for a transfer above 10% of the total utility system by sale, lease or other exchange (Section 21.04(p)).²⁵ In addition, many members of the LPPC have some type of bond covenant restrictions that may affect the ability to sell or lease public power transmission facilities.

In the case of providing the operation of transmission facilities by contract, many of the same restrictions that restrict the sale or lease of transmission facilities restrict the ability of public power systems to yield operation of transmission facilities to other entities. As a specific case, the Lower Colorado River Authority is restricted by bond covenants that require the Board of Directors to retain rate-making authority even under the transfer of operation. Consequently, the facilities that are transferred would be under multiple layers of oversight responsibility.²⁶

In summary, public power systems are under a myriad of state and local requirements (originating in charters, constitutions, and case law) which can affect the ability to join RTOs. In

²³ Large Public Power Council, "Comments of the Large Public Power Council," Comments in Response to the Notice of Proposed Rulemaking: Regional Transmission Organizations (August 20, 1999): Appendix A.

²⁴ Public Utility District No. 1 of Chelan County, Washington, "Comments of Public Utility District No. 1 of Chelan County," Comments in Response to the Notice of Proposed Rulemaking: Regional Transmission Organizations: 7.

²⁵ Large Public Power Council, *supra* 23.

²⁶ Large Public Power Council, *supra* 23.

addition, tax rules and relationships with federally owned utilities create additional complexity for any implementation of a new wires industry. We next discuss the tax and finance issues relating to public power, specifically targeting issues facing municipals.

4. Finance and Tax Issues Facing Public Power

As states start to implement retail competition, both IOUs and public power utilities have identified existing rules which may create unfair advantages during competition. When comparing the average revenue per kilowatt-hour (a measure of price) in residential, commercial, and industrial customer classes, the residential customers of IOUs paid the highest price at 8.94 cents per kilowatt-hour in 1997. In each of the three classes, prices paid by customers of municipal utilities are lower than the prices for customers of IOUs with the largest difference in the residential class, 2.14 cents per kilowatt-hour.²⁷ One of the debates in the industry is to what extent tax rules may affect competition between IOUs and public power utilities. We next present some interpretations of differential treatment of IOUs and public power utilities.

Edison Electric Institute (EEI), the association of U.S. IOUs and industry affiliates and associates worldwide, state the following:

Why do some government-owned utilities want to enter competitive markets? As noted earlier, government-owned utilities are usually branches of local governments. The revenues they earn from sales go into local government treasuries to finance the activities of the municipalities that own the utilities. With streams of income from outside their jurisdiction, local governments need not raise taxes to cover the full cost of providing infrastructure and programs to benefit their citizens. Using tax exemptions and other subsidies as competitive advantages enables the communities that own the utilities to "raid" open markets for revenues that can be used to offset taxes. Unfortunately, it is those taxpayers living outside of the communities with government-owned utilities that pay for the subsidies.²⁸

²⁷ Office of Economic, Electricity, and Natural Gas Analysis, Office of Policy, U.S. Department of Energy, "Supporting Analysis for the Comprehensive Electricity Competition Act" (Washington, D.C.: May 1999): 3.

²⁸ Edison Electric Institute, EEI website at www.eei.org/issues/comp_reg/muni.htm.

EEI cites a study by Putnam, Hayes, & Bartlett which suggests the subsidies of government-owned utilities, which includes exemption from income taxes, exemption from other taxes, and tax-free bond financing, creates an aggregated subsidy of \$4.37 billion a year. In addition, the preferences of publicly owned utilities to federal power are calculated at \$ 1.86 billion a year.²⁹ However, IOUs also receive ‘subsidies’; these include investment tax credits³⁰, accelerated tax depreciation allowances³¹, and availability of tax-exempt financing for pollution controls. Alan H. Richardson, executive director of the American Public Power Association, cites a report prepared by MSB Energy Associates which indicates deferred taxes of approximately \$132 million in 1954 has increased in each of the 42 years since and totaled \$56.7 billion in 1996.³² Like the variation of local and state constraints on the ability of public power utilities to join RTOs, unique tax schemes present differential treatment for public and private power systems. We next consider tax and restructuring issues for public power in North Carolina to illustrate the range of issues.

Some analysts have suggested differences in average electricity prices among the states may be a factor in the decision by states to seek retail competition.³³ In 1998 the average price of electricity sold by all U.S. electricity utilities was 6.75 cents per kilowatt-hour, a decrease from 6.85 cents per kilowatt-hour in 1997; the average price in North Carolina in 1998 was 6.5

²⁹ Edison Electric Institute, EEI website at www.eei.org/issues/comp_reg/muni.htm, citing Putnam, Hayes, & Bartlett, “Subsidies and Unfair Competitive Advantages Available to Publicly-Owned and Cooperative Utilities,” (Washington, D.C.: March 1988).

³⁰ For-profit businesses could reduce income tax liabilities using the federal investment tax credit under Internal Revenue Code Section 48 until the passage of the Tax Reform Act of 1986. Even though the tax credit was eliminated, many IOUs still have deferred investment tax credit reserves.

³¹ IOUs are able to use accelerated depreciation methods for tax purposes and straight-line depreciation for financial reporting, the latter an advantage in rate cases. The two methods have equal depreciation over the life of the asset but tax depreciation is recorded earlier in the life of the asset.

³² Richardson (1999), citing MSB Energy Associates, “Federal Tax Breaks That Lower Investor-Owned Utility Costs and U.S. Treasury Revenues” (Washington, D.C.: December 1988).

³³ See Ando and Palmer (1998). Also, see White (1996).

cents per kilowatt-hour.³⁴ The state is currently investigating restructuring but is first addressing the \$6 billion debt of the state municipal systems.

In two municipal power agencies, North Carolina Municipal Agency #1 and North Carolina Eastern Municipal Power Agency, the customers in the 51 cities pay some of the highest rates, with some higher than the rates of IOUs. These rates may be high due to investment in a nuclear power project that was being built by Duke Power Co. and Carolina Power & Light, the two largest utilities in the state. Within the two agencies, public utilities receive exemption from federal and state taxes, exemption from county or municipal property taxes on distribution systems, exemption on fuel taxes, ability to issue tax-exempt bonds, and federal power preferences from Southeastern Power Administration, one of the federal power-marketing administrations.

Research Triangle Institute has recently completed an analysis of the comparisons of government taxes, financing and preferences by utility type. The organization estimates aggregate benefits of \$775 million for the IOUs in 1997 available under the U.S. Tax Code; this value is 36 cents per kilowatt-hour sold, with 90% of the value attributed to accelerated tax depreciation, 32 cents per kilowatt-hour sold. When investigating the 51 public utilities in the two power agencies, the value of tax, financing, and federal power was \$248.8 million in 1997. This translates to 2.37 cents per kilowatt-hour sold, with 84% of the value from the ability to issue tax-exempt bonds.³⁵ As one of the plans in the restructuring discussions, Duke Energy and Carolina Power & Light have suggested buying the distribution systems of the municipals and buying shares of the investment in an expensive nuclear project. Ratepayers would assist in

³⁴ Energy Information Administration, "Electric Power Annual 1998, Vol. I," U.S. Department of Energy (Washington, D.C.: 1998): 16.

paying the remaining half of the \$6 billion debt over a period up to 17 years. In the context of FERC's recent NOPR, the current tax code presents obstacles for public power to participate in RTOs.

The ability of public power entities to issue tax-exempt bonds is restricted under the Internal Revenue Code under Section 141. The Large Public Power Council notes the private use rules can be violated in a couple of ways. If the RTO is a non-governmental entity that controls and operates the transmission facilities of the municipal utility, this could result in private use. Second, the private use rules would require further investigation even if the RTO was a government entity since an investor owned utility may be obtaining transmission service. If public power utilities violate the code, the bonds would become taxable and the IRS could collect unpaid taxes or penalize the utility. In many cases, public power utilities may violate local bond covenants by taking actions to make the bonds taxable. The IRS issued temporary regulations in the beginning of 1998 to weaken the constraints on financing of transmission facilities. However, the regulations will expire in January 2001 unless the IRS provides extensions.³⁶ Senators Gorton and Kerrey introduced S. 386, the Bond Fairness and Protection Act, in February 1999 to address the private use problem. Generally, the proposed legislation provides public power systems the option of obtaining relief from existing facilities. A public power utility electing to obtain relief would surrender the right to finance existing generation facilities with tax-exempt bonds. The APPA supports this bill as a fair compromise.³⁷

³⁵ Research Triangle Institute, "Comparisons of Government Tax, Financing, and Preference Power Policies by Utility Type" (Research Triangle Park, NC: September 1998), at ES-3.

³⁶ Large Public Power Council, "Comments of the Large Public Power Council," Comments in the Response to the Notice of Proposed Rulemaking: Regional Transmission Organizations (August 20, 1999): Appendix B.

³⁷ American Public Power Association, website at www.appanet.org/news/rel-9906-22_4.html.

5. Tennessee Valley Authority, Power-Marketing Administrations, and Restructuring

To this point, I have focused on the publicly owned utilities, which includes municipals, public power districts, state authorities, irrigation districts, and other state organizations. I now consider issues facing the ten federally owned utilities, a group comprised of five wholesale power producers (U.S. Army Corps of Engineers, U.S. Bureau of Indian Affairs, U.S. Bureau of Reclamation, and the Tennessee Valley Authority) and four power-marketing administrations (Bonneville Power Administration, Southeastern Power Administration, Southwestern Power Administration, and Western Power Administration). I will focus primarily on issues affecting the Tennessee Valley Authority (TVA) and Bonneville Power Administration (BPA).³⁸

TVA, the largest electric utility in the United States with a service area covering almost all of Tennessee and parts of Kentucky, Georgia, Virginia, North Carolina, Mississippi, and Alabama, is a government corporation created by the TVA Act of 1933 to provide electric power, navigational control, flood control, agricultural development, and other services. The 17,000 miles of transmission lines provide full power requirements to 159 retail distributors, all municipal or cooperative utilities in its territory. Distributors purchase the power under wholesale contracts and are not allowed to acquire power from other non-TVA sources. A three-member Board of Directors (appointed by the President and confirmed by the Senate) establish power rates. In addition, TVA sells directly to 67 large industrial and federal customers.³⁹

³⁸ The Alaska Power Administration Asset Sale and Termination Act of 1995 authorized and directed the Department of Energy to sell the Alaska Power Administration, consisting of Eklutna and Snettisham hydropower facilities. The Eklutna Project near Palmer, AK was transferred to non-federal ownership in October 1997 while the Snettisham Project near Juneau, AK was sold in August 1998 for a price close to \$82 million.

³⁹ See Tennessee Valley Electric System Advisory Committee Membership, "Report of the Tennessee Valley Electric System Advisory Committee" (March 31, 1998) for an in-depth discussion of TVA issues in the national restructuring process.

The TVA Act of 1933, as amended in 1959, essentially ‘fences’ TVA by not allowing transmission outside of its service area, except for the fourteen surrounding utilities with which it was already engaging in business. Outside utilities are limited on selling wholesale inside the ‘fence’ due to existing all-requirements contracts with distributors inside the service territory. In addition, TVA is exempt from FERC’s authority to order transmission services under sections 210, 211, and 212 of the Federal Power Act only if the transmission service is inside the fence. These ‘anti-cherry picking’ provisions, enacted under EPAct 1992, were implemented to protect TVA from competition by restraining competitors from obtaining transmission service inside the Fence. Unlike other transmission providers, TVA was not required to file an open access transmission tariff under Order 888. Policymakers did not want to allow competitors the ability to compete ‘inside’ while TVA could not compete ‘outside’. As a result, the inability of TVA to participate in any RTO is at the core of its creation and current existence.

In addition, existing long-term contracts present obstacles for participation in RTOs. For example, Memphis Light, Gas and Water (MLGW) division, a municipal utility with transmission and distribution ownership as TVA’s largest customer accounting for close to 11% of TVA’s power sales, indicates it has a contract with TVA which requires 10 years written notice in advance to terminate the contract. Also, MLGW and its customers would receive financial penalties in the remaining years of the contract once a notice of termination is given.⁴⁰ The Clinton Administration’s Comprehensive Electricity Competition Plan includes provisions to address the fence, cherry picking, and long-term contract issues. In addition, the plan includes sections to address PMA issues in a new electricity industry.

⁴⁰ Memphis Light, Gas and Water Division, “Initial Comments of Memphis Light, Gas and Water Division,” Comments in Response to the Notice of Proposed Rulemaking: Regional Transmission Organizations (August 23, 1999): 9.

Bonneville Power Administration (BPA) is a PMA that markets wholesale power and operates more than 15,000 miles of transmission facilities and markets transmission services. Its power comes from 29 federal dams, a non-federal nuclear plant, and other renewable source power plants. Its operating area includes Oregon, Washington, Idaho, Western Montana, Nevada, Utah, Wyoming, and parts of Northern California. BPA gives preference to public utilities in selling low cost hydropower and sells only excess power outside of the Pacific Northwest. The Federal Columbia River Transmission System Act of 1974 essentially required BPA's power program to be self-supporting. Through a formal regional process subject to FERC's approval, BPA sets its rates for power and transmission sales at sufficient levels to cover annual expenses and to pay back funds that were previously appropriated. In addition, BPA is required to make annual payments on debt-servicing costs and Treasury bonds. One of the most important characteristics which deserves attention for RTO formation is the reliance on hydroelectric power in the region.

The Seattle City Light Department, the seventh largest publicly owned electric utility in terms of customers served, with a service area of over 130 square miles, notes the following:

With hydroelectric power as the dominant resource in the region, unit commitments are made according to objectives that are very different from systems consisting of thermal power plants. As with existing institutions, any prospective organization must continue to recognize special characteristics of hydroelectric generation such as fishery needs, public benefits, and hydraulic relationships—mostly imposed by FERC licenses.... With the lowest cost electricity in the nation, and an already thriving wholesale market with little price volatility, Northwest consumers have less to gain from restructuring the transmission system than do other regions being considered by the Commission under this proposed rule. Assuming that an RTO is projected to result in additional transmission costs, Northwest consumers will be less willing to incur

these costs when compared to consumers in regions where power costs are high and wholesale prices are extremely volatile.⁴¹

There has been some evidence BPA may be providing federal power at subsidized rates. The General Accounting Office has found net costs of nearly \$2.1 billion for BPA from 1992 to 1996.⁴² A bill introduced in April 1999, the Power Marketing Administration Reform Act, would essentially require federal power to be sold at market instead of cost-based rates. The House representatives introducing the bill suggest BPA power does not support rural communities but allows corporate giants unearned advantages over other manufacturers in other states by reducing energy costs to local businesses.⁴³ In August, BPA released its wholesale electric rates for the five-year period 2002-2006. BPA indicated information in 1996 that suggested its rates would exceed market prices. However, BPA expects its rates to decrease through cost-cutting measures and careful management. Thus, rates should be lower than market prices in 2002.⁴⁴

6. Conclusion

In addition to the local, state, and federal barriers to the participation in RTOs, issues such as stranded costs, market power, transmission pricing, grid congestion, centralized power markets, environmental issues, and other factors may create adverse conditions for public power, depending on unique circumstances of each utility. Analysts and public power entities are now searching for what role public power will play in the new “wires industry”. With a large number of municipals participating in distribution only, some suggest the role for municipal utilities will

⁴¹ Seattle City Light Department, “Comments of Seattle City Light Department,” Comments in Response to the Notice of Proposed Rulemaking: Regional Transmission Organizations (August 20, 1999): 14.

⁴² U.S. General Accounting Office, “Federal Electricity Activities: The Federal Government’s Net Cost and Potential for Future Losses, Volume 1,” GAO/AIMD-97-110 (September 1997): 8.

⁴³ Representatives Bob Franks and Marty Meehan, “The Sensible Approach: Federal Power at Market Rates,” *Public Utilities Fortnightly* (November 1, 1999): 44-47.

⁴⁴ Burkhardt (1999).

be in retail aggregation, where the municipal combines the load for the city with residential and small commercial loads and seeks purchases on the market.⁴⁵ John Kelly, a director of economics and research with the American Public Power Association, has suggested more opportunities for public power should exist since the utilities “collectively and individually have been a major factor in the gradual evolution toward a more competitive industry.”⁴⁶

Recent reports on the financial stability⁴⁷ of federally owned utilities have generated diverse perspectives on the role of these entities in a more competitive industry.⁴⁸ Some have suggested privatization of TVA and PMAs. However, the complications are more involved compared to the transfer of Alaska Power Administration. In other countries, such as Chile, comprehensive privatization in the electricity sector preceded movement toward competition.⁴⁹ However, the political system in the United States and the opportunities for stakeholders to affect regulatory change may discourage further privatization to occur. Public power will likely continue to be a major participant in the electricity industry regardless how regulatory policy evolves. However, the need to identify win-win options will tend to affect the structure of the new electricity industry in the U.S.

⁴⁵ See Vince et al. (1997), Schuler, Jr. (1996); O’Donnell (1995).

⁴⁶ John Kelly, “The Future Role of Distribution Utilities: A Dissenting View,” *The Electricity Journal* (June 1999): 29.

⁴⁷ See U.S. General Accounting Office, “Federal Electricity Activities: The Federal Government’s Net Cost and Potential for Future Losses, Volume 1,” GAO/AIMD-97-110 (Washington, D.C.: 1997); U.S. General Accounting Office, “Federal Electricity Activities: The Federal Government’s Net Cost and Potential for Future Losses, Volume 2,” GAO/AIMD-97-110A (Washington, D.C.: 1997); Congressional Budget Office, “Should the Federal Government Sell Electricity?” (Washington, D.C.: 1997); U.S. General Accounting Office, “Tennessee Valley Authority: Financial Problems Raise Questions About Long-Term Viability,” GAO/AIMD/RCED-95-134 (Washington, D.C.: August 1995).

⁴⁸ As a sample, see Courtney Barry, “BPA, TVA, Salt River: Playing Fair in Power Markets?” *Public Utilities Fortnightly* (July 1, 1998): 24-31; Alan Richardson, “Public Power: An Inexpensive Insurance Policy Against Consolidation,” *Public Utilities Fortnightly* (September 1, 1997): 40-45; Clyde Wayne Crews, Jr., “Pulling the Plug on the PMAs,” *Public Utilities Fortnightly* (May 1, 1996); Matthew C. Cordaro, “What’s in Store for Public Power?” *Public Utilities Fortnightly* (July 1, 1995): 14-16; Charles E. Bayless, “Time’s Up for Public Power,” *Public Utilities Fortnightly* (July 1, 1998): 32-38; Randall W. Hardy, “Federal Power at Market Prices? Be Careful What You Ask For,” *Public Utilities Fortnightly* (August 1999): 24-26.

⁴⁹ Lalor and Garcia (1996).

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