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Committee on Resources,
Subcommittee on Water and Power
Role of the Power Marketing Administrations In a Restructured Electric Industry

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Introduction

Thank you for the opportunity to testify on behalf of Public Citizen on issues related to the federal Power Marketing Administrations and their role in a changing electric power industry.

Public Citizen, founded by Ralph Nader in 1971, is a non-profit research, lobbying, and litigation organization based in Washington, DC. Public Citizen advocates for consumer protection and for government and corporate accountability, and is supported by over 150,000 members throughout the United States. The Critical Mass Energy Project, of which I am director, is Public Citizen's energy policy arm, working to decrease reliance on nuclear and fossil fuels and to promote safe, affordable and environmentally-sound energy alternatives.

As the rules governing the electric industry are rewritten, the debate over the role of the federal power marketing administrations (PMAs) dramatizes the larger debate over deregulation of the industry. Who should really benefit? Should it be residential consumers? What about rural consumers? What about the environment? Or, will all the benefits flow to investor-owned utilities (IOUs), Wall Street firms, and large industrial customers?

To answer these questions in relation to the PMAs, it is necessary to understand: (1) how electric utility deregulation is unfolding across the nation; (2) the unique role PMAs play in providing a yardstick for the cost of electricity for consumers in the changing electricity market; (3) the benefits and costs to consumers in the regions served by the PMAs; (4) the appropriate role for transmission systems owned by the PMAs; (5) and the serious threat to the environment of privatizing or changing the role of the PMAs.

Public Citizen is pleased that attempts to privatize the PMAs or to sell federally-owned dams have subsided. For the record, we do not favor the privatization of the PMAs, the attempts to force

PMAs to sell electricity at so-called market-based prices, or the related attempt to sell federally-owned dams. The federal hydro plants and the PMAs that sell their power are part of projects that serve many other purposes, including irrigation, flood control, navigation, municipal water supply, recreation, and fish recovery and protection. Turning over dams or PMAs to utilities and others whose sole interest is to maximize power revenues threatens these other purposes.

The dramatic changes in the electric industry provide an opportunity for the PMAs to continue serving their historic roles of providing low-cost power to rural areas of the United States as well as serving as a yardstick for measuring how and if consumers are benefiting from deregulation.

Background on Deregulation of the Electric Power Industry

Few industries affect as many people as the electric power industry; almost all Americans depend on safe, reliable, and affordable electricity for their homes and businesses. Yet deregulation laws and regulations passed in 23 states are jeopardizing the safety, reliability, and the affordability of electricity services, especially for residential consumers and small businesses. Those most at risk are low-income consumers and consumers living in expensive-to-serve areas, such as rural communities. Small consumers and businesses have been put at risk because the deals cut to pass legislation have given most of the benefits to the utilities and to large industrial consumers of electricity.

For example, in all states that have enacted electricity legislation, ratepayers are being forced to bail out electric utilities for their bad investments in nuclear power plants and other expensive assets. In total, ratepayers throughout the United States may end up handing the utilities over $200 billion, making electricity deregulation one of the largest consumer rip-offs of all time.

Investor-owned utilities are using the bailout money to acquire other utilities and power plants. These acquisitions are eliminating potential competitors even though restructuring proponents argue deregulation will lead to increased competition. At the current rate of consolidation, we will be left with only a handful of large corporations offering electricity services. Deregulation, for the most part, is not creating competition; it is creating unregulated monopolies.

Many power suppliers selling electricity in these states refuse to offer electricity to residential and small business consumers because they cannot make sufficient profits, or because the incumbent utilities have skewed the new laws in their favor. Thus, residential consumers have little choice other than to continue purchasing electricity from their unregulated local utility.

For example, in California less than one percent of all consumers (including large industrial customers) have chosen a new electricity provider. Massachusetts and Rhode Island have no competitors for residential and small business consumers. Pennsylvania has experienced some competition because the public utility commission artificially set the price of electricity and provided consumers with what is called a “shopping credit.” The number of customers to change suppliers appears to have peaked at less than 20 percent, while the remaining 80 percent have ignored the

marketplace. As predicted, only the most savvy consumers can benefit from this complex system. We expect the same problems to occur in other states.

As another example, a draft report from the Department of Agriculture, which was leaked to the press in March 1999, concludes that consumers in rural areas and in low-cost states may see higher electricity prices as a result of deregulation.[1] Other studies have made similar conclusions.[2]

Deregulation is making it harder for the industry to provide reliable electricity service—keeping the lights on, so to speak. In the past, utilities worked with neighboring systems to ensure that adequate supplies of power were available at all times. Now, utilities are competing with neighboring utilities and are less likely to work together to maintain the reliability of the electric system. Consumers may see more frequent power outages as a result of these ill-conceived policies.

Few industries have as large an impact on workers as the electric power industry. In 1990 there were more than 500,000 electric utility workers. At the end of 1997, there were about 370,000 workers, a decrease of 130,000 workers or about 25 percent. Not only have these layoffs affected the well-being of displaced workers, the layoffs mean fewer high-paying jobs in many communities. The layoffs also affect the safety and reliability of electric service: fewer workers mean longer power outages and less attention to safety.

No other industry has as large an impact on the environment as the electric power industry, which produces one-third of the nation's carbon dioxide pollution, the leading cause of global warming; two-thirds of sulfur dioxide pollution, the leading cause of acid rain; one-third of smog-forming nitrogen oxides; one-quarter of toxic mercury emissions; and nearly 95 percent of the radioactive waste produced by power plants, medical laboratories, and the military.

All of the pollution created by the electric power industry greatly affects the health and well-being of the nation's people. Coal-fired power plants provide nearly 60 percent of the nation's electricity, yet most of these plants are over 30 years old and produce pollution anywhere from two to 13 times greater than what new plants would produce. Many of these pollutants damage a person's respiratory system, with young children, the elderly, and people with respiratory disease at particular risk.

Deregulation is giving power plant owners the incentive to run their power plants as long as possible, especially plants that produce electricity cheaply, such as old, dirty, coal-fired power plants.

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[1] United States Department of Agriculture, *Electric Utility Deregulation: Rural Effects*, Washington, DC: Office of the Chief Economist, USDA, January 1999.

[2] See, for example, Energy Information Administration, *Electricity Prices in a Competitive Environment*, Washington, DC, August 1997; Consumers Union and Consumer Federation of America, *The Residential Ratepayer Economics of Electric Utility Restructuring*, Washington, DC, July 1998; Competition Policy Institute, *Navigating a Course to Competition*, Washington, DC, April 1997.

A Unique Role for Protecting Consumers

The mission of the federal power marketing administrations (PMAs) is to sell to consumers power generated at federally-owned multipurpose water projects at the lowest possible rates consistent with sound business principles. Currently, four PMAs sell about six percent of the nation's electricity to consumers in 33 states. The four PMAs include Bonneville Power Administration, Southeastern Power Administration, Southwestern Power Administration, and Western Area Power Administration (Alaska Power Administration was sold in 1995).

The federal hydro plants that provide electricity to the PMAs are part of river projects that serve many other purposes, including irrigation, flood control, navigation, municipal water supply, recreation, and fish recovery and protection.

Because the deregulated electricity market is likely to have insufficient competition, the PMAs and consumer-owned utilities (municipal utilities and rural electric cooperatives) play an important role in providing a yardstick for the fair price of electricity. They also provide for corporate diversity among the many players who sell and buy electricity—PMAs, municipal utilities, and rural electric cooperatives are non-profit corporations that emphasize customer service instead of corporate profits.

In the past we have seen how important it is to have PMAs and the Tennessee Valley Authority (TVA) in the marketplace. When TVA was established in 1933, it reduced retail rates of electricity by 60 percent below rates offered by neighboring investor-owned utilities.

Bonneville Power Administration, the first federal power marketing administration, was created in 1937 to help market and transmit electricity generated by the multipurpose river projects owned by the Bureau of Reclamation and the Corps of Engineers. BPA's projects were built in the rural Northwest, providing electricity to hundreds and thousands of rural Americans for the first time, even though most cities had been electrified by the turn of the century. Additional PMAs (Alaska, Southeastern, Southwestern, and Western Area) came into existence during the 1940s, 50s, and 60s.

Through the "preference clause," which is a feature of all federal utilities, electricity from federal river projects is made available first to municipal and cooperative utilities—excess power is then sold to investor-owned utilities or directly to private companies. By providing municipal and cooperative utilities with low-cost hydro power, municipal utilities and rural electric cooperatives electrified the rural areas of the country and, through competition, lowered the rates charged by investor-owned utilities.

In addition to putting downward pressure on rates charged by investor-owned utilities, federal utilities have also uncovered anticompetitive businesses practices. During the 1950s, TVA used a closed-envelope process when requesting bids from suppliers of generating equipment. TVA officials noticed that all the bids came in at the same price. This obvious case of price-fixing was brought to the attention of then Attorney General Robert Kennedy who pursued the issue and eventually took the case to court. Top management of some of the suppliers, including officials from General Electric and

Westinghouse, went to jail, while fines were levied on the companies. Without TVA's presence, this egregious price-fixing would have continued to have a negative effect on the IOUs and their consumers.[3]

Any attempt to sell the PMAs or to restrain the sale of PMA electricity would remove their yardstick functions at a critical time. As electricity markets are deregulated, the presence of the PMAs (and their preferred customers the municipal and cooperative utilities) offer a strong influence in preventing cartel-like behavior and other forms of market domination and abuse within regional power pools.

Benefits and Costs to the Customers of PMAs

Attempts to force the PMAs to use so-called market-based rates, which is a provision in H.R. 1486 introduced by Representatives Bob Franks (R-NJ) and Marty Meehan (D-Mass.), is a back-door method of privatization. Forcing the PMAs to raise their rates to undefined "market-based rates" is unfair to millions of consumers living in the states they serve, and it could bring about the demise of the agencies.

The term market-based rates is not defined in the Franks-Meehan legislation. Also, in this case it is being used pejoratively to imply that some undefined subsidy exists. For example, there are some utility plants that generate power below current market rates, including FERC-licensed hydropower projects owned by private utilities in the Northeast and elsewhere. Forcing any power plant to sell at some undefined rate could needlessly raise costs for consumers.

The PMAs should continue providing cost-based power to consumer-owned power companies (municipals and rural cooperatives) and residential consumers of investor-owned utilities. This will be especially important in a deregulated environment, where large industrial consumers have vast advantages over residential and small business consumers. It is just and fair for the residents of a region to benefit from their natural resources.

Given that the financial health of these agencies is important, the PMAs should collect revenues that cover their costs and obligations. In the subscription[4] process that will take place as the contracts for power expire with the PMAs, it is important to capture sufficient revenues as the options for power are negotiated.

Another provision of H.R. 1486 would require the PMAs to implement "full cost recovery," even though by law PMAs already recover the full costs of producing electricity. Indeed, power customers of the multi-purpose river projects already cover additional costs associated with non-power activities like flood control, irrigation, and fish restoration.

[3] Herling, John. *The Great Price Conspiracy*. Washington, DC: Robert B. Luce Publisher, 1962.
[4] Term given to describe the negotiation of power contracts between PMAs and customers.

Another disturbing provision of H.R. 1486 mandates that revenues from electricity sales be diverted to the Treasury for deficit reduction. It is inappropriate to tax power users to reduce the deficit when far more money could be saved by closing loopholes and give-aways and other forms of corporate welfare.

Nevertheless, we believe that it is appropriate for PMAs to acquire new non-hydro renewable resources, and that the costs of these new non-hydro renewables should be recovered in power rates. The same is true of mitigation strategies that deal with the damage to fish, wildlife, and rivers. The costs of addressing these problems should be included in the price of PMA electricity, as proposed in H.R. 1486.

Role for PMA Transmission Systems

Transmission is another area where the PMAs can play a valuable role in the future. Three of the four PMAs own a significant amount of transmission lines and facilities. Bonneville Power Administration (BPA) owns 14,800 circuit miles of transmission lines and 400 substations, the Western Area Power Administration (WAPA) maintains an existing infrastructure of 16,800 circuit miles of transmission lines and 257 substations, and Southwestern Power Administration owns 1,380 miles of high-voltage transmission lines, and 24 substations. BPA is recognized in the region as an excellent caretaker for their transmission system.[5]

These federal PMAs could serve as the backbone for three non-profit, publicly-owned transmission companies, or "public transcos." Each public transco would cover the regions served by the Eastern Interconnection, the Western Interconnection, and the Texas Interconnection (the nation's transmission system is literally and physically divided into three such systems or "interconnections").

Three non-profit public transcos would ensure fair electricity markets, increase reliability, increase transmission access, reduce regulation, reduce bureaucracy, eliminate cross-subsidies, and eliminate affiliate abuse at the hands of utility holding companies.

The three public transcos should be responsible for providing non-discriminatory open access to the nation's three separate transmission networks at affordable rates approved by the Federal Energy Regulatory Commission.

Duties and responsibilities of each public transco should include scheduling and dispatching power plants; maintaining the transmission system; planning, building, and owning transmission system improvements; developing and implementing standards for system reliability; and arranging for the provision of ancillary services.

For the first time in the history of the electric power industry, all of the transmission workers, facilities, and responsibilities (including reliability) of each major transmission interconnection would be

[5] Conversation with Sarah Patton and Nancy Hirsch of the Northwest Energy Coalition, Seattle, Washington,206/621-0094.

under one non-profit roof. This would ensure that employees are making decisions for the good of the system, instead of the owners of for-profit companies. The directors and employees of each public transco should not have any financial ties or interests with any electric company.

A public transco would remove the regulated assets, services, and staff of all utilities (including the PMAs) into a separate, stand-alone, non-profit company that would have no affiliates and no subsidiaries. Cross-subsidies between regulated and non-regulated subsidiaries would disappear, along with the need for expensive, intrusive, and ineffective regulation of affiliate transactions. A structural remedy to holding company abuses would finally be in place decades after it was formally proposed by President Franklin Roosevelt in March 1935.

A public transco would have plenty of incentive to maximize the efficiency of the transmission system. Consumers want access to the least expensive power available, yet they also want to minimize transmission system investments, because they are costly, damaging to the environment, damaging to property values, and potentially dangerous. This tension between access to low cost power and resistance to new transmission facilities will ensure that a public transco would build only those facilities that serve the public interest.

The PMAs could easily serve as the backbone and as role models in creating these non-profit public transmission companies.

Issues for the Environment

The PMAs should not be privatized directly or by schemes to force them into an untenable situation, where their power is not affordable, but they must become responsible stewards of the environment. The benefits of cost-efficient hydropower flow to the region where they are located, but at the same time the costs of protecting the natural resources, including fish and wildlife restoration, should be incurred by the residents of the region.

While the power from falling water is one of the oldest and most easily accessible energy sources, there are grave environmental impacts associated with dams.

Hydroelectric dams may be either run-of-river, in which the amount of electricity generated is determined by the volume of water flowing in the stream, or in a storage facility, in which large reservoirs of water allow operators to control the time and quantity of electricity production depending on the impounded volume of water.

Dams are a major culprit of the degradation of the nation's freshwater resources.[6] The effects of hydroelectric dams on rivers are far-reaching and ecologically complex. Dams—concrete and

[6] For descriptions and quantification of environmental damage caused by hydroelectric projects, see David M. Gillialan and Thomas C. Brown, *Instream Flow Protection: Seeking a Balance in Western Water Use*, Washington, DC: Island Press, 1997 and John D. Echeverria, Pope Barrow, and Richard Roos-Collins, Rivers at Risk: *The Concerned Citizens' Guide to Hydropower*, Washington, DC: Island Press, 1989.

impenetrable—are the antithesis of a river's nature, in which dynamism and fluidity are defining characteristics.

For example, plants and fish depend on flows that supply nutrients and minerals. Riverine species have evolved to rely on a river's seasonal changes in flow volumes and temperatures. Migrating fish such as salmon and striped bass depend on open waterways to reach spawning beds kept healthy by river flows. Floodplains, which historically provided rich farmlands, owe their soil fertility to flooding rivers, which deposit minerals and nutrients carried from their mountain origins.

Dams change all that, by turning rivers into quiet, stagnant reservoirs, or otherwise reducing and regulating flows while changing natural temperature levels that wildlife have evolved to depend on. Additionally, dams trap sediments and minerals, emptying the water of these life-giving nutrients. These drastic, physical changes effectively take the life out of a river, and wreak havoc on the river's biological life, from insects and plankton, to fish, birds, and mammals.

Through diversion for power production, dams block water needed for healthy river systems. Stretches below dams are often left without any water at all. By withholding and then releasing water to generate power for peak demand periods, dams cause downstream stretches to alternate between no water and powerful surges that erode soil and vegetation, and flood or strand wildlife.

Perhaps the most widely recognized environmental effects of dams are their deadly impacts on fish. Dams are primarily responsible for pushing the famed East Coast and Pacific Northwest salmon runs to the brink of extinction. Not only are fish physically blocked by dams from making their upstream migrations, young salmon and other species are killed by the thousands trying to make their way downstream to the ocean when they are drawn into and cut up by power turbines.

Warmer water temperatures both in streams and in reservoirs can lead to fish population declines. Cold water fisheries, especially native trout populations, have been decimated on streams warmed by decreased instream flows. Higher-temperature water tends to favor non-native fish that eat or out-compete native fish like salmon and trout. In addition, dams decrease oxygen levels in reservoir waters. Periodically, this can lead to large fish kills in impoundments as well as when the oxygen-deprived water is released from the dam.

Deregulation is putting added stress on rivers with hydro facilities because the demand is for electricity suppliers to keep costs as low as possible. The deregulated power markets are also placing a greater value on "peak hour" electricity, creating incentives that damage rivers. Hydro plants have the prized advantage of stopping or starting generation in a matter of minutes, thus allowing them the advantage of responding quickly to increases in demand. This peaking power operation creates many more environmental impacts than run-of-river operations. Flows downstream of peak-power dams are held back during periods of low demand, and then surge to very high levels during peak demand hours, regardless of the needs of the river.

Obviously, this is one of the reasons we oppose privatizing dams or the PMAs. Rivers are owned by no one, nor should they be, since they are without question a public resource. If dams or

PMAs had private ownership, there would be even more pressure for squeezing all of the profit possible out of hydro operations. Also, private companies must always be looking for "growth" opportunities, and are not rewarded economically for good stewardship of natural resources. Instead, they are rewarded for growing and making profits for shareholders.

However, even under public ownership, there are increasing environmental challenges. Deregulation removes incentives for the PMAs to incur costs for environmental protection and then to recover them from their customers. The PMAs are under the same economic pressures, especially with their opponents attempting to move them towards so-called market-based rates. Because the PMAs are trying to minimize their costs, there is reluctance to invest in greatly needed environmental measures.

Fish, wildlife, and indeed, the rivers, are an irreplaceable part of our natural, cultural, and economic heritage. For instance, the loss of salmon in the Northwest is a tragedy that would have negative impacts on the Northwest region and arguably for the nation as a whole. Restoring the biological integrity of watersheds is essential to preserving our natural environment for our children and grandchildren.

The past record of environmental failures can be reversed if major, but affordable, changes are made to both the federal hydro system itself and to river management. The PMAs play an important role in this endeavor. Just as the benefits of low-cost power should go to the region, the cost for protecting the region's natural resources should be paid for in the cost of electricity by the people who receive the benefit of inexpensive electricity. As mentioned before, we believe that it is appropriate for PMAs to charge their customers for the cost of mitigation strategies that deal with the damage to fish, wildlife, and rivers. The costs of addressing these problems should be included in the price of PMA electricity, as proposed in H.R. 1486.

Practical, affordable measures exist to bring back fish and restore the health of rivers. These measures are based on sound science and are broadly supported. Some examples are:

- the setting of standards for river flows, water quality, impacts on animals and the watershed, and protection of cultural resources;
- the phasing out of juvenile fish transportation—barging and trucking of fish;
- the use of spill as the primary means for juvenile fish passage;
- the use of juvenile and adult fish passage systems at all dams which mimic natural passage to the fullest extent possible;
- the application to privately-owned dams of the standards that protect federally controlled dams.

Thank you for your consideration of these comments, and I would be happy to answer your questions.

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