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Electricity Restructuring Background: The Public Utility Regulatory Policies Act of 1978 and the Energy Policy Act of 1992

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Summary

Electric utilities have been subject to comprehensive federal and state economic regulation since enactment of the Public Utilities Holding Company Act of 1935 (PUHCA) and the Federal Power Act. This regulatory framework remained virtually unchanged between 1935 and 1978. The oil embargoes of the 1970s created concerns about the security of the nation's electricity supply leading to enactment of the Public Utility Regulatory Policies Act of 1978 (PURPA). For the first time, utilities were required to purchase power from outside sources.

This first incremental change to traditional electricity regulation started a movement towards a market-oriented approach to electricity supply. Following the enactment of PURPA, two basic issues stimulated calls for further change: whether to encourage nonutility generation and whether to permit utilities to diversify into non-regulated activities.

The Energy Policy Act of 1992 (EPACT) increased competition in the electric generating sector by creating new entities that can generate and sell electricity at wholesale without being regulated as utilities under PUHCA. PURPA began to shift more regulatory responsibilities to the federal government, and EPACT continued that shift away from the states by creating new options for utilities and regulators to meet electricity demand.

As the electric utility restructuring debate evolves, additional policy issues to be addressed may include federal-state jurisdictional roles, stranded cost recovery, industry structure, and non-economic regulatory factors.

Electric utilities have been subject to comprehensive federal and state economic regulation since 1935. Electricity service has been considered a natural monopoly, meaning that the industry has (1) an inherent tendency toward declining long-term costs; (2) high threshold investment and (3) technological conditions that limit the number of potential entrants. The federal regulation scheme was codified in 1935 with the passage of the Federal Utility Act. Its two components, the Federal Power Act and the Public Utilities Holding Company Act of 1935 (PUHCA)[1], defined the nature of federal electric utility regulation until the passage of Public Utility Regulatory Policies Act of 1978 (PURPA).[2]

As the electric utility industry evolved, flaws with the natural monopoly theory became more apparent. First, there is nothing natural about a utility's monopoly to provide electric service because exclusive franchises in the utility's service area are granted by government. Second, several utilities, primarily some municipals, co-ops and publicly owned utilities, do not own all of their generating facilities. For these utilities, contractual arrangements, rather than unified control have been adequate to meet their obligation to serve their customers in an efficient manner.

Basic PURPA Provisions

PURPA was, in part, intended to augment electric utility generation with more efficiently produced electricity and to provide equitable rates to electric consumers. PURPA created a new type of wholesale generators called Qualifying Facilities (QFs). PURPA addressed several major modifications in the economic regulation of electric power facilities, including: interconnection, planning, cogeneration, rates, and small hydroelectric facility regulation. PURPA injected the federal government as a regulator into the domain of economic regulation of electric power that formerly was the responsibility of the states.

QFs are exempt from regulation under PUHCA and the Federal Power Act (FPA) by PURPA. Two types of generators can be certified with FERC as a QF to gain PURPA benefits: a small power producer and a cogenerator. A qualifying small power production facility is defined in the FPA as an electric generator that meets certain FERC rules, including requirements regarding fuel use, fuel efficiency, and reliability (16 U.S.C. 791a-825r). Cogeneration is the sequential production of both electric energy and steam, or other forms of useful energy (such as heat), which are used for industrial, commercial, heating, or cooling purposes. To be considered a QF, a cogenerator must meet FERC ownership and operational requirements that are similar to those required of small power producers.

Avoided Costs

Departing from traditional utility rate regulation, PURPA shifted the price basis for wholesale electricity from the seller’s cost to the purchaser’s cost. Under PURPA, the

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[1]PUHCA is Title I of the Public Utility Act of 1935. 49 Stat. 803 (1935), 15 U.S. Code §§ 79 *et seq.*

[2]P.L. 95-617. (92 Stat. 3117) 116 U.S. Code §§ 2601.

local utility must purchase all power produced by QFs in their service area at avoided cost. FERC adopted rules under PURPA to define avoided cost: the likely costs for both energy and facilities that would have been incurred by the purchasing utility if that utility had to provide its own generating capacity. PURPA raised some doubt as to whether the avoided cost concept was consistent with constitutional "just compensation" requirements, but these Fifth Amendment concerns were obviated in 1986 (Kansas City Power & Light Co. v. State Corporation Commission). The rules requiring electric utilities to pay cogenerators and small power producers avoided cost were found not to take property without just compensation in instances where the electric utility could charge ratepayers avoided cost and earn a profit.

State rate regulators have wide latitude in establishing the procedure to assign avoided costs. Initially, avoided costs were frequently set too high, resulting in more QF power than host utilities could reliably transmit or sell. This became a large problem in some parts of the United States, particularly California. To avoid this problem, many states are now using bidding systems to determine avoided costs. In these systems, non-utility generators bid to provide the cheapest power to utilities. These bidding systems are intended to substitute for rate-making approvals of power purchase transactions, but participating state utility commissions still determine ground rules for these auctions and provide oversight. Bidding results in a more competitively based price, putting the emphasis back onto the seller's costs rather than the purchaser's avoided cost.

New Entrants to Electricity Markets

With the introduction of PURPA, the federal government opened the electricity generating sector to other entrants and raised questions about the natural monopoly justification of generation ownership and regulation. The emergence of QFs increased the diversity of generation ownership to a degree. According to the Edison Electric Institute, in 1996, non-utility generating capacity was approximately 11% of the U.S. total. Approximately 77% of this non-utility capacity is from cogenerators and small power producers (i.e., QFs)[3].

In addition to PURPA, the Fuel Use Act of 1978 (FUA),[4] helped QFs become established. Under FUA, utilities were not permitted to use natural gas to fuel new generating technology. QFs, which are not utilities, were able to take advantage of abundant natural gas as well as new generating technology, such as combined-cycle and fluidized bed combustion. These technologies lowered the financial threshold for entrance into the electricity generation business as well as shortened the lead time for constructing new plants. FUA was repealed in 1987, but by this time, QFs and small power producers had already gained a portion of the total electricity supply market.

This ability to build relatively small but economic generating capacity, along with the utilities' reluctance to build additional capacity, encouraged some to enter into the electricity supply business without meeting the requirements to be a QF. These entities, called Independent Power Producers (IPPs), sell power at wholesale only. However,

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[3]Edison Electric Institute. *1996 Capacity and Generation: Non-Utility Sources of Energy.* October, 1997. Page 7.

[4]P.L. 95-620. Signed into law on November 9, 1978.

because they are not QFs, they are not afforded the protections of PURPA and, most importantly they were not exempt from PUHCA. Most utilities find regulation under PUHCA to be restrictive and burdensome. In addition, PUHCA is seen by some to be a barrier to electricity market entry by non-utility businesses.

The influx of QF power challenged the cost-based rates that previously guided wholesale transactions. Before implementation of PURPA, FERC approved wholesale interstate electricity transactions based on the seller's costs to generate and transmit the power. As more nonutility generators entered the market in the 1980's these FERC approved cost-based rates were questioned. Since nonutility generators typically do not have enough market power to influence the rates they charge, FERC began approving certain wholesale transactions whose rates were a result of a competitive bidding process. These rates are called market-based rates.[5]

This first incremental change to traditional electricity regulation started a movement towards a market-oriented approach to electricity supply. Currently, most non-QF cogenerators and small power producers are affiliated with parent utility companies and are not truly independent of regulated utilities. Independent and affiliated power producers began to blur the status and obligations of utility regulation at both the federal and state levels. The issues of whether to encourage independent power producers and whether to permit utility diversification into non-regulated markets resulted in a call for further regulatory reform.

Call for Further Reform: EPACT

Following the enactment of PURPA, two basic issues stimulated calls for further reform: whether to encourage nonutility generation and whether to permit utility diversification. Independent power producers and some utilities argued that to encourage competition in electricity supply, IPPs should be exempt from PUHCA regulation. It was seen that this exemption would encourage investment in IPP facilities. Before PUHCA reform, companies that operated nonutility and utility businesses had been reluctant to build independent facilities for fear of having all their operations regulated under PUHCA. Additionally, independent power producers argued that their corporate structure was being distorted and made overly complex by the machinations necessary to avoid regulation under PUHCA. They argued this result (overly complex corporate structures) was the exact opposite of the purpose of PUHCA.

The Energy Policy Act (EPACT) increased competition in the electric generating sector by creating new entities that can generate and sell electricity at wholesale without being regulated as utilities under PUHCA. By creating new options for utilities and regulators to meet electricity demand, the effect of EPACT on the electric supply system is potentially more far-reaching than PURPA's introduction of cogenerators and small power producers to the electricity supply mix.

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[5]For a discussion on competitive bidding see, Poling, Parker, Abel, Holt, Kiefer & Kaufman. *Electricity: A New Regulatory Order?*, prepared for the House Committee on Energy and Commerce. Committee Print 102-F. June 1991. p. 101-102.

How Did EPACT Reform PUHCA?

EPACT established "exempt wholesale generators" (EWGs) and “foreign utility companies” (FUCOs) as entities that are not considered electric utilities and are therefore exempt from the Federal Power Act and PUHCA. State regulators can now allow utilities to purchase electricity from EWGs at contracted market-based rates, rely on traditional cost-of-service regulation, or a combination of both. EWGs can be constructed anywhere, including foreign countries. Both registered and exempt holding companies under PUHCA may own and operate EWGs. A portion of a generating facility can be considered an EWG if the other part of the facility is not owned by a utility affiliated with the EWG. Electricity from these facilities that is sold in the United States must be sold at wholesale to a utility or other generator, not to retail customers. In addition, EPACT provides EWGs with a system to assure transmission of their wholesale power to purchasers.

On February 11, 1993, the Federal Energy Regulatory Commission (FERC) issued its final EWG regulations required by §711 of EPACT.[6] This rule covers filing requirements and procedures for applicants seeking EWG status. EWG status is primarily self-regulating. FERC requires that an applicant file sworn statements that it complies with the statutory requirements for EWGs.[7] Applicants are guaranteed a ruling on their application within 60 days without any public hearings. FERC acknowledged some consumer groups' concerns that the proposed rule did not allow for sufficient public notice and, in the final rule, FERC agreed to consider comments that specifically question the adequacy or accuracy of an application.

PUHCA reform under EPACT provides protection to consumers against financial abuses between regulated and unregulated entities, including cross-subsidization. During the legislative debate, opposing views were expressed on the sensibility of allowing transactions between affiliates. Consumer groups and state utility commissions argued that the risks of above-market-cost transactions outweighed possible benefits associated with vertical integration[8] (including EWGs). Some utilities, however, argued that some affiliate transactions would benefit consumers and should be allowed. In the end, Congress expressed a desire to continue protection of consumers' interests but *assumed* that affiliate transactions, if allowed at all, would be subject to very stringent state regulation. Also, if every state commission that has jurisdiction over the electric utility's rates approves, an electric utility may purchase electricity from an affiliated EWG.[9]

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[6]FERC docket number RM93-1-00. Appears in Federal Register. Vol. 58, No. 51. Feb. 18, 1993. p. 8897-8907.

[7]These requirements include: a description of the eligible facility, eligibility for EWG status, any lease arrangements with affiliated or non-affiliated electric utilities, and any requirements placed on those affiliates by a state public utility commission.

[8]Vertical integration refers to the three components of electricity supply: Generation, transmission and distribution.

[9]Affiliate transactions can occur if state regulators determine that: 1)the commission has the authority in addition to the resources to examine the financial books of the electric utility company and any relevant affiliates; and, 2) the commission determines that a wholesale transfer of power between an EWG and an affiliated electric utility would benefit consumers, not violate

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The law also allows for state utility commissions to request financial information from a regulated electric utility, an EWG, or an affiliate of an EWG that sells electricity to a regulated electric utility. This will assure state regulators that the wholesale contracts that a regulated electric utility enters will not degrade the reliability of electric service or be of greater financial risk than desired. Another consumer protection afforded by the law is that a registered holding company must seek the approval of the Securities and Exchange Commission (SEC) when it issues securities to purchase an EWG, guarantees securities for an EWG, or enters into any type of service, maintenance, or construction contract.

EPACT allows holding companies and EWGs to have financial interests in foreign utility companies. The Securities and Exchange Commission was required to issue rules to protect ratepayers from any harm that might result from holding companies' foreign investment activities. The SEC issued its final rule on October 1, 1993.[10] In issuing its rule the SEC noted that consumer protection and competition are potentially inconsistent goals. The Commission noted "that there is an inherent tension between the drive toward a competitive energy market and the demand for effective consumer protection. The rules required by the legislation cannot resolve this tension, but must instead operate within it." The rule imposes a retained earnings requirement on these diversification activities, allows SEC access to books and records, and limits the number of domestic utility employees who could provide services to both affiliated EWGs or affiliated foreign utility companies.

What is Next?

One unintentional consequence of PURPA was to introduce competition into the electric generating sector. The main effect of the debate and enactment of EPACT was to continue a reevaluation of traditional electric utility regulation. PURPA began to shift more regulatory responsibilities to the federal government, and EPACT continued that shift away from the states. This occurred without agreed-upon goals for how electricity should be supplied and regulated in the future. FERC has addressed some of the unresolved issues created by EPACT, such as transmission access.[11] However, as the electric utility restructuring debate evolves, additional policy issues likely to be addressed include federal-state jurisdictional roles, stranded cost recovery, industry structure, and non-economic regulatory factors.[12]

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any state law, would not give an unfair competitive advantage to an EWG, and would be in the public interest.

[10]Securities and Exchange Commission. *Adoption of Rules, Forms and Form Amendments Relating to Exempt Wholesale Generators and Foreign Utility Companies.* Federal Register. Vol. 58, No. 189, October 1, 1993. p. 51488-51507.

[11]For a discussion on transmission access and FERC Orders 888 and 889, see issue brief 96003.

[12] Parker, Larry B. *Electric Utility Restructuring: Overview of Basic Policy Questions.* CRS Report for Congress. 97-154ENR. January 28, 1997.