Order Code IB10006

CRS Issue Brief for Congress

Electricity: The Road Toward Restructuring

Updated May 11, 2000

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Electricity: The Road Toward Restructuring

SUMMARY

The Public Utility Holding Company Act of 1935 (PUHCA) and the Federal Power Act (FPA) were enacted to eliminate unfair practices and other abuses by electricity and gas holding companies by requiring federal control and regulation of interstate public utility holding companies. Prior to PUHCA, electricity holding companies were characterized as having excessive consumer rates, high debt-to-equity ratios, and unreliable service. PUHCA remained virtually unchanged for 50 years until enactment of the Public Utility Regulatory Policies Act of 1978 (PURPA, P.L. 95-617). PURPA was, in part, intended to augment electric utility generation with more efficiently produced electricity and to provide equitable rates to electric consumers. Utilities are required to buy all power produced by qualifying facilities (QFs) at avoided cost (the amount it would cost the utility to produce that same amount of electricity; rates are set by state public utility commissions or through a bidding process). QFs are exempt from regulation under PUHCA and the FPA.

Electricity regulation was changed again in 1992 with the passage of the Energy Policy Act (EPACT, P.L. 102-486). The intent of Title 7 of EPACT is to increase competition in the electric generating sector by creating new entities, called "exempt wholesale generators" (EWGs) that can generate and sell electricity at wholesale without being regulated as utilities under PUHCA. This title also provides EWGs with a way to assure transmission of their wholesale power to its purchaser. The effect of this Act on the electric supply system is potentially more far-reaching than PURPA.

On April 24, 1996, the Federal Energy Regulatory Commission (FERC) issued two final rules on transmission access (Orders 888 and 889). FERC believed these rules would remedy undue discrimination in transmission services in interstate commerce and provide an orderly and fair transition to competitive bulk power markets.

In addition to stand-alone PURPA reform bills, comprehensive legislation to reduce electricity regulation has been introduced in the 106th Congress. Comprehensive legislation involves three issues. The first is PUHCA reform. Some electric utilities want PUHCA changed so they can more easily diversify their assets. State regulators have expressed concerns that increased diversification could lead to abuses including cross-subsidization. Consumer groups have expressed concern that a repeal of PUHCA could exacerbate market power abuses in a monopolistic industry where true competition does not yet exist.

The second is PURPA's mandatory purchase requirement provisions. Many investor-owned utilities support repeal of these provisions. They argue that their state regulators' "misguided" implementation of PURPA has forced them to pay contractually high prices for power that they do not need. Opponents of this legislation argue that it will decrease competition and impede development of renewable energy.

The third is retail wheeling. It involves allowing retail customers to choose their electric generation from any source they want and having their local utility deliver it to them. Currently, this is under state jurisdiction, and 25 states have moved toward retail wheeling. However, some have argued that the federal government should act as a backstop to ensure that all states introduce retail wheeling, preempting state authority if necessary.

MOST RECENT DEVELOPMENTS

On April 27, 2000, the Senate Committee on Energy and Natural Resources held a hearing on pending electricity restructuring legislation. On February 24, 2000, Senator Murkowski introduced S. 2098, a comprehensive electricity restructuring bill. The House Commerce Committee, Subcommittee on Energy and Power, held a markup session on H.R. 2944 on October 27, 1999. On October 28, 1999, H.R. 2944(as amended) was forwarded by subcommittee to full committee. On December 20, 1999 the Federal Energy Regulatory Commission issued Order No. 2000 (RM 99-2 [http://www.ferc.fed.us/news1/rules/pages/rulemake.htm]*), the final Regional Transmission Organization (RTO) rule. The Rule sets out parameters for voluntary utility participation in RTOs. (See also the CRS Electronic Briefing Book on electricity restructuring, including state activities, at [http://www.congress.gov/brbk/html/ebele1.html].)*

BACKGROUND AND ANALYSIS

Historically, electricity service has been defined as 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. In addition, many regulators have considered unified control of generation, transmission, and distribution as the most efficient means of providing service. As a result, most people (about 75%) are currently served by a vertically integrated, investor-owned utility.

As the electric utility industry has evolved, however, there has been a growing belief that the historic classification of electric utilities as natural monopolies has been overtaken by events and that market forces can and should replace some of the traditional economic regulatory structure. For example, the existence of utilities that do not own all of their generating facilities, primarily cooperatives and publicly owned utilities, has provided evidence that vertical integration has not been necessary for providing efficient electric service. Moreover, recent changes in electric utility regulation and improved technologies have allowed additional generating capacity to be provided by independent firms rather than utilities.

The Public Utility Holding Company Act (PUHCA) and the Federal Power Act (FPA) of 1935 (Title I and Title II of the Public Utility Act) established a regime of regulating electric utilities that gave specific and separate powers to the states and the federal government (see CRS Report RS20015). A regulatory bargain was made between the government and utilities. In exchange for an exclusive franchise service territory, utilities must provide electricity to all users at reasonable, regulated rates. State regulatory commissions address intrastate utility activities, including wholesale and retail rate-making. State authority currently tends to be as broad and as varied as the states are diverse. At the least, a state public utility commission will have authority over retail rates, and often over investment and debt. At the other end of the spectrum, the state regulatory body will oversee many facets of utility operation. Despite this diversity, the essential mission of the state regulator is the establishment of retail electric prices. This is accomplished through an adversarial hearing process. The central issues in such cases are the total amount of money

the utility will be permitted to collect and how the burden of the revenue requirement will be distributed among the various customer classes (residential, commercial, and industrial).

Under the FPA, federal economic regulation addresses wholesale transactions and rates for electric power flowing in interstate commerce. Federal regulation followed state regulation and is premised on the need to fill the regulatory vacuum resulting from the constitutional inability of states to regulate interstate commerce. In this bifurcation of regulatory jurisdiction, federal regulation is limited and conceived to supplement state regulation. The Federal Energy Regulatory Commission (FERC) has the principal functions at the federal level for the economic regulation of the electricity utility industry, including financial transactions, wholesale rate regulation, interconnection and wheeling of wholesale electricity, and ensuring adequate and reliable service. In addition, to prevent a recurrence of the abusive practices of the 1920s (e.g., cross-subsidization, self-dealing, pyramiding, etc.), the Securities and Exchange Commission (SEC) regulates utilities' corporate structure and business ventures under PUHCA.

The electric utility industry has been in the process of transformation. During the past two decades, there has been a major change in direction concerning generation. First, improved technologies have reduced the cost of generating electricity as well as the size of generating facilities. Prior preference for large-scale — often nuclear or coal-fired — powerplants has been supplanted by a preference for small-scale production facilities that can be brought online more quickly and cheaply, with fewer regulatory impediments. Second, this has lowered the entry barrier to electricity generation and permitted non-utility entities to build profitable facilities. Recent changes in electric utility regulation and improved technologies have allowed additional generating capacity to be provided by independent firms rather than utilities.

The oil embargoes of the 1970s created concerns about the security of the nation's electricity supply and led to enactment of the Public Utility Regulatory Policies Act of 1978 (PURPA, P.L. 95-617). For the first time, utilities were required to purchase power from outside sources. PURPA was established in part to augment electric utility generation with more efficiently produced electricity and to provide equitable rates to electric consumers.

In addition to PURPA, the Fuel Use Act of 1978 (FUA, P.L. 95-620) helped qualifying facilities (QFs) become established. Under FUA, utilities were not permitted to use natural gas to fuel new generating technology. QFs, which are by definition not utilities, were able to take advantage of abundant natural gas as well as new generating technology, such as combined-cycle that uses hot gases from combustion turbines to generate additional power. 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 gained a portion of the total electricity supply.

This 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 non-utility generators entered the market in the 1980s, these cost-based rates were challenged. Since non-utility 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.

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 reform: whether to encourage nonutility generation and whether to permit utilities to diversify into non-regulated activities.

The Energy Policy Act of 1992 (EPACT, P.L. 102-486) removed several regulatory barriers to entry into electricity generation to increase competition of electricity supply. Specifically, EPACT provides for the creation of new entities, called "exempt wholesale generators" (EWGs), that can generate and sell electricity at wholesale without being regulated as utilities under PUHCA. Under EPACT, these EWGs are also provided with a way to assure transmission of their wholesale power to a wholesale purchaser. However, EPACT does not permit FERC to mandate that utilities transmit EWG power to retail consumers (commonly called "retail wheeling" or "retail competition"), an activity that remains under the jurisdiction of state public utility commissions. 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. (For additional background on EPACT and PURPA, see CRS Report 98-419.)

The question now is whether further federal legislative action is desirable to encourage competition in the electric utility sector and if so at what speed this change would occur. Nineteen states have enacted restructuring legislation and 3 others have issued comprehensive regulatory orders for restructuring (see map below). Issues discussed in this brief include repeal or alteration of both PUHCA and PURPA, transmission access and FERC's Orders 888 and 889, stranded costs, environmental impact, and issues related to utility diversification.

Transmission Issues

In addition to creating a new type of wholesale electricity generator, Exempt Wholesale Generators (EWGs), the Energy Policy Act (EPACT) provides EWGs with a system to assure transmission of their wholesale power to its purchaser. However, EPACT did not solve all of the issues relating to transmission access. As a result of EPACT, on April 24, 1996, FERC issued Orders 888 and 889. In issuing its final rules, FERC concluded that these Orders will "remedy undue discrimination in transmission services in interstate commerce and provide an orderly and fair transition to competitive bulk power markets." Under Order 888, the Open Access Rule, transmission line owners are required to offer both point-to-point and network transmission services under comparable terms and conditions that they provide for themselves. The Rule provides a single tariff providing minimum conditions for both network and point-to-point services and the non-price terms and conditions for providing these services and ancillary services. This Rule also allows for full recovery of so-called stranded costs with those costs being paid by wholesale customers wishing to leave their current supply arrangements. The rule encourages but does not require creation of Independent System Operators (ISOs) to coordinate intercompany transmission of electricity.

Order 889, the Open Access Same-time Information System (OASIS) rule, establishes standards of conduct to ensure a level playing field. The Rule requires utilities to separate

their wholesale power marketing and transmission operation functions, but does not require corporate unbundling or divestiture of assets. Utilities are still allowed to own transmission, distribution and generation facilities but must maintain separate books and records.

FERC estimates that Orders 888 and 889 will result in an annual cost savings of $3.8 to $5.4 billion. FERC also expects other non-quantifiable benefits, including better use of existing institutions and assets; technical innovation; and less rate distortion.

On May 13, 1999 FERC issued a Notice of Proposed Rulemaking (NOPR, Docket No. RM99-2-000) [http://cips.ferc.fed.us/Q/CIPS/RULES/RM/RM99-2.00C.TXT] that described the minimum characteristics and functions of regional transmission organizations (RTOs). In FERC's NOPR, four primary characteristics and seven functions are described as essential for Commission approval of an RTO. The required characteristics are: the RTO must be independent from market participants; it must serve a region of sufficient size to permit the RTO to perform effectively; an RTO will be responsible for operational control; and it will be responsible for maintaining the short-term reliability of the grid. The required functions of an RTO outlined in the NOPR are: it must administer its own transmission tariff; it must ensure the development and operation of market mechanisms to manage congestion; it must address parallel flow issues both within and outside its region; it will serve as supplier of last resort for all ancillary services; it must administer an Open Access Same-time Information System; it must monitor markets to identify design flaws and market power and propose appropriate remedial actions; and an RTO must plan necessary transmission additions and upgrades.

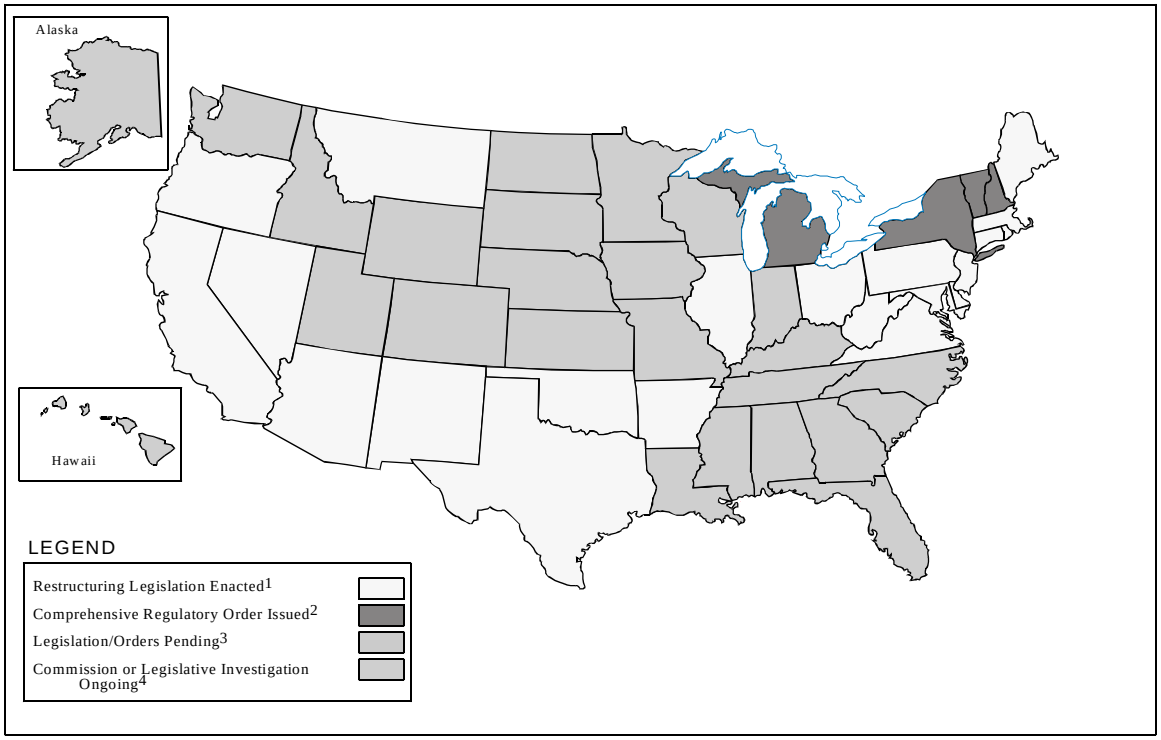
The proposed rule required every transmission owning utility regulated by FERC to file a regional transmission organization formation plan by October 15, 2000. Utilities already in some form of an RTO must file with FERC by January 15, 2001, to describe whether their transmission organization meets the criteria established in the RTO rulemaking. The proposed rule does not mandate RTO formation, but if an individual utility opts not to join an RTO, the utility is required to prove why it would be harmed by joining such an entity.

The final rule, Order 2000[http://www.ferc.fed.us/news1/rules/pages/rulemake.htm], was issued on December 20, 1999. The final rule is very similar to the NOPR: the rule does not require RTO participation, set out RTO boundaries, or mandate the acceptable RTO structure. RTOs will be able to file with FERC as an independent system operator (ISO), a for-profit transmission company (transco) or another type of entity that has not yet been proposed. Although RTO participation is voluntary under Order 2000, FERC built in guidelines and safeguards to ensure independent operation of the transmission grid. RTO's are required to conduct independent audits to ensure that owners do not exert undue influence over RTO operation. The final rule also adds one RTO function that was not included in the NOPR: interregional coordination.

On May 14, 1999, the United States Court of Appeals for the Eighth Circuit ruled in a case between FERC and Northern States Power. The court held that the Commission over stepped its authority when it ordered Northern States Power Company to treat wholesale customers the same as it treats native load customers in making electricity curtailment decisions. This decision raises federal-state jurisdictional questions, particularly a state's right to guarantee system reliability. Several comprehensive electricity restructuring bills provide for an Electric Reliability Organization to prescribe and enforce mandatory reliability

standards. Six ISOs are already in operation and conditionally approved. Others are in various stages of formation.

Status of State Electric Utility Deregulation Activity
As of March 2000



Adapted by CRS from Magellan Geographix. Used with permission.

[1] Arizona, Arkansas, California, Connecticut, Delaware, Illinois, Maine, Maryland, Massachusetts, Montana, Nevada, New Hampshire, New Jersey, New Mexico, Ohio, Oklahoma, Oregon, Pennsylvania, Rhode Island, Texas, and Virginia, West Virginia.
[2] Michigan, New York, Vermont.
[3] None.
[4] Alabama, Alaska, Colorado, District of Columbia, Florida, Georgia, Hawaii, Idaho, Indiana, Iowa, Kansas, Kentucky, Louisiana, Minnesota, Mississippi, Missouri, Nebraska, North Carolina, North Dakota, South Carolina, South Dakota, Tennessee, Utah, Washington, Wisconsin, and Wyoming.

Source: Energy Information Administration
[http://www.eia.doe.gov/cneaf/electricity/chg_str/regmap.html]

Stranded Costs and Takings

With the introduction of competition, utilities have been concerned that construction costs that they incurred under their monopoly service territory agreements may not be recovered and will be "stranded" by consumers leaving their system for less expensive power elsewhere. The issue of stranded costs is one of the larger transitional issues facing the electric utility industry as it moves towards competition. Stranded costs are defined by recovery proponents as those costs that were legitimately and prudently incurred under the

"old" regulatory regime that are not economically recoverable under the "new" competitive regime that is being entered. Alternatively, opponents characterize stranded costs as unrecoverable business investments that were known to the utilities. Examples of stranded costs include uneconomic nuclear power plant investments and above-market electricity supply contracts under PURPA. The magnitude of potential stranded costs is uncertain. FERC estimates total retail and wholesale stranded costs to be as high as $200 billion.

In terms of a retail customer's ability to attract competing electricity suppliers, a major determinant, at least in the short-term, will be the magnitude of a customer's demand for electricity. Assuming that direct contracts with outside generators were allowed under a further restructured supply system, larger electricity consumers, such as industrial activities, would be more able to make direct deals with outside generators than smaller entities, such as residential customers. This situation would split users, with some able to leave a utility system for an outside generator while others remain captive to the local utility. This split would magnify issues raised by the FERC Orders, particularly recovery of stranded costs. It has been estimated that 90% of potential stranded cost from electricity restructuring would come from retail, rather than wholesale, open access. This situation greatly raises the stakes for state public utility commissions in terms of who pays for such costs. In addition, retail wheeling may strand other investments, such as demand-side management, (e.g., energy conservation programs) (commonly called "stranded benefits") that increase the complexity of state decision-making.

FERC Order 888 allows public utilities and transmitting utilities to fully recover stranded costs from those customers wishing to leave their current supply arrangements. "We [FERC] continue to believe that utilities that entered into contracts to make wholesale requirements sales under an entirely different regulatory regime should have an opportunity to recover stranded costs that occur as a result of customers leaving the utilities' generation systems...."

This "fairness" argument is countered by others who argue that ratepayers should not have to pay for the uneconomic decisions made by some utilities. In addition, they argue that stranded cost recovery would delay the benefits of a more competitive generating sector for many years and be a disincentive to the creation of that more competitive generation sector. According to them, the competitive market handwriting has been on the wall for many years, and utilities have simply chosen to ignore it. However, if any cost recovery is determined to be justified under specific circumstances, opponents of stranded cost recovery argue that the regulatory body should not allow 100% recovery, but rather require some sharing of the burden with the stockholders of the individual utilities.

PURPA Contracts. Two major sources of stranded costs are: §210 PURPA contracts and investment in power generating facilities. Under §210, PURPA utilities are required to purchase power from qualifying power production facilities and qualifying cogeneration facilities at a price set by state public utility commissions. Following the enactment of PURPA, contracts were formed between the utilities and independent power producers (IPPs) pursuant to §210. These contracts require generally that the utilities pay the IPPs for the costs the utilities would have incurred had they generated the energy themselves. These costs are defined as "avoided costs." The amounts to be paid to the IPPs are fixed for the length of the contracts. Although the cost of generating power has decreased, the contracts require the utilities to continue to pay above-market prices to the IPPs. In a restructured environment that promotes lower market prices, the utilities could be subject to even greater losses.

Restructuring legislation that eliminated prospective mandatory purchase obligations, maintained existing contracts between the utilities and IPPs. At the state level, utilities attempting to alter the terms of existing contracts have been unsuccessful in the courts. Congress' interest in maintaining existing contracts arguably does little to alter the settled expectations of the utilities and IPPs that executed contracts pursuant to §210.

Generating Facilities. The second situation giving rise to the issue of stranded costs involves the investments made by utilities in their power plants. Under current rate base regulation, a utility is entitled to recover the market cost of its investment by charging a price that is equal to the average cost of producing power. In a restructured environment, the market price available to the utility could be less than its average cost of producing power. If that occurred, a significant portion of the utility's investment could become stranded.

While it has been argued that states should have the authority to decide how retail stranded costs are to be recovered for the utilities in each state, others maintain that the interstate nature of the electric utility industry permits Congress to legislate broadly for the recovery of such costs. The limits of federal and state jurisdiction are further complicated by the states' role in implementing federal regulation of the utilities. For example, state regulatory authorities were given discretion to set rates and terms in the contracts that were formed pursuant to §210 of PURPA. Repeal or reform of PURPA would likely affect this authority.

Takings. The utilities' current investments in electric generating facilities are arguably based on a "regulatory bargain" in which utilities are obligated to serve wholesale customers through contractual arrangements and obligated to serve retail customers through their monopoly franchise rights. In return for providing service on demand, the regulatory authorities ensured financial integrity by permitting the utilities to recover prudently incurred costs plus a reasonable rate of return. This system has been upset by the emergence of competitive forces in the electric generating system prompting outside parties to build facilities that can generate electricity at lower cost than many utilities' embedded generating costs, competitive forces that national policy is nurturing and encouraging.

Prompted by the possibility that they will be unable to recover their stranded costs, the utilities have attempted to argue that a failure to compensate them would constitute a "taking" of their property. Under the Takings Clause of the Fifth Amendment, private property may not be taken for public use without just compensation. The utilities contend that a "regulatory compact" was executed between legislators and the utilities; that compact gave the utilities an exclusive customer base and regulated rates in exchange for a guarantee to provide reliable and continuous service; and that ensure adequate service, the utilities made substantial investments in their generating facilities. Now, by opening the market to competition, the utilities maintain that they are being denied their exclusive customer base and any possible return on their investments is being taken.

The validity of a "regulatory compact" has been widely challenged. Many argue that the Takings Clause does not guarantee compensation in a restructured environment. Critics of this approach say that private entities do not have a constitutional right to profit from their investments. They view the failure to receive full compensation as an investment risk that was known to the utilities prior to their investment in the generating facilities. The utilities' argument so far has been unsuccessful in the courts.

Environmental Questions and Proposed Responses

The electric industry is a major source of air pollution as well as of greenhouse gases. Therefore, changes underway are being closely examined for their potential environmental effects. At issue is whether proposed legislation to restructure the industry should include environmental protections.

Future electricity demand and implementation of air quality regulations will determine air emissions impacts from electricity restructuring. Projected increases in electricity demand in the short- to mid-term suggest that restructuring may further encourage utilities to renovate a sizeable amount of existing coal-fired capacity, which generally produces more air pollutants and greenhouse gases than alternative types of generation. Renovating older coal-fired facilities is often very cost-effective compared with building new, less polluting plants, portending the potential for an increase in emissions of some air pollutants, especially nitrogen oxides, and of carbon dioxide, a greenhouse gas.

The Clean Air Act regulates emissions of conventional air pollutants from electric utilities. While it has historically focused on new construction in applying its most stringent standards, several current and prospective regulations would significantly increase controls on existing, coal-fired facilities. These controls may diminish the attractiveness of renovating older, more polluting facilities, but the effectiveness of the regulations in coping with a restructured industry remains to be seen. In addition, greenhouse gas emissions are not regulated, so any increases in carbon dioxide would not be controlled under existing authorities.

Thus the environmental effects of restructuring depend on whether, for conventional air pollutants, the existing regulatory regimen will work effectively as the industry structure changes. For some pollutants, such as sulfur oxides, a nationwide emissions "cap" seems secure; but for others, particularly nitrogen oxides, the state-led implementation process may have difficulty coping with regional disparities in emissions. For carbon dioxide, any controls would be contingent on future ratification of the Kyoto Agreement to curtail emissions and on domestic legislation. Suggested options to mitigate possible air pollution impacts from electric utility restructuring include: (1) “cap and trade” programs to prevent increases in pollution levels; (2) “green pricing” to encourage consumers to choose less polluting sources of electricity; (3) renewable portfolio standards to require a percentage of electricity generated to come from renewable, non-polluting, sources. (For more information, see CRS Report 98-615.)

Among the comprehensive electricity restructuring bills introduced, only the Administration’s proposal (H.R. 1828/S. 1047/S. 1048) contains provision with respect to “cap and trade” programs. The Administration’s bill authorizes EPA to establish regional “cap and trade” programs to implement nitrogen oxide (NOx) reduction programs. With respect to green pricing, the Administration’s bill, H.R. 2944 and H.R. 2050 require electricity suppliers to inform consumers as to the energy source used for generating their electricity and its environmental characteristics. Finally, both the Administration’s bill and H.R. 2050 have renewable portfolio standards, although they differ significantly.

Several stand-alone bills to reduce emissions from utility plants have been introduced in the 106th Congress. These bills focus on reducing emissions of at least sulfur dioxide and

nitrogen oxide emissions from powerplants, with some including carbon dioxide and mercury emissions as well. A summary of these bills is provided in CRS Report RS20326 entitled: *Electric Restructuring and Air Quality: Comparison of Proposed Legislation*.

Calls for Additional Electric Regulatory Reform

PUHCA

One argument for additional PUHCA reform has been made by electric utilities that want to further diversify their assets. Currently under PUHCA, a holding company can acquire securities or utility assets only if the SEC finds that such a purchase will improve the economic efficiency and service of an integrated public utility system. It has been argued that reform to allow diversification would improve the risk profile of electric utilities in much the same way as in other businesses: The risk of any one investment is diluted by the risk associated with all investments. Utilities have also argued that diversification would lead to better use of under-utilized resources (due to seasonal nature of electric demand). Utility holding companies that have been exempt from SEC regulation argue that PUHCA discourages diversification because the SEC could repeal exempt status if exemption would be "detrimental to the public interest."

State regulators have expressed concerns that increased diversification could lead to abuses, including cross-subsidization: a regulated company subsidizing an unregulated affiliate. Cross-subsidization was a major argument against the creation of EWGs and has reemerged as an argument against further PUHCA reform. In the case of electric and gas companies, non-utility ventures that are undertaken as a result of diversification may benefit from the regulated utilities' allowed rate of return. Moneymaking non-utility enterprises would contribute to the overall financial health of a holding company. However, unsuccessful ventures could harm the entire holding company, including utility subsidiaries. In this situation, utilities would not be penalized for failure in terms of reduced access to new capital, because they could increase retail rates.

Several consumer and environmental public interest groups, as well as state legislators, have expressed concerns about PUHCA repeal. PUHCA repeal, such groups argue, could only exacerbate market power abuses in what they see as a monopolistic industry where true competition does not yet exist. The National Rural Electric Cooperative Association also opposes stand-alone changes to PUHCA. (For further information on PUHCA, see CRS Report RS20015.)

Several bills would repeal PUHCA and give FERC additional authority. Some bills give FERC jurisdiction over utility mergers, and these bills authorize FERC to remedy market power problems in wholesale markets.

PURPA

The comprehensive bills and several stand-alone bills would reform PURPA. All bills except H.R. 971 would prospectively repeal §210 of PURPA, the mandatory purchase requirement provisions. Proponents of such stand-alone bills—primarily investor-owned

utilities (IOUs) located in the Northeast and in California—argue that their state regulators' "misguided" implementation of PURPA in the early 1980s has forced them to pay contractually high prices for power they do not need. They argue that, given the current environment for cost-conscious competition, PURPA is outdated. The PURPA Reform Group, which promotes IOU interests, strongly supports such bills by contending that the current law's mandatory purchase obligation was anti-competitive and anti-consumer.

Opponents of these types of bills (IPPs, industrial power customers, most segments of the natural gas industry, the renewable energy industry, and environmental groups) have many reasons to support PURPA as it stands. Mainly, their argument is that PURPA introduced competition in the electric generating sector and, at the same time, helped promote wider use of cleaner, alternative fuels to generate electricity. Since the electric generating sector is not yet fully competitive, they argue, repeal of PURPA would decrease competition and impede the development of the renewable energy industry. The Competitive Power Council, a group representing IPP interests, argues that PURPA repeal would create less competition and greater utility monopoly control over the electric industry. The Electric Generation and the National Independent Energy Producers also want comprehensive legislation to look at all aspects of electricity regulation. State regulators are concerned that this legislation would prevent them from deciding matters currently under their jurisdiction. The National Association of Regulatory Utility Commissioners has opposed legislation that would allow FERC to protect utilities from costs associated with PURPA contracts.

Comprehensive Reform Proposals: Retail Wheeling

Many analysts believe the next logical step in restructuring is retail competition. Encouraging competition in the electric supply system is already occurring as some states allow generating utilities to arrange for transmission of electricity from its sources to a retail consumer whether or not this transaction occurs within their service territory. EPACT expressly prevents FERC from ordering retail competition (retail wheeling). Such transactions remain under state regulatory control; FERC's open access Orders address wheeling at the wholesale level only. However, it is clear that FERC hopes that its Orders will pave the way for states to permit retail customers to shop for their electricity needs anywhere they want, rather than being limited to buying electricity from their local utility.

Indeed, who should determine the pace of boundaries of retail wheeling efforts is a fundamental issue. Electric service is a vital component of a modern economy; thus, national interests are at stake in what direction the restructuring debate takes. Concerns about economic efficiency and the treatment of various participants (such as electric utilities) may suggest to some that the federal government provide direction to current state initiatives. In contrast, others argue that the states, which have traditionally had responsibility over retail electricity issues, have the expertise and experience necessary to handle the situation (more so than the federal government) and that the national interest in electricity supply is neither threatened by state initiatives nor a justification for federal preemption of states' rights. Thirteen states have enacted restructuring legislation and six others have issued comprehensive regulatory orders for restructuring. Congress may consider whether expanding federal jurisdiction is warranted in the continuing evolution of the electric utility industry or whether a "wait and see" attitude toward state proceedings is more appropriate at this point.

Administration Proposal

On April 15, 1999, the Clinton Administration issued its Comprehensive Electricity Competition Plan. The plan, introduced by request as S. 1048, S. 1047, and H.R. 1828, addresses retail competition, consumer protection, transmission system reliability, promotion of public benefits, and clarification of federal and state authority. This plan is based on a bill submitted by the Administration in the 105th Congress (S. 2287).

The plan encourages, but does not require, states to implement retail choice by January 1, 2003. The "flexible mandate" would permit states to opt out of the competition mandate if they find through public proceedings that consumers in the state would be better served by an alternative policy such as a state-crafted retail competition plan or the current monopoly system.

Under this proposal, electricity suppliers would be required to provide consumers uniform information on price, terms, and conditions of their electric product. In addition, the Federal Trade Commission would be authorized to establish and enforce requirements to prevent slamming and cramming. This proposal would also establish a Public Benefits Fund to support energy conservation and efficiency measures as well as affordable electricity service to low-income customers. Retail suppliers of electricity would be required to provide net metering service for all consumers.

FERC would be given additional authority to order corporate divestiture of generation facilities to mitigate market power and to clear jurisdiction over mergers and consolidations of electric utility holding companies and generation-only companies.

The Administration plans to strengthen the transmission system by allowing FERC to require independent system operators (ISOs). The Federal Power Act would be amended to require FERC to approve and oversee an organization that establishes and enforces mandatory reliability standards. The Administration also proposes to codify Order 888 and amend substantive requirements of PUHCA and PURPA.

Under the current proposal, as of January 1, 2003, the Tennessee Valley Authority (TVA) would be permitted to sell electricity at wholesale without restrictions. With significant restrictions, TVA would also be able to sell to retail consumers outside its current retail service territory. Other utilities would be able to sell wholesale and retail power in the TVA region beginning January 1, 2003. TVA would be able to recover stranded costs. FERC would be given jurisdiction over transmission rates for the Bonneville Power Administration (BPA), the Western Area Power Administration (WAPA) and the Southwestern Power Administration (SWPA). In addition FERC would be given authority to require BPA, WAPA, and SWPA to turn over operational control of its transmission facilities to an independent regional system operator.

One of the most divisive issues for the Administration has been whether to include environmental provisions with market reforms. The proposal codifies EPA's authority to create a cap-and-trade program to reduce nitrogen oxide emissions (a precursor to smog), but does not address sulfur dioxide or mercury emissions or the goals of the Kyoto Global Climate Change Treaty (for more information, see the CRS Briefing Book on Global Climate Change [http://www.congress.gov/brbk/html/ebgcc1.html]). Another environmental provision

mandates that renewable resources other than hydropower will account for least 7.5% of each supplier's portfolio by the year 2010. A credit trading program is suggested as a means of reducing the costs of this provision.

The plan addresses a large public power issue by prohibiting public power companies from issuing tax-exempt bonds for new transmission and generation facilities. Municipalities would still be able to issue tax-exempt bonds for new electricity distribution facilities. Outstanding tax-exempt bonds for municipal utilities would be grandfathered.

LEGISLATION

H.R. 25 (Boehlert)

Requires nationwide reductions in nitrogen oxides and sulfur dioxide emissions from utility sources. Includes provisions to study and control emissions of mercury from utility and major industry sources. Introduced January 6, 1999; referred to Committee on Commerce.

H.R. 341 (Andrews)

Establishes a fund for environmental priorities to be funded by a portion of the consumer savings resulting from retail electricity competition. Introduced January 19, 1999; referred to Committee on Commerce with subsequent referral to the Committee on Transportation.

H.R. 657 (Sweeney)

Requires nationwide reductions in nitrogen oxides and sulfur dioxide emissions from utility sources. Includes provisions to study and control emissions of mercury from utility and major industry sources. Introduced February 9, 1999; referred to Committee on Commerce.

H.R. 667 (Burr)

Comprehensive electric utility restructuring legislation. Prospectively repeals Section 210 PURPA. Repeals PUHCA 12 months after date of enactment but maintains FERC and state public utility commission access to utility books and records. States that have provided for the recovery of stranded costs may not modify or repeal such provisions for seven years as a condition of receiving federal energy assistance. States may permit a transmitting utility to deny access to transmission and local distribution facilities to any utility attempting to wheel power from states that maintain exclusive franchise market areas. Introduced February 10, 1999; referred to Committee on Commerce.

H.R. 971 (Walsh)

Existing PURPA contracts could be amended by state regulatory authorities to reflect current incremental cost of the purchasing utility. States could require that future PURPA contracts reflected varying incremental costs of the purchasing utility. Introduced March 3, 1999; referred to Committee on Commerce.

H.R. 1138 (Stearns)

Prospective repeal of §210 of PURPA. Contracts in effect on January 6, 1999, would not be affected. Stranded costs associated with PURPA contracts can be recovered. Introduced March 16, 1999; referred to Committee on Commerce.

H.R. 1486 (Franks)

Requires that rules are promulgated within 2 years enactment that would allow the Federal Power Marketing Administrations and the Tennessee Valley Authority to sell electricity at market prices. Introduced April 20, 1999; referred to Committees on Resources, Transportation and Infrastructure, and Commerce.

H.R. 1587 (Stearns)

Comprehensive electric utility restructuring legislation. Introduced April 27, 1999; referred to Committees on Commerce, Resources, and Transportation and Resources.

H.R. 1828 (Bliley, by request)

Administration's comprehensive electricity restructuring legislation. Introduced May 17, 1999; referred to Committees on Commerce, Resources, Agriculture, Transportation and Infrastructure, and the Judiciary. Commerce Committee hearing held June 17, 1999.

H.R. 2363(Tauzin)

Repeals the Public Utility Holding Company Act of 1935 and replaces it with the Public Utility Holding Company Act of 1999 . States and the Federal Energy Regulatory Commission maintain limited access to specific utility books and records. Introduced June 25, 1999; referred to Committee on Commerce. Subcommittee on Energy and Power hearing held on July 22, 1999.

H.R. 2050 (Largent)

Comprehensive electricity restructuring legislation. Introduced June 8, 1999; referred to Committees on Commerce, Ways and Means, Transportation and Infrastructure, and Resources.

H.R. 2569 (Pallone)

Provides for a comprehensive system of performance standards and emissions caps to control emissions of nitrogen oxides, sulfur dioxide, carbon dioxide, and mercury from generating facilities. Other provisions encourage renewable energy and efficiency programs and repeal Section 210 of PURPA. Introduced July 20, 1999; referred to Committee on Commerce.

H.R. 2602 (Wynn)

Amends the Federal Power Act with respect to electric reliability and oversight. Introduced July 22, 1999; referred to Committee on Commerce.

H.R. 2645 (Kucinich)

Allows retail choice. Includes provisions on consumer protection and environmental protection. Introduced July 29, 1999; referred to Committee on Commerce.

H.R. 2734 (Brown, S.)

Allows local government entities to serve as non-profit aggregators of electricity services. Introduced August 5, 1999; referred to Committee on Commerce.

H.R. 2786 (Sawyer)

Repeals Section 203 of the Federal Power Act. FERC could approve and encourage voluntary membership in regional transmission organizations. Introduced August 5, 1999; referred to Committee on Commerce.

H.R. 2900 (Waxman)

Requires nationwide reductions in nitrogen oxides, sulfur dioxide, carbon dioxide, and mercury emissions from utility sources. Introduced September 21, 1999; referred to Committee on Commerce.

H.R. 2944 (Barton)

A comprehensive electricity restructuring bill. Introduced September 24, 1999; referred to Committee on Commerce, and in addition to the Committees on Transportation and Infrastructure, Resources, and Ways and Means. The House Commerce Committee, Subcommittee on Energy and Power held a markup session on October 27,1999. See, **http://www.house.gov/barton/discussiondraftpage1.html** for a summary. On October 28, 1999, H.R. 2944 was forwarded by subcommittee to full committee (amended).

H.R. 2947 (Inslee)

Allows the use of net metering by distributed power. Introduced September 24, 1999; referred to the Commerce Committee, Subcommittee on Energy and Power.

H.R. 2980 (Allen)

Clean Power Plant Act of 1999. Amends the Clean Air Act to Require reductions in emissions of sulfur dioxide, nitrogen oxides, mercury, carbon dioxide, and hazardous air pollutants from electric power plants and to provide assistance for workers and communities adversely affected by reduced consumption of coal. Introduced September 30, 1999; referred to Committees on Commerce, Education and the Workforce, Transportation and Infrastructure, Banking and Financial Services, and Science.

S. 161 (Moynihan)

Requires that the Federal Power Marketing Administrations and the Tennessee Valley Authority sell electricity at market prices within 2 years of enactment. Introduced January 19, 1999; referred to Committee on Energy and Natural Resources.

S. 172 (Moynihan)

Requires nationwide reductions in nitrogen oxides and sulfur dioxide emissions from utility sources. Includes provisions to study and control emissions of mercury from utility and major industry sources. Introduced January 19, 1999; referred to Committee on Environment and Public Works.

S. 282 (Mack)

Prospectively repeals Section 210 of PURPA. Stranded costs associated with PURPA contracts would be fully recoverable. Introduced January 21, 1999; referred to Committee on Energy and Natural Resources.

S. 313 (Shelby)

Repeals the Public Utility Holding Company Act of 1935. States and the Federal Energy Regulatory Commission maintain limited access to specific utility books and records.

Introduced January 27, 1999; referred to Committee on Banking, Housing, and Urban Affairs. Reported to Senate without amendment March 2, 1999 (S.Rept. 106-7).

S. 516 (Thomas)

Comprehensive electric utility restructuring legislation. Prospectively repeals Section 210 PURPA. Repeals PUHCA 18 months after date of enactment but maintains FERC and state public utility commission access to utility books and records. States may choose to impose charges for stranded cost recovery. Provides for a FERC-sanctioned Electric Reliability Organization. States may assess charges to fund public benefit programs. Introduced March 3, 1999; referred to Committee and Energy and Natural Resources.

S. 673 (Leahy)

Proposes a comprehensive control program to reduce mercury emissions from utility plants and other sources. Introduced March 19, 1999; referred to Committee on Environment and Public Works.

S. 1047 (Murkowski, by request)

Administration's comprehensive electricity restructuring proposal. Includes all administration provisions except the tax provisions (see S. 1048) . Introduced May 13, 1999; referred to Committee on Energy and Natural Resources.

S. 1048 (Murkowski, by request)

Tax provisions of the Administration's comprehensive electricity restructuring proposal (see, S. 1047). Introduced May 13, 1999; referred to Committee on Finance.

S. 1273 (Bingaman)

Amends §210 of PURPA, amends Federal Power Act to facilitate a transition to more competitive electric power markets. Introduced June 24, 1999; referred to Committee on Energy and Natural Resources.

S. 1284 (Nickles)

Repeals PUHCA, prospective repeal of §210 of PURPA, amends Federal Power Act so that no state can discriminate against any consumer who seeks to purchase electric energy in interstate commerce from any supplier. Introduced June 24, 1999; referred to Committee on Energy and Natural Resources.

S. 1369 (Jeffords)

Provides for a comprehensive system of performance standards and emissions caps to control emissions of nitrogen oxides, sulfur dioxide, carbon dioxide, and mercury from generating facilities. Other provisions encourage renewable energy and efficiency programs and repeal Section 210 of PURPA. Introduced July 14, 1999; referred to Committee on Energy and Natural Resources.

S. 1949 (Leahy)

Establishes a comprehensive system of performance standards emissions caps from mercury, carbon dioxide, nitrogen oxides, and sulfur dioxide. Promotes use of clean coal technologies, fuel cells, and renewable energy sources. Introduced November 17, 1999; referred to Committee on Finance.

S. 2071 (Gorton)

Establishes a reliability organization and standards for transmission of bulk power. Introduced February 10, 2000; referred to Committee on Energy and Natural Resources.

S. 2098 (Murkowski)

Comprehensive electric restructuring legislation. Encourages utilities to form regional transmission organizations (RTO) and allows utilities to have active ownership in the RTO. Creates an Electric Reliability Organization. Gives the federal government eminent domain rights to cite new transmission lines. Prospective repeal of Section 210 of PURPA. Repeals PUHCA one year after date of enactment but maintains FERC and state public utility commission access to utility books and records. Introduced February 24, 2000; referred to Committee on Energy and Natural Resources .