Federal Energy Regulatory Commission

1997 Annual Report

For sale by the U.S. Government Printing Office
Superintendent of Documents, Mail Stop: SSOP, Washington, DC 20402-9328
ISBN 0-16-049470-2

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Loon on Wisconsin's Lake St. Germaine, near hydroelectric project. Environmental issues are a key consideration in the Commission's licensing process.

Members of the Federal Energy Regulatory Commission

James J. Hoecker
Chairman

Vicky A. Bailey
Commissioner

William L. Massey
Commissioner

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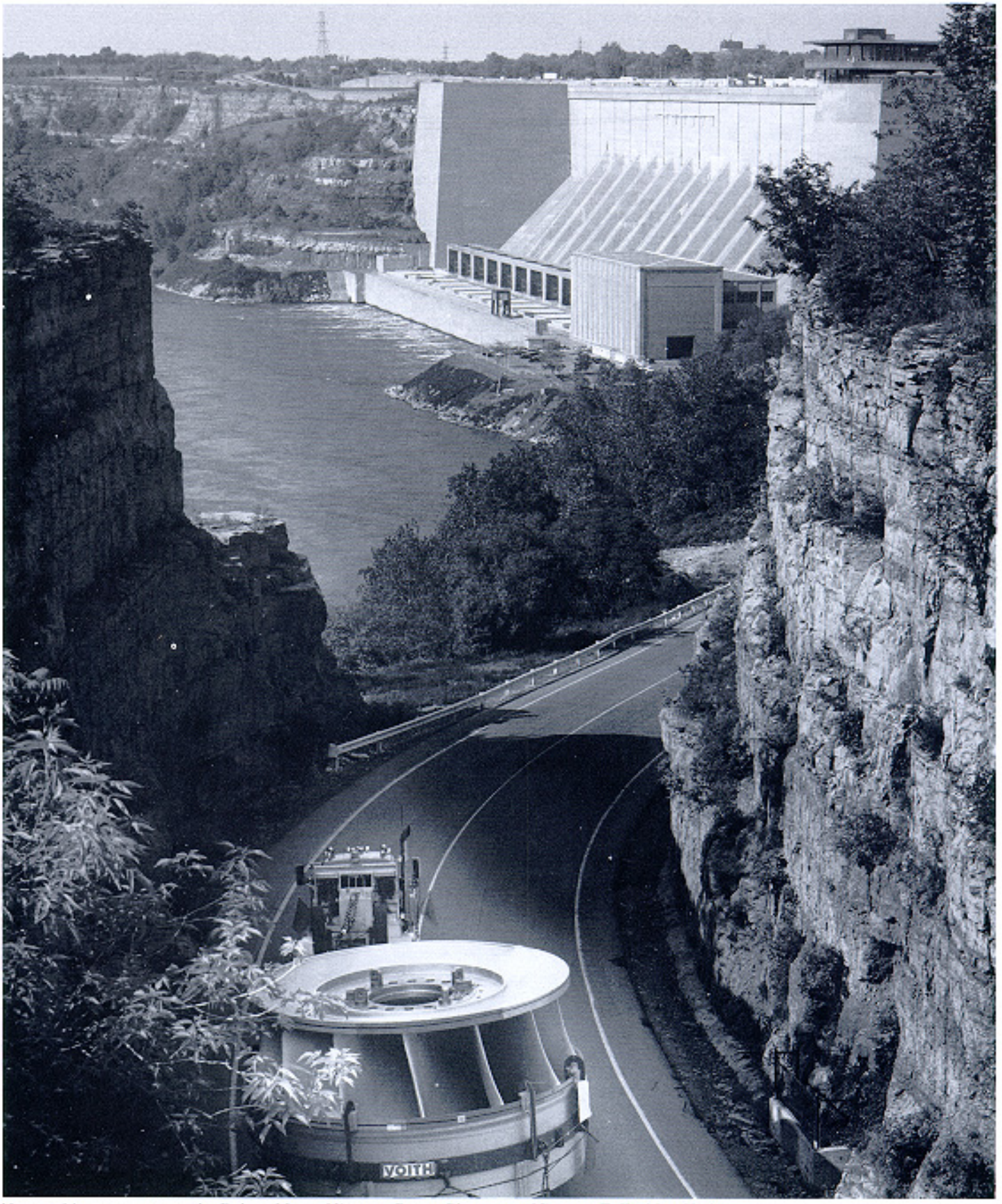
Women workers at a Boston Edison facility toward the end of World War I.



New turbines en route to the Robert Moses Niagara Power Plant near Niagara Falls, New York.

The Commission In Brief

The Federal Energy Regulatory Commission (FERC) is an independent regulatory commission within the Department of Energy (DOE). Its function is to oversee America's electric utilities, natural gas industry, hydroelectric projects and oil pipeline transportation system.

The Commission was created through the Department of Energy Organization Act on October 1, 1977. At that time, the Federal Power Commission (FPC), the Commission's predecessor which was established in 1920, was abolished and the Commission inherited most of the FPC's regulatory mission.

The FERC administers numerous laws and regulations involving key energy issues. These include:

- Transportation of natural gas in interstate commerce;
- Transportation of oil by pipeline in interstate commerce;
- Transmission and wholesale sales of electric energy in interstate commerce;
- Licensing and inspection of private, municipal, and state hydroelectric projects; and
- Oversight of related environmental matters.

The Commission's primary legal authority comes from the Federal Power Act of 1935 (FPA), the Natural Gas Act of 1938 (NGA), the Interstate Commerce Act of 1976 (ICA), the Natural Gas Policy Act of 1978 (NGPA), the Public Utility Regulatory Policies Act of 1978 (PURPA), and the Energy Policy Act of 1992 (EPAct).

The Commission has five members who are appointed by the President with the advice and consent of the Senate to five-year staggered terms. Each Commissioner has an equal vote on regulatory matters and no more than three Commissioners may belong to the same political party. One member is designated by the President to serve as Chairman and is the Commission's administrative head.

In Fiscal Year 1997, the Commissioners were: Elizabeth A. Moler, chair (October 1988 to June 1997); James J. Hoecker, chairman (May 1993 to June 2000); Vicky A. Bailey (June 1993 to June 2001); William L. Massey (May 1993 to June 1998); and Donald F. Santa (May 1993 to September 1997).

The Commission generally meets twice a month. It considers license and certificate applications, rate filings, and other matters submitted by regulated companies, and sets industry-wide rules. Commission meetings are open to the public under the Government in the Sunshine Act and are televised. ◆

Letter From the Chairman

To the Senate and House of Representatives:

I am pleased to submit to the Congress the Federal Energy Regulatory Commission's annual report, covering the fiscal year from October 1, 1996, through September 30, 1997.

This is the 77th report issued by the Commission and its predecessor, the Federal Power Commission. As an independent agency, the Commission oversees key operating functions of the natural gas, electric utility, hydroelectric power, and oil pipeline transportation industries.

For fiscal year 1997, Congress appropriated $146.3 million to support Commission activities. Under the authority of the Omnibus Budget Reconciliation Act of 1986 and other laws, the Commission recovers all of its costs from regulated industries through fees and annual charges. Revenues generated from these sources completely offset congressional appropriations and therefore result in a net cost to the treasury of zero dollars. As a result, the users and beneficiaries of the Commission's services—not the general taxpayers—pay its operating costs.

The Commission remains dedicated to protecting the economic welfare of American consumers of energy and to ensuring a healthy, competitive, and efficient energy industry.

Respectfully,

James J. Hoecker
Chairman

Commission Responsibilities

Electric Power

The Commission oversees wholesale electric rates and service standards, as well as the transmission of electricity in interstate commerce, under the FPA. The Commission's responsibilities include the review of utility pooling and coordination agreements. The Commission uses its ratemaking authority to ensure that wholesale power rates and transmission rates charged by utilities are just and reasonable and not unduly discriminatory or preferential. EPAct amended the FPA to provide the Commission with additional authority to (1) order the provision of transmission services upon request, and (2) to authorize certain types of wholesale power producers exempt from regulation by the Securities and Exchange Commission (SEC).

Sales of electricity for resale (sales between public utilities or sales by a public utility to a municipality or a cooperative) and sales of transmission service comprise a little over a quarter of total U.S. investor-owned electric utility sales. Retail electric sales (sales to end-use customers such as homeowners and businesses) comprise the remaining three quarters and are generally regulated by state public utility commissions.

The Commission also has regulatory responsibilities with respect to certain corporate activity by public utilities, including the issuance of certain stock and debt securities, assumption of obligations and liabilities, and mergers, consolidations, and dispositions of jurisdictional public utility facilities. In addition, the Commission reviews interlocking directorates involving public utilities, electrical equipment suppliers, and entities authorized to underwrite public utility securities.

Finally, the Commission reviews rates set by the federal power marketing administrations, such as the Bonneville Power Administration, and certifies qualifying small power production and cogeneration facilities under PURPA.

Natural Gas

The NGA, the NGPA, the Outer Continental Shelf Lands Act (OCSLA), the Natural Gas Wellhead Decontrol Act of 1989 (NGWDA), and EPAct are the primary laws the Commission administers to oversee America's natural gas pipeline industry.

Under the NGA, the Commission regulates both the construction of pipeline facilities and the transportation of natural gas in interstate commerce. Companies providing services, and constructing and operating interstate pipeline facilities, must first obtain Commission certificates of public convenience and necessity. In addition, Commission approval is required to end (abandon) facility use and services, as well as to set rates for these services.

The Commission also regulates the transportation of natural gas as authorized by the NGPA and the OCSLA.

The Commission no longer regulates the price of natural gas at the wellhead. The NGPA's wellhead pricing program required the Commission to administer ceiling prices for certain categories of natural gas production in interstate commerce. On January 1, 1993, the NGWDA removed all remaining NGPA wellhead price controls for natural gas and all NGA filing requirements for natural gas producers.

Finally, the DOE Organization Act vests approval authority in the Commission to oversee construction and operation of facilities needed by pipelines at the point of entry or exit to import or export natural gas.

Hydroelectric Power

Hydroelectric power regulation was the first work undertaken by the FPC after Congress passed the Federal Water Power Act in 1920. Subsequent statutes under which the Commission regulates non-federal hydroelectric power projects that affect navigable waters, occupy U.S. public lands, use water or water power at a government dam, or affect the interests of interstate commerce include the FPA, PURPA, the Electric Consumers Protection Act of 1986 (ECPA), and EPAct. This work includes issuing project licenses and exemptions from licensing, ensuring dam safety, performing project compliance activities, investigating and assessing payments for headwater benefits, and coordinating with other agencies. Commission licensing costs are offset by annual charges collected from license holders. The Commission also determines charges for a licensee's use of federal lands, federal dams, and Native American reservations.

Licensed projects receive comprehensive safety inspections from Commission engineers stationed in Washington and at five regional offices. The dam safety program is a key Commission priority.

Oil Pipelines

Under the ICA and EPAct, the Commission regulates the rates and practices of oil pipeline companies engaged in interstate transportation. The objective is to establish just and reasonable rates to encourage maximum use of oil pipelines—a relatively inexpensive means of bringing oil to market—while protecting shippers and consumers against unjustified costs.

The Commission does not oversee the construction of oil pipelines or regulate the supply or price of oil or oil products. Rather, it assures shippers equal access to pipeline transportation, equal service conditions on a pipeline, and reasonable rates for moving petroleum and petroleum products by pipeline. ◆

Administration

Operating Funds

For fiscal year (FY) 1997, the Commission's budgetary resources totaled $157.3 million, consisting of an appropriation of $146.3 million plus funding brought forward from prior year balances. The Commission had estimated obligations of $154.3 million. While total obligations remained about the same as in FY 1996, the distribution between the Commission's three program areas in FY 1997 reflected the change in emphasis and the increased workload experienced in the electric power program. The table below illustrates the increasing level of funding in the electric area, a direct result of increased staffing in the program. Funding declined in the hydropower program, primarily as the result of a temporary decline in the relicensing workload, while the natural gas and oil pipeline program remained almost the same as FY 1996. ($ in millions)

	FY 1996 Actual	FY 1997 Estimated	% of Change
Electric Power			
Funding	$ 41.1	$ 45.7	+11.2%
Staffing (FTEs)	377	409	+8.5%
Natural Gas and Oil Pipelines			
Funding	$ 63.0	$ 62.6	–0.6%
Staffing (FTEs)	560	533	–4.8%
Hydropower			
Funding	$ 51.2	$ 46.0	–10.2%
Staffing (FTEs)	437	394	–9.8%
Total Commission			
Funding	$155.3	$154.3	–0.6%
Staffing (FTEs)	1,374	1,336	–2.8%

Thomas Edison (1847–1931), whose contributions to the world consisted not only of his invention of the electric light but also in making it available to millions by designing the first electric power station.

Revenue

The Commission collected revenues of $192.3 million. Of that, $146.3 million was applied directly to offset the Commission's FY 1997 appropriation, reducing it to $0. The remaining revenue of $46.0 million was deposited in the U.S. Treasury General Fund. Following is a breakdown of the type of revenue collected:

- **Annual Charges:** $191.1 million (99 percent);
- **Filing fees:** $0.9 million (less than 1 percent);
- **Miscellaneous:** $0.3 million (less than 1 percent).

Information Technology

Through the introduction of improved information technology (IT), the Commission continues its efforts to provide the public and staff with the most effective means of gathering and using information. During FY 1997, the Commission implemented a new image-based Records and Information Management System (RIMS) featuring a comprehensive index. During FY 1998, the Commission plans to make the information on RIMS and the Commission Issuance Posting System (CIPS) available via the Internet.

FY 1998 activities will focus on implementing a new IT strategy to better coordinate and take advantage of its client/server network environment. The Commission completed gathering the requirements for a new enterprise-wide management information system and will focus on its design and development during FY 1998.

During FY 1997, the Commission developed its own on-site home page on the World Wide Web (www.ferc.fed.us) and will implement a revamped site in FY 1998.

The Commission's Remote Public Access (RPA) system provides the public with access to the Commission's systems from offsite locations. Over 1,200 entities use this service.

Small Businesses

The Commission joined in the emphasis on the concerns of small businesses subject to its jurisdiction. On March 26, 1997, the Commission complied with the requirements of Section 223 of the Small Business Regulatory Enforcement Fairness Act by creating a Penalty Reduction/Waiver Policy for small entities. The Commission has also participated in the regional Regulatory Fairness Board program administered by the Small Business Administration (SBA). The Commission's web site also provides information about the SBA ombudsman and Regional Fairness Boards as well as a link to the SBA's web site. In addition, the Commission has continued to grant total or partial waivers to small electric utilities from the requirements of Order Nos. 888 and 889, which restructure the wholesale electric industry. The Commission also addresses the concerns of small businesses in several special publications.

Public Reference Room

The Public Reference Room serves as both a library and reference center for the public and Commission staff, providing requested records and documents in various formats. It is the main point of contact in meeting the public's information needs and ensuring that most documents are readily available for inspection and photocopying.

During 1997, the Public Reference Room began accepting credit cards for purchases of publications. Soon, users will also be able to use credit cards when purchasing other documents. Users can now request documents via e-mail in addition to faxing and mailing their requests. The Internet address is public.referenceroom@ferc.fed.us.

The customer service brochure, entitled "The Federal Energy Regulatory Commission Welcomes You to the Public Reference Room," has been updated. It indicates the average turn-around times users can expect when ordering various types of documents and information. ◆

Electric Power

In the electric power industry, the Commission regulates:

- Transmission and sales for resale of electric energy in interstate commerce;
- Exempt wholesale generators and qualifying facilities; and
- Corporate transactions, mergers, and security issuances of electric utilities.

THE ELECTRICAL WORLD

The Electrical World *of December 5, 1891, carried a masthead showing 19th century uses of electricity. More than 100 years later, General Motors was unveiling an energy-efficient electric car.*

Overview

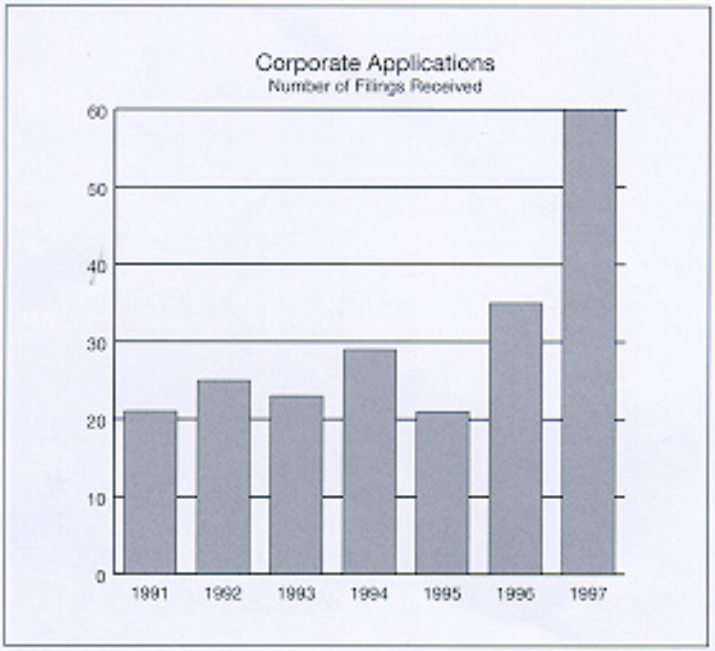
The United States is experiencing the most sweeping transformation in the electric power industry since the passage of the FPA in 1935. The industry is implementing a blueprint for change that will give the country the advantages of competition in the generation and sale of electricity. The generation sector has historically accounted for about 70 percent of the costs of the industry. If properly structured, competition promises to bring significant savings to customers and make American industry more competitive in world markets. Managing the transition to competition is the most important task facing both the Commission and state public utility commissions.

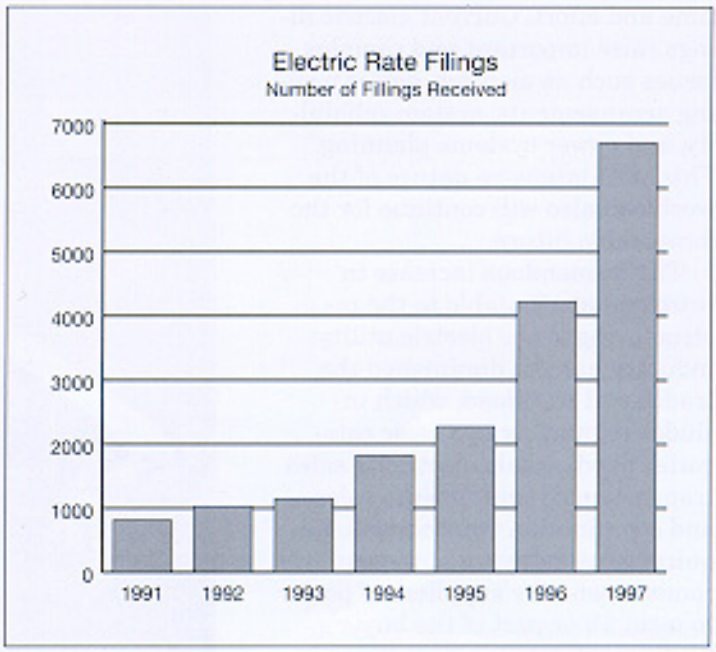
The nation is experiencing the most sweeping transformation in the electric power industry since the passage in 1935 of the Federal Power Act.

While the Commission's basic mission remains the protection of the public by ensuring that the activities of public utilities subject to its jurisdiction protect consumers, while providing investors an opportunity to earn a fair return on their investment, the means for achieving it have changed dramatically. The economies of scale that made electric power generation a natural monopoly have been almost exhausted; the public is now better protected by competition in generation rather than traditional regulation. At the same time, transmission and distribution remain natural monopolies. Such companies can use their ownership of transmission and distribution facilities to exercise market power over generation as well.

Since the passage of the EPAct, the Commission has aggressively fostered competition in wholesale power markets. EPAct authorized the Commission to order transmission access for individual wholesale transactions upon request, opening the markets to competitive generation.

On April 24, 1996, the Commission issued two landmark rules to allow wholesale markets for electric power to be open and competitive. Order No. 888 requires all public utilities that own, control, or operate transmission facilities to provide nondiscriminatory open access transmission services. Order No. 888 also allows utilities to recover certain "stranded costs," which are those costs that were prudently incurred to serve customers. Order No. 889 requires nondiscriminatory access to information about transmission facilities, so that the transmission owner cannot favor its own electric power sales.





Access to the transmission grid is the key to making competition work for wholesale, and even retail, electric markets.

In response to the Commission's open access rule and the restructuring initiatives of many state utility commissions, many electric utilities are opting to restructure themselves. For example, some electric utilities are merging with other electric utilities or with natural gas pipeline companies. Also, to separate unregulated activities from the regulated utility part of their companies, some electric utilities are choosing to reorganize under a holding company structure. The marketplace creates pressure to complete mergers and other corporate reorganizations quickly, and the Commission is committed to a prompt regulatory response. To expedite the merger review process, on December 18, 1996, the Commission issued a Merger Policy Statement. This statement revised the factors that will be considered in determining whether a merger is consistent with the public interest, thereby providing merging utilities with more certainty regarding the Commission's review of the process.

The competitive market produces new kinds of power market entrants, including nontraditional power producers such as power marketers. Power marketers usually do not produce power themselves, but buy and sell power generated by others. While power marketers do not increase the amount of capacity available, they can increase market efficiency—by matching potential buyers and sellers—to the benefit of all consumers.

In Order No. 888, the Commission encouraged the development of independent system operators (ISOs) as a way to implement the Commission's functional unbundling policy for existing power pools. Properly functioning ISOs will serve the public interest by making the market for electric power more competitive. Similarly, regional transmission groups (RTGs) can provide coordinated regional planning of the transmission system and may also resolve many issues that would otherwise require Commission decisions. In addition, nearly every state is considering some form of retail competition.

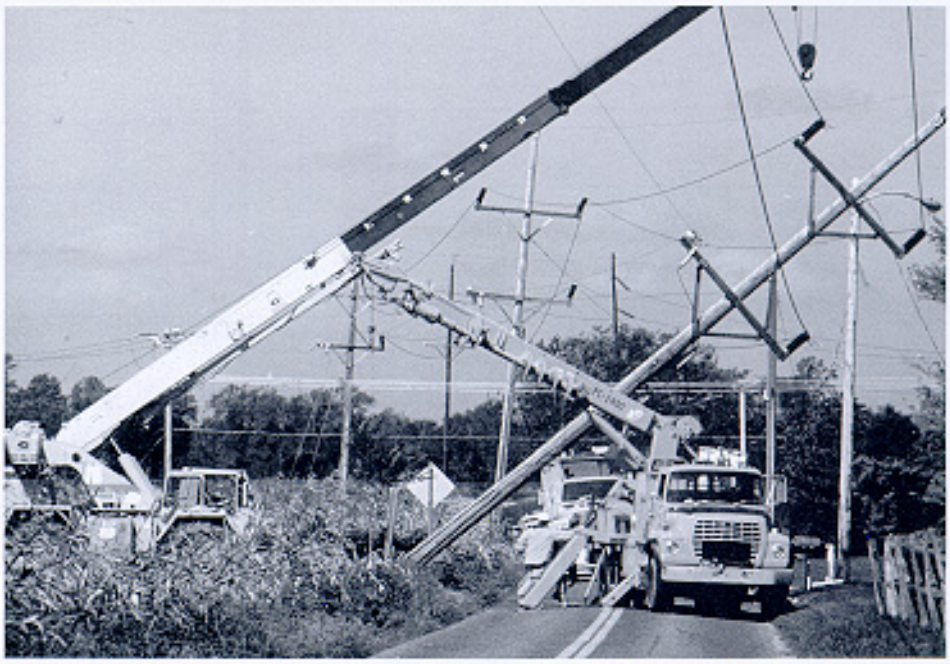
These changes in the electric power industry—open access transmission, mergers and restructuring, the creation of new transmission organizations, and state initiatives—mean that the Commission is experiencing an explosive increase in the number of electric filings. Current workload in electric rates is 600 percent more than the FY 1991 level, and this high level of applications will continue for the foreseeable future.

Not only has the number of cases increased significantly, but many filings now require much more staff

time and effort. Current electric filings raise important and complex issues such as mergers, power pooling arrangements, system reliability, and power systems planning. This staff-intensive nature of the workload also will continue for the foreseeable future.

The tremendous increase in workload attributable to the restructuring of the electric utility industry has not diminished the traditional workload, which includes regulating two basic categories of wholesale electricity sales transactions: requirements sales and coordination transactions. Requirements sales are long-term commitments by suppliers of power to meet all or part of the buyer's load. Coordination transactions include sales or exchanges of electricity between utilities for economic purposes and to enhance reliability. As wholesale buyers respond to competitive opportunities by diversifying sources of supply and signing shorter-term supply contracts, rate applications for both requirements sales and coordination transactions are increasing significantly.

The Commission continues to certify qualifying facilities, approve interlocking directorate positions, audit the books of traditional electric utilities, authorize securities issuances, review the rates of the power marketing administrations, review electric utility automatic adjustment clauses, resolve complaints, and act on petitions for declaratory orders. The traditional business of the Commission will continue throughout the industry transition.



Line crews from Delmarva Power repair storm-damaged line on Maryland's Eastern Shore.

Achievements in FY 1997

Restructuring Under Order Nos. 888 and 889

- **Implementation**. The Commission's major achievement of FY 1997 was the full implementation of the open access and comparability provisions of Order Nos. 888 and 889. These orders signaled an historic change in the way transmission services are provided. The Commission anticipates that the restructuring of the electric power industry will save consumers at least $3 billion annually. Issuing these rules involved major staff efforts to address pro forma transmission tariff design, ancillary services policy, power pooling policy, and electronic information networks.

- **Order on Rehearing (Order Nos. 888–A and 889–A)**. Parties filed nearly 400 requests for rehearing in response to Order Nos. 888 and 889. On February 26, 1997, the Commission responded to these requests by issuing Order Nos. 888-A and 889-A. These orders addressed numerous issues raised by parties on rehearing and adjusted and clarified several concepts to ease implementation of open access. Issuing these orders so quickly required considerable staff effort, but it was critical that the Commission promptly address the issues raised. If the requests for rehearing had remained outstanding, the industry would have been uncertain about the Commission's resolve to implement open access transmission as well as about many specific aspects of the program.

California Restructuring

The state of California has undertaken a comprehensive retail access initiative. In August 1996, it became the first state to legislate a comprehensive plan to revamp both

its retail and FERC-jurisdictional wholesale markets. In the interest of state/federal comity, the Commission helped implement the parts of the California legislation that directly affect interstate commerce. In response to Assembly Bill 1890, the three investor-owned electric utilities in that state (Pacific Gas and Electric Company, San Diego Gas & Electric Company, and Southern California Edison Company) made a series of filings to the Commission to implement the required restructuring of the electric industry in California.

During FY 1997, the Commission held a series of technical conferences to explore issues raised by the restructuring proposal. The proposal required (among other things) delineating some facilities as "local distribution" facilities (subject to state jurisdiction) and others as "transmission" facilities (subject to the Commission's jurisdiction). In November 1996, the Commission issued an order conditionally authorizing: (1) the establishment of an ISO; (2) the transfer of control of transmission facilities to the ISO; and (3) the establishment of a Power Exchange (PX). The Commission later issued an order directing the ISO and PX to refile the final comprehensive restructuring proposal. The California restructuring represents an excellent example of the Commission working with the states in the spirit of "cooperative federalism."

Merger Policy Statement

On December 18, 1996, the Commission issued its Merger Policy Statement (Order No. 592), revising the factors it will consider in determining whether a proposed merger is consistent with the public interest. The new Merger Policy Statement provides the industry with guidance for preparing merger applications and will allow the Commission to respond more promptly to the numerous requests for merger approval.

Using the Department of Justice/Federal Trade Commission Merger Guidelines, the Commission will quickly and clearly identify mergers that will result in an increase in market power. The policy statement established criteria the Commission would use to evaluate and to screen for competitive problems in new merger applications. The Commission announced that it would focus on ratepayer protection mechanisms as a way to avoid conducting an evidentiary hearing on the effect of a proposed merger on wholesale costs and rates.

The Commission also committed itself to the goal of issuing an initial order on a merger proposal within four to five months of filing, and a final order within 12 to 15 months. Since the issuance of the Merger Policy Statement, applications for merger approval have been more focused and have provided the data needed to more quickly determine whether a proposed merger must be set for hearing.

Looking Ahead

Regional Institutions: ISOs and RTGs

The logic of open transmission access is that electric markets will rapidly become regional rather than being largely restricted within the borders of traditional utility service territories. The Commission supports the creation of regional institutions—ISOs and RTGs—that can improve both the day-to-day operation of regional markets and plan for future changes in the transmission grid. Both ISOs and RTGs are in their infancy, and the Commission has had a chance to review only a handful of proposals. However, the Commission is likely to see many such regional proposals over the next few years.

ISOs are new institutions that promise to help remedy undue discrimination and to consider regional approaches to transmission pricing. Under an ISO, the owners of transmission facilities would turn over operational control, but not ownership, of these facilities to a new independent entity that would typically operate neighboring transmission systems covering a whole region. ISOs represent a major evolution in industry structure and are a central element in many state and regional restructuring initiatives. It remains unclear whether ISOs represent a final development or a stage in market evolution to transmission-only companies.

In Order No. 888, the Commission provided guidance to the industry on how to structure ISOs to make them work in a nondiscriminatory way. Several ISOs are under development, each covering a large region of the country. The Commission is committed to ensuring that ISOs are truly independent and can operate the transmission system in a reliable, open, and nondiscriminatory manner.

RTGs are groups of transmission-owning utilities and transmission-using utilities (who use the transmission of others to effect their wholesale power transactions) who jointly plan for future upgrades and address transmission issues on a regional basis.

RTGs were first proposed several years ago. They can provide a forum within which all the stakeholders in a regional transmission system can help plan for future growth and make other decisions to improve the long-term functioning of the grid.

ISOs and RTGs also may play a significant role in providing important market safeguards for competition, enhancing reliable operation of the transmission system, and supporting the transition to competitive power markets. ISOs and RTGs may provide substantial benefits to the public and the Commission by reducing delays in the regulatory process, relieving regulatory burdens, and providing a forum for consensual agreements. They can channel the expertise of the electric industry toward resolving technical issues relating to transmission system operations and planning the transmission system to meet the needs of all parties.

In the long run, ISOs and RTGs should reduce litigation before this Commission. However, the creation of new regional transmission entities under new forms of ownership or control requires resolving many technical and legal issues to maintain system reliability and meet statutory requirements.

Corporate Restructuring

Increasing competition in electric generation is leading electric utilities to consider various forms of corporate restructuring. The purposes of restructuring differ from one company to another and include the desire to form strategic alliances with other companies (including other utilities), to concentrate corporate focus on one aspect of the electric industry or alternatively to diversify the company, or to pursue state access programs. Corporate restructuring often involves a disposition of transmission facilities under the FPA which requires the Commission's authorization.

The pace of corporate restructuring is expected to accelerate.

In addition to the traditional horizontal mergers of integrated utilities that were the primary focus of the Merger Policy Statement, the Commission is also receiving proposals for "convergence mergers"—that is, electric utilities being merged with natural gas distributors and pipelines. When convergence mergers require Commission approval, they raise new and difficult market power issues.

The transformation to competitive markets is beginning to lead some utilities to create separate transmission, generation, and distribution entities to replace the existing vertically integrated corporate structure. Reorganizations along functional business lines may include further consolidations in each functional area with new regional organizations. The mergers and asset dispositions necessary to create most of these new corporate structures will also need Commission authorization.

Merger applications are often contested and extremely complex. For example, competitors who view proposed business combinations as imposing greater barriers to market entry or eroding their relative market share may vigorously oppose mergers and acquisitions. The number of these cases more than doubled from FY 1995 to FY 1997; this combined with the complexity of these cases has created a significant workload burden.

State Restructuring Initiatives

Some of the most important changes in the electric industry are occurring at the state level. Many states are investigating whether and how to restructure electric power markets to provide transmission directly to consumers (i.e., retail access). Since the electric industry is highly integrated across regions, any major change in electric regulation at the state-level has important implications for this Commission.

The Commission receives filings to implement state programs because they involve transmission in interstate commerce, over which the Commission has jurisdiction. Some restructuring proposals require a large commitment of Commission resources because of the new institutional structures envisioned. For example, if a state proposes a "power exchange"—a market-making institution that receives power from various sellers and provides it to various buyers—the Commission must ensure that those wholesale power sellers that are public utilities cannot exercise market power. If a state or company proposes to divest transmission assets or to give control of the assets to an ISO, the FPA requires the Commission to review and approve the disposition of the assets. Some state proposals involve innovative transmission pricing that will also require Commission consideration.

The Commission recognizes that managing the competitive transformation of the electric industry requires strong cooperation between state and federal regulators. As a result, it is working closely with state regulators and regional organizations to facilitate restructuring initiatives. ◆

Natural Gas and Oil Pipelines

Overview

With Order Nos. 436 and 636, the Commission guided the natural gas industry through two major transitions. It encouraged pipelines to allow market access to pipeline capacity through open access regulations. It then completed the open access transition, ending pipeline bundled merchant services and installing stand-alone transportation services.

The past decade has seen a number of competitive advances, including:

- introduction of competition to the sale of natural gas;
- transfer to the states of oversight responsibility for most gathering facilities;
- establishing a presumption of non-jurisdiction on gas pipelines in deep water on the Outer Continental Shelf;
- implementation of market-based rates where competition restrains market power;
- a streamlined approach to oil pipeline regulation; and
- the resurgence of capital-intensive expansion activity in the natural gas industry.

These events highlight the Commission's efforts to rely on competition, whenever possible, in lieu of historical regulatory initiatives and actions. The Commission is playing a critical role in the evolution of a competitive natural gas market, ensuring the success of open access under Order No. 636, encouraging efficient pipeline construction, encouraging competition in more transportation services, and helping the industry solve numerous problems as they developed.

Public scoping meeting in Mankato, Minnesota. Such meetings are standard practice in natural gas pipeline proceedings.

The oil industry is also responding to the changes in the energy market. The Commission continues to implement and refine its streamlined regulations promulgated under Order No. 561, which implemented Sections 1801 through 1804 of EPAct. This includes novel approaches under the Commission's rate and tariff regulations that encourage the development and financing of prudent new oil pipeline projects.

The Commission seeks development of alternative regulatory methods that encourage further competition by continually examining its regulations and revising them to accommodate the mixed competitive-regulated market. It monitors developments in the natural gas and oil pipeline industries to evaluate reliance on competition for the protection of consumers, to promote a healthy industry, and to determine where competition can be expanded.

Competition will not completely replace traditional ratemaking in all situations.

Simultaneously, the Commission protects and oversees those aspects of the natural gas and oil pipeline industries where competition does not protect against market power of pipelines. It also continues to balance and protect the competing interests of companies, individuals, organizations, and resources affected by the application of eminent domain for new and replacement construction of the natural gas pipeline infrastructure. In the long-term market for firm transportation, the Commission insures just and reasonable rates for consumers

and addresses complaints and allegations of abuses in an expedited manner to insure nondiscriminatory access to the national pipeline grid.

The Commission expects to receive and process more proposals to construct new pipelines or expand existing facilities to serve growing markets or to compete in existing markets. New market potential is expanding due to demand and customers' desire for supply alternatives. As competition increases, competing pipelines and landowners are coming forward to vigorously contest many of these proposals.

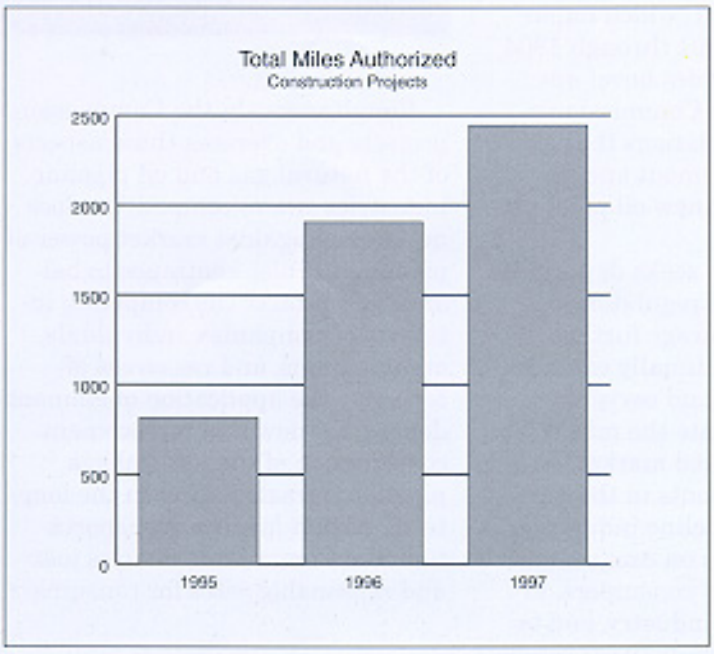
Achievements

Standardization of Industry Business Practices

The Commission and the natural gas industry have recognized that further improvement in making gas markets work conveniently and efficiently requires greater standardization of how the industry operates. With the encouragement of the Commission, the Gas Industry Standards Board (GISB) adopted more than 150 business practice standards, including standards relating to electronic communication over the Internet, designed to make it easier to conduct business across the interstate natural gas pipeline grid. To implement the standards, each pipeline was required to make a tariff filing. The Commission reviewed the filings and any comments, requiring revisions as appropriate. Over 500 GISB implementation filings were processed.

Certification of New Construction

Natural gas is an affordable, clean, domestically produced energy source. As a result, it is critical that pipeline facilities be available when needed to carry gas from the wellhead to major markets. The Commission's certificate program ensures that new pipelines are available when needed and are built in a way that protects the interests of landowners and the environment. During FY 1997, the Commission issued certificates for many important new projects. These new projects reflect the pipeline industry's pursuit of new markets as a result of the more competitive environment that has arisen from restructuring. Some of the certificates cover facilities to allow pipelines to compete for markets currently served by only one pipeline while others reflect the availability of increasing Canadian supplies and the growing market for natural gas in the Northeast. In total, the Commission certificated approximately 2,400 miles of new pipe with a capacity of 7.8 Bcf per day of capacity.



- ***Major Projects.*** The Commission authorized many system expansions, including those for Columbia Gas Transmission Corporation, Transcontinental Gas Pipe Line Corporation, Kern River Gas Transmission Company, El Paso Natural Gas Company, Southern Natural Gas Company, and East Tennessee Natural Gas Company. It issued either certificates or preliminary determinations for competing projects into the Chicago market for Northern Border Pipeline Company, Alliance Pipeline, L.P., and Natural Gas Pipeline Company of America. It authorized construction of a new LNG facility for Pine Needle LNG Storage and a liquefaction facility for Algonquin LNG, Inc. To ensure compliance with environmental regulations, the Commission monitored pipeline construction and right-of-way restoration activities on 240 on-site compliance visits.
- ***Policy Toward Offshore Facilities.*** The Commission recognizes the importance of current gas production on the outer continental

shelf (OCS) and its potential as a source of new gas supplies. To ensure that its policies neither impede nor distort development, the Commission established a presumption that new pipeline facilities to collect gas produced from wells in deep water (depths of 200 meters or more) qualify as non-jurisdictional gathering facilities up to the point where they may interconnect with the interstate pipeline grid. From that point on, the Commission will use its "primary function" test to determine whether the facilities are jurisdictional transmission under Section 7 of the NGA. After this policy statement, the Commission acted on 15 pipeline applications or requests for declaratory order on jurisdiction for facilities to develop offshore supplies in the Gulf of Mexico.

Examination of Issues and Priorities for the Natural Gas Industry

It has now been five years since Order No. 636 set out to restructure the natural gas industry. In that time, the industry has changed greatly, often in ways that no one could have anticipated in 1992. To assist in establishing regulatory goals and priorities in the post-Order No. 636 environment, the Commission conducted an inquiry into the important issues facing the natural gas industry and the Commission's regulation of the industry in FY 1997. This review was designed to let all sectors of the industry contribute to the Commission's understanding of how regulation must evolve to meet the changes occurring in the industry itself.

After review of over 80 filed comments consisting of over 1,600 pages, the Commission held a two-day conference with industry participants in May 1997. The conference focused on the future of the industry as well as on issues relating to service flexibility, pricing, pipeline capacity, and Commission procedures—particularly complaint procedures. Participants addressed the impact of electric restructuring, the need for rate and service flexibility, the desire for streamlined certificate processing, and the continued need for Commission regulation of pipeline market power. The Commission is now using the results of this inquiry to review its near- and long-term goals for natural gas regulation and to develop initiatives to further these goals.

The Commission received over 80 filed comments consisting of more than 1,600 pages.

Proposal for Research and Development Funding

Whether and how to use industry funds to pay for research, development, and demonstration has been an issue since open access and competition hampered the pipelines' ability to collect a Gas Research Institute (GRI) surcharge. The Commission convened a public conference to explore alternatives to the current GRI funding mechanism. It then issued an order extending the current GRI funding mechanism for one year, and a notice of proposed rulemaking (NOPR) to address long-term funding issues. The NOPR proposed a non-discountable, volumetric surcharge to fund a core program of projects to benefit all segments of the industry. It also posed questions on the funding for a voluntary non-core program.

Conference Topics:

- Balancing service flexibility and recourse services
- Finding alternatives to existing pricing policies
- Expediting the certification process for additional pipeline capacity
- Improving the Commission's complaint procedures

Revision to Import/Export Regulations

The Commission updated the regulations that govern the siting, construction, and operation of facilities for importing or exporting natural gas. The revisions coincided with proposals for substantial new construction to bring more Canadian gas into the U.S., following a dramatic increase in natural gas import and export activity over the previous decade.

Focus on the Complaint Process

The Commission is reevaluating the complaint process in its oversight of the industry. In this era of light-handed regulation, parties need a forum to alert the Commission to circumstances and situations in the marketplace. Such a forum must provide for timely response by the Commission. To that end, the Commission tested an audit procedure to expedite the fact-finding part of inquiries. An interdisciplinary staff from several Commission offices conducted an on-site gathering of pertinent facts and produced a public report to allow the Commission to determine the best procedural course to follow to resolve complaints. The Commission also requested public comment on two petitions on procedural reforms to its complaint process. These comments will help the Commission determine whether reforms are necessary.

The Commission will:

- Ensure that pipeline transportation service supports efficient, competitive commodity markets.
- Protect customers from excessive transportation rates and service discrimination.
- Ensure that adequate capacity and reliable, flexible service is available in the interstate natural gas transportation systems.
- Ensure fair access to the oil pipeline systems for all customers under just and reasonable rates, terms, and conditions.

Looking Ahead

It will be necessary to ensure that pipeline transportation service supports efficient, competitive commodity markets. Natural gas commodity markets can work better if standardization continues to improve among pipeline systems for both information and business practices so that gas can be moved more efficiently. Ensuring fair and effective short-term markets assures that the parties obtain the capacity and gas they have purchased and ensures system reliability.

Removing barriers to efficient short-term transportation markets is also important for improving the performance of commodity markets. As competitive markets mature, customers will have more new transportation service products and a reasonable range of suppliers from which to choose. Natural gas prices will become more responsive to market conditions—that is, prices will reflect changing supply and demand conditions more clearly and more quickly. Natural gas prices within each region will converge, except to the extent there are demonstrable transportation constraints, and it will be less costly, administratively, to transact business on the interstate transportation grid.

The Commission will protect customers from excessive transportation rates and service discrimination. The Commission will continue its traditional work of ensuring that pipelines are not being preferential or unduly discriminatory, charging unjust and unreasonable rates, or providing services that are inadequate or undesirable. To do this in a more competitive world, it will develop and increasingly rely on regulatory systems based on monitoring and customer complaints. Such systems will be designed to respond to the increased pace of the market without unduly burdening market participants. Monitoring will be especially important as pipelines are permitted to implement more nontraditional forms of pricing and service. The Commission will ensure that both buyers and sellers have access to competitively priced commodity markets in the national gas transportation grid and that gas pipeline rates are just and reasonable, fairly balancing the competing interests of the pipelines and their customers.

Relinquishment of excess on unneeded capacity will be an important issue. Order No. 636 modified long-term sales contracts to convey separate transportation rights. As a result, most of a pipeline's traditional customers operated under contracts with volume levels set before markets became more competitive. As a result, major customers like local distribution companies have found they do not need as much firm transportation as they once did and are deciding to "turn back" their long-term commitments to pipeline capacity.

Several pipelines have already faced renegotiation of a substantial amount of capacity on their systems. Further significant amounts of capacity will be up for renegotiation under contracts that expire in the next few years. The pipelines' ability to resell this capacity will affect their ability to recover their costs and also the rates they can charge to shippers whose contracts are not yet eligible for renegotiation or that choose to remain on the system. As state programs instituting retail unbundling become reality,

distribution companies are not likely to require their historical levels of pipeline firm transportation quantities, and capacity turnback levels may then grow.

To date, the Commission has been able to foster settlements between the pipeline and its departing and remaining customers. As pipelines experience more capacity turnback situations with unique issues, such settlements may be more difficult to accomplish.

Adequate capacity and reliable, flexible service in the interstate transportation systems will be crucial. The Commission will encourage efficient gas pipeline construction. Getting gas to market will require expansions in the pipeline transportation and storage grid to handle changes in the geographic mixes of production and consumption. New facilities can provide individual customers with increased reliability of service by giving them multiple supply and delivery options. The Commission's certification program will allow new pipeline capacity to be available to serve the market when needed. Certification of new pipelines will be timely, while fairly balancing the interests of the gas market, project sponsor, landowners, and the environment.

The pipeline industry is aggressively pursuing new markets now that it has finished restructuring and gained operating experience in the restructured environment. Growing demand in the New England, Mid-Atlantic, and Midwest regions is giving rise to applications for major pipeline extensions and new pipelines. Meeting construction and service time frames will require analyzing contractual arrangements among parties and monitoring interconnection policies to assure that competing pipelines may obtain access to markets. In addition, the Commission will need to address proposals for gas storage and pipeline replacement expeditiously if it is to achieve its goal of ensuring adequate capacity.

Gas scrubbers at El Paso Energy Corporation's Blanco Plant in New Mexico. Scrubbers separate natural gas from liquids or chemicals.

The natural gas grid will increasingly be continental in scope, as U.S. and Canadian gas markets become more fully integrated in the short run and as U.S. and Mexican markets begin to be integrated in the longer run. This will mean more emphasis in the future on international pipeline construction.

The existence of competitive proposals to serve the same market will lead to new issues. Many such proposals are contested by the competing pipelines and by landowners. The environmental review of such projects will be more complex and time-consuming. The Commission will need to assess the competing benefits of affordable, reliable supply versus the environmental impact and grant of eminent domain for arguably duplicative facilities.

Construction advances near Somerset, Ohio, on final phase of a PanEnergy Corporation project.

Environmental issues include:

- Proposed route and alternatives
- Eminent domain
- Noise impact and mitigation
- Historic property and cultural resources
- Right-of-way restoration, revegetation
- Endangered species, wildlife protection
- Erosion control, top soil segregation

Environmental considerations will continue to be vital in considering new construction proposals. Under the National Environmental Policy Act (NEPA), the Commission performs environmental analyses of all gas pipeline construction filings to avoid or mitigate adverse effects on water quality, vegetation and wildlife, historic and cultural resources, soils and geological resources, land use, and air and noise quality. The Commission conducts a thorough analysis of each of these areas before any certificate project proceeds.

In the future, the Commission will need to ensure the thoroughness of its analysis while it also shortens processing time. The Commission will continue to encourage the use of third-party contractors and applicant-prepared environmental documents, with appropriate safeguards. These alternatives have reduced the Commission resources required for reviews and may help accelerate the review process.

The Commission will continue to reassess and revise its outreach programs. Recently updated training seminars on environmental compliance, environmental report preparation, and cultural and historical resource requirements will aid applicants in preparing complete filings. (They have already improved the review of filed certificate applications.) The commission will also improve public outreach programs. These include better notification—for example, pre-construction mailings to all affected landowners and public notification of both local environmental scoping meetings and pre-construction site inspections on controversial projects. Improved Outreach programs will also include readable brochures on how the certification process works and enhanced coordination with state agencies.

The Commission will work to make its environmental regulation more efficient. It will evaluate the effectiveness of various environmental mitigation techniques implemented under Commission orders to help find the most cost-effective mitigation strategies. It will work with industry groups and other federal agencies to implement an electronic geographic information system to allow the filing of digital maps, graphics, and photographs for use in environmental analyses.

The Commission will review oil pipeline regulation. In Order No. 561, the Commission established a generally applicable indexing methodology as one way of changing rates. (Order Nos. 571 and 572 delineated three alternative approaches and the conditions under which they may be used: traditional cost-of-service rates; market-based rates; and negotiated or settlement rates.) The Commission will continue to ensure fair access to the oil pipeline systems for all customers under fair terms and conditions at reasonable rates. This can be done through allowing market-based rates where markets are competitive and continuing flexible regulation in other cases. As an integral part of the indexing methodology, the Commission will review the selected index in 2000. This review will examine how well changes in the index tracked actual cost changes experienced by the industry through 1999. ◆

Hydroelectric Power

Overview

The Commission's hydropower program is a major part of the national effort to develop sustainable water resource uses and benefits. Hydropower remains an essential, renewable energy resource, and a viable part of the nation's current and future power mix. Hydropower generation represents 98 percent of the country's current renewable energy resources; hydropower projects under the Commission's jurisdiction—approximately 50 percent of the national total—promote long-term safety and resource management objectives that are important to consumers and the general public. Moreover, hydropower generation at licensed projects often produces the cash flow necessary to develop other beneficial water uses in the project area and in affected river basins. Hydroelectric projects authorized by the Commission often provide fish and wildlife habitats, recreational opportunities, flood control, and water supply.

Competitive forces are changing the economics and overall conditions under which hydropower projects are developed and operated. Proposals for new projects demand more careful planning and greater consultation with varied interests.

The importance of water resource development issues and the Commission's expanded role in environmental protection activities have resulted in increased involvement by federal and state resource agencies, non-governmental organizations (NGOs) and the public. Legislation and court decisions have given other agencies shared responsibilities in the Commission's licensing process and in balancing developmental and environmental values. Successful hydropower regulation increasingly requires fostering cooperative regulatory approaches, such as the use of up-front consultation and collaboration to resolve conflicts and to accommodate the varied interests. Ensuring compliance with numerous environmental laws is an important part of the Commission's role.

The Commission also administers a state-of-the-art dam safety program. Safety is a paramount concern given the age of regulated dams and their importance to the country's energy infrastructure. Almost 70 percent are over 50 years old.

Recreational use of the Deerfield River in Massachusetts. The Commission relicensed hydroelectric projects on the river in 1997.

The Commission is actively pursuing the APEA process to significantly reduce the post-filing environmental review process.

Achievements

New Collaborative Processes

During FY 1997, the Commission worked on a rulemaking on alternative licensing/relicensing procedures that would offer applicants and stakeholders the flexibility to prepare better license applications that the Commission then can process more expeditiously. These alternative procedures go beyond the pre-filing consultation the Commission has long required by letting issues be resolved, agreements concluded, and environmental analyses completed before an application reaches the Commission. More traditional applications often require extensive Commission staff work after filing

to correct deficiencies, request additional information, ensure proper consultation about controversial issues, and prepare the necessary environmental analyses. Even before completing this rulemaking, the Commission continued actively assisting applicants who used the non-traditional, applicant-prepared environmental assessment (APEA) or third-party contract process, authorized under EPAct. The Commission also offered applicants collaborative strategies to help them identify issues, resolve conflicts, and build consensus before they filed an application. Improving communications among participants and combining the pre-filing consultation and environmental review processes promise to simplify and expedite the post-filing process. Getting participants together earlier in the process can help narrow the issues and encourage settlements.

In FY 1997, the Commission continued to foster APEAs involving 31 projects. The Commission anticipates that pre-filing completion of an APEA can reduce post-filing processing time by 12 to 18 months. In addition, a third-party contract EIS is being prepared for the relicensing of New York Power Authority's St. Lawrence Seaway Project in New York State. Although the license does not expire until October 31, 2003, scoping of environmental and other issues was completed in September 1997. Preparation of the EIS is scheduled to begin by 1999, or earlier, depending on the progress made in negotiations among stakeholders.

Class of 1993 Relicenses

The Commission has completed action on 133 of 157 relicense applications for licenses that expired in 1993, with most of the remainder in settlement negotiations or awaiting state action to issue water quality certificates. The new licenses issued contained many conditions to protect or improve recreation, fisheries, and wildlife. The Commission developed these conditions after conducting extensive environmental reviews and balancing developmental and non-developmental values, under the provisions of the FPA, Commission regulations, and other statutes, such as the Clean Water Act and the Endangered Species Act.

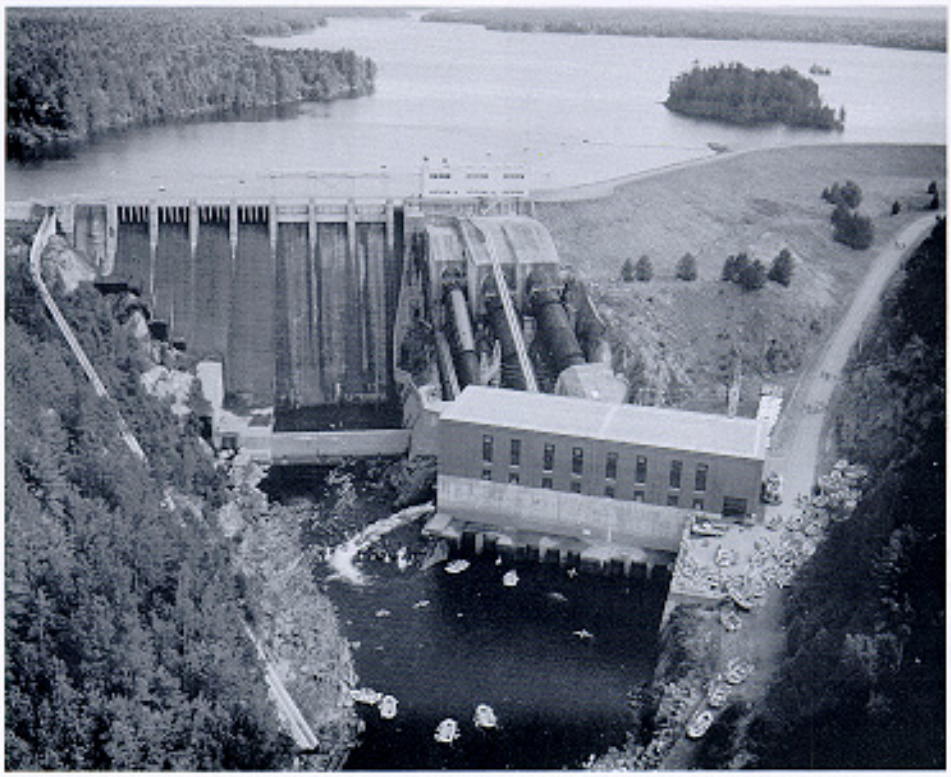
These relicense provisions have resulted in more than $77 million being devoted to protecting and enhancing resources that benefit the public, in addition to the power generated by the projects. Resources ranging from fish and wildlife to water quality, aesthetic and historic resources have received additional protection under these licenses. Recreational improvements and additions to public recreation facilities account for about 56 percent of the new expenditures. Monies were spent to construct boat ramps, canoe portages, hiking trails, and fishing access areas, including fishing and parking access under the Americans with Disabilities Act. The Commission has required operational changes to augment downstream flows to create recreational opportunities, such as whitewater boating, and in other cases required fish viewing facilities and hydropower educational programs.

The Commission has required minimum flows to protect sensitive fisheries and aquatic resources in approximately 80 miles of river channel that could otherwise lose water. Fishery enhancement measures include providing structures for fish passage, improving fish habitats by reducing reservoir fluctuations, installing vegetative cover, implementing operational constraints, and reducing fish mortality.

The conditions in many relicenses have required measures to protect and enhance project lands, improve habitat diversity, conserve wetlands, and manage wildlife, including threatened and endangered species. At the Nisqually River Project (Project No. 1862), for example, in Washington State, the City of Tacoma acquired 2,450 acres of land for wildlife purposes and to protect and manage over 3,500 acres of project lands in cooperation with state and federal resource agencies and tribes. These measures benefitted wetlands, riparian vegetation, big game wintering range, threatened and endangered species, and old growth forests.

Compliance Activities

The Commission assures environmental protection and protects other uses of water resources through the conditions it places on licenses. As these conditions have become more significant, the Commission's compliance activities have also grown in importance. Timely action on compliance issues is an essential part of the Commission's work. During FY 1997, the Commis-



Outdoor enthusiasts make frequent use of facilities near Central Maine Power Company's Harris Station hydroelectric project.

sion resolved over 200 investigations into allegations of noncompliance with environmental and engineering requirements.

To ensure that licensees comply with the terms and conditions of the license, the Commission aggressively pursues reported incidents of noncompliance. It directs the licensee to explain the circumstances surrounding the incident and, if necessary provide additional information. During FY 1997, the Commission continued to develop cooperative relationships with resource agencies and local organizations to assist in resolving the issues raised by these allegations.

Recreation Reports

During FY 1997, the Commission processed the Licensed Hydropower Development Recreation Reports (Form 80), which licensees file every six years. These data are important because they give the Commission a periodic information base on recreational facilities at licensed projects that allow the Commission to analyze basin-wide and site-specific recreational needs now and in the future. The information will also form part of the Commission's future measurements of how well it is achieving its goals. The Commission also makes the information available to other agencies and to the public.

$8.9 Million Returned to Treasury

The headwater benefits program has been an integral part of the FPA since 1920. The construction of headwater storage projects in a river basin often allows downstream hydropower plants to generate additional electricity. Section 10(f) of the FPA requires the Commission to determine how much the owner of a downstream non-federal hydropower development must pay the headwater project owner for energy generation benefits. The Commission focuses its efforts to assessing headwater benefits to recover costs for upstream federal storage projects constructed by the Corps of Engineers and the Bureau of Reclamation. The Commission works with these agencies to conduct complex river basin studies and has returned approximately $260 million to the Treasury since the program began. In fiscal year 1997, the Commission collected approximately $8.9 million.

Dam Safety Passes Test

In FY 1997, Commission staff conducted about 2,900 dam safety inspections and 600 dam safety engineering evaluations. The Commission oversaw $48.8 million worth of dam safety remediation work and $129.1 million of new capacity

During the spring 1997 floods, there were no adverse impacts to life or property resulting from the operation of the projects under the Commission's jurisdiction.

project construction. It also developed additional technical guidance and expanded the instrumentation and monitoring information in its engineering guidelines.

Heavy and prolonged rainfall coupled with sudden snow melt in the central and western states produced record flows at many hydropower projects. These record flood flows provided a true test of projects' ability to pass flood flows and offered the opportunity to determine if the current criteria used to establish the inflow design flood were appropriate. The staff worked closely with the licensees to assure sound project operation and proper coordination with the public in emergency situations through project emergency action plans.

The Commission created a Rapid Response Inspection Team in each regional office to ensure emergency preparedness for natural disasters, such as earthquakes, or acts of terrorism. These teams can mobilize quickly, initiate safety inspections for water-retaining structures, and direct follow-up activities related to dam and public safety.

The Commission is an active and leading member of the Nation's dam safety community.

The Commission's dam safety program is well respected both nationally and internationally for its long-standing record of ensuring safety. Other countries have contacted the Commission and are using the Commission's program as a pattern for their own developing programs, or to improve their existing programs. Staff has been actively involved in revising the Federal Guidelines for Dam Safety on issues such as hazard potential classifications, emergency action planning, inflow design floods, and earthquake analyses and design for dams. Commission dam safety staff also participated in the development of the implementation plan for the National Dam Safety Program Act, as well as served on the U.S. Committee on Large Dams and the American Society of Civil Engineers task groups to develop dam safety criteria.

Looking Ahead

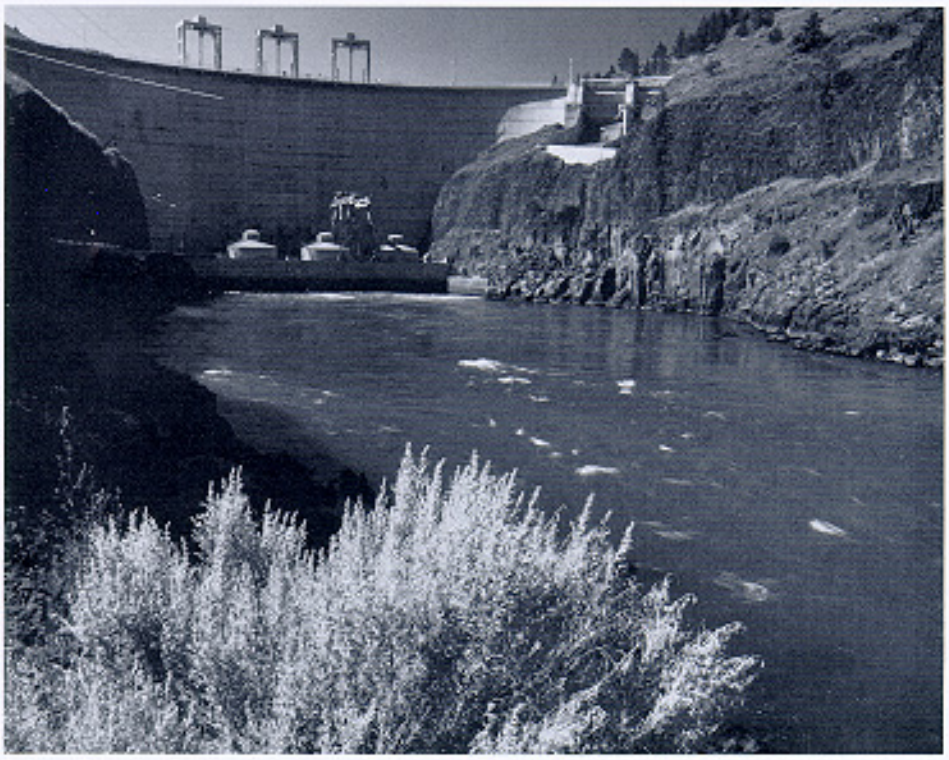
The Commission's Strategic Plan sets out the general goals it intends to pursue in advancing the hydropower program into the next century. These complementary goals are to ensure that the Commission:

- licenses sustainable hydropower resources for the public's benefit;
- maintains the Nation's existing hydropower developments to serve all water resource interests; and,
- maintains dam safety through inspection of facilities and operations.

The goals recognize long-standing statutory missions as well as the new realities affecting the Commission's hydropower regulation program. Even as hydropower remains an important national resource, its development—and sustainability—is adjusting to a competitive electric market, an era of heightened environmental concerns, and a decision-making process of shared authorities. All of these factors are changing the Commission's hydropower workload—shifting it away from new construction and licensing activities and towards relicensing and increasing administration of existing projects.

Licensing and Compliance

For licensing and compliance work, the Commission will follow a four-pronged strategy to support these goals:



Pelton Dam in Oregon, a Portland General Electric project. Hydroelectric power remains an essential, renewable energy resource.

(1) utilize the Commission's existing resources to act on as many pending cases as possible prior to the arrival of the next major class of relicenses in 1998;

(2) facilitate the preparation and filing of new relicensing applications by attempting to address major issues prior to filing;

(3) conduct an outreach program to encourage licensees whose licenses will expire through 2010 and other stakeholders to use alternative, flexible relicensing procedures; and,

(4) develop a system that will track more effectively the outcome of mitigation measures required by the Commission, so that this information can better inform future hydropower actions.

The related components of the Commission's strategy recognize that increasing competition in the electricity market has resulted in increased pressure on all sellers of power to be efficient. This reality, in turn, creates a tension for hydroelectric projects, in which the increased costs of environmental protection requirements run counter to the need to keep costs to a minimum. To address this tension, the Commission must increase the efficiency of its hydropower program.

Using Existing Resources Better

The Commission consolidated its hydropower licensing and compliance divisions. This will allow for maximum staffing flexibility in meeting changing workloads for both licensing and compliance. That will help the Commission both process the high level of post-licensing filings and meet the needs of the coming wave of relicenses. It will also mean that the same organizational unit that requires conditions also monitors for later compliance, which should make it possible to streamline compliance activities during the design stage.

Alternative, Collaborative Licensing Processes

The Commission will encourage interested parties to work together through alternative relicensing methods by fostering increased interagency cooperation, and by facilitating settlements whenever possible. The Commission has already used applicant-prepared EAs and third party contract EISs to help foster a more cooperative form of relicensing, an environment that encourages consensus on issues, and a way to develop single issue agreements or comprehensive settlements that can become part of a license filing. In effect, this alternative approach will rely on cooperative efforts among parties to design their own relicensing process.

Using alternative relicensing methods will help the Commission to deal effectively with the next round of relicense applications

scheduled for filing. In the years 2000 through 2010, 220 licenses will expire representing some 20 percent of the nation's installed hydroelectric capacity. Licensees for approximately one third of these projects will file relicense applications with the Commission in 1998 and 1999.

As an example, Idaho Power Company operates eight projects within a 360-mile-long reach of the Snake River. The licenses will expire between 1997 and 2010. Four applications have already been filed. The Hells Canyon Project, a series of three large dams that block the upstream passage of anadromous fish (including three endangered species) will be filed in 2003. The cumulative effects of all the projects will inevitably be a significant issue during relicensing, but it is important not to delay the first applications. The staff is planning to prepare an EIS for the first four projects to include an analysis of those resources affected by the first four projects. Although the evaluation of cumulative effects of all projects on anadromous fish will be deferred to later applications, staff will begin a review of the cumulative anadromous fish issues now to get an early start on understanding these complex issues.

Of the applications scheduled for filing in 1998 and 1999, many are well along in the prefiling process. Commission staff is already working with 22 applicants who are developing applicant and third party prepared environmental documents to help resolve pre-filing issues. For the remaining projects, staff is helping identify opportunities for issues resolution and is facilitating dispute resolutions.

Outreach Programs

Staff will continue to conduct outreach meetings in areas where significant numbers of licenses will be expiring to educate licensees and other potential participants about the advantages of alternative procedures. Four sessions have been conducted— three in California and one in Vermont—with a focus on encouraging use of alternative licensing processes as described in the rulemaking issued October 29, 1997. As a result of these sessions, two licensees have decided to use the APEA process and several more are considering it. Ten more sessions that will target federal, state, and regional governmental agencies, hydropower licensees, Native Americans, NGOs, and the general public will be conducted in FY '98.

> Managing change at licensed projects will become a significant element of the Commission's post-licensing efforts.

The Commission expects these efforts to increase the percentage of applications to be prepared using environmental documents prepared in the pre-licensing stage, as well as the number of issuances based on settlement agreements.

The Commission is working to create more efficient relationships among the many federal agencies with which it shares responsibilities.

Tracking and Monitoring Mitigation

In addition to preparing for relicensing, the Commission will also devote more attention to post-licensing matters. Experience has taught that it is no longer enough just to require mitigative measures

in licensing orders and then to rely on complaints to identify operational problems. The many new environmental requirements included in recent licenses, together with the changing competitive market conditions, make ongoing monitoring more important. Many new licenses contain conditions requiring monitoring, in consultation with interested stakeholders, of important environmental resources. Analysis of the data from this periodic monitoring, collection of additional data, and creation of a data base system, should help the Commission require that projects adapt to changing river basin circumstances over the life of licenses.

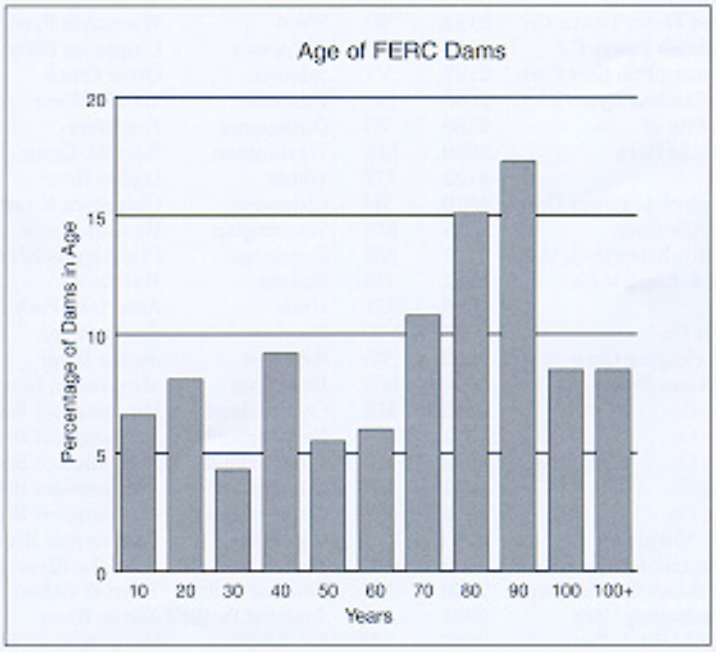
The Commission will continue to be proactive in its approach to obtaining compliance with its licenses. It will continue to work with licensees to help them understand the terms and conditions of their licenses to avoid compliance problems. When necessary it will take prompt corrective action to minimize non-compliance impacts. Penalties will generally only be assessed when violators are unresponsive.

Dam Safety

For dam safety work, always a priority, the Commission's initiatives will include completing dam remediation work and beginning to focus on how to determine when structures are beginning to develop deficiencies. The Commission will also continue working with licensees, the engineering community, and localities where projects are located to match the Commission's safety program with any changes in state-of-the-art engineering practices.

The Commission will inspect high- and significant-hazard dams annually and will ensure that these dams comply with emergency action plan requirements. In addition, the Commission will begin to refocus aspects of its dam safety program as it moves from remediation to monitoring aging dams. As current remediation projects are completed, new engineering guidelines on dam performance and monitoring will be developed to incorporate reviews of dam safety analyses and instrumentation and monitoring data. Concurrently, a team of senior engineers will review dam safety operation procedures to determine where improvements can be made to ensure that future inspections, monitoring, and evaluations properly assess dam performance and include all necessary investigations and evaluations.

The President signed legislation requiring a Commission presence on a board of dam safety experts to assist the director of the Federal Emergency Management Agency (FEMA) in implementing the National Dam Safety Program (NDSP). This program will supply funding and technical assistance to state dam safety offices. ◆



Hydroelectric Power Table

(Projects For Which Licenses Will Expire
Between January 1, 1998, and December 31, 2003)

License Expiration Date	Licensee	FERC Project No.	State	County	River	Installation (KW)	Facilities Under License*	Period of (Years)	Subj. Fed.
98/01/31	Wisconsin River Power Co	1984	WI	Adams	Wisconsin River	35000	DM PH	48	Y
98/02/28	Idaho Power Co	1975	ID	Gooding	Snake River	75000	DM PH	50	Y
98/02/28	Wisconsin Electric Power Co	1980	MI	Dickinson	Menominee River	19750	DM PH	50	Y
98/03/31	Bonners Ferry City of (ID)	1991	ID	Boundary	Moyie River	3938	DM PH	49	N
98/06/30	Heber Light & Power Co	1994	UT	Wasatch	Snake Creek	800	DM PH	49	N
98/06/30	Northern States Power Co	1982	WI	Chippewa	Chippewa River	34000	DM PH	48	Y
98/10/31	Idaho Power Co	2777	ID	Gooding	Snake River	34500	DM PH	20	N
99/02/28	Southern California Edison Co	2017	CA	Fresno	San Joaquin River	98822	DM PH	50	Y
99/03/31	Bangor Hydro-Electric Co (ME)	2666	ME	Penobscot	Penobscot W Branch	3440	DM PH	20	N
99/05/31	Green Mountain Power Corp	2674	VT	Addison	Otter Creek	2400	DM PH	20	N
99/05/31	Idaho Power Co	2778	ID	Jerome	Snake River	12500	DM PH	20	N
99/08/31	Holyoke Water Power Co	2004	MA	Hampden	Connecticut River	45675	DM PH	50	N
99/09/30	International Paper Co	2375	ME	Franklin	Androscoggin River	19415	DM PH	34	N
99/09/30	Aquamac Corp	2927	MA	Essex	Merrimack River	250	DM PH	20	N
99/09/30	Otis Hydroelectric Co	8277	ME	Franklin	Androscoggin River	10350	DM PH	15	N
99/09/30	Lower Valley Power & Light Inc	2032	WY	Lincoln	Strawberry Creek	1500	DM PH	48	Y
99/11/30	Merrimac Paper Co Inc	2928	MA	Essex	Merrimack River	1088	DM PH	20	N
00/02/28	Pacificorp	2659	OR	Hood River	Hood River	6000	DM PH	20	N
00/02/29	Oconto Electric Coop	1981	WI	Oconto	Oconto River	1690	DM PH	50	Y
00/03/31	Lockhart Power Co (SC)	2620	SC	Union	Broad River	12300	DM PH	20	N
00/03/31	Sturgis City of	2964	MI	St Joseph	St Joseph River	2720	DM PH	20	N
00/04/30	Denver City & County of	2035	CO	Boulder	South Boulder	0	RS	50	N
00/04/30	International Paper Co	2609	NY	Saratoga	Hudson River	58300	DM PH	20	N
00/04/30	Great Northern Paper Inc	2634	ME	Piscataquis	West Branch Penobscot	0	RS	38	N
00/05/31	Niagara Mohawk Power Corp	2047	NY	Saratoga	Sacandaga River	30000	DM PH	50	N
00/05/31	Indiana Michigan Power Co	2651	IN	Elkhart	St Joseph River	3440	DM PH	20	N
00/05/31	Central Vermont Pub Serv Corp	2731	VT	Addison	Otter Creek	3000	DM PH	20	N
00/06/14	Southern California Edison Co	372	CA	Tulare	Tule River	2520	DM PH	22	Y
00/06/30	Ketchikan City of	420	AK		Ketchikan Creek	4200	DM PH	43	N
00/06/30	Pacificorp	597	UT	Salt Lake	Big Cottonwood	1000	DM PH	23	Y
00/06/30	South Carolina Electric & Gas Co	1895	SC	Richland	Broad River	10600	DM PH	20	Y
00/06/30	Consolidated Water Power Co	2110	WI	Portage	Wisconsin River	3840	DM PH	23	Y
00/06/30	Rhinelander Paper Co	2161	WI	Oneida	Wisconsin River	2120	DM PH	19	Y
00/06/30	Consolidated Water Power Co	2192	WI	Wood	Wisconsin River	6620	DM PH	20	Y
00/06/30	Northern States Power Co	2567	WI	Chippewa	Chippewa River	35280	DM PH	20	N
00/06/30	Central Vermont Pub Serv Corp	2737	VT	Addison	Otter Creek	2250	DM PH	20	N
00/07/31	Northbrook Carolina Hydro L.L.C	2585	NC	Forsythe	Yadkin River	1410	DM PH	20	Y
00/07/31	Kaukauna City of	2588	WI	Outagamie	Fox River	3300	DM PH	20	N
00/08/31	Georgia-Pacific Corp	2660	ME	Washington	East St. Croix	0	RS	38	N
00/08/31	Pacificorp	2722	UT	Weber	Ogden River	5000	DM PH	20	N
00/09/01	Wisconsin Electric Power Co	2670	WI	Chippewa	Chippewa River	9500	DM PH	20	N
00/09/29	Georgia-Pacific Corp	2618	ME	Washington	West St. Croix	0	RS	38	N
00/09/30	Bangor Hydro-Electric Co (ME)	2721	ME	Penobscot	Piscataquis River	1875	DM PH	20	Y
00/09/30	Pacific Gas & Electric Co	2661	CA	Shasta	Hat Creek	20000	DM PH	25	N
00/10/31	Pacificorp	696	UT	Utah	American Fork	950	DM PH	25	N
00/11/30	Idaho Power Co	2055	ID	Owyhee	Snake River	82800	DM PH	49	Y
00/12/31	Nekoosa Packaging Corp	2902	VA	Amherst	James River	512	DM PH	20	N
00/12/31	Northern States Power Co	2056	MN	Hennepin	Mississippi River	28400	DM PH	49	Y
01/01/25	S D Warren Co	2897	ME	Cumberland	Presumpscot River	1350	DM PH	22	Y
01/01/25	S D Warren Co	2931	ME	Cumberland	Presumpscot River	1900	DM PH	20	N
01/01/25	S D Warren Co	2932	ME	Cumberland	Presumpscot River	800	DM PH	20	N
01/01/25	S D Warren Co	2941	ME	Cumberland	Presumpscot River	1000	DM PH	21	N
01/01/25	S D Warren Co	2942	ME	Cumberland	Presumpscot River	2400	DM PH	20	N
01/01/31	Lyndonville Village of	3090	VT	Caledonia	Passumpsic River	350	DM PH	20	N
01/01/31	Virginia Electric & Power Co	2009	NC	Halfax,Warren	Roanoke River	278000	DM PH	50	Y
01/01/31	Niagara Mohawk Power Corp	2060	NY	Town of Colton	Town of Colton	0	RS	50	Y
01/01/31	Nekoosa Packaging Corp	2901	VA	Amherst,Bedford	James River	1875	DM PH	20	Y
01/01/31	Connecticut Light & Power Co	2597	CT	Litchfield	Housatonic River	9000	DM PH	20	N
01/02/28	Antrim County	3030	MI	Antrim	Elk River	700	DM PH	20	N
01/02/28	Dairyland Power Coop	1960	WI	Rusk	Flambeau River	15000	DM PH	50	Y
01/02/28	Washington Water Power Co	2058	ID	Bonner	Clark Fork River	224550	DM PH	50	Y

Hydroelectric Power Table

License Expiration Date	Licensee	FERC Project No.	State	County	River	Installation (KW)	Facilities Under License*	Period of (Years)	Subj. Fed.
01/02/28	Washington Water Power Co	2075	MT	Sanders	Clark Fork	466200	DM PH	46	N
01/03/30	Consumers Power Co	2566	MI	Ionia	Grand River	3250	DM PH	20	Y
01/04/30	Pacificorp	2071	WA	Clark	Lewis	134000	DM PH	50	Y
01/07/31	New England Power Co	2077	NH	Grafton	Connecticut River	291360	DM PH	49	Y
01/07/31	Marquette City of	2589	MI	Marquette	Dead River	3900	DM PH	20	Y
01/08/30	Black River Falls City of	3052	WI	Jackson	Black River	920	DM PH	20	N
01/08/31	Green Mountain Power Corp	2090	VT	Washington	Waterbury River	5520	DM PH	47	Y
01/08/31	Pacificorp	2652	MT	Flathead	Swan River	4150	DM PH	25	Y
01/09/01	International Paper Co	2631	MA	Hampden	Westfield River	2690	DM PH	20	Y
01/09/30	Nantahala Power & Light Co	2694	NC	Macon	Queens Creek	1440	DM PH	25	N
01/09/30	Hamilton City of	2724	OH	Butler	Miami River	1500	DM PH	20	N
01/09/30	GTXL, Inc	2935	GA	Richmond	Augusta Canal	1200	DM PH	20	N
01/09/30	Georgia Power Co	1218	GA	Dougherty	Flint River	5400	DM PH	22	Y
01/09/30	Aquenergy Systems Inc	2416	SC	Greenwood	Saluda River	6200	DM PH	25	Y
01/10/01	Pacificorp	2401	ID	Caribou	Bear River	40500	DM PH	25	Y
01/10/01	Pacificorp	472	ID	Franklin	Bear River	30000	DM PH	20	Y
01/10/01	Pacificorp	20	ID	Caribou	Bear River	14000	DM PH	21	Y
01/10/01	Connecticut Light & Power Co	2576	CT	Fairfield	Housatonic River	105900	DM PH	20	N
01/10/31	Wisconsin Electric Power Co	2073	MI	Iron	Michigamme River	9600	DM PH	50	Y
01/10/31	Wisconsin Electric Power Co	2074	MI	Iron	Michigamme River	2800	DM PH	50	Y
01/10/31	Wisconsin Electric Power Co	2131	MI	Dickinson	Menominee River	7200	DM PH	50	Y
01/11/30	North Central Power Co Inc	2064	WI	Sawyer	Chippewa River	600	DM PH	50	Y
01/11/30	Metropanitan Water Reclamation	2866	IL	Will	Chicago Sanitary	13500	DM PH	20	Y
01/12/31	Wisconsin Electric Power Co	1759	MI	Iron/Dickinson	Michigamme River	19944	DM PH	27	Y
01/12/31	Tacoma City of	2016	WA	Lewis	Cowlitz River	460000	DM PH	50	Y
01/12/31	Portland General Electric Co	2030	OR	Jefferson	Deschutes River	416100	DM PH	50	Y
01/12/31	Wisconsin Electric Power Co	2072	MI	Iron	Paint River	100	DM PH	50	Y
01/12/31	Central Maine Power Co	2142	ME	Somerset	Kennebec River	75000	DM PH	47	Y
02/01/31	PUD No 1 of Pend Oreille Cnty	2042	WA	Pend Oreille	Pend Oreille	60000	DM PH	50	N
02/01/31	Niagara Mohawk Power Corp	2084	NY	St Lawrence	Raquette River	101250	DM PH	50	Y
02/02/23	Pacific Gas & Electric Co	184	CA	El Dorado	SF American River	20000	DM PH	22	Y
02/03/31	Fort James Operating Co	2312	ME	Penobscot	Penobscot River	7655	DM PH	39	Y
02/07/31	Cominco American Resources Inc	2103	WA	Pend Oreille	Cedar Creek	0	RS	50	N
02/09/03	Springville City of	2031	UT	Utah	Bartholomew Creek	2000	DM PH	50	N
02/09/30	Hart City of	3516	MI	Oceana	Pentwater River	352	DM PH	20	N
02/10/12	GPU Generation Inc	309	PA	Clarion	Clarion River	28800	DM PH	23	Y
02/10/31	Hydro Development Group Inc	6059	NY	St Lawrence	Oswegatchie River	900	DM PH	20	N
02/11/01	Trinity Conservancy Inc	719	WA	Chelan	Phelps Creek	240	DM PH	23	N
02/12/01	New York State Elec & Gas Corp	2835	NY	Clinton	Ausable River	2640	DM PH	20	Y
02/12/31	Hydro Development Group Inc	6058	NY	St Lawrence	Oswegatchie River	1490	DM PH	19	N
03/01/31	Woods Lake Hydro Co	3410	CO	Eagle	Lime Creek	45	DM PH	20	N
03/02/28	Entergy, Arkansas, Inc	271	AR	Hot Springs	Ouachita	65300	DM PH	23	Y
03/02/28	New York State Elec & Gas Corp	2852	NY	Steuben	Mud Creek	2000	DM PH	20	Y
03/03/31	Avondale Mills Inc	5044	GA	Richmond	Augusta Canal	2475	DM PH	20	N
03/04/26	Southern California Edison Co	344	CA	San Bernardino	San Gorgonio River	2250	DM PH	20	Y
03/04/30	Parowan City Corp	2782	UT	Iron	Red Creek	500	DM PH	25	N
03/06/06	Ford Motor Co	362	MN	Ramsey	Mississippi River	17920	DM PH	23	Y
03/06/30	PCA Hydro Inc	2180	WI	Lincoln	Wisconsin River	3000	DM PH	26	Y
03/07/31	Burford Judith A	6418	CO	Eagle	East Brush Creek	11	DM PH	20	N
03/08/24	Minnesota Power & Light Co	346	MN	Morrison	Mississippi River	18000	DM PH	23	Y
03/08/31	Southern California Edison Co	2086	CA	Fresno	Mono Creek	0	RS	50	N
03/09/18	Indiana Michigan Power Co	401	MI	St. Joseph	St Joseph River	1750	DM PH	25	Y
03/09/30	Pacific Gas & Electric Co	2107	CA	Butte	NF Feather River	142830	DM PH	50	N
03/09/30	Charter Township of Ypsilanti	5334	MI	Washtenaw	Huron River	3413	DM PH	20	N
03/10/31	New York Power Authority	2000	NY	St Lawrence	St Lawrence River	912000	DM PH	50	N
03/10/31	Pacific Gas & Electric Co	233	CA	Shasta	Pit River	317000	DM PH	22	Y
03/10/31	Minnesota Power & Light Co	469	MN	Lake	Kawishiwi	4000	DM PH	22	Y
03/12/31	Potomac Edison Co	2516	WV	Berkely	Potomac River	1900	DM PH	27	N
03/12/31	Potomac Edison Co	2517	WV	Berkely	Potomac River	1210	DM PH	27	N

* Includes types of facilities at each project, but not total number of each type (e.g. A project may consist of multiple powerhouses or dams.). DM Dam, RS Reservoir, CL Canal, TU Tunnel, FM Flume, PI Pipeline, PK Penstock, PH Powerhouse, TR Turbine, GN Generator(s), TC Tailrace, TL Transmission Line or connection thereto.

List of Commission Personnel

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Commissioners . . . . . Vicky A. Bailey

William L. Massey

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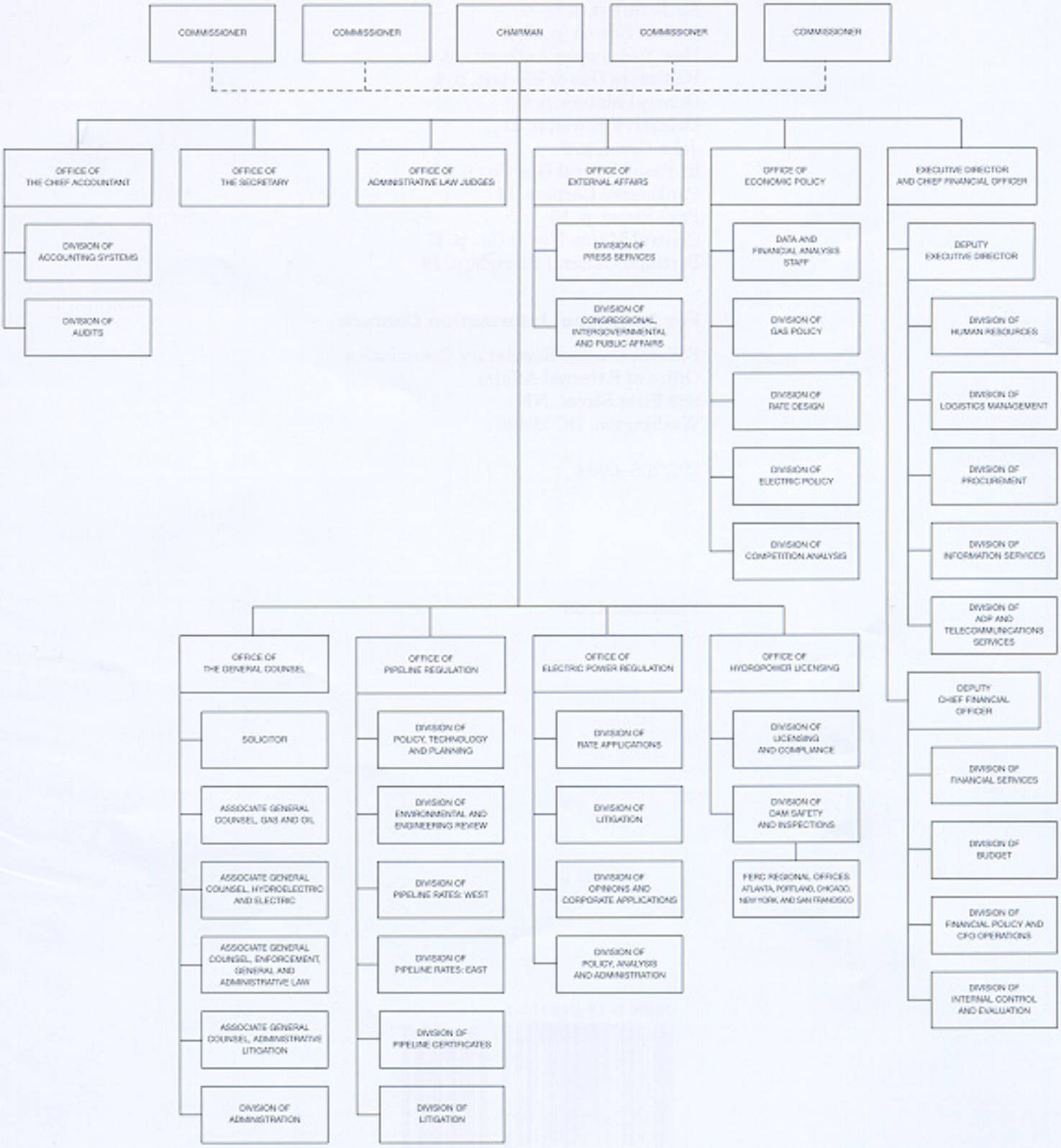
Organization Chart

Federal Energy Regulatory Commission (FERC)



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202/208–0004

Published 1998

ISBN 0-16-049470-2

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