

FEDERAL ENERGY REGULATORY COMMISSION

1998 ANNUAL REPORT



*Front cover photograph: Bald eagle on Idaho Power Company lines.
The company has a program aimed at making the power lines safe
for birds of prey. Photo © Echo Film Productions.*

FEDERAL ENERGY REGULATORY COMMISSION

1 9 9 8 A N N U A L R E P O R T



MEMBERS OF THE FEDERAL ENERGY REGULATORY COMMISSION



Vicky A. Bailey
Commissioner



William L. Massey
Commissioner



James J. Hoecker
Chairman



Linda K. Breathitt
Commissioner



Curt L. Hebert, Jr.
Commissioner



Chairman Hoecker and Commissioners Bailey, Massey, Breathitt and Hebert

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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, 1997, through September 30, 1998.

This is the 78th 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 1998, Congress appropriated \$162.141 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



Top left: Smith Mountain Dam near Roanoke, Virginia. Top right: Standing next to a turbine compressor, two FERC geologists are given a tour of the new Strasburg Compressor Station near Strasburg, Virginia. The Columbia Gas facility can handle up to 2.2 billion cubic feet of natural gas a day. Bottom: Transmission lines in the West.

A YEAR OF CHANGE

THE COMMISSION'S RESPONSIBILITIES

ECONOMIC REGULATION

The Commission is obligated by statute to regulate key economic aspects of the electric, natural gas and oil industries. The law requires the Commission's economic regulatory activity because the transmission of electricity, natural gas, and oil is often a natural monopoly.

ENVIRONMENTAL, SITING, AND SAFETY REGULATION

The Commission is also charged by statute to regulate certain energy projects. This includes siting and environmental aspects of natural gas pipelines and both safety and overall usage of water resources for nonfederal hydroelectric projects. Statutory environmental requirements, along with the public's increasing interest in the environment and participation in Commission proceedings, make this aspect of the Commission's regulation as vital and as difficult as it has ever been.

THE COMMISSION IS DEVELOPING A VARIETY OF NEW WAYS TO DEAL WITH SPECIFIC CHALLENGES IT FACES.

STATUTORY OBLIGATIONS

Energy Markets

In the electric power industry:

- ensure just and reasonable rates for transmission and sales for resale of electric energy in interstate commerce;
- certify exempt wholesale generators and qualifying facilities; and
- review proposals for corporate transactions, mergers, and issuance of securities by electric public utilities.

In the natural gas industry:

- ensure just and reasonable rates for transportation and sales for resale of natural gas in interstate commerce.

In the oil pipeline industry:

- ensure just and reasonable rates for transportation of crude oil and petroleum products by pipeline in interstate commerce.

Energy Projects

In the natural gas industry:

- review proposals for construction and operation of natural gas pipelines; and
- oversee related environmental matters.

In the hydroelectric industry:

- review applications for licenses for nonfederal hydroelectric projects;
- oversee related environmental matters; and
- inspect nonfederal hydropower projects for safety issues.

INDUSTRY CHANGES

The industries the Commission regulates are rapidly changing their structures, operations, and investment strategies. These changes reflect a continuing evolution toward greater competition, an ongoing convergence of gas pipeline and electric power markets, and greater environmental accountability. Other government agencies, industry participants, and the public are becoming increasingly involved in the Commission's activities.

One force behind these changes is support in Congress and successive administrations for expanding competition in the natural gas, oil pipeline, and electric power industries. Also contributing to the changes are the Commission's open access policies, which require owners of electric transmission and gas transportation systems to make their systems available to all competitors. Other changes affecting the Commission's activities include:

- a global trend toward competition in industries that have been traditionally viewed as monopolistic;
- industry innovations, including organizational, technical, and financial improvements developed to deal with the evolving markets; and
- heightened public awareness of environmental concerns, reflected in statutory and regulatory changes that increase environmental, historic preservation, and land use requirements for the administration and relicensing of hydropower projects and the construction of natural gas pipelines.

THE GAS AND ELECTRIC MARKETS ARE CONVERGING, LEADING TO MERGERS AND ALLIANCES ACROSS THE TWO INDUSTRIES.



Industry representatives at a FERC conference considering reliability issues.

MAJOR CHALLENGES

REGULATING ENERGY MARKETS

The challenge facing the Commission is to promote greater commercial freedom while protecting customers and serving and safeguarding the public. Natural gas markets have been competitive for some time. Electric markets are becoming much more competitive in many parts of the country. In both industries, competition to supply the basic commodity has required a new regulatory infrastructure. Without the open access provided under the Commission's Order No. 636 (for natural gas) and Order No. 888 (for electric power), market power over transmission would have reduced competition in commodity markets greatly. Going forward, the continuing evolution of natural gas and electric commodity markets will require further regulatory adaptations to ensure that the basic principles of open access remain intact in a changing world.

MARKET FUNCTIONING

Both gas and electric markets are developing rapidly. In natural gas, flexible short-term markets offer prices that vary rapidly with changes in supply and demand. These spot market prices for gas imply a value for gas transportation that does not depend on the traditional regulated rate. The divergence between value and regulated price of transportation and questions raised about the effectiveness of traditional rate setting as a tool for addressing market power led the Commission to reexamine its approach to regulating short-term gas transportation. As part of this review, the Commission is exploring how it might:

- maximize competition in the short-term transportation market;
- mitigate the ability of firms to exercise residual market power; and
- monitor the market for instances of monopoly power or undue discrimination.

On the electric side, new market institutions are developing rapidly. The Commission is looking at ways to promote competition in regional power markets. It is encouraging pricing and operational innovations in regional market arrangements, including establishing independent Regional Transmission Organizations (RTOs) and Power Exchanges (PXs). The Commission must ensure that competitive market structures continue to deliver just and reasonable rates.

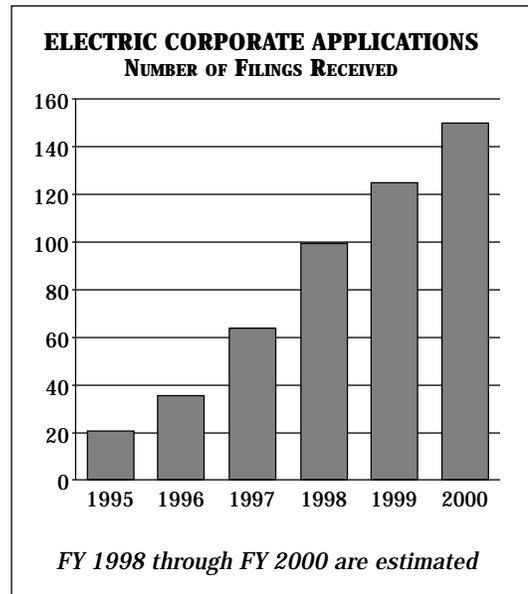
In both natural gas and electric power, improved monitoring will be crucial. Emerging markets involve far more individual transactions than can be easily tracked in a traditional regulatory setting. They are inherently unpredictable, with unforeseen opportunities and associated issues arising as often

as the entrepreneurial zeal of companies can find them. That makes it essential that the Commission monitor gas and electric markets to ensure that competition is working for the benefit of consumers, that market power is being mitigated, and that the Commission can identify any necessary regulatory adaptations. In a related effort, the Commission will explore ways to enhance market transparency so that market participants see their options more easily, can better detect market power abuses, and can use improved complaint processes to report them to the Commission. Thus, the Commission will move away from hands-on, command-and-control regulatory methods to focus more on promoting competitive markets and keeping a vigilant watch on market operations.

INDUSTRY STRUCTURE

By law, the Commission reviews changes in ownership or control of electric facilities subject to the Commission's jurisdiction. This aspect of the Commission's work becomes even more important in an increasingly competitive world. Companies are finding it necessary to repackage their assets by building on their strengths and reducing their vulnerabilities, while the Commission must ensure that changes in ownership patterns do not create market power problems. Both mergers and divestitures have increased since the Commission issued its open-access policies. Competition has led to significant merger activity in many industries, but mergers can create or enhance market power by reducing the number of energy providers. The Commission's challenge is to decide whether particular mergers are in the public interest and then to monitor for overly

EACH HYDROPOWER RELICENSING CASE LEADS TO AN ADDITIONAL, ONGOING MONITORING EFFORT THROUGHOUT THE LIFE OF THE LICENSE.



concentrated markets and exercises of market power by those companies. Many parties are also buying and selling electric generation plants. The transfer of such large assets can raise important market power issues. The gas and electric markets are converging, leading to mergers and alliances across the two industries. These raise novel issues for the Commission. Corporate changes can also lead to regulatory issues in the natural gas industry (when pipelines spin off to affiliates their merchant and gathering functions) and in the hydroelectric industry (when companies seek to spin off generation facilities that the Commission licenses).

ENERGY PROJECTS

The Commission has a basic statutory responsibility for authorizing and monitoring certain energy projects. Its major challenge in carrying out this responsibility is to ensure the licensing and relicensing of sustainable hydropower projects and the construction of natural gas pipeline and storage projects that are economically viable, while protecting the environment.



An Edison Electric Institute official uses a chart to make a point during a FERC conference on the Commission's policies on regional transmission organizations.

A YEAR OF CHANGE

Growing demand in New England, the Mid-Atlantic, and the Midwest will continue to generate more applications for major pipeline extensions and new pipelines. Many industry observers believe that the pipeline grid must support a future industry that supplies up to 30 trillion cubic feet of natural gas nationally per year. As customers have become responsible for their own gas supply acquisition, they have demanded more flexible arrangements. As a result, the Commission expects more applications for storage development and liquefied natural gas facilities to provide peaking capability and supply flexibility. As the national pipeline grid ages, the Commission anticipates a significant number of applications for replacement facilities in the interest of safety.

THE INDUSTRIES THE COMMISSION REGULATES ARE RAPIDLY CHANGING THEIR STRUCTURES, OPERATIONS, AND INVESTMENT STRATEGIES.

New pipelines propose to serve markets already served by existing pipelines. In these cases, the Commission must balance the benefits of competing supplies of natural gas against the

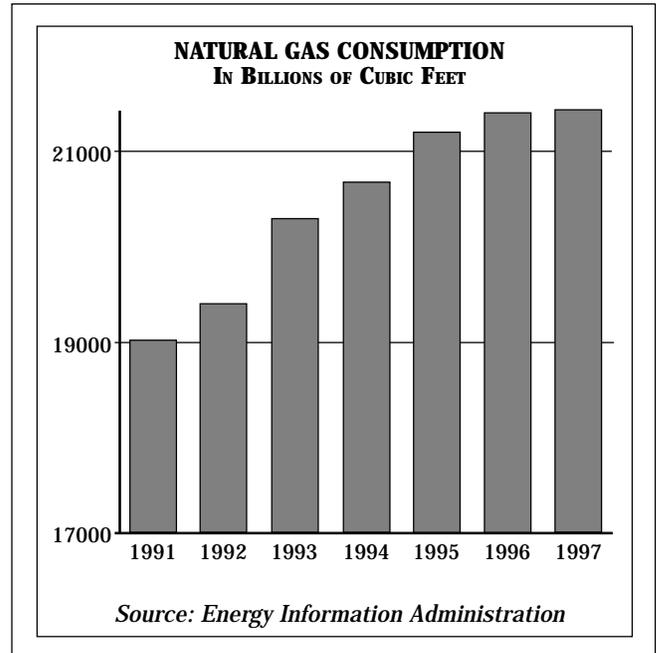
environmental impacts of a project and the potential market impacts of excess capacity. Landowners increasingly question the right of pipelines to use eminent domain when the Commission relies on evidence of market demand to establish need for the project. Thus, determining project need and environmental consequences will be a more complex and contentious process.

Finally, the substance of these and other filings has changed. Few filings are straightforward cases for which past Commission practice and precedent can guide the analysis. The innovative, complex proposals many pipelines are presenting require a fresh look and new analytical techniques; in addition, these filings attract many protests and interventions, further complicating the proceedings.

As electric markets grow, the challenge to the Commission's hydropower program is to ensure that sustainable hydropower remains a part of the nation's energy mix. Projects must be economically vi-



During a regional Relicensing Outreach Meeting in Portland, Maine, a New England Power Company representative addresses FERC officials.



able, responsive to environmental needs, and sensitive to other water use values. Hydropower's low operating costs and flexibility can make it valuable in competitive generation markets. But projects are capital intensive and the measures needed to bring them into environmental and safety compliance can be costly.

Other federal and state agencies are permitted by law to impose mandatory conditions on licenses issued by the Commission. This requires extensive collaboration between the Commission and other agencies. Successfully managing this collaboration is a significant challenge for the Commission's hydropower program.

New environmental issues arise whenever projects licensed decades ago come up for license renewal. Many upcoming relicensing actions will be for large, complex projects that affect important and regional environmental resources such as fisheries, endangered species, and recreational opportunities. The complexity of the cases increases the need for expediting procedures and calls for pre-filing consultation among all the participants.

Licensing decisions, complex as they are, do not end the Commission's responsibilities. Each relicensing case leads to an additional, ongoing monitoring effort throughout the life of the license. Issues arising after licensing can be contentious and decisions difficult. The Commission is conditioning licenses to ensure that water resource development and sensitive resources are protected for the life of the license, which can be up to 50 years. Lines of communication established during licensing and relicensing must continue to function during the term of the license. In addition, the Commission must determine which mitigation measures most effectively protect resources.

IN BOTH NATURAL GAS AND ELECTRIC POWER, IMPROVED MONITORING WILL BE CRUCIAL.

THE COMMISSION'S RESPONSE

RESPONSIBLE REGULATION

In the past, the Commission acted to control monopolies by setting prices and limiting profits. In the future, effective regulation must support the growth of strong, competitive electric and gas markets, even though electric transmission and natural gas pipelines retain market power. All parties need to know that the regulatory system will treat them fairly, will not tolerate abuses of market power, and will not give any player an unfair advantage over others. For some purposes, traditional cost-of-service rate making will still be appropriate. For many other purposes, new methods will be necessary. Both gas pipeline projects and hydropower projects can, without mitigation, significantly affect the environment and other social issues, such as land use and recreation. These issues become more important every year especially for hydropower licenses, which extend over many years even as competitive markets constrain the project resources available to devote to these issues. A major role of the Commission is to lead the various parties to the collaborative resolution of their legitimate, conflicting interests.

A NEW APPROACH TO REGULATION

The Commission is developing a variety of new ways to deal with specific challenges it faces. However, two themes run through most of its new approaches: regional needs and collaboration. This is particularly important for hydropower. The Commission now looks more often at whole river basins in assessing individual projects. The Commission's focus must be increasingly regional, no

longer focusing on individual companies. This is true for both markets and projects in gas and electric power. For energy projects, greater awareness of environmental concerns translates into the need for collaboration between the Commission and all concerned parties—other agencies, proponents, nongovernmental organizations, landowners, Native Americans, and the public. For markets, the Commission must work closely with state public utility commissions, with existing and new market institutions, with standard-setting groups such as the Commercial Practices Working Group and the Gas Industry Standards Board (GISB), and with other key institutions such as the North American Electric Reliability Council (NERC).



In the FERC Commission Meeting Room, representatives from The Southern Company demonstrate, via satellite connection to its facilities in Birmingham, Alabama, their system for scheduling bulk power transmission transactions.



In Portland, Oregon, Chairman James J. Hoecker (far right) comments to panelists during a conference on regional transmission organizations.

NEW WAYS OF DOING BUSINESS

It is a time of enormous change for the energy industry, and the challenges facing the Commission over the next few years are substantial. To meet them, the Commission must change the way it operates or risk being unable to respond appropriately to the changing industries it regulates. During FY '98, the Commission staff undertook a comprehensive look at how it does business today and how it can meet the needs of tomorrow—the FERC First effort. These changes will prepare the Commission for the 21st century, will help meet the challenges of the changing industry, and will represent a response to both the letter and the spirit of the National Performance Review of 1993 and the Government Performance and Results Act of 1993 (GPRA).

FERC FIRST PROCESSES

FERC First began with a full review of the Commission's operations. These included an assessment of the external influences affecting Commission operations, a review of the Commission's basic operations, and interviews and focus groups with staff and constituents. This initial phase of FERC First resulted in a set of seven major initiatives to reshape the Commission's work processes. These initiatives are:

PROMOTING COMPETITIVE MARKETS

A major focus of FERC First is integrating the economic regulation of the gas and electric industries. Considering the convergence of the industries, it makes sense to bring together these aspects of the Commission's responsibilities. An integrated approach will foster regulatory consistency, ease resolution of issues arising from the convergence of the two industries, and maximize the realization of economic benefits. This initiative will include a focused, periodic examination of elements critical to competitive markets and appropriate market monitoring to identify ways to promote and maintain competitive markets and to identify potential market problems. Essential to this approach will be early and continual collaboration

among professional disciplines within the Commission and greater outreach, including increased coordination with market institutions and participants.

AUTHORIZING AND MONITORING ENERGY PROJECTS

Both gas pipeline projects and hydropower projects must adjust to competitive markets, heightened environmental concerns and multiple jurisdictional authorities. The Commission must find the best

THE COMMISSION SEEKS TO PROMOTE EARLY RESOLUTION OF CONTESTED MATTERS AND COMPLAINTS THROUGH EXPANDED USE OF CONSENSUAL DECISION-MAKING, INCLUDING ALTERNATIVE DISPUTE RESOLUTION (ADR).

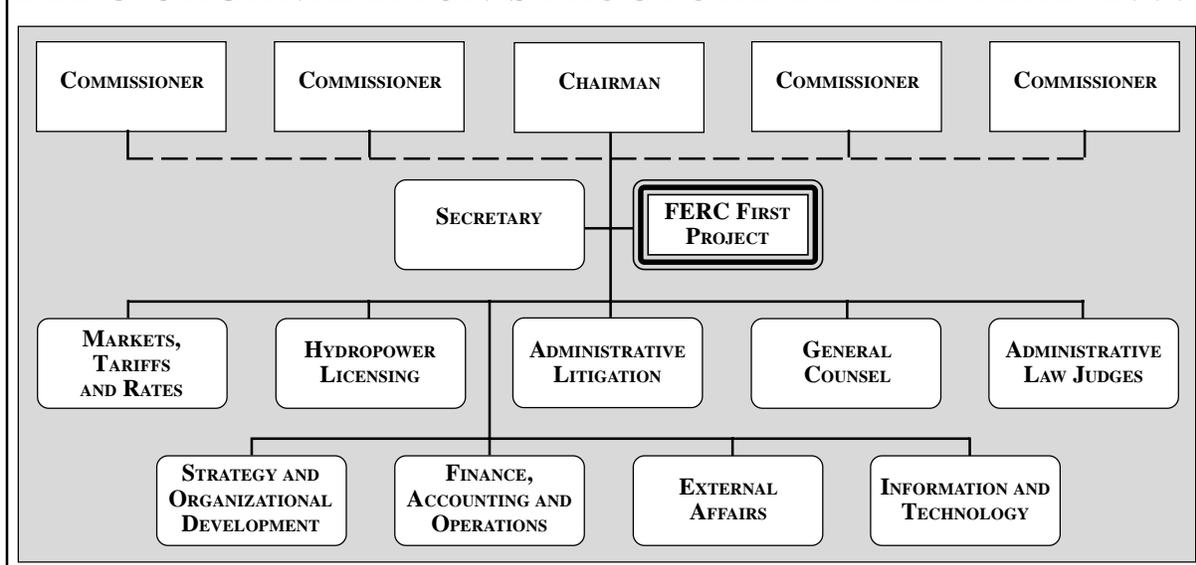
balance among a project's economic viability, its effects on the environment, and its effects on other legitimate claims on the resources. Successful regulation of projects increasingly requires early and continual cooperation with other authorities and all interested parties. A key element of this initiative is the use of

extensive collaboration among the applicant, Commission staff, other agencies, non-governmental organizations, affected landowners, and other interested members of the public. Such collaboration is designed to resolve (as much as possible) issues arising in a proposed gas or hydro facility application. Such collaboration may lead to the development before filing of a complete factual record for a Commission decision.

RESOLVING DISPUTES

The Commission seeks to promote early resolution of contested matters and complaints through expanded use of consensual decision-making, including alternative dispute resolution (ADR). Parties also will have opportunities to participate in pre-filing ADR to resolve or narrow the issues that would otherwise remain contested after a filing.

FERC ORGANIZATION STRUCTURE BY THE YEAR 2000



NEW WAYS OF DOING BUSINESS

BUILDING BRIDGES

FERC First identified the enhancement of two-way communication between the Commission and its constituents as a critical need in the future. Better communication will contribute to Commission decision-making, improve interested parties' understanding of Commission policies and actions, allow for long-term collaboration between staff and outside parties, and establish an external constituent focus throughout the staff. The proactive nature of this initiative is a departure from the past; planning, staff training, and performance measurements will help ensure positive outreach. The Commission proposed to revise its rules governing off-the-record communications between persons outside the Commission and Com-

IT IS A TIME OF ENORMOUS CHANGE FOR THE ENERGY INDUSTRY, AND THE CHALLENGES FACING THE COMMISSION OVER THE NEXT FEW YEARS ARE SUBSTANTIAL.

missioners and other decisional employees. The proposed rule includes measures to enhance the Commission's ability to interact with other regulatory agencies and the public while ensuring the integrity of the Commission's decision-making process. By revising and clarifying the ex-parte rules, the Commission will advance the goal of building bridges to, and enhancing communications with, its constituents.

STRATEGIC PLANNING

The Commission will develop a specific process to do strategic planning and overall performance measurement for the agency. This will take into account the broad spectrum of industry trends in developing Commission goals and objectives. Assessment of industry trends, market needs and constituent wishes will depend on analysis of industry data, guidance from the Chairman and Commissioners, and dialogue with the public and Commission staff. Along with articulating strategic direction, identifying goals, and measuring results, this process will identify necessary funding and staffing levels, Commission skill mixes, and information technology (IT) requirements to realize objectives.

MANAGING INFORMATION TECHNOLOGY

IT is one of two essential enabling tools for all of the Commission's future business. This initiative will set up a largely paper-free environment with electronic filing and posting of documents and automated work flow management. Putting these measures into place will address the need for complete, accurate, and timely information in an increasingly competitive marketplace. Planned major improvements to IT will reduce processing time for workload without statutory deadlines by streamlining and automating processes throughout the Commission.

The web site will serve as the entry point for electronic filing, posting, serving notifications of filings, and providing filings to interested parties. IT will make information available faster through the Commission's web site and will simplify searching for specific information within the large body of data the Commission maintains. Internal staff and external parties will have access to filings within minutes or hours rather than days. A workload processing system to be completed in FY 2000 will be linked to the Commission's Records and Information System (RIMS) and to the electronic filing. Eventually it will also be linked to a data repository, to be constructed in FY 2000 and linked soon after. The data repository will store infor-

mation in a variety of formats and use powerful search tools to find specific information within multiple databases. The Commission's IT will also support the oversight of industry markets by enabling the monitoring of competitive markets engaging in electronic com-

A MAJOR FOCUS OF FERC FIRST IS INTEGRATING THE ECONOMIC REGULATION OF THE GAS AND ELECTRIC INDUSTRIES.

merce. Energy companies use a web of IT and telecommunications systems to share information and coordinate delivery of energy products and to monitor and control energy operations. Together, these systems help define the modern marketplace. Overall, this initiative will strengthen strategic planning, expand access to information, manage priorities, improve communications and operations, allocate resources efficiently, and improve IT skills across the Commission.

DEVELOPING EMPLOYEES

An enhanced human resources (HR) capability is the second essential enabling tool for all of the Commission's future business. The Commission faces two overarching, long-term challenges to its HR systems. First, it must shift a significant part of its work force from traditional forms of regulation to new forms more suited to markets and collaboration with other agencies and parties. Second, it must improve the productivity of all its employees by reducing its traditional reliance on management hierarchies and encouraging greater initiative from all staff members. A key to handling the changing regulatory environment is meeting new staffing requirements. Since the Commission cannot fully foresee all issues before they arise, staff must look at circumstances, consider issues, and find solutions in a rapidly changing environment. The Commission will align its HR and training efforts with its strategic plan and business objectives. It must adopt the processes to attract, retain and develop the highest caliber employees to support those objectives. The Commission also must develop new forms of regulation while still using its traditional approaches. This will require improving management culture.

ADMINISTRATION

OPERATING FUNDS

For fiscal year (FY) 1998 the Commission's budgetary resources totaled \$166.4 million, which combined a new appropriation of \$162.1 million with funding brought forward from prior year balances. Obligations of \$166.2 million were recorded by year-end. The table below provides the breakdown of funding and staffing (full-time equivalents) by program area (\$ in millions):

REVENUE

The Commission collected revenues of \$172.2 million. Of that, \$162.1 million was applied directly to offset the Commission's FY '98 appropriation, reducing it to \$0. The remaining revenue of \$10.1 million was deposited in the U.S. Treasury General Fund. Following is a breakdown of the type of revenue collected:

- annual charges: \$168.6 million (98.49 percent)
- filing fees: \$0.8 million (0.46 percent)
- miscellaneous: \$1.8 million (1.05 percent)

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. Users can request documents via e-mail in addition to faxing and mailing their requests.

	<u>FY 1997 Actual</u>	<u>FY 1998 Actual</u>	<u>% of Change</u>
ELECTRIC POWER			
Funding	\$45.8	\$52.3	+14.2%
Staffing	407	439	+ 7.9%
NATURAL GAS AND OIL PIPELINES			
Funding	\$62.7	\$64.7	+ 3.2%
Staffing	536	514	- 4.1%
HYDROPOWER			
Funding	\$45.4	\$49.2	+ 8.4%
Staffing	<u>392</u>	<u>365</u>	- 6.9%
TOTAL COMMISSION			
Funding	\$153.9	\$166.2	+ 8.0%
Staffing	1,335	1,318	- 1.3%

OFFICE OF THE CHIEF INFORMATION OFFICER

The Commission is committed to meeting the electronic needs of the changing industry. A common, real-time information structure providing timely availability and exchange of information becomes paramount. The Commission must also ensure Year 2000 readiness for its automated systems.

The newly created Office of the Chief Information Officer (OCIO) undertook several projects to advance Commission technology. This technology includes the Commission's internal computer network, hardware and software, electronic data storage, document tracking systems, records maintenance, the Commission's Internet Website, and the public reference room.

During FY '98, the FERC Internet Website was redesigned and greatly expanded to provide Internet access to RIMS. The public can now view documents contained in RIMS, download files, and print them remotely. The Commission Issuance Posting System (CIPS) has also been made available on the Website, along with docket lists and service lists. An internal Intranet for Commission employees which uses Internet technology to make information accessible to staff has also been developed.

An electronic filing initiative was begun, which included a technical conference for the Commission's regulated entities and the public, who were invited to join the Commission in developing technical standards and specifications for filing documents electronically. Software was purchased which will provide an interface for electronic filing, workflow and tracking capabilities. The complete system is known as the FERC Automated Management Information System (FAMIS).

THE COMMISSION LED THE OIL AND GAS WORKING GROUP COMPOSED OF FEDERAL AGENCIES AND INDUSTRY ASSOCIATIONS AND RESEARCH GROUPS.

Along with the electronic filing initiative, business process re-engineering of dockets and registry will be used to develop the infrastructure needed to create a "doorway" for filing documents at the Commission in the future. This "doorway" will be linked to FAMIS, and, when fully implemented, will essentially automate the Commission's paper processes. Implementation of FAMIS will proceed in tandem with business process re-engineering throughout the Commission.

The Commission continued to implement its plan for Year 2000 readiness of its internal systems and systems that interface with the public. As a member of the President's Council on Year 2000 Conversion, the Commission was designated as the lead federal agency for the oil and natural gas sector, while the Department of Energy (DOE) was designated as the lead for the electric sector.

The Commission led the oil and gas working group composed of federal agencies and industry associations and research groups. The working group conducted a baseline survey of Year 2000 readiness across both industries, which will be repeated quarterly to monitor progress in achieving readiness. Results of the initial survey were presented at a conference held at the Commission and posted on a Website created by the working group, which is part of the Council's Website (www.y2k.gov).

During FY '99, the Commission will test, correct, and validate its own systems to ensure Year 2000 readiness. The Commission will continue to lead the Council's oil and gas working group, expanding outreach at the state and international levels, and facilitating exchange of information with other sectors such as electric power, telecommunications, finance, and transportation.

ELECTRIC POWER

OVERVIEW

The long-term goals of the Commission's electric power program flow directly from two key Commission concerns. These are to:

FOSTER THE GROWTH OF EFFICIENT, COMPETITIVE COMMODITY MARKETS

The Commission will continue to regulate transmission to support competition. It must ensure that efficient, reliable, nondiscriminatory transmission access is available for all wholesale electric suppliers and customers. This is the underpinning of future electric competition. The Commission expects that this competitive market will offer consumers more new products and many new suppliers. Additionally, as the electric industry continues this transition to competition, wholesale electricity prices should become more responsive to market conditions by reflecting changing supply and demand conditions more quickly. Wholesale electricity price differences within each trading region should narrow as competitive markets evolve.

PROTECT CUSTOMERS FROM ABUSE OF MARKET POWER

The electric industry has been structured as a set of local franchised monopolies for most of its history. As a result, in many parts of the country significant concentrations of generation are in the hands of one or a few local companies. The Commission must monitor and assess whether utilities can exercise generation market power that could adversely affect wholesale electric prices in the relevant product and geographic markets. The Commission must respond quickly and appropriately to market power issues in the context of market-based pricing and in reviewing the effects of mergers on competition. Market participants must have confidence that electric markets are working fairly and that they will not be subject to the abuse of market power.

THE PROPOSED STREAMLINED MERGER REGULATIONS SHOULD LESSEN THE REGULATORY BURDEN ON MERGER APPLICANTS, WHILE SAFEGUARDING THE PUBLIC INTEREST.

ACHIEVEMENTS

APPROVAL OF MAJOR RESTRUCTURING INITIATIVES

FY '98 marked the approval of a number of significant state and power pool restructuring plans, which should ultimately lower electric rates to consumers by greatly increasing their access to lower cost power. Five of the restructurings included the creation of Independent System Operators (ISOs), which will operate, independent of the asset owners, the transmission systems of a number of regional electric utilities. In response to a state-mandated retail access initiative in California, the three investor-owned electric utilities in that state made a series of filings to comprehensively restructur-



Work on a 500KV transmission line.

ture the way companies buy and sell electricity in California. The California ISO and PX were able to successfully begin operations in April 1998 as a consequence of the Commission's timely responses to the numerous filings submitted by the parties. In April, the Commission approved two other ISO proposals. In the first, the Pennsylvania-New Jersey-Maryland Interconnection (PJM), a tight power pool, established an ISO to provide open access transmission service on a pool-wide basis. In the second, the Commission approved a major restructuring of the New England Power Pool (NEPOOL), a major northeast power pool which consists of more than 130 separate entities. In June 1998, the Commission authorized the New York ISO, which will assume the functions of the New York Power Pool, and in September 1998, the Commission approved the creation of the Midwest ISO, which covers parts of 13 states.

ORDER NOS. 888 AND 889

The Commission is well into the implementation stage for Order Nos. 888 and 889. These orders require all public utilities that own, control or operate facilities used for transmission of electric energy in interstate commerce to: have on file open-access, nondiscriminatory transmission tariffs; create or participate in the Open Access Same-Time Information System (OASIS) that will allow customers to obtain critical transmission-related information; and implement standards of conduct that ensure the functional separation of the transmission and wholesale merchant functions within each public utility. The Commission made great strides during FY 1998 towards establishing fully comparable open access transmission for all transmission owners under its jurisdiction; it issued two clarifications of Order No. 888 and one for Order No. 889, and refined OASIS requirements in three separate orders. Among other things, the OASIS orders granted an industry request for a four-month experiment that allows for the development of a next-hour market in transmission services. The Commission also ordered a Texas utility to provide open access transmission for power sales to Mexico. The Commission held a public conference to examine the future of ISOs and also held seven regional conferences on ISOs.

tory transmission tariffs; create or participate in the Open Access Same-Time Information System (OASIS) that will allow customers to obtain critical transmission-related information; and implement standards of conduct that ensure the functional separation of the transmission and wholesale merchant functions within each public utility. The Commission made great strides during FY 1998 towards establishing fully comparable open access transmission for all transmission owners under its jurisdiction; it issued two clarifications of Order No. 888 and one for Order No. 889, and refined OASIS requirements in three separate orders. Among other things, the OASIS orders granted an industry request for a four-month experiment that allows for the development of a next-hour market in transmission services. The Commission also ordered a Texas utility to provide open access transmission for power sales to Mexico. The Commission held a public conference to examine the future of ISOs and also held seven regional conferences on ISOs.

THE COMMISSION WILL FOSTER THE GROWTH OF EFFICIENT, COMPETITIVE COMMODITY MARKETS AND, PROTECT CUSTOMERS FROM ABUSE OF MARKET POWER.

PROPOSED STREAMLINED MERGER REGULATIONS

In December 1996, the Commission issued its Merger Policy Statement which revised the factors the Commission considers in determining whether a proposed merger is consistent with the public interest. In April 1998, the Commission took further steps to lessen the regulatory burden on public utilities seeking to merge with other companies by issuing proposed streamlined merger regulations designed to continue the protection of the public interest.

RELIABILITY

The Commission held a public conference on reliability to discuss the process it may follow, in the absence of federal legislation on reliability issues, for evaluating the effect of reliability standards on jurisdictional electric transmission service.

MANY TRADITIONAL ELECTRIC UTILITIES ARE AUCTIONING OFF THEIR GENERATION ASSETS IN ORDER TO REPOSITION THEMSELVES STRATEGICALLY OR TO COMPLY WITH STATE-MANDATED RETAIL ACCESS PROGRAMS.

MIDWEST PRICES

A staff report examined the price increases in wholesale electric markets that occurred in the Midwest. They constituted an extraordinarily high but rather narrow and short-lived increase in wholesale spot market prices. The report concluded that several factors caused the increase. Among them: an above-average amount of generating capacity unavailable due to planned and unplanned outages, including weather-related damage; unseasonably hot temperatures that were higher than forecast; transmission constraints; market information systems that did not communicate clear, current and reliable short-term price signals; defaults on power sales contracts that temporarily lowered market confidence and led parties to seek more short-term supplies than usual; and simple inexperience in dealing with such conditions in markets that are becoming more competitive. The report identified areas to focus on to prevent a recurrence.

LOOKING AHEAD

The Commission is refocusing its electric regulatory efforts by shifting from setting cost-based rates for wholesale power suppliers to allowing market forces to set prices wherever possible. However, to safeguard workable competition in wholesale power markets, the Commission must ensure open, nondiscriminatory access to transmission facilities, and must monitor the market to detect instances of market abuse or failure.

The issuance of Order Nos. 888 and 889 and orders on rehearing were merely the beginning of electric utility restructuring. Much remains to be done:

- helping design and work with new industry institutions such as RTOs;
- developing new regulatory strategies to match the needs of these institutions and the evolving market;
- addressing remaining market power in transmission; and
- consulting with state regulators and other government agencies as traditional jurisdictional lines blur.

REGIONAL TRANSMISSION ORGANIZATIONS

The Commission supports the creation of RTOs to help implement industry reform. RTOs are being explored because of their potential to remedy undue discrimination, to consider regional approaches to transmission pricing, and to improve grid reliability. The concept underlying one type of RTO, an ISO, is that the existing owners of transmission facilities would turn over operational control, but not ownership, of these facilities to a new independent entity. The ISO concept represents a major evolution in industry structure and is a central element in many state and regional restructuring initiatives. However, there are other ways to separate generation and transmission interests, such as transcos, separate transmission companies that are affiliated with the transmission owner.

THE ISSUANCE OF ORDER NOS. 888 AND 889 WAS ONLY THE BEGINNING. DURING FY 1999 AND FY 2000, MUCH REMAINS TO BE DONE TO FURTHER THE TRANSITION TO A COMPETITIVE INDUSTRY.

The move to RTOs is just beginning, and the Commission has had a chance to review and approve only a few proposals. When fully implemented, the Commission believes that these new institutions can resolve many issues that would otherwise consume the Commission's scarce resources.

In Order No. 888, the Commission provided guidance to the industry on how to structure ISOs to make them work in a nondiscriminatory manner. The Commission wishes to examine whether any changes to its policies that affect the development of RTOs (including improving the OASIS system and reforming transmission pricing)

are appropriate for promoting competition and reliability in bulk power markets. The Commission is committed to ensuring that RTOs are truly independent and can operate the transmission system in a reliable, open, and nondiscriminatory manner.

STATE RESTRUCTURING INITIATIVES

State restructuring efforts will continue to move the industry toward more competition and retail customer choice of electric power suppliers. Most states are actively involved in investigating whether and how to restructure their retail electric power markets. The Commission must ensure that wholesale power sellers that are public utilities cannot exercise market power. Where divestiture of ownership or control of transmission assets is proposed, the Commission also must approve the disposition of transmission assets if such action is consistent with the public interest. Some of these proposals may involve innovative transmission pricing proposals. The Commission has already adjusted, and will further adjust, its policies and procedures to fit the special and regional characteristics of these new institutional structures.



High voltage tower work.

ELECTRIC POWER

UTILITY RESTRUCTURING

The open-access rule and the restructuring activities by many state commissions are leading many utilities to restructure their corporate organizations in some manner. FY 1998 saw a dramatic increase in the number of traditional electric utilities that auctioned their generation plants as a first step toward state-mandated direct retail access. These state programs will allow the retail customer to select its power supplier and have the electricity delivered by the transmission/local distribution utility, much as retail telephone customers can now select their own long distance provider. Electric utilities also may choose to reorganize their corporate structures for a variety of other reasons, including strategic alliances with other utilities, or diversification. Such restructuring often involves a disposition of facilities under the Federal Power Act (FPA) that requires the Commission's authorization.

AS THE INDUSTRY CHANGES TO A MORE COMPETITIVE MARKET, THE COMMISSION IS SHIFTING FROM ITS RELIANCE ON TRADITIONAL COST-BASED REGULATION. HOWEVER, IT MUST STILL ENSURE THAT MARKET POWER IS NOT EXERCISED.

The Commission continues to see a significant increase in the number and types of corporate reorganizations being proposed. For example, the Commission is receiving a number of proposals for "convergence mergers"—that is, electric utilities merging with natural gas distributors and pipelines. Convergence mergers raise many new and difficult vertical market power issues. Finally, we expect that the transformation to competitive markets may also cause utilities to create separate transmission, generation, and distribution entities

to replace the existing vertically integrated corporate structure. Reorganizations along functional business lines, in turn, may include further consolidations in each functional area with new regional organizations. Several companies have said they will form transcos in FY '99.

AS THE NEWLY OPENED TRANSMISSION SYSTEM IS PUT TO THE TEST IN SUPPORTING A COMPETITIVE MARKET FOR GENERATION, IT IS VITALLY IMPORTANT TO MAINTAIN THE RELIABILITY OF THE ELECTRIC POWER SYSTEM.

STRANDED COSTS

Some utility investment could go unrecovered if departing customers use their former suppliers' transmission systems to secure power elsewhere; these unrecovered investments are termed stranded costs. The opportunity to recover legitimate, prudent, and verifiable stranded costs is essential to ensure a fair and orderly transition to a market-oriented electricity industry. The Commission clarified its position on recovery of stranded costs in the case of municipalizations and municipal annexations, where customers previously served by a public utility become customers of a municipal utility instead. In the near term, the recovery of stranded costs is likely to play a significant role as the industry is restructured.

RELIABILITY

System reliability is critical to the success of a competitive electric industry. Currently, there is no clear federal authority to establish reliability standards for the bulk power transmission grid or to enforce such standards. Historically, regulators and industry participants have relied upon voluntary industry organizations such as NERC and its regional reliability councils to establish reliability rules and standards to maintain the security of the grid. However, compliance with those standards has been neither mandatory nor applicable to all market participants. As the electricity market becomes highly competitive, the number of market participants and the volume of transactions that affect the operational demands on the system are expanding. Reliability standards should be mandatory and enforced to protect the integrity of the bulk power system.



Traders watch their computer screens at The Energy Authority, a public power marketing alliance based in Jacksonville, Florida.

ELECTRIC POWER



In Folsom, California, a security coordinator monitors reliability within the Western Systems Coordinating Council region.



A bald eagle uses an Idaho Power-designed nesting platform atop a 100-plus-foot transmission tower. The nesting structure is intended to protect both the birds and the lines.

NATURAL GAS AND OIL PIPELINES

OVERVIEW

The natural gas industry is no longer a heavily regulated industry, with the Commission authorizing all aspects of gas sales and transmission. Now competition governs commodity markets, and market forces play an important role in the Commission's regulation of the transportation of natural gas. The Commission intends to match pipeline regulation to market realities.

With Order Nos. 436 and 636, the Commission guided the natural gas industry through major transitions, completing the open access transition, ending pipeline bundled merchant services, and installing stand-alone transportation services. The past decade saw a number of further competitive advances, including:

- introduction of competition to the sale of natural gas;
- transfer to the states of oversight responsibility for most gathering facilities owned by interstate pipelines;
- establishing a presumption of non-jurisdictional gathering for gas pipelines in deep water on the Outer Continental Shelf (OCS);
- 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 pipeline industry.

*THE COMMISSION
INTENDS TO MATCH
PIPELINE REGULATION TO
MARKET REALITIES.*

ACHIEVEMENTS

STANDARDIZATION

The Commission and the natural gas industry recognize that making it easier to conduct business across the interstate natural gas pipeline grid through standardization of business practices is an ongoing process. In FY '98, the Commission adopted new GISB standards. In addition, the Commission adopted regulations governing intra-day capacity availability, emergency operating procedures, and standardization of communications over the Internet. The Commission required pipelines to conduct all business transactions over the public Internet by June 1, 2000, to increase openness and avoid discrimination.

CERTIFICATION OF NEW CONSTRUCTION

Natural gas is an affordable, clean, domestically produced energy source. 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 '98, the Commission issued certificates for many important new projects. These new projects

CERTIFICATE PROPOSED RULES WOULD:

- *STREAMLINE CERTIFICATE PROCESS*
- *EXPAND BLANKET CERTIFICATE FACILITIES*
- *RE-EXAMINE DETERMINATION OF NEED FOR NEW CONSTRUCTION*
- *EXPLORE PRICING POLICIES FOR LONG-TERM CAPACITY*
- *ESTABLISH PRE-FILING COLLABORATIVE PROCESS*
- *ADDRESS LANDOWNER NOTIFICATION ISSUES*

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, OCS supplies, and the growing market for natural gas in the Northeast. In total, the Commission certificated approximately 2,160 miles of new pipe with a capacity of 6.96 Bcf per day of capacity.

PIPELINE CERTIFICATES

The Commission proposed to streamline its pipeline certificate regulations to better fit today's less regulated environment of unbundled pipeline sales and open access transportation.

Among other things, a proposed rule would:

- expand the scope of blanket certificates to allow pipelines to construct, operate, rearrange, replace or abandon more facilities than are currently covered;
- change FERC regulations to facilitate construction of receipt points;
- allow pipelines to construct and operate temporary compression stations under a blanket certificate; and
- require that prior notice applications be noticed within 10 days of an application filing and delegate to FERC's Director of the Office of Pipeline Regulation authority to dismiss protests that do not raise substantive issues or fail to provide any specific detailed reasons for objection.

The proposed rule would also codify less cumbersome environmental filing requirements and procedures which, while not part of existing regulations, are commonly used in filings to the Commission by jurisdictional entities.

COLLABORATIVE PROCESS

The Commission offered pipelines the option of engaging in a voluntary collaborative process with the public and Commission staff prior to filing a pipeline certificate application.

The goals are to improve communication, expand public participation, and resolve potential conflicts earlier in the process. Under this option, applicants would notify the Commission and the general public, including landowners and state and local government officials, of their intention to initiate pre-filing consultation.

In addition to resolving disputes, the approach gives the applicant the option of working with Commission staff and other interested parties to complete environmental studies in advance of formal filing of an application.

The voluntary collaborative process is comparable to the voluntary procedures adopted by the Commission in October 1997 for hydroelectric licenses. That process is currently being used by 20 hydroelectric applicants involving 32 projects. It had been used informally in hydroelectric proceedings for several years prior to the Commission's rule that codified the procedure and is widely credited with reducing Commission review time. The Commission invited comments on the value of making this process mandatory.

LANDOWNER NOTIFICATION

Responding to increasing landowner concerns, the Commission announced a technical conference to explore current requirements regarding landowner notification when a pipeline files for permission to construct.

NATURAL GAS AND OIL PIPELINES

In the interim, the Commission sought public comment on whether companies should notify landowners prior to filing an application with the Commission. For minor projects that do not call for a full Commission review, the Commission sought comment on whether companies should be required to notify affected landowners within a reasonable time prior to construction.

The Commission also sought comment on the use of working groups or negotiated rulemaking procedures to help develop proposals for improving its regulations on this issue.

MAJOR PROJECTS

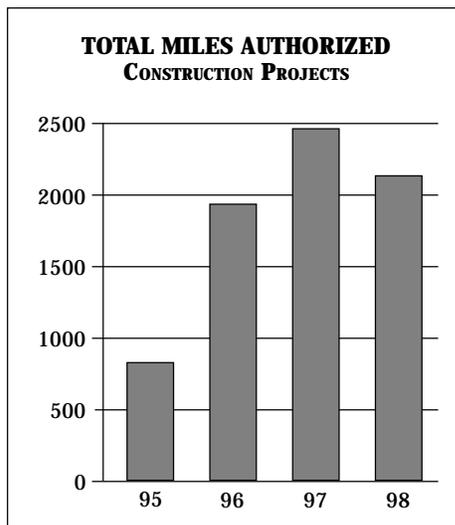
The Commission authorized a number of major pipelines proposed by: (1) KN Wattenberg Transmission Limited Liability Company; (2) Maritimes and Northeast Pipeline, L.L.C. for markets in the Northeast; and (3) Alliance Pipeline, L.L.C. for transportation of supplies into the Chicago area which would then be transported by others to other markets. System expansions for PG&E GT Northwest Pipeline, Southern Natural Gas Company, Great Lakes Transmission Limited Partnership, Destin Pipeline Company L.L.C., and Dauphin Island Gathering Partners were also certificated. The Commission issued certificates for several major storage projects proposed by NE Hub Partners, L.P., Egan Hub Partners, L.P., Young Gas Storage, and Puget Sound Energy. In addition, the Commission authorized proposals to construct new liquefied natural gas (LNG) facilities for Granite State Gas Transmission, Inc. and to operate existing LNG facilities for Hopkinton LNG and Total Peaking Services. To ensure compliance with environmental regulations, the Commission monitored pipeline construction and right-of-way restoration activities on 383 on-site compliance visits.

OFFSHORE FACILITIES

To ensure that its policies neither impede nor distort development, the Commission established a presumption that new pipeline facilities that collect gas produced from wells in depths of 200 meters or more qualify as nonjurisdictional gathering facilities up to the point where they may interconnect with the interstate pipeline grid. From that point, the Commission will use its "primary function" test to determine whether the facilities are jurisdictional transmission under Section 7 of the Natural Gas Act (NGA). After this policy statement, the Commission acted on 18 pipeline applications or requests for declaratory order on jurisdiction for facilities to develop offshore supplies in the Gulf of Mexico. The Commission subsequently issued a Notice of Inquiry (NOI) to elicit further industry comment on which statutory authority, the NGA or the Outer Continental Shelf Lands Act, applies to the Commission's regulation of transportation from the offshore platforms to the mainland and how the Commission should exercise that authority.

FINANCIAL CONFERENCE

As a part of its gas industry review, the Commission held a conference on the financial outlook of the natural gas pipeline industry. The purpose of the conference was to improve its understanding of the regu-



lated natural gas pipelines' current financial circumstances and to gain perspective on whether it appropriately recognizes the industry's financial condition in a newly competitive environment. The Commission also explored its rate of return methods and its overall ratemaking policies. The conference and comments formed the basis for a new Commission policy on rate of return and capital structure initiated in FY '98.

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. After convening a public conference and is-

ssuing a NOPR, the Commission facilitated settlement negotiations which resulted in a long-term funding agreement for GRI. The Commission approved the settlement which provides a transition to voluntary funding by year-end 2004 and gives GRI time to plan for the continuation of needed research when voluntary funding takes effect.

FOCUS ON THE COMPLAINT PROCESS

In this era of light-handed regulation, the Commission will rely increasingly on monitoring and oversight to ensure that markets work fairly and efficiently. Because market participants are in a position to alert the Commission to abuses of market power, the efficient resolution of complaints is a critical piece of the Commission's oversight function. After reviewing public comment on two petitions on procedural reforms to its complaint process, the Commission held a conference to provide a public forum for the parties to share their views. The comments and the conference, along with recommendations generated by the Commission's FERC First effort, led the Com-



Sierra Pacific Power's Pinon Pine clean-burning "gas from coal" facility.

NATURAL GAS AND OIL PIPELINES

mission to propose changes to its complaint procedures. The Commission then issued a NOPR proposing revised procedures that will ensure fair, timely resolution of complaint filings.

LOOKING AHEAD

In July, the Commission issued a Notice of Proposed Rulemaking (NOPR) on the Regulation of Short-term Natural Gas Transportation Services and a companion NOI on long-term transportation. The former proposed a more market-based approach to regulation of short-term transportation; the latter poses a number of questions about the long-term transportation market. The NOPR proposes to eliminate the price cap on all transactions of one year or less. It concludes that price caps are inefficient and do not protect shippers from the exercise of market power. The price for short-term transportation would be disciplined purely by the market. To mitigate market power and to create transaction transparency, the NOPR proposes a daily auction of capacity. All short-term capacity would be auctioned, and the auction results posted. A series of technical workshops on auction design was planned. The NOPR also proposes that pipelines be able to negotiate terms and conditions of service with their customers. It seeks to protect shippers by requiring that a recourse tariff be available to all shippers who do not wish to negotiate. The NOPR also requested comments on possible changes to pipeline certificate policies to ensure that needed construction will occur, without overbuilding. The changes include reviewing the test used to determine the need for construction of new capacity and revising the Commission's pricing policy for new capacity. The NOI requests comments on a variety of long-term transportation issues in light of market changes and the regulatory changes proposed in the NOPR. It seeks comments on whether the Commission should modify its long-term market pricing policies by moving away from traditional cost-of-service ratemaking or by modifying the current ratemaking methods. Adapting regulation to the competitive changes in the pipeline market is a necessary but difficult task that promises important additional efficiency benefits to the consumer. The Commission proposes to follow 'the three M's'--maximize competition in short-term markets, mitigate residual market power, and monitor for abuses of market power.

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. The Commission will continue to work with GISB to standardize business practices to ensure efficient operation of the national pipeline grid. As a result of actions taken by the Commission in FY '98, pipelines will be working to standardize communications over the public Internet and, by June 1, 2000, to conduct all business transactions over the public Internet.

THE PROPOSED RULE WOULD:

- *MAXIMIZE SHORT-TERM COMPETITION*
- *MITIGATE RESIDUAL MARKET POWER*
- *MONITOR FOR ABUSE OF MARKET POWER*

Removing barriers to efficient short-term transportation markets is also important for improving the performance of commodity markets. The Commission will be addressing industry comments on its proposal to make different forms of capacity, i.e. that provided by pipelines as well as that released by pipeline customers, more tradable. The Commission's proposals to ensure comparable requirements for all forms of capacity will foster efficient and competitive markets.

As competitive markets mature, customers will have more new transportation service products and a reasonable range of suppliers from which to choose. The Commission has accepted a growing number of innovative pipeline proposals to provide flexible services, such as park and loan services, to meet the varying needs of diverse customers. The Commission will address the industry comments on its proposals to allow more flexibility in the form of negotiated terms and conditions of service.

The Commission will protect customers from excessive transportation rates and undue service discrimination. The Commission will



Near Lost River, West Virginia, two FERC geologists, left, along with Columbia Gas personnel, walk a three-mile section of a natural gas pipeline right-of-way during a FERC environmental compliance inspection.

NATURAL GAS AND OIL PIPELINES

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. In its proposed rulemaking, the Commission proposes to adopt a new regulatory approach to the short-term market. The Commission will be addressing industry comments on its proposals to eliminate maximum rate regulation and to rely instead on maximizing competition, mitigating residual market power, and monitoring for abuse of market power.

Relinquishment of excess or unneeded capacity will be an important issue. As competitive alternatives expand and state programs instituting retail unbundling become reality, distribution companies are less likely to require their historical levels of pipeline firm transportation. Many are deciding to “turn back” their long-term commitments to pipeline capacity.

Significant amounts of capacity, something like 50 percent, will be up for renegotiation under contracts that expire in the next five 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. The Commission will examine industry response to its request for comments on the issue of capacity turnback along with other long-term market issues.

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*

Adequate capacity and reliable, flexible service in the interstate transportation systems will be crucial. The Commission will continue to 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. The Commission’s certificate program will strive to ensure that new pipeline capacity is available to serve the market when needed, without overbuilding. The Commission will address industry response to its proposals to re-examine the way it determines the need for a project, to streamline the certificate process, and to balance the interests of the gas market, project sponsors, landowners, and the environment.

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.



Natural gas pipeline construction.

Environmental considerations will continue to be vital in reviewing new construction proposals. The Commission will ensure the thoroughness of its environmental 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 also address industry comments to its proposal to establish a pre-filing collaborative process which would help resolve protests and address concerns before an application is filed.

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.

The Commission will evaluate the effectiveness of various environmental mitigation techniques implemented under Commission orders to help find the most cost-effective mitigation strategies. The Commission will address industry comments on its proposals to streamline and update its certificate regulations and to codify existing environmental filing requirements.

HYDROELECTRIC POWER

OVERVIEW

Hydropower generation represents 98 percent of the country's 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.

THE COMMISSION IS ACTIVELY PURSUING ALTERNATIVE LICENSING/RELICENSING PROCEDURES TO REDUCE SIGNIFICANTLY THE POST-FILING ENVIRONMENTAL REVIEW PROCESS.

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.

ACHIEVEMENTS

COLLABORATIVE PROCESSES

The Commission issued the final rule on alternative licensing/relicensing procedures that offers applicants and stakeholders the flexibility to prepare better license applications that the Commission can then 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. The Commission continued actively assisting applicants who used the non-traditional, applicant-prepared environmental assessment (APEA) or third-party contract process, authorized under EPCA. 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.

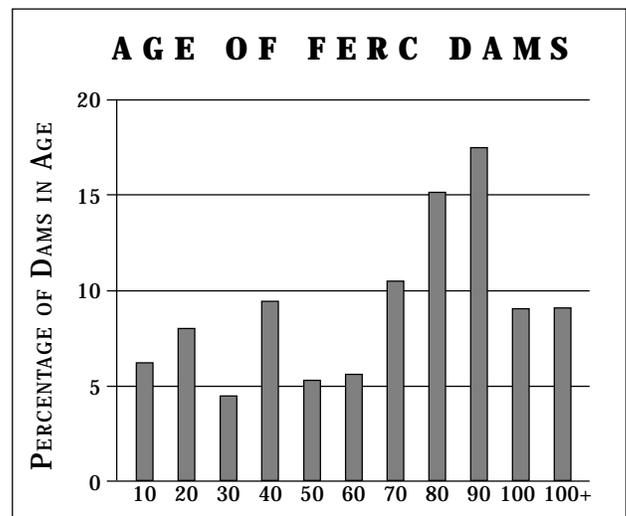
The Commission issued licenses for four projects that used an APEA. The time for processing the applications for these projects ranged from 11 to 18 months, with three taking one year or less. The Commission continued to foster APEAs involving 43 projects.

Licenses for two of the above projects, the Riley-Jay-Livermore and Otis Projects on the Androscoggin River in Maine, were issued in September 1998. In September 1994, International Paper and Otis Hydroelectric Company decided to use a collaborative process for relicensing the two projects. The applicants formed a collaborative team consisting of Federal, state, and NGOs. Beginning in September 1994, the members of the collaborative team met regularly, with Commission staff supplying general guidance and support, to address resource concerns and develop an enhancement package that protected and enhanced the natural and human environment. The outcome of the process was a single APEA filed with both applications for license. The proposed action in the APEA represented an agreement among collaborative team members on operational and environmental enhancement measures needed at both projects.

Although the Commission staff invested substantial time and effort on these projects during the pre-filing stage, the savings in processing time and efficiency became evident after the applications were filed with the Commission. It took less than one year for the Commission staff to process the applications and issue new license orders. Furthermore, no rehearing requests were filed.

CLASS OF 1993 RELICENSES

The Commission has completed action on 141 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.



HYDROELECTRIC POWER

Resources ranging from fish and wildlife to water quality and 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. Money was 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.

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.

Additionally, 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.

In November 1997, the Commission, for the first time, ordered the removal of a hydroelectric dam that the owner had asked to continue to operate under a new license. The decision will restore salmon, shad, the endangered shortnose sturgeon and other species of fish to at least 15 miles of Maine's Kennebec River. In ordering

the removal of the 160-year-old Edwards dam, the Commission cited compelling environmental and other considerations. Its actions were supported by all state and federal authorities with an interest in the project and conservationists. A settlement agreement, which was filed by parties involved in the relicensing proceeding and approved by the Commission, provides a detailed plan for removal of the dam.

COMPLIANCE

The Commission assures environmental protection and protects other uses of water resources through the conditions it places on licenses. Recently issued licenses contain a myriad of environmental protection and enhancement measures. During FY 1998, the Commission approved more than 1,150 of these measures, including wetland development plans, fishway construction, recreational development, and improvements to water quality. 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 1998, the Commission resolved over 300 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. With increased frequency, more compliance problems are being addressed through site visits and meetings with the hydropower developer and local resource interests. The objective of this approach is to bring about local, project-specific solutions.

*DURING FLOODS IN 1998,
THERE WERE NO ADVERSE
IMPACTS TO LIFE OR PROPERTY
RESULTING FROM THE
OPERATION OF THE PROJECTS
UNDER FERC JURISDICTION.*

*THE COMMISSION IS AN
ACTIVE AND LEADING
MEMBER OF THE NATION'S
DAM SAFETY COMMUNITY.*



Above: Aerial view, looking upstream, of the Conowingo Dam on the Susquehanna River in northern Maryland.

Left: A fisheries biologist and a biotechnologist count shad as they pass the window in the counting room of a fish lift at the Conowingo Dam.

HYDROELECTRIC POWER

RECREATION

During FY '98, the Commission received the Licensed Hydropower Development Recreation Reports (Form 80) filed by licensees every six years. The data from Form 80 are important because they give the Commission a periodic information base on recreational facilities at licensed projects. Ultimately these data will permit the Commission to evaluate visitation levels and facility capacity at individual hydropower projects and to determine whether existing recreational facilities are accommodating the needs of the public and whether facilities should be expanded.

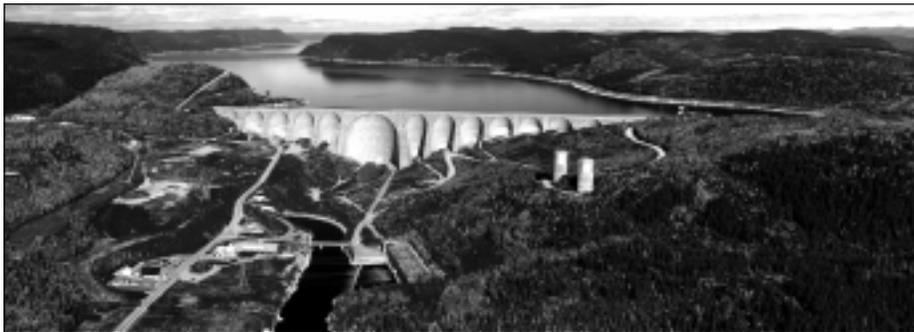
*USING ALTERNATIVE RELICENSING METHODS
WILL HELP THE COMMISSION DEAL EFFECTIVELY
WITH THE NEXT ROUND OF RELICENSE
APPLICATIONS SCHEDULED FOR FILING.*

Under Executive Order 12962, signed on June 7, 1995, Federal agencies were directed to undertake activities to improve recreational fishing opportunities nationwide. In response, the Commission issued the Federal Energy Regulatory Commission Recreational Fisheries Implementation Plan on April 3, 1998. The plan identifies various strategies that the Commission will undertake to enhance fishing opportunities at over 600 licensed hydropower facilities.

*EVEN AS HYDROPOWER REMAINS AN IMPORTANT NATIONAL
RESOURCE, IT IS ADJUSTING TO A COMPETITIVE ELECTRIC
MARKET, AN ERA OF HEIGHTENED ENVIRONMENTAL CONCERNS,
AND A DECISION-MAKING PROCESS OF SHARED AUTHORITIES.*

LICENSING WORKSHOP

Commission staff, in cooperation with several other Federal agencies, developed a hydropower licensing workshop. A pilot workshop was held in June 1998. The workshop is designed to inform staff from state and Federal agencies, local and Native American governments, and NGOs, as well as members of the hydropower development community about the licensing process. The ultimate goal is to improve the efficiency of the licensing process.



A Hydro-Quebec facility, the Daniel-Johnson dam is the largest arch-and-buttress dam in the world. Since 1997, Hydro-Quebec's U.S. affiliate has been able to sell wholesale electric power at market rates.

\$7.6 MILLION RETURNED

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 on 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 \$268 million to the Treasury since the program began. In fiscal year 1998, the Commission collected approximately \$7.6 million.

DAM SAFETY

In FY 1998, Commission staff conducted about 2,900 dam safety and environmental and public use inspections and over 600 dam safety engineering evaluations. The Commission oversaw \$35.2 million worth of dam safety remediation work and \$103.8 million of new capacity project construction. It also developed additional technical guidance and expanded its engineering guidelines in two areas—instrumentation and monitoring, and emergency action plan and testing.

The unusually strong El Nino weather pattern in 1998 directed a steady series of heavy and prolonged storms with substantial rainfall into the Southeastern United States. Commission projects, under record flooding in several river basins, safely passed all flows. Licensees also assisted in flood warning notifications, in coordination with emergency management agencies, to populated areas downstream of the projects.

The Commission, along with the U.S. Army Corps of Engineers, Bureau of Reclamation, Tennessee Valley Authority, and DOE, formed the Interagency Forum on Infrastructure Protection of Hydroelectric Facilities to protect major water-retaining structures from sabotage. The forum is focusing on promoting information exchange on security issues, improving interagency communication on threat reporting, and mobilizing private sector and government cooperation in resolving security related issues.

Other important activities during FY 1998 included: review of spillway gate design and additional gate inspections to prevent failures, such as the Bureau of Reclamation's Folsom Dam tainter gate in 1995; development of electronic submission of dam safety reports, to make these reports available faster, more efficiently, and at lower cost; and improvement of the emergency action plan program through expanded participation with other agencies, such as the National Weather Service, the National Emergency Management Association, the Association of State Dam Safety Officials, the Association of State Floodplain Managers, and local and state emergency response agencies. This expanded participation will benefit other federal and state agencies' programs and improve the quality of licensees' emergency action plans.

HYDROELECTRIC POWER



A FERC senior civil engineer checks a dam in Auburn, New York.

The Commission's dam safety program is well respected both nationally and internationally. 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. The Commission's dam safety staff also served on the U.S. Committee on Large Dams and the American Society of Civil Engineers' task groups to develop dam safety criteria.

In addition, Commission dam safety staff represents the Commission on the National Dam Safety Board formed as a result of the National Dam Safety Program (Water Resources Development Act of 1996). This legislation requires a Commission representative on the Board. The Board advises the Director of the Federal Emergency Management Agency on establishing and maintaining a coordinated National Dam Safety Program and monitoring the implementation of the law. The program will supply funding and technical assistance to state dam safety offices.

LOOKING AHEAD

The Commission has set 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,
- ensures 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, it 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:

- (1) utilize existing resources to act on as many pending cases as possible prior to the arrival of the next major class of relicenses;
- (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) continue development of 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.



Anglers enjoy fishing along the lower Niagara River from the New York Power Authority's fishing platform at the Niagara Power Project. The Robert Moses Niagara Power Plant is in the background.

HYDROELECTRIC POWER



A sand hill crane in central Nebraska. Several threatened or endangered species live in the Platte River Basin. They are protected in licenses granted hydroelectric projects.

HYDROELECTRIC POWER

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 environmental assessments (EAs) and third-party contract environmental impact statements (EISs) to 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 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 through 1999.

As an example, Idaho Power Company operates eight projects within a 360-mile-long reach of the Snake River. The licenses 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 last four projects. Although the evaluation of cumulative effects of all projects on anadromous

fish will be deferred to later applications, staff began a review of the cumulative anadromous fish issues to get an early start on understanding these complex issues.

Of the applications scheduled for filing in the near future, many are well along in the pre-filing process. Commission staff is already working with 33 applicants who are developing applicant- and third-party prepared environmental documents to help resolve pre-filing issues for 43 projects. For the remaining projects, staff is helping to identify opportunities for issues resolution and is facilitating dispute resolutions.

*MANAGING
CHANGE AT
LICENSED
PROJECTS WILL
BECOME A
SIGNIFICANT
ELEMENT OF
POST-LICENSING
EFFORTS.*

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

TRACKING AND MONITORING MITIGATION

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 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.



Workers from the Niagara Falls Power Company pose for a portrait, about 1906.

HYDROELECTRIC POWER TABLE

(Projects For Which Licenses Will Expire Between January 1, 1999, and December 31, 2004)

License Expiration Date	Licensee	FERC Project No.	State	County	River	Installation (KW)	Facilities Under License*	Period of (Years)	Subj. Fed.
19990228	SOUTHERN CALIFORNIA EDISON CO	2017	CA	FRESNO	SAN JOAQUIN R	98822	DM PH	50	Y
19990331	BANGOR HYDRO-ELECTRIC CO	2666	ME	PENOBSCOT	PENOBSCOT W BR	3440	DM PH	20	N
19990531	GREEN MOUNTAIN POWER CORP	2674	VT	ADDISON	OTTER CREEK	2400	DM PH	20	N
19990531	IDAHO POWER CO	2778	ID	JEROME	SNAKE RIVER	12500	DM PH	20	N
19990831	HOLYOKE WATER POWER CO	2004	MA	HAMPDEN	CONNECTICUT	45675	DM PH	50	N
19990930	LOWER VALLEY PWR & LIGHT INC	2032	WY	LINCOLN	STRAWBERRY CREEK	1500	DM PH	48	Y
19990930	INTERNATIONAL PAPER CO	2375	ME	FRANKLIN	ANDROSCOGGIN RIVER	19415	DM PH	34	N
19990930	AQUAMAC CORP	2927	MA	ESSEX	MERRIMACK RV (S. CL)	250	DM PH	20	N
19990930	OTIS HYDROELECTRIC CO	8277	ME	FRANKLIN	ANDROSCOGGIN R	10350	DM PH	15	N
19991130	MERRIMAC PAPER CO INC	2928	MA	ESSEX	MERRIMACK RV (S. CL)	1088	DM PH	20	N
20000228	PACIFICORP	2659	OR	HOOD RIVER	HOOD RIVER	6000	DM PH	20	N
20000229	OCONTO ELECTRIC COOP	1981	WI	OCONTO	OCONTO RIVER	1690	DM PH	50	Y
20000331	LOCKHART POWER CO	2620	SC	UNION	BROAD RIVER	12300	DM PH	20	N
20000331	STURGIS CITY OF	2964	MI	ST JOSEPH	ST JOSEPH RIVER	2720	DM PH	20	N
20000430	DENVER CITY & COUNTY OF	2035	CO	BOULDER	SOUTH BOULDER CREEK	0	RS	50	N
20000430	INTERNATIONAL PAPER CO	2609	NY	SARATOGA	HUDSON RIVER	58300	DM PH	20	N
20000430	GREAT NORTHERN PAPER INC.	2634	ME	PISCATAQUIS	PENOBSCOT	0	RS	20	N
20000531	NIAGARA MOHAWK POWER CORP	2047	NY	SARATOGA	SACANDAGA RIVER	30000	DM PH	50	N
20000531	INDIANA MICHIGAN POWER CO	2651	IN	ELKHART	ST JOSEPH RIVER	3440	DM PH	20	N
20000531	CENTRAL VT PUB SERV CORP	2731	VT	ADDISON	OTTER CREEK	3000	DM PH	20	N
20000614	SOUTHERN CALIFORNIA EDISON CO	372	CA	TULUARE	TULE RIVER	2520	DM PH	22	Y
20000630	KETCHIKAN CITY OF	420	AK	KETCHIKAN	KETCHIKAN CREEK	4200	DM PH	18	N
20000630	PACIFICORP	597	UT	SALT LAKE	BIG COTTONWOOD CREEK	1000	DM PH	23	Y
20000630	SOUTH CAROLINA ELEC&GAS CO	1895	SC	RICHLAND	BROAD RIVER	10600	DM PH	20	Y
20000630	CONSOLIDATED WATER POWER CO	2110	WI	PORTAGE	WISCONSIN RIVER	3840	DM PH	23	Y
20000630	RHINELANDER PAPER CO	2161	WI	ONEIDA	WISCONSIN RIVER	2120	DM PH	20	Y
20000630	CONSOLIDATED WATER POWER CO	2192	WI	WOOD	WISCONSIN R	6620	DM PH	20	Y
20000630	NORTHERN STATES POWER CO	2567	WI	CHIPPEWA	CHIPPEWA RIVER	35280	DM PH	20	N
20000630	CENTRAL VT PUB SERV CORP	2737	VT	ADDISON	OTTER CREEK	2250	DM PH	20	N
20000731	N.BROOK CAROLINA HYDRO L.L.C	2585	NC	FORSYTHE	YADKIN RIVER	1410	DM PH	20	Y
20000731	KAUKAUNA CITY OF	2588	WI	OUTAGAMIE	FOX RIVER	3300	DM PH	20	N
20000831	GEORGIA-PACIFIC CORP	2660	ME	WASHINGTON	EAST BRANCH ST. CROIX	0	RS	20	N
20000831	PACIFICORP	2722	UT	WEBER	OGDEN RIVER	5000	DM PH	20	N
20000901	WISCONSIN ELECTRIC POWER CO	2670	WI	CHIPPEWA	CHIPPEWA RIVER	9500	DM PH	20	N
20000929	GEORGIA-PACIFIC CORP	2618	ME	WASHINGTON	ST. CROIX RIVER	0	RS	20	N
20000930	PACIFIC GAS & ELECTRIC CO	2661	CA	SHASTA	HAT CREEK	20000	DM PH	25	N
20000930	BANGOR HYDRO-ELECTRIC CO	2721	ME	PENOBSCOT	PISCATAQUIS RIVER	1875	DM PH	20	Y
20001031	PACIFICORP	696	UT	UTAH	AMERICAN FORK CREEK	950	DM PH	25	N
20001130	IDAHO POWER CO	2055	ID	OWYHEE	SNAKE RIVER	82800	DM PH	50	Y
20001231	NORTHERN STATES POWER CO	2056	MN	HENNEPIN	MISSISSIPPI RIVER	28400	DM PH	50	Y
20001231	NEKOOSA PACKAGING CORP	2902	VA	AMHERST	JAMES RIVER	512	DM PH	20	N
20010125	S D WARREN CO	2897	ME	CUMBERLAND	PRESUMPSCOT RIVER	1350	DM PH	22	Y
20010125	S D WARREN CO	2931	ME	CUMBERLAND	PRESUMPSCOT RIVER	1900	DM PH	21	N
20010125	S D WARREN CO	2932	ME	CUMBERLAND	PRESUMPSCOT RIVER	800	DM PH	21	N
20010125	S D WARREN CO	2941	ME	CUMBERLAND	PRESUMPSCOT RIVER	1000	DM PH	21	N
20010125	S D WARREN CO	2942	ME	CUMBERLAND	PRESUMPSCOT RIVER	2400	DM PH	20	N
20010131	VIRGINIA ELECTRIC & POWER CO	2009	NC	HALIFAX	ROANOKE RIVER	278000	DM PH	50	Y
20010131	NIAGARA MOHAWK POWER CORP	2060	NY	TWN OF COLTON	TOWN OF COLTON	0	RS	50	Y
20010131	CONNECTICUT LIGHT & POWER CO	2597	CT	LITCHFIELD	HOUSATONIC RIVER	9000	DM PH	20	N
20010131	NEKOOSA PACKAGING CORP	2901	VA	AMHERST,BEDFORD	JAMES RIVER	1875	DM PH	20	Y
20010131	LYNDONVILLE VILLAGE OF	3090	VT	CALEDONIA	PASSUMPSIC RIVER	350	DM PH	20	N
20010228	DAIRYLAND POWER COOP	1960	WI	RUSK	FLAMBEAU RIVER	15000	DM PH	50	Y
20010228	WASHINGTON WATER POWER CO	2058	ID	BONNER	CLARK FORK RIVER	224550	DM PH	50	Y
20010228	WASHINGTON WATER POWER CO	2075	MT	SANDERS	CLARK FORK	466200	DM PH	46	N
20010228	ANTRIM COUNTY	3030	MI	ANTRIM	ELK RIVER	700	DM PH	20	N
20010330	CONSUMERS ENERGY CO	2566	MI	IONIA	GRAND RIVER	3250	DM PH	20	Y
20010430	PACIFICORP	2071	WA	CLARK	LEWIS	134000	DM PH	50	Y
20010731	NEW ENGLAND POWER CO	2077	NH	GRAFTON	CONNECTICUT RIVER	291360	DM PH	50	Y
20010731	MARQUETTE CITY OF	2589	MI	MARQUETTE	DEAD RIVER	3900	DM PH	20	Y
20010830	BLACK RIVER FALLS CITY OF	3052	WI	JACKSON	BLACK RIVER	920	DM PH	20	N
20010831	GREEN MOUNTAIN POWER CORP	2090	VT	WASHINGTON	WATERBURY RIVER	5520	DM PH	47	Y
20010831	PACIFICORP	2652	MT	FLATHEAD	SWAN RIVER	4150	DM PH	25	Y
20010901	INTERNATIONAL PAPER CO	2631	MA	HAMPDEN	WESTFIELD RIVER	2690	DM PH	20	Y
20010930	GEORGIA POWER CO	1218	GA	DOUGHERTY	FLINT RIVER	5400	DM PH	22	Y
20010930	AQUENERGY SYSTEMS INC	2416	SC	GREENWOOD	SALUDA RIVER	6200	DM PH	25	Y
20010930	NANTAHALA POWER & LIGHT CO	2694	NC	MACON	QUEENS CREEK	1440	DM PH	25	N
20010930	HAMILTON CITY OF	2724	OH	BUTLER	MIAMI RIVER	1500	DM PH	20	N
20010930	ENTERPRISE MILL, LLC	2935	GA	RICHMOND	AUGUSTA CANAL	1200	DM PH	20	N
20011001	PACIFICORP	20	ID	CARIBOU	BEAR RIVER	14000	DM PH	23	Y
20011001	PACIFICORP	472	ID	FRANKLIN	BEAR RIVER	30000	DM PH	20	Y
20011001	PACIFICORP	2401	ID	CARIBOU	BEAR RIVER	40500	DM PH	25	Y

HYDROELECTRIC POWER TABLE

License Expiration Date	Licensee	FERC Project No.	State	County	River	Installation (KW)	Facilities Under License*	Peroid of (Years)	Subj. Fed.
20011001	CONNECTICUT LIGHT & POWER CO	2576	CT	FAIRFIELD	HOUSATONIC RIVER	105900	DM PH	20	N
20011031	WISCONSIN ELECTRIC POWER CO	2073	MI	IRON	MICHIGAMME RIVER	9600	DM PH	50	Y
20011031	WISCONSIN ELECTRIC POWER CO	2074	MI	IRON	MICHIGAMME RIVER	2800	DM PH	50	Y
20011031	WISCONSIN ELECTRIC POWER CO	2131	MI	DICKINSON	MENOMINEE RIVER	7200	DM PH	22	Y
20011130	NORTH CENTRAL POWER CO INC	2064	WI	SAWYER	CHIPPEWA RIVER	600	DM PH	50	Y
20011130	METRO WTR RECLAMATION	2866	IL	WILL	CHICAGO SANITARY	13500	DM PH	20	Y
20011231	WISCONSIN ELECTRIC POWER CO	1759	MI	IRON	MICHIGAMME RIVER	19944	DM PH	27	Y
20011231	TACOMA CITY OF	2016	WA	LEWIS	COWLITZ RIVER	460000	DM PH	50	Y
20011231	PORTLAND GENERAL ELECTRIC CO	2030	OR	JEFFERSON	DESCHUTES RIVER	416100	DM PH	50	Y
20011231	WISCONSIN ELECTRIC POWER CO	2072	MI	IRON	PAINT RIVER	100	DM PH	50	Y
20011231	CENTRAL MAINE POWER CO	2142	ME	SOMERSET	KENNEBEC RIVER	76400	DM PH	47	Y
20020131	PUD NO 1 OF PEND OREILLE CNTY	2042	WA	PEND OREILLE	PEND OREILLE	60000	DM PH	50	N
20020131	NIAGARA MOHAWK POWER CORP	2084	NY	ST LAWRENCE	RAQUETTE RIVER	101250	DM PH	50	Y
20020223	PACIFIC GAS & ELECTRIC CO	184	CA	EL DORADO	SOUTH FORK AMERICAN	20000	DM PH	22	Y
20020331	FORT JAMES OPERATING COMPANY	2312	ME	PENOBSCOT	PENOBSCOT RIVER	7655	DM PH	39	Y
20020731	COMINCO AMERICAN INC	2103	WA	PEND OREILLE	CEDAR CREEK	0	RS	50	N
20020903	SPRINGVILLE CITY OF	2031	UT	UTAH	BARTHOLOMEW CR	2000	DM PH	50	N
20020930	HART CITY OF	3516	MI	OCEANA	PENTWATER RIVER	352	DM PH	20	N
20021012	GPU GENERATION, INC.	309	PA	CLARION	CLARION RIVER	28800	DM PH	23	Y
20021031	HYDRO DEVELOPMENT GROUP INC	6059	NY	ST LAWRENCE	OSWEGATCHIE RIVER	900	DM PH	20	N
20021101	TRINITY CONSERVANCY INC	719	WA	CHELAN	PHELPS CREEK	240	DM PH	23	N
20021201	N. Y. STATE ELEC & GAS CORP	2835	NY	CLINTON	AUSABLE RIVER	2640	DM PH	20	Y
20021231	HYDRO DEVELOPMENT GROUP INC	6058	NY	ST LAWRENCE	OSWEGATCHIE RIVER	1490	DM PH	20	N
20030131	WOODS LAKE HYDRO CO	3410	CO	EAGLE	LIME CREEK	45	DM PH	20	N
20030228	ENTERGY, ARKANSAS, INC.	271	AR	HOT SPRINGS	OUACHITA	65300	DM PH	23	Y
20030228	N. Y. STATE ELEC & GAS CORP	2852	NY	STEUBEN	MUD CREEK	2000	DM PH	20	Y
20030331	AVONDALE MILLS INC	5044	GA	RICHMOND	AUGUSTA CANAL	2475	DM PH	20	N
20030426	SOUTHERN CALIFORNIA EDISON CO	344	CA	SAN BERNARDINO	SAN GORGONIO RIVER	2250	DM PH	20	Y
20030430	PAROWAN CITY CORP	2782	UT	IRON	RED CREEK	500	DM PH	25	N
20030606	FORD MOTOR CO	362	MN	RAMSEY	MISSISSIPPI RIVER	17920	DM PH	23	Y
20030630	PCA HYDRO INC	2180	WI	LINCOLN	WISCONSIN RIVER	3000	DM PH	26	Y
20030731	BURFORD JUDITH A	6418	CO	EAGLE	EAST BRUSH CREEK	11	DM PH	20	N
20030824	MINNESOTA POWER & LIGHT CO	346	MN	MORRISON	MISSISSIPPI RIVER	18000	DM PH	23	Y
20030831	SOUTHERN CALIFORNIA EDISON CO	2086	CA	FRESNO	MONO CREEK	0	RS	50	N
20030918	INDIANA MICHIGAN POWER CO	401	MI	ST. JOSEPH	ST JOSEPH RIVER	1750	DM PH	25	Y
20030930	PACIFIC GAS & ELECTRIC CO	2107	CA	BUTTE	NORTH FORK FEATHER	142830	DM PH	50	N
20030930	CHARTER TOWNSHIP OF YPSILANTI	5334	MI	WASHTENAW	HURON RIVER	3413	DM PH	20	N
20031031	PACIFIC GAS & ELECTRIC CO	233	CA	SHASTA	PIT RIVER	317000	DM PH	22	Y
20031031	MINNESOTA POWER & LIGHT CO	469	MN	LAKE	KAWISHIWI	4000	DM PH	22	Y
20031031	NEW YORK POWER AUTHORITY	2000	NY	ST LAWRENCE	ST LAWRENCE RIVER	912000	DM PH	50	N
20031231	POTOMAC EDISON CO	2516	WV	BERKELY	POTOMAC RIVER	1900	DM PH	27	N
20031231	POTOMAC EDISON CO	2517	WV	BERKELY	POTOMAC RIVER	1210	DM PH	27	N
20040131	NEWTON FALLS INC.	7000	NY	ST LAWRENCE	OSWEGATCHIE RIVER	2220	DM PH	20	Y
20040331	PUD NO 1 OF CHELAN COUNTY	637	WA	CHELAN	CHELAN RIVER	48000	DM PH	30	Y
20040331	S D WARREN CO	2984	ME	CUMBERLAND	PRESUMPCOT	1800	DM PH	20	Y
20040410	MIDWEST HYDRO, INC	287	IL	LASALLE	FOX RIVER	3680	DM PH	24	Y
20040430	UNITED WTR CONSERVATION DIST	2153	CA	VENTURA	PIRU CREEK	1420	DM PH	50	Y
20040430	MADISON PAPER INDUSTRIES	2364	ME	SOMERSET	KENNEBEC RIVER	16977	DM PH	40	Y
20040430	MADISON PAPER INDUSTRIES	2365	ME	SOMERSET	KENNEBEC RIVER	9000	DM PH	40	Y
20040430	MERIMIL LTD PARTNERSHIP	2574	ME	KENNEBEC	KENNEBEC RIVER	6770	DM PH	40	Y
20040630	WISCONSIN PUBLIC SERVICE CORP	1979	WI	LINCOLN	WISCONSIN RIVER	4200	DM PH	30	Y
20040731	NORWAY CITY OF	2720	MI	DICKINSON	MENOMINEE RIVER	5636	DM PH	20	Y
20040731	IDAHO POWER CO	2726	ID	GOODING	BIG WOOD RIVER	21770	DM PH	25	Y
20040930	PENNSYLVANIA POWER & LIGHT CO	487	PA	WAYNE	LACKAWAXEN RIVER	40000	DM PH	30	Y
20040930	BARTON VILLAGE INC	7725	VT	ORLEANS	CLYDE RIVER	1300	DM PH	20	N
20041031	BUFFALO HYDRO L.C.	1413	ID	FREMONT	BUFFALO RIVER	250	DM PH	25	N
20041031	PACIFIC GAS & ELECTRIC CO	2105	CA	PLUMAS	N. FORK FEATHER RIVER	342628	DM PH	50	Y
20041112	PETERSBURG CITY OF	201	AK	WRANGELL-PETRS	CRYSTAL CREEK	2000	DM PH	30	Y
20041116	PORTLAND GENERAL ELECTRIC CO	477	OR	CLACKAMAS	SANDY RIVER	21000	DM PH	25	Y
20041130	INTERNATIONAL PAPER CO	4914	WI	BROWN	FOX RIVER	1078	DM PH	20	N
20041230	PAROWAN CITY CORP	1273	UT	IRON	CENTER CREEK	600	DM PH	30	N
20041231	OAKDALE & SAN JOAQUIN IRR DIST	2005	CA	TUOLUMNE	MID FORK STANISLAUS	63990	DM PH	50	Y
20041231	OAKDALE & SAN JOAQUIN IRR DIST	2067	CA	TUOLUMNE	STANISLAUS RIVER	17100	DM PH	50	Y
20041231	PACIFIC GAS & ELECTRIC CO	2130	CA	TUOLUMNE	STANISLAUS	87900	DM PH	50	Y
20041231	GEORGIA POWER CO	2177	GA	HARRIS	CHATTAHOOCHEE RIVER	115600	DM PH	50	Y
20041231	MOSINEE PAPER CORP	2207	WI	MARATHON	WISCONSIN RIVER	3050	DM PH	30	Y
20041231	PORTLAND GENERAL ELECTRIC CO	2233	OR	CLACKAMAS	WILLAMETTE R	16800	DM PH	50	Y
20041231	MONTANA POWER CO	2543	MT	MISSOULA	CLARK FORK	3200	DM PH	40	Y

*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

Chairman	James J. Hoecker
Commissioners	Vicky A. Bailey Linda K. Breathitt Curt L. Hebert, Jr. William L. Massey
Office Directors	
Office of Administrative Law Judges (219-2500)	Curtis L. Wagner, Jr.
Office of Chief Accountant (219-2600)	Debbie L. Clark
Office of the Chief Information Officer (208-1055)	Kathleen M. Hirning
Office of Economic Policy (208-0100)	Richard P. O'Neill
Office of Electric Power Regulation (208-1200)	Shelton M. Cannon
Office of the Executive Director/ Chief Financial Officer (208-0300)	Christie L. McGue
Office of External Affairs (208-0004)	Rebecca F. Schaffer
Office of the General Counsel (208-1000)	Douglas W. Smith
Office of Hydropower Licensing (219-2700)	Carol L. Sampson
Office of Pipeline Regulation (208-0700)	Kevin P. Madden
Office of the Secretary (208-0400)	David P. Boergers

ORGANIZATION CHART

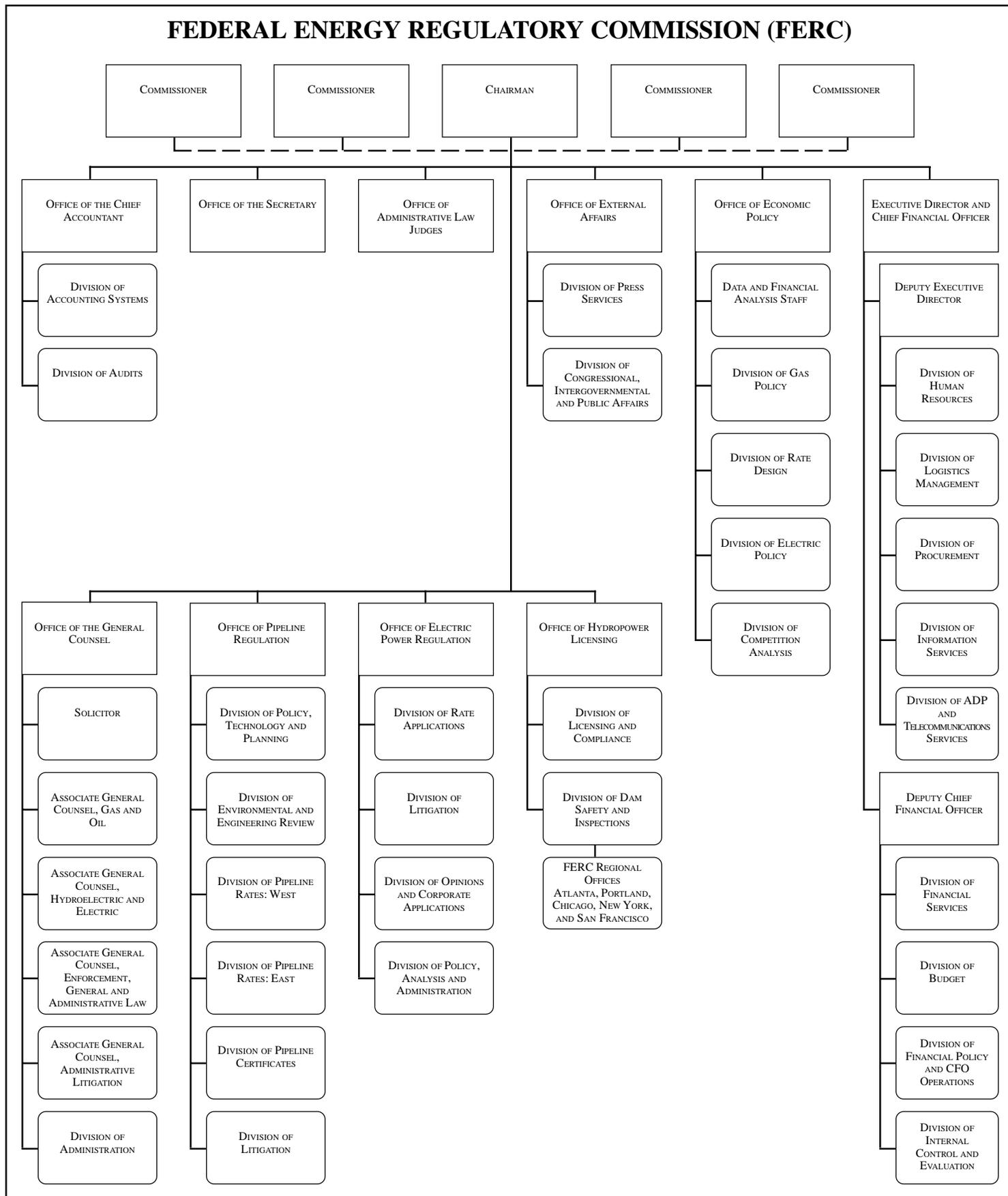


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