

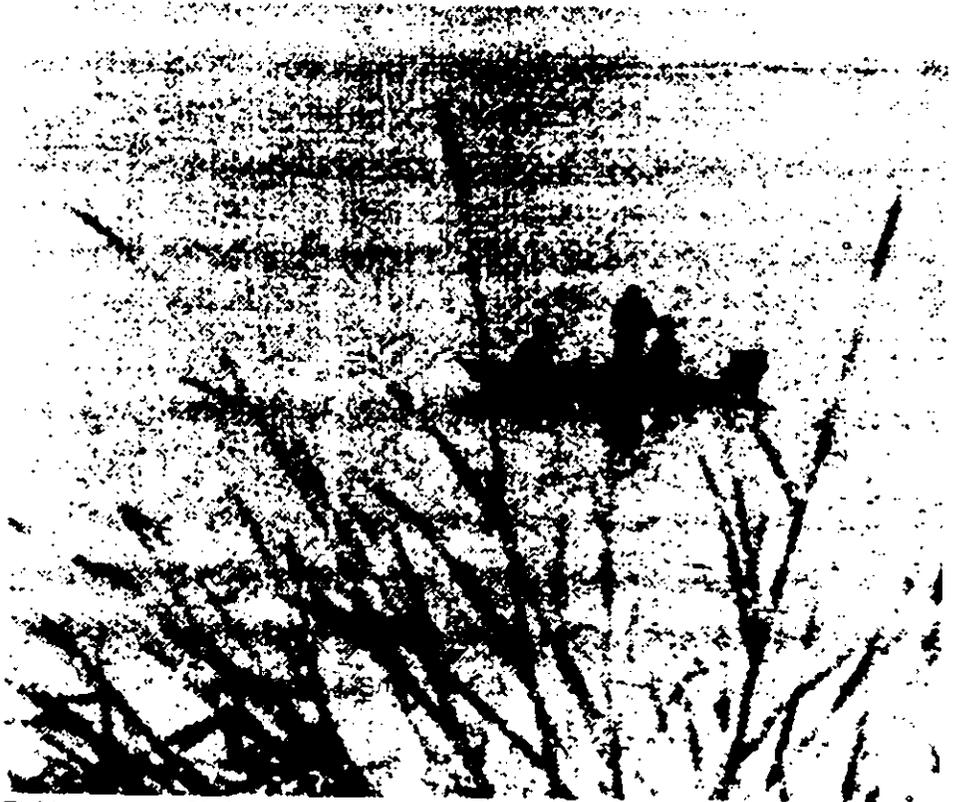
Federal Energy Regulatory Commission



1995 Annual Report

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Fishing on Lake Chelan in Washington State's Chelan Hydroelectric Project.

Members of the Federal Energy Regulatory Commission



Vicky A. Bailey
Commissioner



James J. Hoecker
Commissioner



Elizabeth A. Moler
Chair



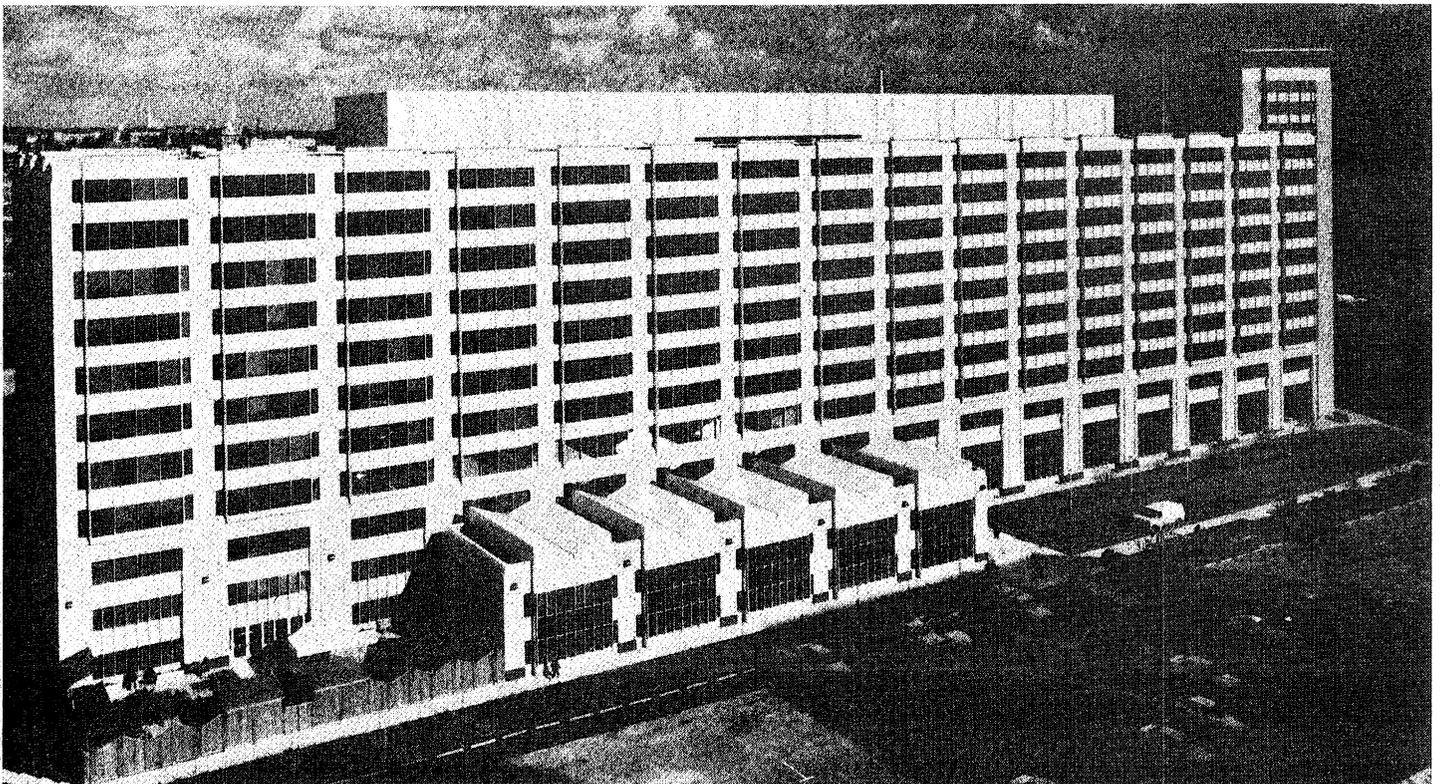
William L. Massey
Commissioner



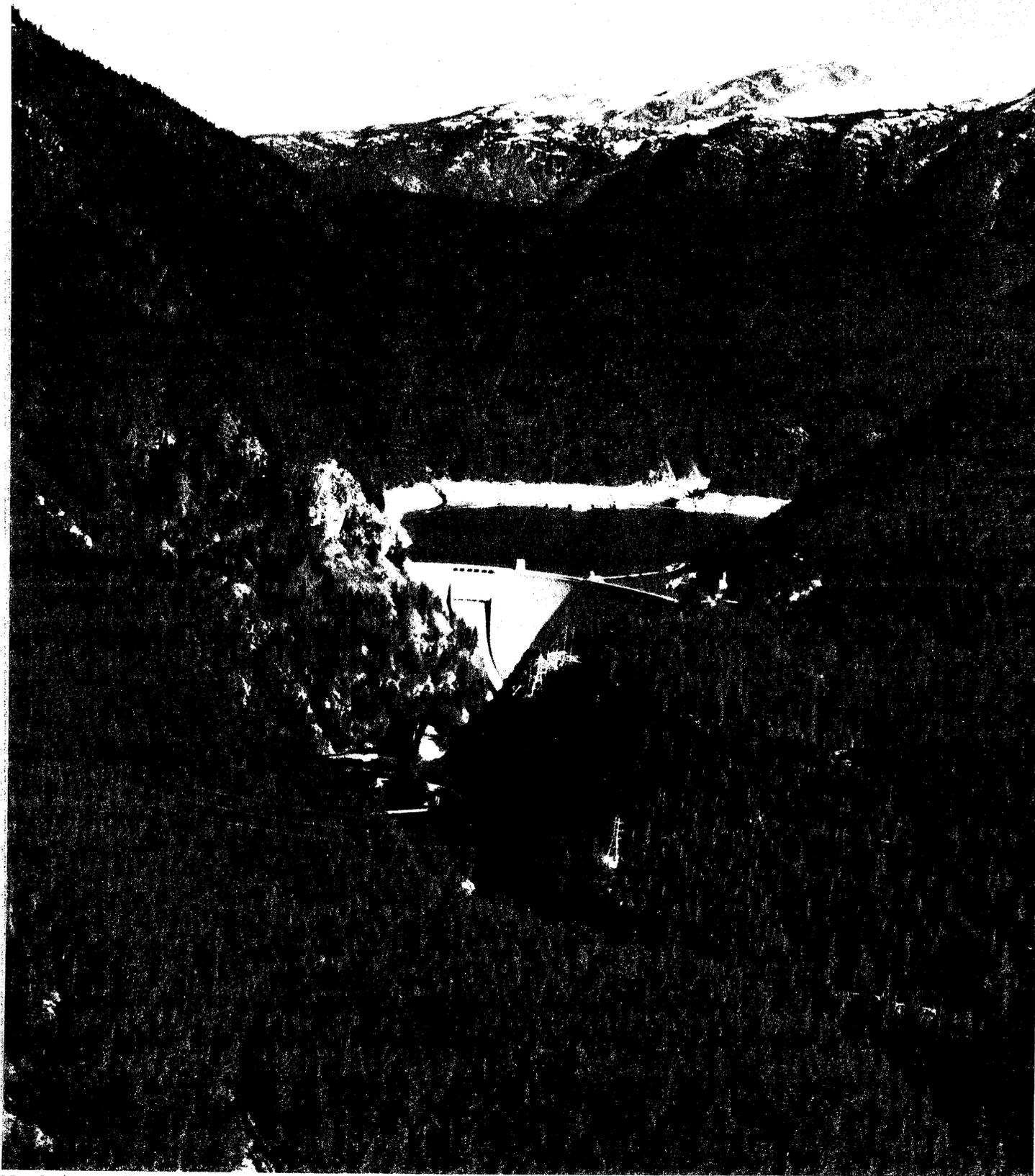
Donald F. Santa, Jr.
Commissioner

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The Commission's new headquarters at 888 First Street, NE, Washington, D.C. All employees are now under one roof, a goal since the 1930s.



Nearly \$100 million will be spent to protect and enhance natural and cultural resources around the Skagit River Hydroelectric Project in Washington State under a settlement approved by the Commission.

The Commission In Brief

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

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

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

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

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

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

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

Letter From the Chair

To the Senate and House of Representatives:

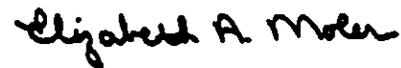
I am pleased to submit to the Congress the Federal Energy Regulatory Commission's annual report, covering the fiscal year from October 1, 1994, through September 30, 1995.

This is the 75th anniversary of the Commission. As an independent agency, the Commission oversees key operating functions of the natural gas, electric utility, hydroelectric power, and oil pipeline transportation industries. We are proud of our accomplishments this past year and look forward to maintaining a solid record of accomplishments.

The key to the Commission's continued success in the years ahead is recognizing the changing business environment faced by those we regulate. In a global economic climate, it is essential that we adapt to these changes if we are to continue to meet the Commission's duty to regulate these industries in the public interest.

For fiscal year 1995, Congress appropriated \$166,173,000 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 are used to offset congressional appropriations and result in a net cost to the treasury of zero dollars. Therefore, the users and beneficiaries of the Commission's services—not the general taxpayers—pay its operating costs.

Respectfully,



Elizabeth A. Moler
Chair

Commission Responsibilities

Natural Gas

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

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

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

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

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

Electric Power

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

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

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

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

Hydroelectric Power

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

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

Oil Pipelines

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

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

Administration



The first Commission meeting in the new headquarters building was held on October 25, 1995. A number of former commissioners and officials attended.

Operating Expenses

The Commission's budgetary resources for Fiscal Year (FY) 1995 totaled \$196.8 million, consisting of an appropriation of \$166.2 million and resources brought forward from prior year balances. In FY 1995, the Commission had obligations of \$163.6 million in three major categories:

- ◆ Salaries and benefits—
\$101.3 million, or 62 percent;
- ◆ Fixed costs (i.e., building rent and utilities) and other support costs (i.e., postage, telecommunications, data processing, printing, and travel)—
\$52.5 million, or 32 percent;
- ◆ Contracts (e.g., environmental reviews)—
\$9.8 million, or 6 percent.

Obligations for the three program areas were:

- ◆ Electric Power—
\$38.1 million 23 percent
- ◆ Hydropower—
\$56.9 million 35 percent
- ◆ Natural Gas and Oil—
\$68.6 million 42 percent

Revenue

In FY 1995, the Commission collected revenues of \$170.8 million. Of that, \$166.2 million was applied directly to offset the Commission's FY 1995 appropriation, reducing it to \$0. The remaining revenue of \$4.6 million exceeded the appropriation and was deposited in the U.S. Treasury General Fund. Following is a breakdown of the type of revenue collected:

- ◆ Annual charges—
\$165.7 million 97 percent
- ◆ Filing fees—
\$1.8 million 1 percent
- ◆ Miscellaneous—
\$3.3 million 2 percent

Information Technology

Through the introduction of new and improved information technology the Commission continues its efforts to provide the public and Commission staff with the most effective means for gathering and using information.

The Commission has over 1,600 multipurpose work stations as well as numerous portable and notebook computers for use by staff in field

inspections, field audits, or while otherwise on travel. The Commission completed the installation of its local area network (LAN) during FY 1995. The Commission-wide network now connects all Commission staff including five regional offices that specialize in hydropower activities. In addition to its networking activities, the Commission upgraded both its mainframe and mid-range computers during FY 1995.

The Commission's Remote Public Access (RPA) system continues to be extremely successful in providing the public with access to Commission records, with well over 500 different entities using this service.

The Commission expanded its Bulletin Board System to include an improved Commission Issuance Posting System (CIPS), in addition to supporting unique bulletin boards for the Office of Chief Accountant [FERC Form 1 Forum], the Office of Electric Power Regulation [Electric Power Data System (EPD)], and the Office of Pipeline Regulation [Gas Pipeline Data System (GPD)]. An average of 700 calls are received each day and approximately 32,000 files are downloaded each month. Access has been expanded to 32 telephone lines, with one providing an 800 number for long-distance access.

Significant progress was made toward implementing the new Record and Information Management System (RIMS). An extended RIMS "Proof Of Concept" was implemented and allows access to a larger set of document images. All new documents are scanned into the RIMS system, with the exception of the Office of Hydropower Licensing (OHL) and E-size documents which

were scheduled for inclusion early in the new fiscal year. Their images are accessible from over 75 work stations throughout the Commission. RIMS is now capable of supplying requested documents within a few hours rather than days.

The Commission also upgraded its entire telephone system to Merlin Legends and implemented an Octel "voice mail" system. Additionally, approximately 200 Commission employees now use the e-mail facilities of the Internet.

Printing and Distribution

The Commission has installed a Docutech electronic duplicating system that allows transmission data through the LAN to expedite the transmission of documents required for printing. The system captures and merges data with a wide variety of word processing, graphics, and desk top publishing software packages. During the year, the Commission produced and distributed 39.9 million pages of printed material. This included orders, notices, decisions, court briefs, environmental impact statements (EIS), and administrative printing through the Government Printing Office and the Commission's copy center.

Public Reference Room

The Public Reference Room is the Commission's main point of contact for meeting the public's "in person" information needs. The Records Maintenance Center is the official repository of the Commission's records and documents. Under Commission information rules, i.e., 18 C.F.R., Part 388, most documents are readily available for inspection and photocopying. The Public Reference Room serves as both a library and reference center for the public and Commission staff, providing requested records and documents in electronic and microfilm/microfiche formats.

During FY 1995, the FERC Automated System for Tariff Retrieval (FASTR) was made available to the public via the LAN in the Public Reference Room. This eliminated the need for staff to deliver cartridges to, or pick them up from, the program office for update. Customers receive the most recent information available at any given time.

FERC Headquarters Consolidation

The Commission has been trying to consolidate all of its offices under one roof for several decades. That goal was accomplished in FY 1995. Importantly, the move was completed ahead of schedule, under budget, and with virtually no interruption in the Commission's service to the public.

The move was necessitated by the expiration of the Commission's leases on two of the three buildings it occupied. The old buildings did not meet the Commission's current needs. The General Services Administration (GSA) supervised a 22-month competitive procurement process. The owner's plan to renovate the old building was rejected by GSA during that process because it did not comply with the procurement's requirements.

The new building is located at 888 First Street, Northeast, Washington, D.C., two blocks north of Union Station and one-half block east of the Commission's old main building. The location allows the Commission to stay in the same neighborhood while providing increased security for employees. The competitively priced, energy-efficient building allows easy access to offices frequently used by the public and provides an efficient and pleasing work environment. ♦

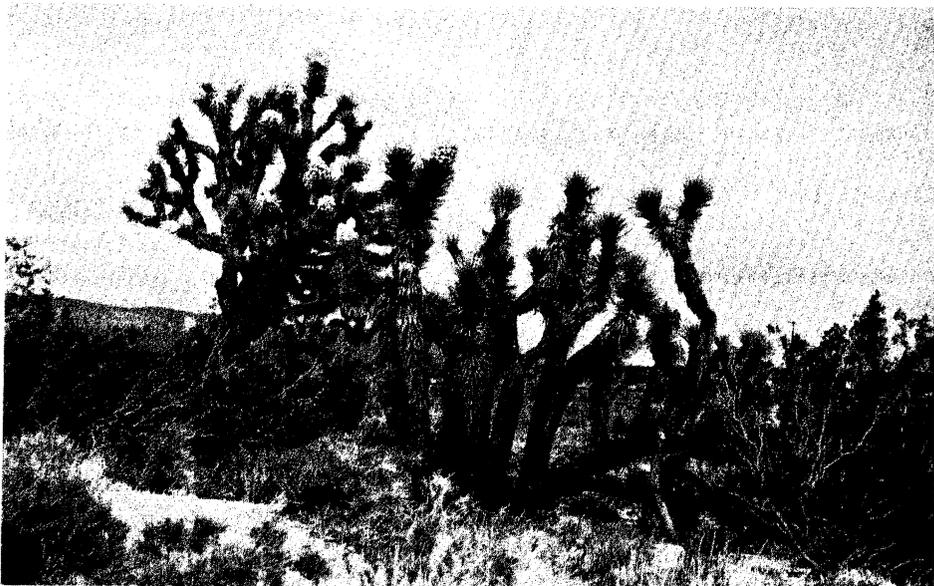
Natural Gas

Overview

Natural gas is transported from production areas to markets via pipelines, consisting of a network more than one million miles long. The gas pipeline industry moves nearly a quarter of the nation's energy consumption to the burner tip. A major component of this network is the more than 200,000 miles of large-diameter pipe that moves gas in interstate commerce over long distances to markets in 48 states. These transmission facilities represent an investment exceeding \$50 billion. The oil pipeline network consists of over 200,000 miles of both large- and small-diameter pipeline and a total investment of over \$20 billion.

In FY 1993 and 1994, the FERC completed implementation of the initial phases of its comprehensive program to create a flexible regulatory framework for America's natural gas industry under Order No. 636. The order marked a new era in the natural gas industry and will ultimately enable it to provide better service to more markets at a lower cost. The Commission's key objectives in regulating the industry are:

- ❖ To provide for more extensive and flexible rate and service options;
- ❖ To enable parties to respond quickly to fast-changing market conditions;
- ❖ To maintain service reliability and rate certainty; and,
- ❖ To reduce the burden on regulated companies through streamlined reporting and filing requirements together with efficient regulations that recognize the benefits of computer technology and automation.



Joshua trees like these in California are protected when pipelines are built.

Industry Restructuring

In FY 1995, the Commission completed the implementation of Order No. 636. It approved 18 settlements relating to Order No. 636 gas supply realignment costs and also approved the payment of exit fees to terminate unneeded upstream capacity in 11 docketed proceedings. At the end of FY 1995, approximately \$3 billion in Order No. 636 transition costs and \$10 billion in take-or-buy costs had been recovered as part of the transition to open access natural gas transportation.

The Commission also dealt with important new issues. Some resulted from the structural changes brought about by Order No. 636, such as the revision to rate filing and reporting requirements and policies on gathering, capacity release, bypass and electronic communication. Moreover, Order No. 636 has resulted in an increasingly competitive natural gas market in which customers have greater choice in who provides transportation and sales service.

Such conditions require the Commission to reevaluate the pricing and certification policies regulating this market.

Filing and Reporting Requirements Revised

In FY 1995, the Commission undertook a major initiative to revise and update its filing and reporting requirements. Many of the Commission's old filing and reporting requirements were based on pipelines acting primarily as merchants rather than as transporters of natural gas, a situation that no longer exists. As a result, the Commission undertook a comprehensive effort to revise its reporting and rate filing requirements in Orders Nos. 581 and 582. This effort worked in tandem with Vice President Gore's "reinvention" initiative to reduce the burden on regulated entities, to streamline the government, and to increase its responsiveness. The Commission estimates that the revisions save the companies it regulates over 61,824 hours annually because of the reduced regulatory burden.

In these orders, the Commission revised Form No. 2, the annual report filed by the pipeline companies. Data relating to the historical

Natural Gas

Capacity Release

Capacity release is an important component of the Commission's Order No. 636 program. The program enables those who have capacity on a pipeline that they do not need to "release" it, either temporarily or permanently. In the fall of 1994, the Commission convened a series of outreach meetings to discuss the operation of the capacity release market. Participants in these meetings included representatives from all segments of the natural gas industry. From the information received during these sessions, the Commission believes that the secondary market is generally operating well although not without some problems.

On March 29, 1995, the Commission issued Order No. 577 in response to the universal complaint that prearranged deals had to be for less than 30 days. Order No. 577 allows prearranged deals for transactions of a full calendar month to coincide with the actual business practices of the industry.

The Commission continues to examine other topics raised in the outreach meetings. Specifically, the Commission is concerned with the administrative and burdensome use of electronic bulletin boards (EBBs) in completing capacity release transactions. The Commission is considering issues regarding price caps for both released capacity and interruptible transportation, requiring pipelines to post interruptible capacity on their EBBs, and direct assignment of capacity. The Commission anticipates action on these issues in FY 1996.

Standards for Business Practices

At the end of FY 1995, the Commission undertook an initiative concerning the Standards for Business

Practices of Interstate Natural Gas Pipelines. The Commission convened a conference to consider the current state and future development of electronic communication in the industry. This followed the process begun by an industry working group on capacity release transactions. That action arose out of the requirements in Order No. 636 that interstate natural gas pipelines provide certain information about capacity on EBBs. During its work on standardization of data on capacity transactions, the working group recognized that other business transactions should be standardized and that this information would play a significant role in developing a seamless pipeline grid to facilitate the movement of gas.

Prior to the conference, the Commission accepted the consensus agreement of the working group and did not institute a process leading to the mandated implementation of business practice standards. During the conference, however, the Commission learned that insufficient progress had been made and later issued an Advance Notice of Proposed Rulemaking, requesting the submission of comments by March 15, 1996. The Commission required that the comments contain detailed proposals that will enable it to adopt certain standards for business practices and procedures involving transactions between interstate natural gas pipelines and their customers. The Commission has recognized that the industry should take the lead in developing and implementing standards that will be both practicable and workable and expressed the hope that, with broad participation, the Gas Industry Standards Board (GISB) can be the forum for coordinating the industry's efforts. However, absent an industry consensus, the Commission said it would proceed to mandate standards for pipeline business transactions.

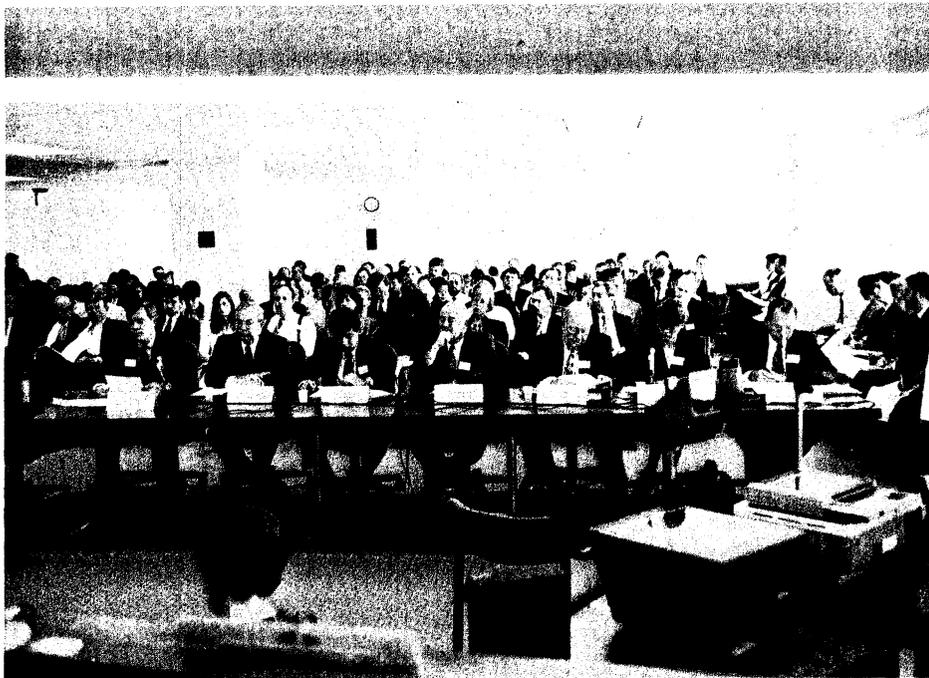
Pricing Policy for New Pipeline Construction

In response to the increased competition, the Commission began a reevaluation of its policies on the pricing of new facilities, the determination of a pipeline's rate of return and alternatives to traditional cost-of-service pricing. On May 31, 1995, the Commission issued its policy statement on the pricing of new pipeline capacity. The principal goals of the pricing policy are to provide the industry as much upfront assurance as possible with respect to rate design, and at the same time provide for a flexible assessment of all the relevant facts of a specific project and to minimize rate shock on existing customers.

To achieve these goals, the Commission adopted a pricing policy with two major features. First, the Commission makes a determination of the appropriate pricing in the certificate proceeding. Second, if a pipeline seeks rolled-in pricing of new facilities, the Commission bases its decision on whether to permit the costs to be rolled in on an evaluation of the system-wide benefits of the project and the rate impact on existing customers.

The policy statement provides that the Commission will apply a presumption in favor of rolled-in rates when the rate increase to existing customers is five percent or less and the pipeline makes a showing of system, operational, and financial benefits. When the rate impact exceeds five percent, the pipeline must show that the benefits are proportionate to the rate impact.

The policy statement also requires pipelines to hold an open season and to solicit permanent offers to release capacity to meet desired demand, thereby avoiding unnecessary construction.



Witnesses give their views at a Commission conference on electronic communication in the natural gas industry held on September 21, 1995.

Alternative Rates

The Commission devoted significant attention in FY 1995 to alternatives to traditional cost-of-service ratemaking. To date, the Commission has approved a number of market-based pricing proposals for new natural gas storage facilities and oil pipelines. During the year, the Commission instituted a generic proceeding on alternative pricing methods for transportation. The Commission issued a staff paper examining issues relating to market-based rates and requested comments on changes to the existing policy statement on incentive rates. Comments were also sought on, among other things, whether pipelines could negotiate individual rates with customers.

Upon receipt of the comments, the Commission issued a policy statement. This policy statement spells out the criteria the Commission will use to evaluate requests to allow the market to set the price for transportation services, establishes guidelines for pipelines to negotiate rates and makes changes to the

existing policy statement on incentive rates. The policy statement sends a clear signal that, in the market environment resulting from Order No. 636, interstate natural gas pipelines will have greater flexibility to develop other than traditional cost-of-service rates. However, the Commission stressed that, while it encouraged innovation, it was committed to protecting pipeline customers. The Commission stated that it will allow market-based rates for services only if the pipeline makes a persuasive showing, using a variety of factors, that it lacks market power. The Commission's intent is to prevent a pipeline from withholding or restricting services, or discriminating in price or terms of service.

Under the negotiated/recourse rate program, the Commission will allow a pipeline and a shipper to negotiate mutually acceptable rates. A shipper which does not desire to negotiate its rate will still be entitled to continue service under the existing cost-of-service rate. The Commission intends this program to result in individually tailored rate mechanisms to meet customers' special needs and to

increase the market responsiveness of pipeline services. Again, the Commission stressed the number of mechanisms available to protect customers and, specifically, to prevent those taking service under the recourse rate from subsidizing the rates charged customers who negotiate. In the policy statement, the Commission expressed concern that allowing the negotiation of terms and conditions might degrade Order No. 636 open access service and sought additional public comment.

The Commission revised its existing policy on incentive regulation. Incentive rates may now exceed cost-of-service rates if efficiency gains are shared with the pipeline's customers. The criteria from the original policy statement, that the proposals be prospective, voluntary, and contain incentive mechanisms understandable to all parties, will continue to apply.

Gas Pipeline Rates

Under the NGA, the Commission regulates approximately 150 pipelines that sell and transport gas in interstate commerce. The NGA requires the Commission to insure that tariff rates and charges are just and reasonable and not unduly discriminatory. These requirements protect consumers from excessive prices and abuses of market power and allow pipelines to be compensated for prudent and necessary service costs—including a fair return on investment.

FY 1995 rate-related casework dropped slightly from FY 1994 levels. The decrease was primarily attributable to an elimination of purchased gas adjustment clauses in pipeline tariffs, and the winding down of the Commission's Orders Nos. 500/528 take-or-pay cost-recovery program. Interstate pipelines made 1,228 rate-related filings, down from 1,314 in the previous fiscal year. Of these, 505 were formal rate change and tariff filings. Six-

Natural Gas

teen of the filings were general rate changes involving revenue increases totalling \$768.0 million; 92 filings were limited Section 4 filings, which primarily involved proposals to recover Order No. 636 transition costs, and 397 involved changes in pipeline tariff and operating terms and conditions.

The Commission approved 30 full or partial settlements on pending Section 4 general rate cases that had been set for hearing. These settlements resulted in the completion of nearly 200 outstanding docketed proceedings.

Among the rate settlements addressed by the Commission in FY 1995, some were noteworthy due to the magnitude of dollars involved, the number of docketed Commission and related court proceedings resolved, or emerging policy issues.

Columbia Gas Transmission

Corporation: In Dockets Nos. GP94-2-000, et al., the Commission approved a settlement which resolved issues in over 100 Commission proceedings, related appellate proceedings and Columbia's bankruptcy proceeding. This settlement provided for distributions of \$7.5 billion to various creditors, and established the basis for Columbia to emerge from bankruptcy after four and one-half years of court protection.

Southern Natural Gas Company:

Southern's Dockets Nos. RP89-224, et al., comprehensive settlement generally resolved 23 pending rate and certificate proceedings. Among the rate proceedings settled, were four Section 4 general rate cases, providing for reduced rates, a rate filing moratorium, new service contracts and \$155 million in customer refunds, which were to be credited to the customers' liability for Southern's Order No. 636 gas supply realignment costs. Commission approval of the settlement also authorized Southern to build and



Robert Arvedlund, left, and Chris Zerby of the Commission's Office of Pipeline Regulation talk to a reporter in Wells, Maine, about a liquefied natural gas project proposed by Granite State Gas Transmission, Inc.

operate new pipeline facilities, as well as abandon other facilities.

The Commission began to deal with emerging rate policy issues in several proceedings. For example, the Commission approved a settlement of 12 Transwestern Pipeline Company rate and certificate proceedings. This was the first case in which the Commission was asked to address the allocation of costs associated with a large amount of customer relinquished pipeline capacity. The Commission approved a sharing of the risk among Transwestern and its customers of the \$51 million in turned-back capacity for a period of five years. Beyond that time, however, Transwestern will bear all the risk associated with marketing this capacity. This emerging issue also appeared in El Paso Natural Gas Company and Natural Gas Pipeline Company of America rate cases. In these proceedings the Commission rejected the pipelines' proposals addressing the excess capacity issues because they were contrary to Commission policy and did not give the pipelines the incentive to market the turned-back capacity.

In general, the Commission continued to use the historical cost-of-service approach in its review of pipeline rates. In this regard, rate change filings continue to be based on increases in operating costs, the cost of new facilities, and changes in the natural gas industry. These filings involve not only cost issues but often also contain pipeline access and rate design issues that either the Commission deferred in the restructuring compliance orders or that evolved from the increased competition generated by Order No. 636. The issues include:

- ❖ Cost allocation;
- ❖ Rates of return and depreciation;
- ❖ Transportation zones and mileage-based rates;
- ❖ Market centers;
- ❖ Treatment of storage costs;
- ❖ Rates for transportation in the production area;
- ❖ Pipeline tariff terms and conditions;

- ❖ Impact of capacity release on interruptive throughput projections;
- ❖ Eligibility of costs for recovery under Order No. 636;
- ❖ Allocation of costs associated with turned-back capacity; and
- ❖ Discrimination in providing transportation services.

Recently, however, the Commission has been examining market-based rates and other non-traditional rate proposals on a case-by-case basis pending action on broader policy initiatives.

Accounting and Financial Reporting

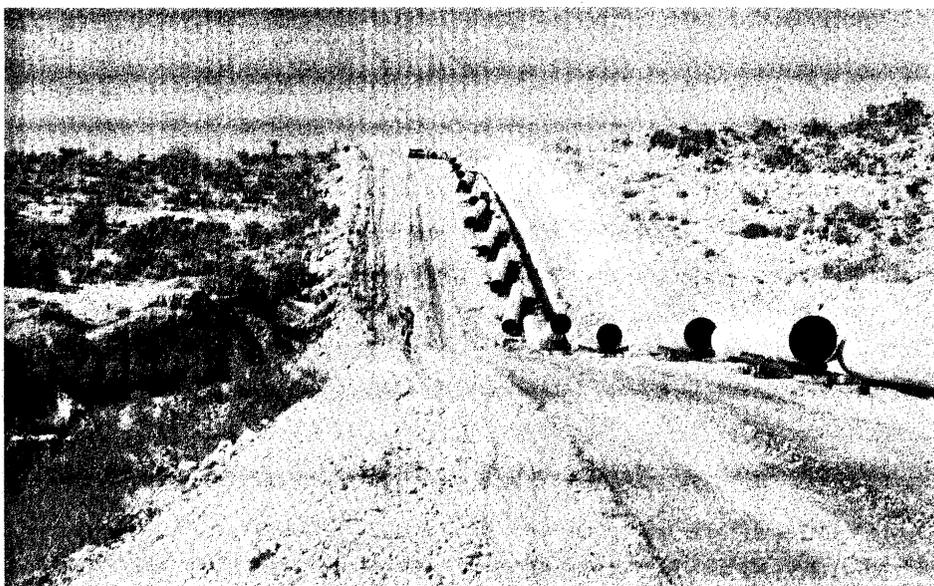
The Commission needs continuous, reliable financial information based upon sound accounting principles uniformly applied to all jurisdictional companies. This information is required in monitoring economic activity within the industry and evaluating whether rates charged are just and reasonable.

These needs are met by development of the Uniform System of Accounts prescribed for natural gas companies and oil pipelines. Periodic financial reporting is undertaken by jurisdictional gas companies through the Commission's Forms Nos. 2 and 2-A. Oil pipelines report data to the Commission using the Form No. 6.

In addition, audits are conducted by the Office of the Chief Accountant. These audits enable the Commission to insure that required financial information is reported according to Commission regulations. During the audits, special emphasis is placed on costs that are automatically passed on to consumers. Companies that have improperly charged customers are ordered to refund excess collections with interest.

Pipeline Certificates

Generally, pipelines must apply to the Commission for either case-



Pipeline stringing on a cleared right of way prior to trenching and welding.

by-case-certificate or blanket certificate authorization to construct and operate certain interstate gas facilities and to transport or sell gas for resale in interstate commerce.

The Commission's pipeline certificate program evaluates four types of applications:

- ❖ Construction and operation of facilities;
- ❖ Authority for gas transportation, sale, storage, or exchange services;
- ❖ Extension or abandonment of services; and
- ❖ Siting and constructing facilities for the import or export of natural gas and liquefied natural gas (LNG).

The following factors are considered in evaluating applications:

- ❖ Identification and assessment of the public interest aspects of terms and provisions of the proposed service;
- ❖ Facilities' design and operational aspects;
- ❖ Project financing;
- ❖ Environmental impacts of proposed projects;
- ❖ Initial rates for service;

- ❖ Cost shifting to existing ratepayers; and
- ❖ Operational reliability of LNG facilities.

Reviewing the many filings for expanded capacity was a major Commission priority in FY 1995. The Commission acts on these proposals as quickly as possible to allow applicants to begin construction if the project is in the public interest.

Gathering

Following the issuance of a series of orders clarifying the Commission's gathering policy in FY 1994, the Commission issued final orders in three cases and a preliminary order in one case on proposals to refunctionalize pipeline facilities from transmission to gathering in FY 1995. The cases involved more than 7,000 miles of pipelines used to gather gas from more than 13,000 wells. In each of the final orders, the Commission stated that the facilities to be refunctionalized to gathering were exempt from its jurisdiction pursuant to Section 1(b) of the NGA.

The orders involved:

Williams Natural Gas Company:

On December 22, 1994, the Commission preliminarily approved Williams's sale of numerous gathering facilities to an affiliate, Mid-Continent Region Company. As a precondition to a final determination, the Commission required Williams to demonstrate that the successor had successfully negotiated terms, conditions and rates for continued gathering service with Williams's existing customers or to submit a "default contract" with terms, conditions and rates for gathering service consistent with Williams's currently effective FERC Gas Tariff.

Panhandle Eastern Pipe Line Company:

On June 15, 1995, the Commission authorized Panhandle to transfer a significant portion of its gathering facilities with a net book value of approximately \$39,000,000 to its affiliate, Panhandle Field Services Company (Field Services).

Transwestern Pipeline Company:

On July 27, 1995, the Commission approved a settlement resolving a host of issues, including the transfer of numerous gathering facilities from Transwestern to Transwestern's affiliate, Transwestern Gathering Company.

El Paso Natural Gas Company:

On September 13, 1995, the Commission authorized El Paso to abandon facilities by transfer to an affiliate, El Paso Field Services Company. The Commission conditionally accepted the proposed default contract filed by El Paso but required modifications to conform to its continuity of service policy.

Pipeline Construction

In FY 1995, the Commission approved seven requests for authorization to construct major pipeline facilities estimated to cost more than \$300,000,000. These cases include:

Crossroads Pipeline Company:

On April 21, 1995, the Commission authorized Crossroads to acquire, and convert to natural gas use, a 201-mile crude oil pipeline and to provide self-implementing, open access transportation service. The total cost of the project is \$31,500,000.

El Paso Natural Gas Company:

On August 16, 1995, the Commission issued a certificate approving El Paso's request to construct and operate 29.7 miles of 34-inch loop pipeline. The facilities will expand El Paso's San Juan Triangle System by approximately 300,000 Mcf per day. The project has an estimated cost of \$25,800,000.

Natural Gas Pipeline Company of America:

On June 5, 1995, the Commission authorized Natural to construct and operate pipeline looping and compression facilities as part of an on-going effort to upgrade the existing Amarillo line. The total cost of construction of the proposed facilities is \$32,757,000.

Northern Natural Gas Company:

By order issued June 30, 1995, Northern was authorized to construct and operate three new mainline compressor stations, two new town border stations and to modify two existing compressor stations and one existing town border station to increase the capacity on the East Leg of its system by 107,000 MMBtu per day. Northern will implement the project in two phases; the project will be completed in 1996. The estimated cost of the facilities is \$27,600,000.

NorAm Gas Transmission Company:

On April 5, 1995, the Commission authorized NorAm to replace and rearrange deteriorated pipeline facilities, abandon pipeline facilities, and construct and operate new pipeline and compressor facilities. Construction costs are estimated at \$54,200,000. Because NorAm did not have contractual commitments for all of the capacity created

by the proposal, the Commission placed NorAm at risk for the recovery of the costs associated with unsubscribed new capacity.

Texas Eastern Transmission Corporation and CNG Transmission Corporation:

On May 31, 1995, the Commission authorized Texas Eastern and CNG to construct and operate \$36,000,000 of expansion facilities to allow CNG to provide transportation service for its Mid-Atlantic customers. The facilities include 14 miles of 36-inch replacement pipeline and 14,500 horsepower of compression.

Transcontinental Gas Pipe Line Corporation:

On December 21, 1994, the Commission authorized Transcontinental to construct its 1995/1996 Southeast Expansion Project. This project involves a two-phase expansion of Transcontinental's mainline in its Southeastern market area. Facilities were to be constructed in 1995 and 1996. Phase I involves 115,000 Mcf per day of additional capacity while Phase II involves an additional 50,000 Mcf per day of capacity. The total cost of the facilities is approximately \$97,500,000.

Preliminary Determinations on Construction Certificates

To expedite action on proposed major construction applications, the Commission issues preliminary determinations (PDs). The purpose of a PD is to allow the Commission to rule on the merits of a construction proposal with regard to non-environmental issues. Once the environmental analysis is completed, the Commission issues final certificate authorization of the project. This approach gives applicants an early indication of the form that ultimate Commission authorization might take. PDs are among the following certificate actions taken by the Commission in 1995:

Mojave Pipeline Company:

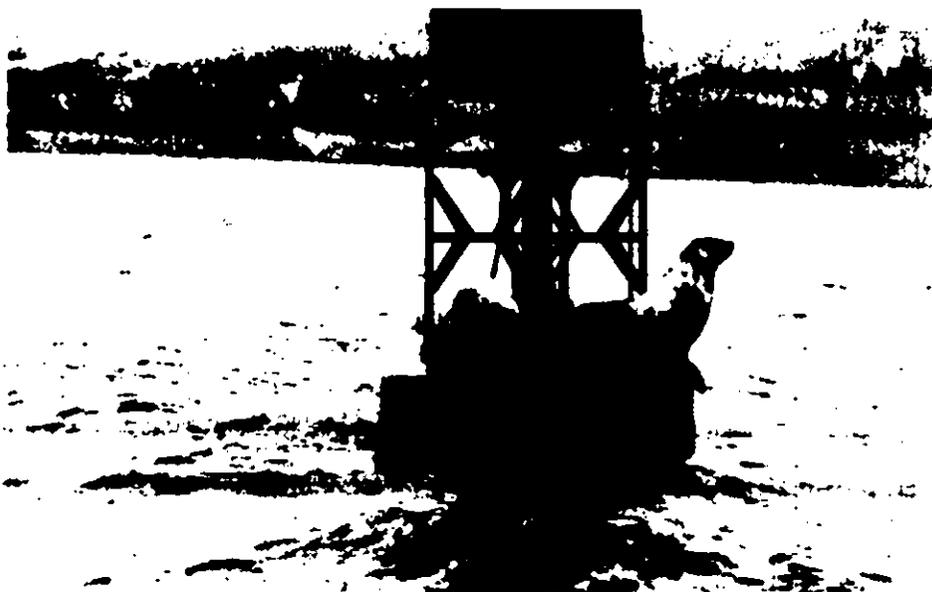
On November 18, 1994, the Commission issued a PD conditionally approving two of Mojave's four alternative proposals on all non-environmental issues for Mojave's Northward Expansion. This project, costing approximately \$488,100,000, with a capacity of 475,000 MMcf per day, more than doubles Mojave's capacity and comprises approximately 636 miles of pipeline, 103,228 horsepower of compression and 59 new delivery points. The Commission issued a final order on August 4, 1995.

Northwest Pipeline Corporation:

On February 1, 1995, the Commission issued a PD authorizing two projects proposed by Northwest with an estimated total cost of \$110.4 million. The projects—the Northwest Natural Expansion and the Northwest Expansion II Projects—will enable Northwest to provide up to 164.2 MDth per day of new, firm transportation service for Northwest Natural Gas Company and 12 Expansion II shippers. The authorized facilities consist of 46.6 miles of pipeline loop, 18,829 Hp of compression, and an upgrade of 13.2 miles of pipeline. The Commission issued a final order on April 19, 1995, addressing environmental issues and a request for rehearing.

Tuscarora Gas Transmission

Company: On April 4, 1995, the Commission issued a PD to Tuscarora approving a proposal to construct and operate a new 229-mile, 20-inch diameter pipeline extending from an interconnect with Pacific Gas Transmission near Malin, Oregon, to markets in the Reno, Nevada, area. Tuscarora was also authorized to construct three short, small diameter laterals to serve customers in Northern California and granted blanket certificates



Steller sea lions in Alaska's Prince William Sound. Normal shipments of liquefied natural gas (LNG) from a proposed project near Valdez would not harm them.

under Parts 157 and 284 of the Commission's Regulations. A final order was issued on May 31, 1995, conditioned upon Tuscarora filing revised rates reflecting the actual cost of debt prior to going into service. The facilities are estimated to cost \$125,200,000.

Steuben Gas Storage: On July 28, 1995, the Commission issued a PD addressing all non-environmental issues to Steuben to develop, construct, and operate a 5.3-Bcf working gas underground storage facility in Steuben County, New York.

Steuben proposed to render open access firm and interruptible storage service at market-based rates and to sell storage base gas in place to those customers who want to purchase such gas rather than pay Steuben a base gas surcharge. The PD required, among other things, that Steuben apply for a blanket certificate to operate an adjoining storage complex on an open access basis. The Commission also stated that Steuben's market power and therefore its market-based storage rates would be subject to reexamination if a Steuben affiliate were to

enter the New York/Pennsylvania storage market or acquire an interest in a transportation facility connected to Steuben, or if Steuben connects its storage complex to another interstate pipeline. Steuben requested rehearing of the PD. A final order addressing the rehearing request and any other unresolved issues will be issued after an environmental assessment (EA) and evaluation of the subsequent comments.

Liquefied Natural Gas

Yukon Pacific Project: On March 6, 1995, FERC issued a Final Environmental Impact Statement (FEIS) for the Yukon Pacific Corporation's (Yukon Pacific) proposed Liquefied Natural Gas (LNG) export site near Valdez, Alaska. The project consists of a 2.1-billion-cubic-foot-per-day natural gas liquefaction plant, four 800,000 barrel LNG storage tanks, a marine loading facility, and a cargo/personnel ferry dock facility. In addition to

Natural Gas

the shore facility, a fleet of 15 LNG tankers, each having 125,000 cubic meters of cargo capacity, would transport LNG beyond U.S. territorial waters to destinations in Japan, Korea, and Taiwan. The LNG plant would receive natural gas for liquefaction from the Trans-Alaska Gas System (TAGS), a proposed 796.5-mile non-jurisdictional intrastate pipeline extending from the Alaskan North Slope at Prudhoe Bay to the LNG plant. The Commission issued a final order on May 22, 1995, granting NGA Section 3 authorization for the siting, construction and operation of the LNG facility.

Granite State Gas Transmission:

The Granite State LNG is one of two major LNG proposals pending at the end of the year (the other being EcoElectrica, see description below). Granite State proposes to build a \$44-million, 2-Bcf storage tank in Wells, Maine, to receive, store, and vaporize LNG and to deliver gas into Granite State's mainline.

EcoElectrica L.P.: EcoElectrica has requested NGA Section 3 construction authorization for an import point near Ponce, Puerto Rico, to import LNG, and to store up to 2 million barrels of LNG, to be used by a proposed 461-megawatt cogeneration plant.

Cove Point LNG, L.P.: In October 1995, the Cove Point LNG project began operating its new liquefaction facilities and its recommissioned on-shore LNG storage facilities. The project allows Cove Point to liquefy up to 15,000 Mcf of natural gas per day and to provide 3-, 5- and 10-day firm peaking storage services, and both firm and interruptible trans-

portation services. Under Phase I of the project, Cove Point would have a storage capacity of 2.42 Bcf with a maximum sendout of 400,000 Mcf per day. If Cove Point proceeds with Phase II, the storage capacity could increase to 4.84 Bcf with a deliverability of 1,000,000 Mcf per day.

Environmental Compliance

In FY 1995, the Commission continued to expand its environmental post-construction compliance review of blanket certificate and NGPA Section 311 new construction and Section 2.55 facilities replacements.

The Commission staff completed 287 on-site environmental inspections to ensure compliance with certificate environmental conditions.

The Commission conducted six regional training courses on environmental compliance. The courses covered compliance with the Commission's program of wetland and waterbody protection and erosion control and revegetation as well as cultural resources compliance under the National Historic Preservation Act. This highly successful outreach program, started in 1992, continues to draw significant interest from the industry and its employees, federal and state agencies, environmentalists, consultants, and the public.

The Commission began an additional training course this year. It consisted of two additional regional training sessions concerning preparation of environmental reports, part of the application for Commission approval of a project.

Sixteen training courses have been held in the past and more are planned next year. The courses provide a better understanding of:

- ◆ Compliance with environmental certificate conditions;
- ◆ The National Environmental Policy Act (NEPA);
- ◆ The National Historic Preservation Act compliance; and
- ◆ Other environmental laws and regulations.

The Commission has continued its initiatives to monitor whether environmental compliance has occurred and to order it if necessary. The Commission requires the companies to:

- ◆ Certify that the personnel and contractors have been trained in accordance with the approved implementation plan prior to construction;
- ◆ Have environmental inspectors on all major construction projects. At least one inspector is required per construction spread. The environmental inspector has the authority to order compliance with mitigation measures; and
- ◆ File weekly or bi-weekly reports, depending on the size of the project, describing the status of construction.

Immediate notification to the Commission of any environmental violations cited by another agency is also required since the start of FY 1995.

The Commission has also approved a settlement with a pipeline which requires a refund to its customers of \$662,500 in costs to correct improper construction. The pipeline committed to completing restoration of the pipeline route in accordance with its certificate obligations.

Further, the Commission has delegated to the Director of the Office of Pipeline Regulation (OPR) the authority to take appropriate steps to ensure the protection of all environmental resources during construction of projects. This includes the authority to stop work on a project. Also, a requirement that the company receive approval by the Director of OPR before beginning service has been added for larger projects.

Gas Supply Competition

Natural gas imports and exports are regulated by the DOE. The Commission has sole responsibility for approving the point of entry where new facilities are required and jurisdiction over the transportation and resale of imported natural gas in interstate commerce.

Many proposals which the Commission authorized over the past few years to serve consuming markets in the Northeast, Midwest and California were based on Canadian and domestic gas sources. Thirteen projects comprising 18 separate applications involving Canadian, Mexican, and LNG gas sources were approved in FY 1995.

Deregulation and imports are significant forces in gas supply competition. According to the Energy Information Administration, imports accounted for over 2.7 trillion cubic feet, or almost 13 percent, of America's total gas consumption of 21.2 trillion cubic feet in FY 1995. Canada supplied 99 percent of the imports and LNG from Algeria accounted for the rest. Virtually all imported gas volumes moved through interstate gas pipeline facilities. Exports to Canada and Mexico and LNG exports to Japan during FY 1995 totaled nearly 180 billion cubic feet.

Producer Regulation

The NGPA established a series of maximum lawful prices for both the interstate and intrastate markets. The NGWDA completed the decontrol process by deregulating well-head gas prices and removing the NGA's certificate and rate-filing requirements for producers on January 1, 1993.

The Commission completed processing a backlog of filings from state and federal jurisdictional agencies. These filings are necessary for producers to qualify for certain nonconventional fuels tax credits available under the Crude Oil Windfall Profits Tax Act.

Oil Pipelines

The Commission has statutory authority over the regulation of approximately 150 interstate common-carrier oil pipelines which transport crude oil or refined petroleum products. The combined revenues of the regulated companies exceed \$5.5 billion.

The primary goals of the Commission's regulatory program on oil pipelines are to ensure that:

- ◆ Shippers and consumers do not pay unjust and unreasonable transportation rates;
- ◆ Transportation services are not unduly discriminatory; and
- ◆ Oil pipelines have appropriate levels of incentives to continue to make prudent investments in their systems.

In response to EPCRA, the Commission implemented its newly established, streamlined and modernized rules and regulations promulgated in Order No. 561 in FY 1995. In that order, the Commission established a generally applicable indexing methodology which allows for greater efficiency and ease in filing rate changes. In addition to establishing the indexing methodology and revising the rules and regulations, the Commission, in Order Nos. 571 and 572, delineated three alternatives to that methodology and the conditions under which they may be implemented. The three alternative methodologies are: traditional cost-of-service; market-based rates; and, negotiated or settlement rates.

Order No. 571 established the requirements for cost-of-service rate

filings, delineated the information needed to be filed by an oil pipeline seeking to establish new or changed depreciation rates, and updated and simplified the annual reporting form of oil pipelines—FERC Form No. 6.

Order No. 572 established filing requirements and procedures with respect to an application by an oil pipeline for a determination that it lacks significant market power in markets in which it proposes to charge market-based rates.

The three orders all became effective concurrently on January 1, 1995, in accordance with EPCRA. After that date, numerous pipelines took advantage of the new relaxed regulations and staff resources when filing rate changes under the

simplified indexing program and waiver requests for short-notice filings. During the fiscal year:

- ◆ Oil pipelines made 109 rate change filings under the new indexing program;
- ◆ Of the 504 oil pipeline filings made during the fiscal year, 296 (almost 60 percent) were made to take advantage of the relaxed regulations dealing with waiver requests for short-notice filings; and
- ◆ Staff members were frequently contacted by both the industry and shippers for information on the new programs and regulations.

In addition to processing just over 500 general oil pipeline tariff filings, staff was responsible for the start-up work necessary to implement Orders Nos. 561, 571, and 572.

Finally, the Commission approved four full or partial settlements of oil rate cases that had been set for hearing, thereby completing eight outstanding dockets.◆

Electric Power

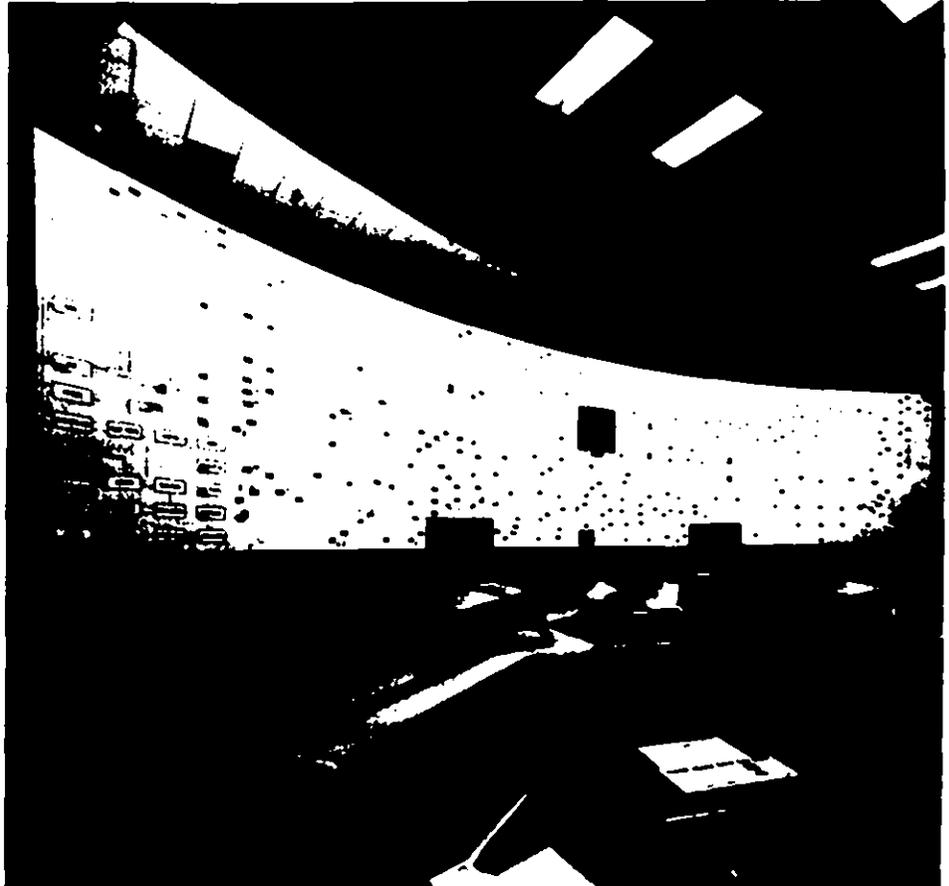
Overview

FY 1995 was a landmark year for the Commission's electric power program. The Commission began a major initiative to require electric utilities subject to its jurisdiction to open their transmission lines to third parties. This initiative was expected to culminate in a final open access rule in the spring of 1996. This initiative is described in detail below.

The Commission, or the FPC, has regulated rates for the transmission and sale for resale of electric energy in interstate commerce since 1935 and passage of the FPA. Historically, wholesale electric rates were established based upon cost-of-service regulation of the approximately 200 utilities subject to the Commission's jurisdiction. But the electric utility industry is changing in the face of an emerging competitive market for wholesale power service. Increasingly, the Commission is relying upon market forces rather than cost-of-service regulation to discipline wholesale electricity prices.

The key to making competition work is fair access to the electric transmission grid controlled by the public utilities subject to the Commission's jurisdiction.

Since the passage of EAct, the Commission has aggressively pursued policies intended to foster open access transmission and the development of a fully competitive bulk power market for electricity. EAct granted the Commission significant new authority to compel public utilities to provide transmission service. In addition, the Commission has been reexamining its existing authority under the FPA to remedy claims of undue discrimination. In a series of cases last year, the Commission found that it was unduly discriminatory and anticompetitive for a public utility to offer transmission service that was not compara-



The Commission's proposed open access rule would require utilities to open up transmission wires, including giving third parties access to control area services. Pictured above is the control room of New England Power Pool (NEPOOL).

ble to that which a transmission owner provides itself. Building upon this "golden rule" of comparability, the Commission has issued a proposed rule that would require all public utilities subject to its jurisdiction to provide comparable open access transmission services.

The Commission believes that open access transmission combined with a fully competitive wholesale bulk power market will provide substantial consumer benefits, increase customer choice, and lower electricity rates in the United States.

Open Access Transmission

Notice of Proposed Rulemaking

On March 29, 1995, the Commission issued a Notice of Proposed Rulemaking (NOPR) entitled Promoting Wholesale Competition Through Open Access Non-discriminatory Transmission Services by Public Utilities/Recovery of Stranded Costs by Public Utilities and Transmitting Utilities (70 FERC ¶ 61,357). This proposal initiates what could be the most far-reaching change in the electric utility industry since the initial implementation of the FPA was completed in the late 1930s.

The proposed rule is based on the Commission's obligation to prevent unduly discriminatory practices in

transmission access. It finds that the failure of public utilities to offer non-discriminatory transmission services through open access tariffs is unduly discriminatory and anti-competitive. The proposed rule further finds that the lack of open access by all public utilities impedes the transition to a fully competitive wholesale electric power market, and will lead to a patchwork of transmission systems—some open and some not—to the detriment of consumers.

The rule proposes that all public utilities that own or control interstate transmission facilities must file open access transmission tariffs offering nondiscriminatory services to wholesale sellers and buyers of electricity. These are often called comparability tariffs because utilities must offer services comparable to those that the transmission owner enjoys when it uses its own system. The rule proposes pro forma tariffs that contain the basic terms and conditions of comparable service. The pro forma tariffs are intended to make it relatively easy for utilities to comply with the rule-making. In response to the NOPR, many utilities have already filed comparability tariffs. Most of these tariffs offer the high quality transmission service required under the proposed pro forma tariffs.

Access to the transmission grid is critical to creating a fully competitive bulk power market. However, to provide a fair transition to such a competitive market, the Commission also proposes to permit utilities to recover legitimate and verifiable costs that may be "stranded" under an open access regime. Under the proposed rule, utilities would be able to request changes to existing wholesale contracts to allow for an exit fee to recover stranded costs. Alternatively, they could seek recovery through transmission rates. They would be required to show that they had a reasonable expectation

that they would continue to serve a wholesale customer. They would also have to demonstrate how much revenue would be lost should a customer depart.

Environmental Impact Statement

On July 12, 1995, the Commission issued a notice of intent to prepare an EIS on the effects of the proposed rule and a request for comments on environmental issues. Written comments on the scope of the EIS were received on August 11 followed by a public hearing held in Washington on September 8.

Real Time Information Networks

A key element of non-discriminatory access to utility transmission systems is access to information about these systems. A notice of technical conference on the development of real-time information networks (RINs) was issued concurrently with the open access NOPR. This was to ensure that the open access tariffs promote competition and do not operate in an unduly discriminatory manner. The proposed rule requires public utilities to provide transmission users the same access to information as the public utility enjoys. A technical conference was successfully concluded and subsequent work is being facilitated by various industry groups including the North American Electric Reliability Council (NERC) and the Electric Power Research Institute (EPRI).

Transmission Requests Under Section 211

To give the Commission authority to compel a utility to provide transmission service, Congress, in EAct, modified Section 211 of the FPA. It allowed the Commission to order specific transmission services, upon request, if it finds the request is in the public interest and will not unreasonably impair system reliability. This provision empowered the

Commission to reduce the monopoly power that transmission system owners can exercise by favoring the transmission of their own electric generation supplies over those of others.

Until transmission tariffs of general applicability have been filed by all utilities subject to the Commission's jurisdiction, it is reasonable to expect that the Commission will continue to receive individual requests for transmission service under the provisions of EAct. Since EAct was passed in 1992, the Commission has received 22 such applications for transmission access to date (seven of which were filed in FY 1995). Three applications were rejected. Of the remaining 19 applications, ten were granted, three were withdrawn, and six are pending.

Regional Transmission Groups (RTGs)

To capitalize on the significant technical resources of the electric industry, the Commission encouraged RTGs to help implement transmission services and resolve transmission issues on a regional basis. The Commission believes that properly functioning RTGs will enable the market for electric power to operate in a more competitive, and thus more efficient, manner. They can do so by: providing coordinated regional planning of the transmission system to assure that system capabilities are adequate to meet system demands; decreasing the delays that are inherent in the regulatory process, resulting in a more market-responsive industry; and enhancing regional transmission planning by providing a mechanism for cooperation among state commissions and the utilities they regulate. The Commission has expressed a willingness to give deference to agreements reached voluntarily under an approved RTG.

Electric Power

RTGs have the potential to provide substantial benefits to the public and the Commission by relieving regulatory burdens and by providing a forum for consensual agreements within new regional institutions. They can channel the expertise of the electric industry toward resolving technical issues relating to transmission system operations and toward planning the transmission system to meet the needs of all parties.

The first three RTG filings were made by western utilities. In FY 1995, the Commission accepted agreements filed by the Western Regional Transmission Association and the Northwestern Regional Transmission Association on a final basis, and conditionally accepted an agreement filed by the Southwestern Regional Transmission Association.

Other Rulemakings, Policy Statements and Inquiries

During FY 1995, the Commission dealt with several important electric rulemaking initiatives in addition to the open access transmission NOPR.

Transmission Pricing Policy Statement (RM93-19)

On October 26, 1994, the Commission issued a policy statement that provides guidance to the industry concerning acceptable transmission pricing. The Commission explained that it would provide substantial flexibility in the types of proposals that can be filed. The policy statement encourages proposals that are intended to benefit consumers and permit departure from embedded cost and postage stamp rate designs. This might permit, for example, distance-sensitive rates as well as forms of flow-based pricing. Proposals might also be permitted

that exceed the traditional revenue requirement, for prospective application, if the applicant shows that the proposal would produce greater consumer benefits and promote competitive bulk power markets.

Inquiry into Alternative Power Pooling Institutions (RM94-20)

Power pool agreements are multi-utility agreements for sharing generating capacity reserves and providing a central means of economic dispatch, trading and transmission of electric power. These are complex arrangements which are difficult to negotiate and which must be filed and approved by the Commission. The changes occurring in the industry, including the development of nondiscriminatory open access transmission, are likely to require changes in existing pooling agreements. In addition to existing power pools, the Commission expects that new power pooling institutions will evolve to operate transmission centrally, to facilitate a "spot market" for electricity, and to facilitate competition. The Commission initiated an inquiry to learn more about alternative power pooling institutions and to consider the role of traditional power pools in an era of increased competition. The Commission expressed concern that:

[g]iven the ongoing changes in the competitive environment of the electric utility industry—in particular, the potential for substantially increased access to transmission—we must consider whether we are appropriately balancing our dual objectives of promoting coordination and competition.

The inquiry posed questions in twelve areas covering alternative pooling institutions, existing power pools, restructuring along functional lines, comparability, and stranded costs.

Policy Statement and Final Rule on Ratemaking Treatment for Emission Allowances for Coordination Transactions (PL95-1)

The acid rain control title (Title IV) of the Clean Air Act Amendments of 1990 provides for the issuance of emissions allowances to reduce sulfur dioxide emissions levels. On December 15, 1994, the Commission issued a policy statement and interim rule that permitted public utilities making coordination sales to recover the costs of emission allowances. On April 26, 1995, the Commission adopted a final rule and clarified its policy statement. Currently, over 30 public utilities have emission allowance methodologies on file with the Commission.

During 1995, the Commission also issued the following rules:

- ◆ RM92-12—Streamlining the Commission's regulations for rate filings, issuance of securities and rules governing qualified facilities.
- ◆ RM94-14—Establishing decommissioning trust fund guidelines for nuclear plants.
- ◆ RM93-20—Implementing the electronic filing of Form No. 1.

FERC Electric Utility Rate Workload

During FY 1995, public utilities filed 1,847 electric rate applications, addressing such issues as market-based rates, transmission arrangements, unit sale rate increases, changes in delivery points, rate reductions, cancellations, and other interchange and power pool services. This represents a very significant increase in the Commission's workload. By comparison, 987 applications were filed in FY 1993 and 1,668 in FY 1994. Of the FY 1995 filings, 13 sought major wholesale rate increases totaling \$609 million.

Filings	Non-Formal	Formal
In process at start	456	84
Filed during year	1809	77
Total workload	2265	161
Processed during year	1735	62
In process at end of year	530	99

When a public utility files for rate changes or modifications to its terms or conditions of electric service, the Commission issues a public notice soliciting comments, protests and interventions. The staff acts on many routine, uncontested filings. Approximately 85 percent of the Commission's rate filings are processed by the staff through such delegated authority.

The Commission itself directly handles contested applications or those involving complex or controversial issues. The staff reviews these filings, along with any protests or interventions, and then makes recommendations to the Commission. The Commission may then take one of three actions:

- ◆ Approve the application without further review (a non-formal rate filing);
- ◆ Reject all or part of the application; or
- ◆ Suspend the effectiveness of the rate application and order a hearing and investigation (a formal rate filing).

When the Commission's preliminary evaluation of an application indicates that the rate schedule or tariff may produce excessive revenues or that the filing may be unjust, unreasonable, unduly discriminatory or preferential, the Commission may suspend the effectiveness of a rate filing for up to five months. At the end of the suspension, the new rate goes into effect, subject to refund. If the Commission orders an investigation, the case is



Pacificorp's Steven Walton addresses a Commission conference on electric industry Real-Time Information Networks held on July 27 and 28, 1995.

typically assigned to an administrative law judge (ALJ) for a formal hearing, and a settlement conference is scheduled. This gives the parties an opportunity to resolve the issues and to negotiate a settlement. If this is unsuccessful, or only partially successful, a hearing is scheduled.

During FY 1995, the Commission accepted 65 settlements that resolved some or all of the issues presented. In addition, the Commission issued 36 hearing orders involving 44 dockets.

Market-Based Rates

Ordinarily, the Commission evaluates rate filings made by jurisdictional public utilities on a cost-of-service basis. In some cases, however, the Commission will allow a utility to charge market-based rates for sales of electric energy, i.e., rates negotiated by the public utility and its wholesale customer. The Commission has approved market-based rates when the seller can demonstrate that: (1) it and its affiliates are not dominant in the generation market; (2) it and its affiliates either lack market power in trans-

mission or have mitigated any transmission market power by providing open access transmission service; (3) it and its affiliates have not erected any other barriers to entry; and (4) it will not engage in self-dealing or affiliate abuse. The Commission relies on these criteria to ensure that the market rate is not excessive.

The standards proposed for transmission access in the Commission's open access NOPR have influenced the Commission's analysis of transmission market power. In American Electric Power Service Corporation (AEP), Docket No. ER93-540-004, et al. (September 27, 1995), the Commission determined that it would grant market-based rates to a public utility that owns or controls transmission facilities only if the public utility has on file open access transmission tariffs that contain terms and conditions consistent with those in the open access proposed rulemaking pro forma tariffs. This requirement also applies to public utilities affiliated with power marketers seeking market-based rate approval.

Power Marketers

Power marketers are public utilities under Part II of the FPA which buy and sell power but generally own neither generation nor transmission facilities. Some power marketers are affiliated with public utilities. In Heartland Energy Services, Inc., Docket No. ER94-108-000 (August 9, 1994), the Commission explained the standards it would apply to affiliated power marketers, including a requirement that the affiliated public utility have a comparable transmission tariff on file. Based upon its increased experience with power marketers, the Commission, in FY 1995, established its reporting requirements for this class of public utilities. At the end of FY 1995, the Commission had approved 123 applications by power marketers to sell at market-based rates.

Mergers and Corporate Matters

The Commission is responsible for acting on applications related to corporate transactions including mergers, property dispositions, acquisitions of securities by public utilities, and authorization to hold various interlock positions. Increased corporate activities continued during FY 1995.

Major corporate matters related to mergers and acquisitions approved by the Commission during FY 1995 included:

- ◆ EC93-6—Final resolution of settlements and rehearings of the merger of Cincinnati Gas & Electric Company and PSI Energy, Inc. (now Cinergy).
- ◆ EC95-3 & 7—Order approving the merger of Delmarva Power & Light Company and Conowingo Power Company.
- ◆ EC95-4—Order authorizing the merger of Midwest Power Systems, Inc. and Iowa-Illinois Gas and Electric Company.



Sulphur dioxide emissions allowances are traded on the Chicago Board of Trade, pictured above.

- ◆ EC95-8—Order approving the sale and purchase of certain transmission facilities of Texas New Mexico Power by Southwestern Public Service Company. In that order, the Commission announced a policy that open access transmission tariffs would be required as a condition for Commission approval of any acquisition of jurisdictional transmission facilities.

Electric Opinions

The Commission issued five electric opinions reviewing ALJs' decisions. These opinions and their primary issues were:

- ◆ Central Louisiana Electric Company, Opinion No. 394 (the appropriate treatment for gains and losses associated with sales of accounts receivable and other accounting issues);
- ◆ Boston Edison Company, Opinion No. 398 (determination of the correct facilities charge to be assessed to Cambridge Electric Light Company);
- ◆ Northern States Power Company v. Southern Minnesota Municipal

Power Agency, Opinion No. 399 (use rights and investment obligations under three shared transmission system agreements);

- ◆ New England Power Company, Opinion No. 400 (amount of Seabrook I amortization expenses that may be included in test year cost of service); and
- ◆ Cajun Electric Power Cooperative v. Gulf States Utilities Company, Opinion No. 401 (the appropriate level of charges and credits for certain services provided under a joint transmission system agreement).

Exempt Wholesale Generators

EPAct added a new Section 32 to the Public Utility Holding Company Act of 1935 (PUHCA). Section 32 established a class of electric power producers known as Exempt Wholesale Generators (EWGs). A producer obtaining EWG status is free from

regulation under PUHCA. The Commission is charged with determining EWG status. During FY 1995, the Commission received 101 applications for EWG status, approximately the same number received in FY 1994, and acted on 89 applications.

Qualifying Facilities

PURPA encourages cogeneration and small power production by requiring electric utilities to buy electric energy from, and sell electric energy to, facilities that meet certain criteria. These entities are called qualifying facilities (QFs). QFs are exempted in whole or in part from federal and state utility regulation.

Commission regulations permit small power producers and cogenerators that are seeking QF status either to file a notice that their facilities meet applicable standards for certification or to apply to the Commission for an order granting certification.

During FY 1995, the Commission received 519 filings and completed 515 filings for QF status. Of the latter, 352 were for small power production (representing approximately 21,000 MW of generating capacity) and 163 were for cogeneration (representing approximately 4,000 MW of generating capacity).

From 1980 to 1995, QF filings were made for approximately 150,000 MW of existing or proposed capacity. However, this is not necessarily the operable capacity of qualifying facilities, nor is it necessarily a reliable projection of future capacity. Some projects reflected in these amounts will not be built.

Federal Power Marketing Rates

Congress assigned the responsibility for marketing power from various federal hydroelectric developments to the DOE under the DOE Organization Act. These pro-



Consolidated Edison's Ravenswood Generating Station in Queens, New York.

jects were constructed primarily by the U.S. Army Corps of Engineers and the Bureau of Reclamation. The Secretary of Energy has delegated final authority to the Commission to approve or disapprove the rates charged by the following power marketing agencies:

- ◆ Alaska Power Administration;
- ◆ Southeastern Power Administration;
- ◆ Southwestern Power Administration;
- ◆ Western Area Power Administration.

In addition, Congress, in the Pacific Northwest Electric Power Planning and Conservation Act, assigned to the Commission direct responsibility for confirming and approving or disapproving the rates of the Bonneville Power Administration.

As of January 1, 1995, about 130 federally owned hydroelectric projects requiring Commission-approved rate schedules were in operation and one was under construction. The projects had an installed capacity of over 34,000 megawatts. The Commission is also

responsible for approving rates for transmitting non-federal power over federal transmission lines.

During FY 1995, the Commission received 12 federal rate filings (representing rate increase amounts totalling \$237 million) and completed 12 filings (representing rate increase amounts of \$214 million).

Fuel Prices

The Commission has broad authority under Section 206 of the FPA to adjust utility rates that are unjust and unreasonable. The Commission monitors electric utility fuel procurement practices under Section 208 of PURPA to ensure the reasonableness of prices passed through to ratepayers under wholesale fuel adjustment clauses.

In addition to tracking the level of utility fuel costs, the Commission uses PURPA review to monitor the type of charges passed through the wholesale fuel clause. For example, when fuel prices are falling, utilities generally have opportunities to reduce costs by buying out or buying down high-priced contracts and replacing them with less expensive

purchases available in the market. To encourage utilities to take advantage of such cost-cutting measures, the Commission permits the automatic pass through to customers of buy-out and buy-down expenses. However, to ensure that ratepayers benefit from the transaction, utilities are required to provide details of the buy-out/buy-down arrangement, while also obtaining a waiver of the regulations before passing through such costs. Information gathered during the PURPA review is used to verify that the cost recovery complies with the Commission's regulations.

The average price of coal delivered to electric utilities during FY 1995 fell slightly from the previous year. During the same period, the delivered prices for gas decreased by 17 percent while the price for oil increased by almost ten percent. Consumption of oil by utilities decreased by more than 48 percent. Oil-fired generation was displaced by abundant supplies of lower-cost natural gas and greater generation from nuclear and hydroelectric stations. Almost two-thirds of the decrease in petroleum consumption was replaced by the increased consumption of natural gas.

Fossil Fuel Prices Paid by Electric Plants in the United States (Cents Per Million Btu)¹

	12 Mo. Ending Sept. 30, 1994	12 Mo. Ending Sept. 30, 1995	Percent Change
Coal ²	137.0	132.6	-3.2
Oil ³	240.3	263.9	9.8
Gas ⁴	234.4	194.6	-17.0

¹ Source: Federal Energy Regulatory Commission, FERC Form 423, Monthly Report of Cost and Quality of Fuels for Electric Plants (Steam-electric and Combined Cycle Plants 50 MW or greater).

² Coal: Bituminous, Subbituminous, Lignite and Anthracite.

³ Heavy and Light Oils.

⁴ Gas: Natural Gas and Small Quantities of Coke Oven, Refinery, and Blast Furnace Gas.

Additional Access to Transmission Information

The Commission requires the annual filing of a reporting form (Form 715) entitled Annual Transmission Planning and Evaluation Report. The reporting, required by EPAct, is to inform potential transmission customers, state regulatory authorities, and the public of potential transmission capacity and known constraints. On April 1, 1994, the Commission began receiving the information. On each April 1 thereafter the filings are updated.

Besides setting up the information requirements, the form is also intended to support or complement the Commission's expanded authority to order wheeling and to provide information to analyze transmission rate filings.

The form requires information from certain "transmitting utilities" that operate integrated (non-radial) transmission facilities 100kV and above. A transmitting utility is any electric utility that owns or operates electric power transmission facilities used for the sale of electric energy at wholesale. Respondents include investor owned utilities, federal and state agencies (including municipalities) and cooperatives.

For the April 1, 1995, filing the Commission received reports representing approximately 209 transmitting utilities. Nearly all of these respondents have designated one of 11 regional organizations as their reporting agent for all or part of the form. The regional agents are reliability councils or subregions of the North American Electric Reliability Council.

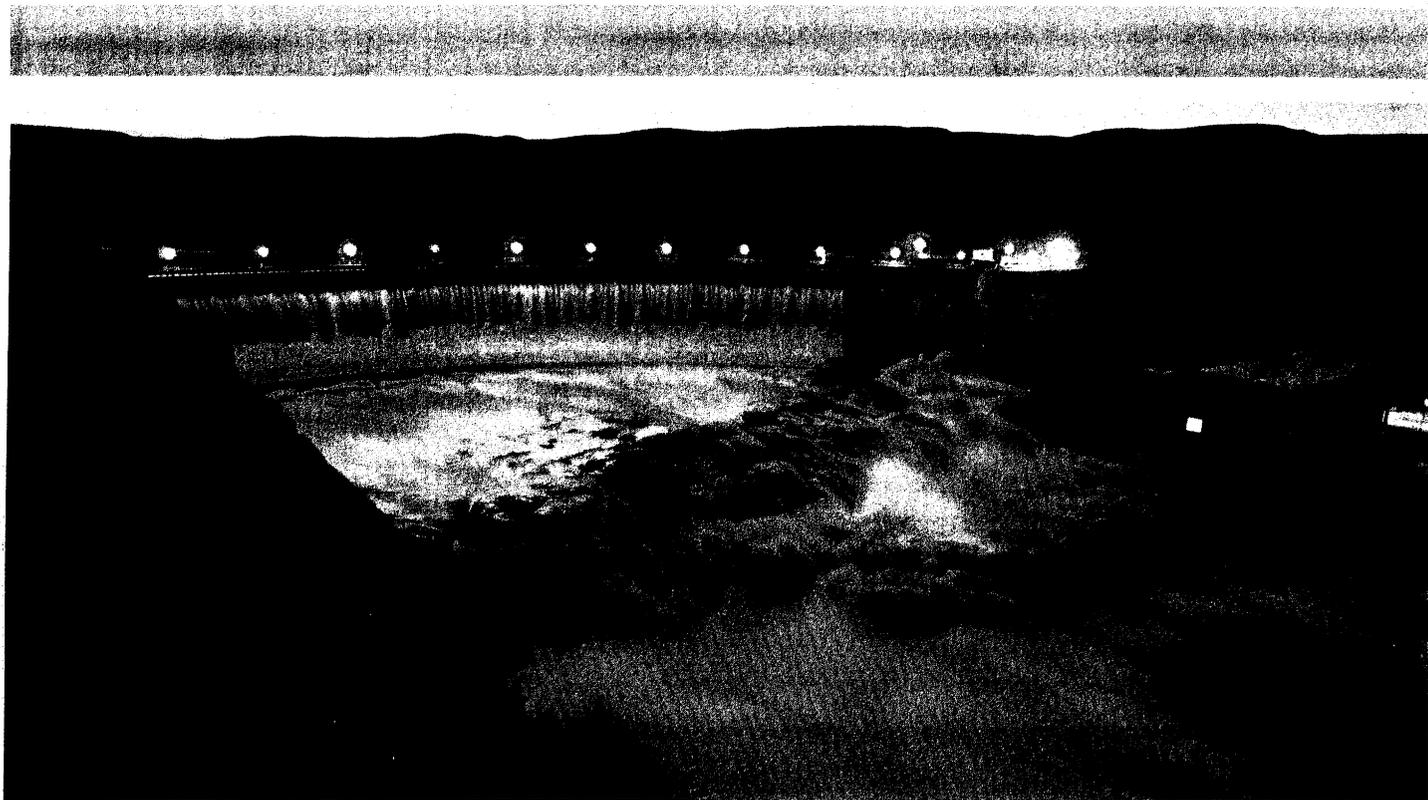
Transmitting utilities or their agents are required to make this information available to the public on request. The Commission operates an EBB that includes portions of the Form 715 information submitted on magnetic diskettes.

Contingency Plans For Electricity Shortages

Section 202(g) of the FPA, as amended by PURPA, directs the Commission to establish rules requiring public utilities to notify it and state regulators of possible electric power shortages and to submit contingency plans. The purpose is to assure that all customers served directly or indirectly are treated equally if shortages occur. On October 5, 1984, the Commission issued Order No. 401 requiring public utilities to file reports of anticipated shortages, along with amendments to previously filed contingency plans. Respondents are the Commission-regulated public utilities supplying full or partial firm power requirements to wholesale customers.

On January 13, 1995, the Commission issued Order No. 575 that adopts, among other things, a proposal for amending Part 294 of its regulations to allow a public utility not to file its contingency plans with the Commission, if the utility includes certain provisions in the appropriate rate schedules. Such provisions ensure that the utility will treat firm power wholesale customers without undue discrimination or preference if shortages occur and require reporting of modification of contingency plans to the appropriate state regulatory agency and to the affected wholesale customers.◆

Hydroelectric Power



Spring runoff at Montana Power's Ryan Dam on the Missouri River.

Overview

Hydroelectric power offers an abundant, clean source of electric energy. In FY 1995, hydroelectric plants supplied approximately ten percent of America's electrical energy. The Commission regulates about half of this amount.

Conventional hydroelectric projects generated an estimated 309.6 billion kilowatt-hours of electricity during the year, saving some 530 million barrels of oil, or 121 million tons of coal. In addition to providing significant generating capacity, hydroelectric projects authorized by the Commission often improve fish and wildlife habitats, recreational opportunities, flood control, and water supply.

Licensing and Relicensing

Requirements

The FPA and PURPA provide alternatives in developing a hydropower project. A developer may, as a first step, seek a preliminary permit. A permit gives the developer time to perform feasibility studies while maintaining priority to apply later for a license or an exemption from licensing. Since a preliminary permit is not a prerequisite for a license, a developer may also file directly for a license or an exemption. The Commission's regulations detail the filing procedures.

Exemptions may be obtained for projects if:

- ❖ Generating capacity is being installed or increased;
- ❖ The applicant has all of the real property interests necessary to develop and operate the project;
- ❖ Either the project will be located at a pre-1977 dam and have 5 MW or less installed capacity; or

the project will use the hydropower potential of a manmade conduit used primarily for purposes other than hydropower, and the installed capacity is 15 MW or less (40 MW or less for states and municipalities); and

- ❖ The project's capacity is less than 5 MW (15- and 40-MW limit for conduit exemptions).

In FY 1995, the Commission issued nine original licenses, 22 new licenses (relicenses), and three exemptions from licensing for hydropower projects.

Standards

The FPA, amended by ECPA, requires the Commission to give equal consideration to developmental and non-developmental uses of the waterways on which a project is

Hydroelectric Power

to be located. The Commission weighs the economic and environmental tradeoffs of the various uses of waterways when determining whether, and under what conditions, to issue a hydropower license.

In addition to incorporating mandatory terms and conditions submitted by federal and state agencies designated by law, the Commission independently evaluates the environmental impacts that would result from licensing proposed, and relicensing existing, hydroelectric projects. In doing so, staff considers the recommendations of:

- ◆ Federal and state natural resource agencies;
- ◆ Native Americans affected by project construction or operation; and
- ◆ Other concerned individuals and entities.

The staff also evaluates each project's consistency with relevant state and federal comprehensive plans.

The Commission's assessment of a project's environmental and engineering aspects often leads to special license articles. These articles frequently require the licensee to implement specific mitigative or enhancement measures. Unresolved major hydropower-environmental resource conflicts may cause the staff to recommend an alternative project design, or denial of a license.

Caseload

In FY 1995, the Commission completed action on 24 license applications for proposed hydroelectric projects. Fifteen of these proposals were for projects to be located on western waterways and nine for proposed projects in the east. In addition, the Commission made final decisions on 23 relicense

applications, most of which were for projects with licenses that expired in 1993. In contrast to proposed projects, the majority of the relicenses were for projects in the eastern states. During FY 1995, the Commission reduced its pending caseload in both the licensing and relicensing categories.

Many of the remaining relicense applications involve contentious issues that must be resolved through the Commission's environmental review process, but by the end of FY 1996, the Commission expects to reduce the pending caseload in this area significantly.

Project Relicensing

The Commission continued to process the unprecedented number of relicensing cases for hydroelectric projects with licenses that expired in 1993. The 157 applications for new licenses filed for this group of projects still comprise a large part of the Commission's workload. By the end of FY 1995, 76 had been issued new licenses. One application was withdrawn.

During FY 1995, the Commission completed 11 EISs, six Draft Environmental Assessments (DEAs), and 11 Final Environmental Assessments (FEAs) that addressed the environmental impacts of relicensing existing projects. Several of these documents analyzed cumulative as well as site-specific impacts resulting from relicensing two or more projects within a river basin.

Hydropower Relicensing Reform

On July 10, 1995, the National Hydropower Association (NHA) submitted a petition and a set of draft regulations to the Commission proposing to change relicensing procedures significantly. The Commission is reviewing the NHA petition and draft regulations and has issued a notice inviting comments on the filing.

Environmental Analyses

Environmental Impact Statements

During FY 1995, the Commission issued 13 EIS documents, 11 of which evaluated the continuing impacts from relicensing a total of 25 existing hydropower projects.

◆ In November 1994, the Commission issued the Lower Penobscot River Basin Draft Environmental Impact Statement (DEIS) that evaluated the impacts of: (1) relicensing the existing Stillwater No. 2712 and Milford No. 2534 Projects; (2) adding a new generating unit at the Milford powerhouse; (3) constructing a new Basin Mills Development, which would include an 18-foot-high, 1,650-foot-long dam impounding a 292-acre reservoir, and a powerhouse containing three turbine-generators with a total installed capacity of 38 MW; (4) constructing a new powerhouse with an installed capacity of 8 MW at the existing Veazie Development; and, (5) decommissioning the existing Veazie Development.

◆ In November 1994, the Commission issued a DEIS for the licensing of nine proposed projects in the Skagit River Basin in Washington State. The projects' total installed capacity would be approximately 65 MW. The DEIS analyzed impacts on resident and anadromous fish, terrestrial resources, recreational and visual resources, and cultural resources.

◆ In November 1994, the Commission issued a DEIS for the relicensing of two existing projects with five separate developments on the West Branch Penobscot River in west-central Maine: the Penobscot Mills Project No. 2458, and the Ripogenus Project No. 2572. The projects' combined installed capacity of 92.8 MW is

used by Millinocket factories that manufacture newsprint. The DEIS examined the impacts of establishing a shoreline vegetative buffer zone, and supplying greater spillage flows to protect aquatic habitat in a bypassed reach.

- ◆ In December 1994, the Commission issued a multiple-project DEIS for the mainstem Saco River in Maine. The document evaluated the environmental effects associated with three proposed actions: (1) implementing the Saco River Fish Passage Agreement, which would require amending existing licenses for the Bar Mills No. 2194, West Buxton No. 2531, and Hiram No. 2530 Projects; (2) relicensing of the Bonny Eagle No. 2529, and Skelton No. 2527 Projects; and (3) issuing an exemption for the existing unlicensed Swans Falls Project No. 11365. The primary issues included fish passage, minimum flows, impacts of peaking operations on wetlands, and the need for additional recreational access.
- ◆ In December 1994, the Commission issued a DEIS for relicensing the existing 42-MW Snoqualmie Falls Project No. 2493, located 25 miles from Seattle, Washington. The DEIS evaluated expanding the project to 73 MW, which would involve raising the existing reservoir level and diverting additional flows around the 268-foot-high Snoqualmie Falls. Over 1.5 million people visit the project annually to view the falls. The Snoqualmie Indian Tribes consider the falls to be a sacred site.
- ◆ In February 1995, the Commission issued an FEIS for relicensing the existing St. Louis No. 2360, and Cloquet No. 2363,

Projects, located on the St. Louis and Cloquet Rivers near Duluth, Minnesota. The FEIS evaluated the environmental consequences of continuing to operate five headwater storage reservoirs, and five hydroelectric developments with a combined capacity of 97.5 MW. Major environmental issues covered included the entrainment of fish by project turbines, and the impacts of establishing alternative headwater reservoir elevations on recreation and surrounding residential development.

- ◆ In February 1995, the Commission issued a DEIS for relicensing the existing 5.1-MW Clyde River Project No. 2306. The project consists of two storage reservoirs and three hydropower developments on the Clyde River near Newport, Vermont. Important issues evaluated in the DEIS included: operating the project run-of-river rather than in a peaking mode; removing the existing Newport No. 11 dam; and providing greater minimum flows in the project's lower bypass.

Third-party Contracting

When the Commission is required to prepare an EIS under NEPA for a license application, EPA Act authorizes the Commission to permit hydro applicants—at their option—to pay outside contractors to prepare the EIS. Hydro applicants may choose a contractor from a Commission-approved list. The Commission reviews the applicant's choice, makes the final selection, and oversees all contractor-prepared documents. This shortens the time required for Commission review because much of the environmental analysis is completed before an application is filed.

Third-party DEISs are being prepared for the proposed Blue Diamond Project No. 10756 in Nevada and the Boulder Valley Project No. 11373 in California.

Environmental Assessments

Following is a summary of some of the EAs the Commission issued in FY 1995:

- ◆ The multiple-project EA issued for the Buchanan Project No. 2551 and the Twin Branch Project No. 2579 on the St. Joseph River in Michigan and Indiana focused on cumulative impacts. The EA evaluated the turbine mortality impacts for stocked salmon and steelhead smolts that must pass five dams, including four with operating hydropower projects, on their out-migration to Lake Michigan.
 - ◆ The Santee River Basin DEA examined the environmental consequences of relicensing three existing South Carolina hydropower facilities, including the Saluda Station No. 2406, the Buzzards Roost No. 1267, and the Hollidays Bridge No. 2465 Projects.
 - ◆ A single-project DEA was issued in March 1995 for the existing 17.3-MW Stevens Creek Project No. 2535 on the Savannah River near Augusta, Georgia. This project regulates flows received from the upstream Corps of Engineers' Strom Thurmond hydroelectric project. Major environmental issues include: measures to enhance basinwide water quality, specifically low dissolved oxygen, and the enhancement of recreational opportunities.
- EPA Act permits an applicant, or a contractor, consultant, or other person selected by an applicant to prepare an EA when one is required under NEPA. The Commission is required to institute procedures, including pre-application consultations, to advise potential applicants of required studies or other information.

In FY 1995, the staff advised five applicants who intended to file a Draft Environmental Assessment (DEA) in lieu of the exhibit that should be filed with license applications. An applicant-prepared EA was filed for the relicensing of the Lake Sinclair Project No. 1951. Further, the staff participated in the pre-filing consultation process for the proposed Mahoney Lake No. 11303, Upper Chilkoot No. 11319, Power Creek No. 11243, and the existing Cowlitz No. 2016, Riley-Jay-Livermore Falls No. 2375, Otis No. 8277, Flambeau No. 1960, and Flint River Reservoir No. 1218 projects.

Overseeing an applicant who prepares a DEA during the pre-filing consultation process helps ensure that the EA analyzes the interests of all involved stakeholders. The process should result in more collaborative decision making and expedited licensing decisions.

In FY 1995, the Commission continued its outreach program and participated in hydropower conferences to inform license applicants, federal and state agencies, public interest groups, and Native Americans about a variety of topics. They included improvement of the licensing process, third-party contracting, assessment of cumulative environmental impacts, and ways in which the public may become more involved in the NEPA process.

Post-license Environmental Analysis

A third-party prepared EA was completed during FY 1995 for a proposal to realign 28 miles of transmission line that was part of a licensed project. The time required for the applicant to prepare and for staff to process the amendment application was thereby substantially reduced. Instead of the applicant

having to prepare an environmental report and the Commission staff having to prepare a follow-up NEPA document, the Commission staff's and the applicant's efforts focused on one environmental document.

In July 1995, the Commission issued an FEIS for the Gaston and Roanoke Rapids Project No. 2009. The licensee had submitted a proposal to withdraw water from the project's reservoir (Lake Gaston) and to construct and operate a water intake facility within the project boundary for that purpose. The project is located on the Roanoke River in Virginia and North Carolina and the withdrawal would supply drinking water to the City of Virginia Beach. The proposal was approved in July, 1995.

In July 1995, the Commission issued a DEIS for the existing Rocky Reach Project No. 2145 on the Columbia River in Washington. The DEIS evaluated the licensee's proposal to raise the reservoir elevation by three feet. Raising the elevation would result in a net increase in project capacity of 33.7 MW.

In August 1995, the Commission issued a DEIS for the existing Kerr Project No. 5 on the Flathead River in Montana. The DEIS discussed the licensee's proposed mitigative measures for fish and wildlife and erosion control measures to be implemented within the project boundary in and adjacent to Flathead Lake.

In August 1995, the Commission issued a DEIS for the existing Priest Rapids Project No. 2114 on the Columbia River in Washington. The DEIS evaluated alternatives to provide safe downstream passage for mid-Columbia salmon and steelhead smolts past the project, which includes the Priest Rapids and Wanapum dams. Fish passage alternatives analyzed included: an enhanced spill program; an enhanced spill program with con-

struction of structures to reduce gas supersaturation levels; mechanical bypass facilities; a transportation alternative proposed by the licensee; and surface collectors.

In August 1995, staff conducted scoping meetings in Maine on the Eel Weir Project No. 2984 related to management of lake levels at Sebago Lake, the project's reservoir. The Commission required the licensee to prepare a water level management plan that balances the various competing uses of Sebago Lake. The plan had to contain procedures for monitoring the effects of the plan on: shoreline erosion; lake pollution; downstream water quality; fish and wildlife resources; recreation; water supply; wetlands; property values; and economics of project power. The public scoping meetings were held to obtain the public's views in preparing the FEIS.

Joint Preparation of Environmental Documents

The Commission prepared, and will continue to prepare, NEPA documents with the Forest Service and other cooperating agencies, such as the Bureau of Land Management and the Corps of Engineers.

Ameliorating Cumulative Impacts

On December 14, 1994, the Commission issued a policy statement that addressed issues related to the use of reserved authority in hydropower licenses to ameliorate cumulative impacts in the same river basin.

In the policy statement, "Use of Reserved Authority in Hydropower Licenses to Ameliorate Cumulative Impacts" (Docket No. 93-25-000), the Commission concluded that it would deal with cumulative impact issues as comprehensively as possi-

ble at the licensing stage. Specific license articles will be fashioned as necessary when comprehensive analysis of all potential cumulative impacts could result in long delays in the relicensing process. Where there would be unacceptable delays in environmental mitigative measures, the Commission would issue a license while reserving its authority within the license to revisit those issues later.

Further, if the Commission foresees the need to deal with cumulative impact issues in the future, the Commission will reserve its authority as narrowly and specifically as possible in a tailor-made license condition. In issuing original licenses or relicensing, the Commission will coordinate license expiration dates to maximize future consideration of cumulative impacts in contemporaneous new licensing proceedings.

Project Decommissioning and Denial of New License

On December 14, 1994, the Commission issued a policy statement that addressed issues related to relicensing and decommissioning licensed hydropower projects after the original license expires. The policy statement, "Project Decommissioning at Relicensing" (Docket No. 93-23-000), focused on three major areas of analysis.

The first area involves issuing a new license for a project. The Commission concluded that it has the legal authority to deny a new license at the time of relicensing if no license can be fashioned that will comport with the standards of the FPA and other applicable law. The Commission expects that, where existing projects are involved, license denial will rarely occur.

The second area addresses what happens when no new license goes into effect for a project at the time

of relicensing, and the project in question must be decommissioned. The statutory language of the FPA does not expressly address the Commission's authority over decommissioning. However, the Commission determined that it has the authority to fill the statutory gaps to ensure that a project is decommissioned in a manner consistent with the public interest.

The third area addresses pre-retirement funding of retirement costs that will be incurred upon decommissioning. The Commission will not generically impose decommissioning funding requirements on licensees. The Commission may impose license conditions to assure that funds are available when the time comes to decommission a project. The Commission will determine whether to impose funding requirements on a case-by-case basis at the time of licensing.

Licensing Unlicensed Projects

The Commission reviews unlicensed operating projects and declarations of intent for proposed projects to determine whether they are required to be licensed under Section 23(b) of the FPA. From April 1986 to September 1995, the review of these projects resulted in 122 orders finding that licensing is required and 122 orders finding that licensing is not required. In FY 1995, ten orders on jurisdiction were issued.

Dam Safety

Dam safety receives top priority in the Commission's hydropower program. All of the Commission's licensed projects are inspected regularly to ensure their safety. The Commission's dam safety program is the largest in the federal government. The Commission cooperates with other agencies, as appropriate, in carrying out the program.

The Commission's dam safety program ensures that licensed and exempted projects are properly con-

structed, operated, and maintained to protect life, health, and property. The program complies with the Federal Guidelines on Dam Safety issued in 1979 under Presidential Executive Order.

During FY 1995, the Commission staff conducted about 3,154 dam safety inspections and completed final review of 165 reports of inspections by independent consultants.

A licensee must retain consultants to review the design and construction of major or complex projects. Commission regulations require an independent consulting engineer, approved by the Commission, to inspect and evaluate certain projects at five-year intervals after the start of operation. They inspect and evaluate these projects to identify any actual or potential deficiencies that might endanger public safety. If deficiencies are discovered, dam owners are required to take remedial actions, ranging from minor maintenance to major repairs.

Since 1981, over 357 dam safety modifications have been completed at a total cost of about \$603 million. At the end of FY 1995, there were 90 ongoing modifications at a total estimated cost of \$144 million.

When warranted, the Commission staff has retained the services of consultants to assist staff in specialized fields, such as seismology and geotechnical engineering. In addition, the staff contacts experts in specialized fields to keep abreast of the latest advances in engineering.

The Commission staff has required licensees to use new equipment for investigative and quality control purposes, and has revised

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proposed investigative programs to properly assess the stability and adequacy of dams. Typically, these efforts result in cost savings associated with remediation and sometimes eliminate the need for dam safety modifications. In addition, the staff has required licensees to modify their analytical methodologies in evaluating dam safety requirements.

Varying degrees of seismic activity have been recorded east of the Rocky Mountains, and there is concern of a repeat of the New Madrid, Missouri, and the Charleston, South Carolina, earthquakes. The Commission has retained the services of expert consultants to assist staff in addressing the possible effects on specific dams. In addition, there has been an increasing concern about the possibility of a large earthquake affecting areas of Oregon and Washington west of the Cascade Mountains. The Commission staff is monitoring and evaluating the seismic research in the region. Projects that could be affected will require more site-specific seismicity evaluation and subsequent structural analyses. An excellent example of the need to assess the stability of dams during earthquakes was provided by the 1994 Northridge earthquake in California, which affected Commission-licensed and exempted dams. No dam failures occurred at these sites.

Work on the Commission's Engineering Guidelines continued during FY 1995. The staff uses these guidelines in processing license applications and for evaluating existing projects, including proposed changes or additions. The goal is to ensure the safety and adequacy of project structures. A chapter on instrumentation and monitoring was published. Work is essentially complete on a first draft of a chapter on dams, including Amburson, multiple arch, and tim-

ber crib dams. A chapter on arch dams and water conveyances was begun.

Under the Memorandum of Agreement (MOA) with the DOE and the Nuclear Regulatory Commission (NRC), the staff continues to perform safety inspections of dams under the jurisdiction of these agencies. Approximately 19 such inspections were made in FY 1995. The Commission has continued its efforts to work more closely with states to improve dam safety.

The Commission requires emergency action plans (EAPs) for all dams unless it is shown that no reasonably foreseeable emergency would endanger life, health, or property. EAPs provide an early warning system for sudden emergencies caused by natural disasters, such as hurricanes and earthquakes. Their purpose is to provide maximum public protection. The Commission conducted 45 functional exercises in FY 1995 to test EAPs under simulated conditions. These exercises involved the state and local disaster preparedness agencies responsible for emergency evacuation.

The Commission staff's initiative requiring licensees to conduct a periodic functional EAP exercise is gaining national interest. Representatives of several federal agencies, including the Bureau of Reclamation, the Army Corps of Engineers, the Tennessee Valley Authority (TVA), and the Federal Emergency Management Agency (FEMA) have expressed interest in the Commission's EAP exercise program and have attended the exercise design course.

The FEMA determined that EAP training should be given to state regulated dam owners and emergency management agencies. The FEMA completed an MOA agreement with the Commission for the Commission staff to develop and conduct an EAP training course. The Commission staff instructed course participants in how to develop and test an EAP.

A pilot course and one additional course were conducted in FY 1995.

The Commission cooperates with project owners in assessing the need for safety devices or other safety measures and solving safety problems. The Commission's *Guidelines for Public Safety at Hydropower Projects* describes possible hazards and safety devices or measures. The Commission staff ensures that licensees and exemptees install and maintain the appropriate public safety devices.

Compliance

The goals of the hydropower compliance program are to ensure that the terms and conditions of licenses and exemptions are adhered to and that actions to protect life, health, property, and the environment are taken promptly. While these goals remained constant in FY 1995, the means to achieve them continued to evolve. The Commission increasingly has sought to emphasize proactive cooperation with the hydro industry to prevent noncompliance.

Audits

In FY 1995, the Commission also continued its successful compliance audit program. Audits were conducted of 27 projects in nine states. Started in 1991, this program has focused on projects that have experienced previous problems and is intended to foster a more active and cooperative effort to ensure compliance.

Outreach Programs

In FY 1995, 1,100 new requirements were included in new licenses. Because relicensing will continue to affect compliance workload, the Commission has employed several outreach initiatives to increase communication with the hydro industry.

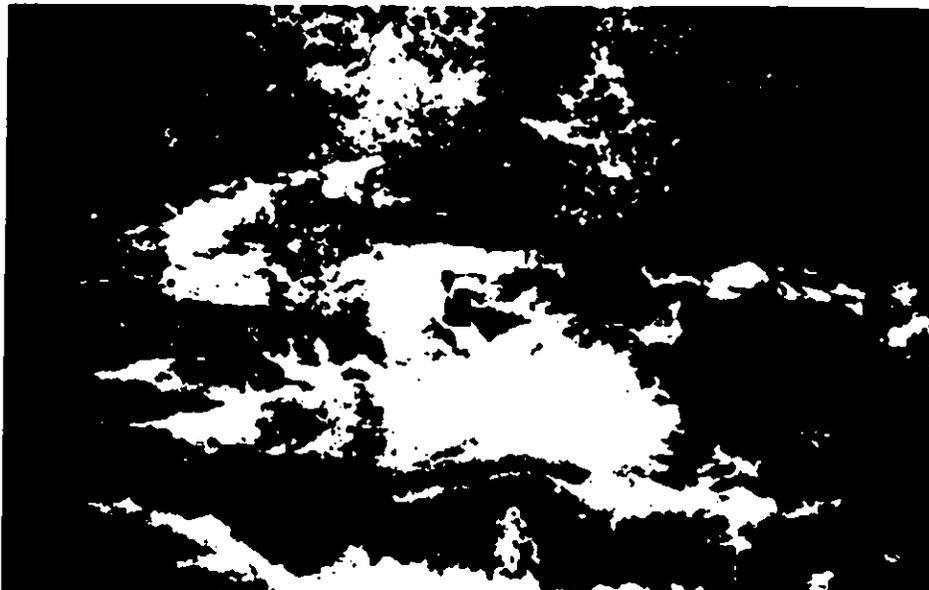
One such initiative is the creation of License Transition Teams. These teams meet with licensees during the critical six to 12 months after license issuance to discuss the license requirements. The teams, comprised of a multi-disciplinary group, work with licensees to ensure a complete understanding of all aspects of the licensing document. This service gives licensees an opportunity to discuss any questions or problems and a chance to develop a point of contact for future questions or problems.

Another outreach effort is the new Compliance Liaison Activity Program, which targets licensees and exemptees with small projects and limited resources. During the last several years, this group has been the subject of a disproportionate number of allegations, investigations, and compliance violations. To address this situation, owners and operators of small projects are contacted to determine if there are any issues they want addressed. By periodically communicating with this group, the Commission hopes to reduce instances of noncompliance.

Similarly, the Commission has increased its use of informal communication with licensees and exemptees about various license compliance and administration issues. Although these new approaches place a greater burden on staff resources initially, the Commission believes they will ultimately result in a sizable reduction in the number of noncompliance issues facing our licensees and exemptees. Additionally, the feedback from licensees on these new approaches has been very positive.

Civil Penalty Program

Under Section 31 of the FPA, hydroelectric licensees, exemptees, and permittees are subject to civil penalties of up to \$10,000 a day, or revocation of their authorization,



Kayaker at Tallulah Gorge in north Georgia. A variety of recreational opportunities are available at FERC-licensed hydroelectric projects.

for violating Part I of the FPA. The Commission completed 16 civil penalty actions in FY 1995. A total of \$864,000 was assessed. Penalties included revocation of a license for failing to ensure public safety; \$122,000 for failing to install gaging equipment; \$30,000 for unauthorized construction; and \$192,000 for failing to file timely plans and specifications to undertake dam safety remedial work, operate in a run-of-river mode, and release adequate flows.

Resource Issues

In the 1960s, licenses included provisions (reopener articles) allowing the Commission to modify projects to ensure that adjustments could be made to accommodate future environmental resource needs. These provisions began to be used significantly in the 1990s. As the demands on the Nation's water resources increase, the calls to modify the requirements of existing hydroelectric facilities have also increased.

Requests to modify license requirements include: withdrawal

of water for municipal water supplies; installing fish passage facilities; enhancing recreational facilities; modifying reservoir surface elevations; providing additional minimum flows below project dams; and improving water quality.

State and federal resource agencies and other entities have asked the Commission to reopen licenses for installing downstream fish passage facilities at projects located within the Connecticut River Basin. These facilities would help restore Atlantic salmon to the basin. The Comtu Falls Project No. 7888 was the first project where the Commission required the licensee to install these fish passage facilities. In June 1995, the Commission approved the licensee's passage plan and the facilities have been constructed. Emigrating salmon smolts will pass safely and this will enhance the efforts to restore salmon to the Connecticut River.

A local water authority in Alabama filed a petition under a reopener article requesting authority to

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construct a water supply intake and withdraw up to 10 million gallons per day from a licensed project's reservoir. The Commission prepared an EA in March 1995.

The Commission is involved in several other proceedings that consist of requests from private citizens and government agencies to modify the operation of hydropower projects to minimize environmental impacts not contemplated at the time of licensing. In many instances, through meetings and correspondence, the Commission is working to achieve a mutually agreeable resolution of the issues.

Water Quality

Maintaining state water quality standards and protecting existing aquatic resources are important considerations in processing license applications and in post-licensing activities. When a license or an amendment to a license is issued, the Commission seeks to ensure that water quality resources are maintained or enhanced.

Project effects on dissolved oxygen, aeration, water temperature, and water chemistry are carefully examined. If, after reviewing site-specific conditions, there is reason to believe that a project may adversely affect water quality, changes may be required to minimize or mitigate these impacts. Monitoring may also be required to ensure that the project maintains the required water quality.

Headwater Benefits

Section 10(f) of the FPA requires that the Commission determine how much an owner of a downstream non-federal hydropower development must pay the United States or an upstream licensee for energy generation benefits supplied by the

upstream storage project. Total headwater benefits assessments of approximately \$248 million have been made since the program began in 1920. The Commission assessed approximately \$6 million for FY 1995 annual energy gains supplied by federal storage projects.

The Commission determined headwater benefits for the James, Thames, and Ouachita River Basins that resulted in additional assessments of \$636,700. The Commission also settled with the City of Idaho Falls for energy gains received at three of its projects and collected \$53,000. The Commission's environmental support contractor helped the staff begin 12 new basin studies and started to prepare a "Headwater Benefits Program Information Booklet." In addition, the Commission contracted with Oak Ridge National Laboratory to evaluate additional refinements to calculating energy gains to economize the headwater benefits study process.

Efficiency Upgrade Program

During FY 1995, the Commission processed 12 efficiency-upgrade related project amendments, resulting in an increase of 30 MW in generating capacity. The efficiency upgrade program encourages capacity and efficiency upgrades at existing hydropower projects. The program's objectives are to promote domestic energy production, encourage utilities to evaluate investments in energy efficiency and make more efficient use of our existing hydroelectric resources.

A typical efficiency improvement at a hydropower project can include upgrading the generating units, modernizing controls, or installing additional units. Since the program began in 1991, the Commission processed a total of 93 efficiency upgrades resulting in a total increase of 545.3 MW of on-line generating capacity.

Power Site Lands

During FY 1995, the Commission processed 254 applications for non-waterpower uses of federal lands reserved for waterpower purposes. These non-waterpower uses included 175 mining claims, four mineral leases, 16 rights of way, and 59 determinations under the FPA.

All of the approximately 750 active but as-yet-undeveloped power sites established under Section 24 of the FPA have been identified by township, range and section for the public land states and by Federal Reservations for the other states. This allows the Bureau of Land Management and the Commission to handle requests for other uses of the power sites more expeditiously.

Alternative Dispute Resolution

Alternative dispute resolution (ADR) processes were implemented at the Lower Mokelumne River No. 2916 and the New Don Pedro No. 2299 Projects, in California. The Commission wanted to determine if a consensual settlement could be achieved on contentious issues at these projects.

Based on the reopener articles in the existing license for the Lower Mokelumne River Project, the staff reviewed project operations. The FEIS issued in November 1993 contained recommendations to protect the fish and wildlife resources. These recommendations were carefully weighed against the loss of storage in a reservoir that supplies water to 1.2 million people in Oakland, California, and vicinity. The licensee and the resource agencies initiated discussions to resolve these issues and are in the process of seeking a settled conclusion.

For the New Don Pedro Project, the issues are related to license pro-

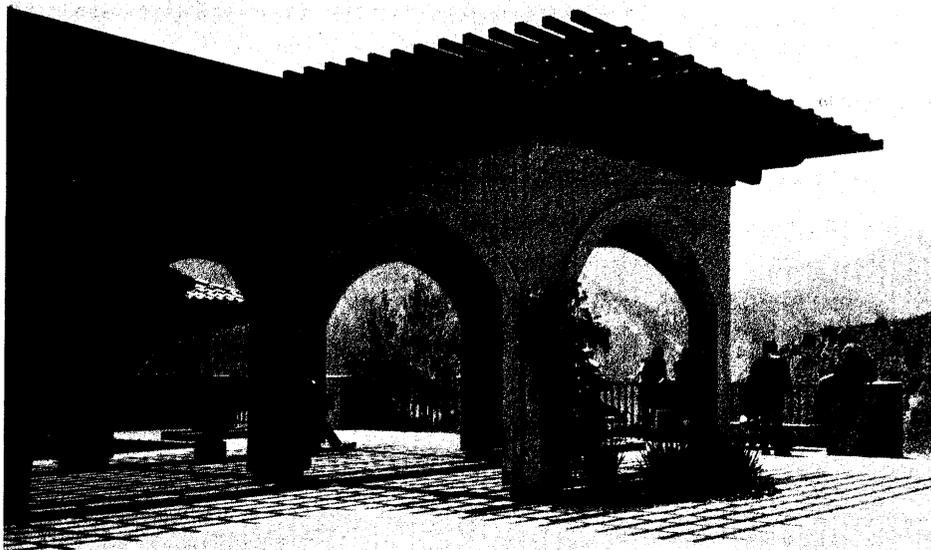
visions that require the Commission to reexamine the flows that are available for chinook salmon and the water supply for 2.4 million people in the City of San Francisco. The ADR process has involved all parties. With the help of facilitators from the Federal Mediation and Conciliation Service, efforts for resolving the controversial issues moved forward. A settlement agreement is anticipated.

Fisheries

In FY 1995, the Commission continued its efforts to ensure that fishery resources are protected and enhanced. Before issuing a license, the Commission staff conducts an independent environmental analysis, using either an EA or an EIS, and develops appropriate terms and conditions to maintain and enhance the fishery.

In March 1995, the Commission approved final functional design drawings for upstream fish passage facilities to be constructed at the Holtwood and Safe Harbor dams. These dams are located on the Susquehanna River in southeastern Pennsylvania. Approval of the final design culminated years of cooperation between the licensees and the resource agencies. The facilities are being constructed and should safely and efficiently pass American shad and other anadromous species upstream of the projects' dams. The facilities will be operational no later than April 1997.

In February 1995, an uncontested settlement agreement was submitted for the Ludington Project No. 2680, which is located on Lake Michigan. The parties submitted the agreement to resolve long standing fish protection and angler access issues. The project is a 1,872-



New visitor center at the California Aqueduct hydroelectric project overlooking Pyramid Reservoir some 40 miles north of Los Angeles.

MW pumped storage project that transfers water between Lake Michigan and an upper manmade reservoir. During the pumping process, fish from Lake Michigan are entrained in the intakes of the project during normal operations. The multi-party agreement includes the licensee's proposal to install a seasonal 2.5-mile-long barrier net around the project intakes to reduce entrainment mortality of game and forage fish. In addition, the agreement provides for developing two off-site angler access facilities. In July 1995, we issued and requested comments on a DEA that addressed the proposals included in the settlement. We will address the comments in an FEA that the Commission will consider in acting on the proposed settlement agreement.

The compliance staff continues to work with other agencies and licensees to improve fish passage and to encourage development of fish protective measures.

Recreation

Data collected by the Commission from 1990 through 1992 for approximately 1,000 licensed developments (a project may consist of one development or more) show that annual public use exceeded an average of 81,000 recreation days per development. Recreational development includes facilities for camping, picnicking, swimming, boating, hiking, fishing, and hunting. There are over 28,000 tent/trailer/recreational vehicle sites, more than 1,100 miles of trails, and 1,200 picnic areas at Commission-licensed facilities. The total surface area of reservoirs at licensed projects is more than three million acres.

License applications for major hydropower projects include recreational plans for the project area. Those applying for a license are expected to review recreational needs in the project area and to provide public recreational facilities

Hydroelectric Power



during the license term. With few exceptions, such as unsafe areas, project lands and waters are open to the public.

Of the 76 projects with licenses that expired in 1993, for which new licenses were issued through FY 1995, 57 projects included recreational measures, such as boat launches, fishing piers, picnic areas, parking areas, sanitary facilities, and trails, as well as access to these facilities for the handicapped. The cost of constructing these facilities is expected to be over \$8 million.

Every six years, licensees are required to submit a Licensed Hydropower Development Recreation Report (Form 80). This report supplies data on recreational use and facilities at each project development. The Commission's recreation staff revised and simplified

the Form 80 during FY 1995 to make it easier for licensees to complete. After the Office of Management and Budget approves the revised Form 80, the Commission will send it to licensees to collect recreational data in calendar year 1996. The next filing of the Form 80 is due on April 1, 1997.

Hydropower Resources Assessment

As of September 30, 1995, the Commission estimated the nation's developed and undeveloped hydroelectric power potential at 150.4 million kilowatts of conventional hydroelectric generating capacity. Of this total, 74.2 million kilowatts are already developed.

The September 30, 1995, estimate of hydroelectric resources is based on an annually updated inventory of potential hydroelectric power sites. In addition to 2,351 existing plants, 50 plants under construction are capable of produc-

ing 2.2 billion kilowatt-hours of electricity annually. There are 4,858 sites with undeveloped annual generating potential of 217 billion kilowatt-hours.

The leading states in hydroelectric production are Washington, California, and Oregon, with 100.4, 41.3, and 28.9 billion kilowatt-hours respectively. The greatest potential average annual generation exists in Washington, California, and Idaho, with 27.0, 24.1, and 22.2 billion kilowatt-hours respectively. ♦

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(Projects For Which Licenses Will Expire
Between January 1, 1996, And December 31, 2001—See 18 CFR §16.3)

License Expiration Date	Licensee	FERC Project No.	State	County	River	Installation (KW)	Facilities Under License*	Period of (Years)	Subj. Fed.
96/04/30	Southern Calif Edison Co	1930	CA	Kern	Kern River	24992	DM PH	50	Y
96/04/30	Southern Calif Edison Co	1932	CA	San Bernardino	Lytle Creek/ Santa Ana River	400	DM PH	50	Y
96/04/30	Southern Calif Edison Co	1933	CA	San Bernardino	Santa Ana River	4000	DM PH	50	Y
96/04/30	Southern Calif Edison Co	1934	CA	San Bernardino	Mill Creek/ Santa Ana River	3250	DM PH	50	Y
96/06/29	CP National Corp	1986	OR	Baker	Rock Creek/ Powder River	800	DM PH	50	Y
96/06/30	Maverick Co Wtr Dist	1952	TX	Maverick	Maverick Canal	0	RS	50	N
96/11/05	Pacific Gas & Electric Co	2019	CA	Calaveras	Angels Creek/ Clovey Creek	3600	DM PH	50	Y
97/01/29	Pacificorp	1927	OR	Douglas	N. Umpqua River	185000	DM PH	50	N
97/05/11	Minnesota Pwr & Light Co	2663	MN	Morrison	Crow Wing River	1520	DM PH	30	N
97/08/31	Georgia Power, Co.	1951	GA	Baldwin	Oconee River	45000	DM PH	50	N
97/12/23	Idaho Power Co	2061	ID	Twin Falls	Snake River	60000	DM PH	50	N
97/12/31	Central Maine Power Co.	2612	ME	Somerset	Dead River	0	DM RS	50	N
98/01/31	Wisconsin River Power Co	1984	WI	Adams	Wisconsin River	35000	DM PH	47	Y
98/02/28	Idaho Power Co	1975	ID	Gooding	Snake River	69000	DM PH	50	Y
98/02/28	Wisconsin Elec Power Co	1980	MI	Dickinson	Menominee River	22700	DM PS	50	Y
98/03/31	Bonnets Ferry, City of	1991	ID	Boundary	Moyie River	3975	DM PH	48	N
98/06/30	Northern States Power Co	1982	WI	Chippewa	Chippewa River	33000	DM PH	48	Y
98/06/30	Herber Light 49	1994	UT	Wasatch	Snake Creek	750	PH	49	N
99/02/28	Southern Cal Edison	2017	CA	Fresno	San Joaquin R	84000	DM PH	50	Y
99/03/30	Bangor Hydro Elec. Co.	2622	ME	Penobscott	W Br Penobscott R	3440	DM PH	33	N
99/05/31	Green Mt. Pwr. Corp	2674	VT	Addison	Otter Cr.	2400	DM PH	50	N
99/05/31	Idaho Power Co	2777	ID	Twin Falls	Snake R	34500	2DM 2PH	50	N
99/05/31	Idaho Power Co	2778	ID	Jerome	Snake R	12400	DM PH	50	N

Hydroelectric Power Table

License Expiration Date	Licensee	FERC Project No.	State	County	River	Installation (KW)	Facilities Under License*	Period of (Years)	Subj. Fed.
99/08/31	Holyoke Wtr & Pwr	2004	MA	Hampden	Connecticut R	42865	6DM 6PH	50	N
99/09/30	Lwr Val Pwr & Lt Co	2032	WY	Lincoln	Strawberry Cr	1500	DM PH	50	Y
99/09/30	Internat Paper Co	2375	ME	Oxford	Androscoggin R	19640	3DM 3PH TL	50	N
99/09/30	Aquamac Corp	2927	MA	Essex	S. Merrimack CNL	250	DM PH	39	N
99/09/30	Otis Hydro-elec. Co	8277	ME	Franklin	Androscoggin R	10350	DM PH	15	N
99/10/01	S D Warren Co	2897	ME	Cumberland	Presumpscot R	1350	DM PH	37	N
99/11/30	Merrimack Paper Co.	2928	MA	Essex	S. Merrimack	1088	DM 2PH	50	N
99/12/31	Montana Pwr Co	2543	MT	Missoula	Clark Fork R	3040	DM RS PH TL	34	N
00/09/30	Bangor Hydro Elec Co	2721	ME	Penobscot	Piscataquis	1875	DM PH	38	Y
00/10/31	Pacificorp	696	UT	Utah	American Fork	950	DM PH	25	N
00/11/30	Idaho Power Co	2055	ID	Owyhee	Snake	82800	DM PH	50	Y
00/12/31	Virginia Elec & Pwr	2009	NC	Halifax	Roanoke	277920	2DM PH	50	Y
00/12/31	Northern States Pwr	2056	MN	Hennepin	Mississippi	12400	2DM 2PM	50	Y
00/12/31	Nekoosa Packaging	2902	VA	Bedford	James	512	DM PH	38	N
01/01/09	Washington Wtr Pwr Co	2058	ID	Bonner	Clark Fork/ Pend Oreille River	211500	DM PH	50	Y
01/01/30	Northern States Pwr Co	2897	WI	Dunn	Red Cedar River	6000	DM PH	45	Y
01/01/30	Nekoosa Packaging Co	2901	VA	Amherst	James River	1875	DM PH	39	Y
01/01/30	Village of Lyndonville	3090	VT	Caledonia	Passumpic River	350	DM PH	39	N
01.01/31	Niagara Mohawk Pwr Corp	2060	NY	St. Lawrence	Raquette River		RS	50	Y
01-02/27	County of Antrim	3030	MI	Antrim	Elk River	700	DM PH	20	N
01-02/28	Dairyland Power Coop	1960	WI	Rusk	Flambeau River	15000	DM PH	50	Y
01-03/30	Consumers Power Co	2566	MI	Ionia	Grand River	3250	DM PH	39	Y
01-04/30	Pacificorp	2071	WA	Clark	Lewis River	108000	2DM PH	50	Y
01-07/30	City of Marquette	2589	MI	Marquette	Dead River	3900	2DM 2PH	39	Y
01-07/31	New England Power Co	2077	NH	Grafton	Connecticut River	291360	3DM 3PH	50	Y

Hydroelectric Power Table

License Expiration Date	Licensee	FERC Project No.	State	County	River	Installation (KW)	Facilities Under License*	Period of (Years)	Subj. Fed.
01/08/30	City of Black River Falls	3052	WI	Jackson	Black River	920	DM PH	39	N
01/08/31	Green Mountain Pwr Corp	2090	VT	Washington	Waterbury River	5520	DM PH	50	Y
01/08/31	Connecticut Light & Pwr Co	2597	CT	Litchfield	Housatonic River	9000	DM PH	39	Y
01/08/31	Pacificorp	2652	MT	Flathead	Swan River	4150	DM PH	36	Y
01/09/01	International Paper Co	2631	MA	Hampden	Westfield River	2690	DM PH	36	Y
01/09/29	City of Hamilton	2724	OH	Butler	Miami River	1500	DM PH	39	N
01/09/30	Georgia Power Co	1218	GA	Dougherty	Flint River	5400	2DM PH	22	Y
01/09/30	Aquenergy Systems Inc	2416	SC	Laurens	Saluda River	6200	DM PH	36	Y
01/09/30	Connecticut Light & Pwr Co	2576	CT	New Haven	Housatonic River	151300	10DM 7PH	48	Y
01/09/30	Nantahala Pwr & Light Co	2694	NC	Macon	Queens Creek/ Nantahala River	1440	DM PH	36	N
01/09/30	Graniteville Co	2935	GA	Richmond	Augusta Canal/ Savannah River	1200	DM PH	50	N
01/09/30	S D Warren Co	2942	ME	Cumberland	Presumpscot River	2400	DM PH	39	Y
01/10/01	Pacificorp	2401	ID	Caribou	Bear River	40500	2DM 2PH	36	Y
01/10/31	Wisconsin Electric Pwr Co	2073	MI	Iron	Michigamme River	9600	DM PH	50	Y
01/10/31	Wisconsin Electric Pwr Co	2074	MI	Iron	Michigamme River	2800	DM PH	50	Y
01/11/30	North Central Pwr Co	2064	WI	Sawyer	E Fork Chippewa River	600	DM PH	50	Y
01/11/30	Sanitary District of Chicago	2866	IL	Will	Chicago Sanitary & Ship Canal	13500	DM PH	50	Y
01/12/31	Wisconsin Electric Pwr Co	1759	MI	Iron	Michigamme River	19944	3DM 3PH	27	Y
01/12/31	City of Tacoma	2016	WA	Lewis	Cowlitz River	460000	3DM 2PH	50	Y
01/12/31	Confederated Tribes/ Portland General Electric Co	2030	OR	Jefferson	Deschutes River	398655	3DM 3PH	50	Y
01/12/31	Wisconsin Electric Power Co	2072	MI	Iron	Paint River	100	DM PH	50	Y
01/12/31	Central Maine Power Co	2142	ME	Somerset	Kennebec River	75000	DM PH	50	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.

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