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SUMMARY OF THE NEW ENGLAND CONFERENCE ON LEGAL AND INSTITUTIONAL INCENTIVES TO SMALL-SCALE HYDROELECTRIC DEVELOPMENT

January 30-31, 1979
Boston, Massachusetts

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INTRODUCTION

The New England Conference on Legal and Institutional Obstacles and Incentives to Small-scale Hydroelectric Development was held at the Copley Plaza Hotel in Boston on January 30-31, 1979. The following is a summary of the proceedings of the conference.

SUMMARY OF NEW ENGLAND CONFERENCE

The New England Conference on Legal and Institutional Incentives to Small Scale Hydroelectric Development was called to examine the legal and institutional problems confronting small-scale hydroelectric potential of the Northeast. Representatives from the Department of Energy, The Federal Energy Regulatory Commission, state legislatures, state public service commissions, private developers and environmental groups participated in the two-day conference and attempted to evaluate the state of hydroelectric development in New England.

As one of the goals of the conference, the participants sought to identify some of the key legal and institutional problems facing the small-scale hydro dam developer. For example: is Federal regulation of small-capacity hydroelectric facilities necessary? Will the Public Utility Regulatory Policies Act, otherwise known as PURPA, serve as an incentive to hydro development? Are there economic policies which will immediately encourage investment in small-scale hydro? Obviously, many issues could not be resolved by this single conference. However, the conference did serve as a forum for the exchange of ideas and as an impetus for removing some of the obstacles to developing small-scale hydro.

The following is an attempt to summarize some of the proceedings and major findings of the conference. As participants of the conference are aware, the activities began with an introductory panel followed by a series of workshops addressing four different topics; Federal regulatory systems, state regulatory systems, the economics of small-scale hydroelectric development, and systems dynamics and the systems dynamics model. There were also several informal discussions after hours which included the active participation

of several legislators. On the second day of the conference, the Honorable Georgiana H. Sheldon, Commissioner of the Federal Energy Regulatory Commission spoke at the conference luncheon. A summary of her comments is also included.

1. Introductory Panel

The conference opened with a one and one-half hour introductory panel headed by Ralph Burr, Esq., Office of Emerging Energy Sources, U.S. Department of Energy, Professor Peter W. Brown, Franklin Pierce Law Center, Thomas Klock of the New England River Basins Commission, Ron Smith from the National Conference of State Legislators and Dr. Paul Kirshen, Assistant Professor at the Thayer School of Engineering at Dartmouth College. Ralph Burr (DOE) indicated that private sector development of SSH was favored and suggested a limited role of the Federal government regarding future development. Mr. Burr also discussed feasibility studies and demonstration grants and fielded questions regarding these programs.

NERBC representative Thomas Klock explained NERBC programs in SSH development. Questions focused on two concerns: (1) information flow to the states from NERBC; and (2) the relationship between NERBC and FPLC projects.

Ron Smith from the National Conference of State Legislators (who, with Franklin Pierce Law Center sponsored the conference) voiced the interest of NCSL in the area of SSH development. Mr. Smith indicated that NCSL was primarily interested in an informed approach by state legislatures. General questions concerning NCSL's position and duties under its DOE contract were discussed.

2. Overview of Federal Workshop Sessions

The Federal Workshop was headed by Anthony Buxton, Esquire, Senior Research Fellow for the Energy Law Institute at Franklin

Pierce Law Center. The Federal Workshop sessions attempted to accomplish two goals; to conduct a general discussion of the impact of the Public Utility Regulatory Policies Act (PURPA) and to solicit suggestions from conference participants regarding the necessity of Federal regulation of small dam development.

As was recognized during the workshop, PURPA does not exempt small-scale hydroelectric development from Federal or State hydroelectric licensing provisions. The main intent of the Act was to develop a guide for state PUC's in developing the equalization of small-scale energy with large-scale energy production. In particular, PURPA intended that states, in determining prices under Section 210 of the Act, be guided by other than traditional rate-making standards. The largest area of concern at all workshop sessions was the uncertainty of the definitional provisions of the Act. The key suggestions involved State input into the FERC rule-making procedures to attempt to define what "incremental cost" should include.

Conference participants at the Federal Workshops suggested various ways to eliminate duplication between Federal and State regulatory systems. Some of the major suggestions include: streamlining state regulatory systems by providing for either (a) a one-stop licensing system; or (b) a lead agency concept, coordinating Federal and State EIS review processes; delegating primacy for small dam regulation to the states in much the same manner and format as air and water pollution control; requiring all agencies, including FERC, to give priority to hydropower applications, thus avoiding delay.

In addition to the above suggestions, two main areas of concern were discussed. First, state legislators expressed concern with resolving conflicts presented by the competing uses of water. Secondly, although desirous of eliminating duplication by Federal and State regulatory systems, many expressed a desire to continue some Federal regulation over small dam development. One example, in particular, involved lack of state action in such areas as wild and scenic river protection and protection of endangered species of fish and wildlife.

3. State Regulatory Systems Workshops

The state workshop sessions were moderated by Professor Peter W. Brown, Principal Investigator on the DOE contract and Director of the Energy Law Institute, Franklin Pierce Law Center. The state workshops primarily concerned six topics: duplicative licensing processes; the concern for the market for power from small-scale hydro; the problem of incentives for the development of hydro; the Federal/State interface; local processes; and competing water uses.

Much discussion was generated over the often duplicative Federal and State licensing processes. Several questions were raised regarding the methods by which the states administer licensing requirements. For example, some states use or are considering the use of the "lead-agency" method in which one agency coordinates the licensee's application and shepherds it through the administrative process. Presentations from the Massachusetts Energy Office and the Massachusetts Energy Facilities Siting Council were made at each state workshop. Massachusetts, under the supervision

of the two previously mentioned agencies and at the direction of its legislature, has studied hydro licensing and drafted legislation proposing the "lead-agency" concept for hydro licensing in Massachusetts.

The perceived advantage of the lead-agency concept was that the same staff assists the licensee throughout the process and thereby increases the continuity of the procedure. An alternative to the lead-agency method would be to require one agency to provide all the necessary permits and research for a particular project. It was felt that the problems with this so-called "one-stop" approach were that such a system would be considered too radical or impractical for most states in that it requires the abolition of some agencies.

Other comments were raised regarding the difficulty of marketing the power from small-scale hydro. It was pointed out that many developers may find it difficult to receive fair rates for their power, since most sellers of electricity from small-scale hydro would require back-up power. It was suggested that the use of interruptible rates would lessen the costs of back-up power and the rate-making sections of Title II of PURPA would alleviate the problem of unfair rates.

In addition, the participants in the state workshops discussed various incentives to small-scale hydro development. Many states have Industrial Development Authority loan policies which presently do not include loan programs for hydro. The need for tax policies which would serve as an incentive to developing hydro was discussed as well as the problems of local property tax assessment standards.

Another topic of discussion was the interface between the federal and state agencies in the licensing process. Questions were raised as to the role of the states when the FERC assumes jurisdiction over a project. Other participants raised concerns that federal agencies were infringing on the authority of the states to determine water and environmental policies for its citizens. Many felt that the states are in the best position to assess the needs of a particular region and that federal licensing requirements were burdensome.

The fifth major area of discussion concerned the problem of competing water uses. As was pointed out in the workshop, some developers confront conflicts with owners of recreational property when small dams affect the water level of lakefront property. Most developers must examine the particular riparian law of their region in order to protect their sites.

Finally, some comments were addressed to the necessity of considering local interests when constructing and maintaining a site. Some state agencies afford local interests an opportunity to be heard during the licensing process. If state licensing processes are streamlined, it was suggested there would still be a need to receive local input before proceeding with a project.

4. Economics of Small Scale Hydroelectric Power

The Economics Workshops were conducted by Mr. Martin Ringo, an economist conducting research for the Energy Law Institute. Each workshop began with a discussion of the importance of determining a supply curve for electricity for small scale hydro as a policy tool. The demand curve is fairly easy to determine; it is the cost for fuel used and cost of conventional capacity instead of SSH. Much discussion was generated around the theory that a supply curve for SSH could be determined by

constructing a cost curve for a hydro site derived by considering specific standardized costs from a site. To a large extent, studies conducted by the Applied Physics Lab (APL) at John Hopkins University have implemented the theory by examining the costs of eleven specific items of SSH development including turbine generator sets, power house and equipment, dam repairs and transmission lines. Dr. Robert Taylor of APL participated in the economic workshop and explained his supply curve derivations.

Mr. Ringo also dealt with the desirability of establishing an energy futures market in SSH. When an individual is purchasing any form of energy future, he or she is gambling on the rate of price increase in fossil levels. One question was raised as to whether hydro is really very unique in that presently the only reason for developing hydropower is to conserve fossil levels. It was pointed out that in an economic sense hydro is a high risk to both individuals and utilities, but a futures market would provide some certainty as a hedge to the market. It was Mr. Ringo's view that a futures market will increase SSH development.

Systems Dynamics and the Systems Dynamics Model

The Systems Dynamics Workshop was moderated by Dr. Paul Kirshen, Research Assistant, Thayer School of Engineering, Dartmouth College. The purpose of the workshop was to help workshop participants understand the basic model, how data are used in the model, how the modelling is done, and to demonstrate how the model can be used in policy analysis. The overall model that was discussed was HYDRO I. When this model is complete it will reflect four factors in the SSH development process: the economics of SSH in terms of alternative fuel costs, retirement,

construction and licensing. A later version of the model, HYDRO II, will include environmental factors, competing water uses and other factors. The licensing sector of the HYDRO I model was presented in some detail. Some sample runs of the entire preliminary version of HYDRO I with a particularly complete data base were used to show how these types of models are used in policy analysis.

The major output of the model is the amount of SSH which will be developed in the region between 1980 and 2000. Thus, the temporal aspects of policies as well as the SSH capacity development aspects can be studied.

Some participants suggested that more environmental, social, and other less tangible factors need to be considered in the model. Another observation was that within New England it is possible that the least expensive sites may not be developed first. The impacts of this phenomenon could be modelled by inputting a curve of unit costs vs. sites-developed that did not show the least expensive sites developed first.

6. Summary of Remarks of Honorable Georgianna H. Sheldon, Commissioner, Federal Energy Regulatory Commission (FERC)

Commissioner Sheldon began with a brief description of the PURPA mandate, focusing on its impact on the development of small scale hydro. In discussing the role of the FERC under PURPA to establish a "simple and expeditious licensing procedure" for small scale hydro, the Commissioner pointed out that the agency's role was complicated by its responsibility to provide for consultation with other agencies and to comply with the requirements of the National Environmental Policy Act, Endangered Species Act, and the Fish and Wildlife Coordination Act.

The Commissioner described how the Federal Energy Regulatory

Commission (FERC) had evolved from an agency headed by the Secretaries of War, Agriculture and the Interior into a five person collegial body responsible to Congress. She noted four major factors resulting in the recent resurgence of interest in hydro development: the aggressive attitude taken by the Federal Power Commission during the 1960's with respect to jurisdictional matters; the growing public awareness and concern regarding environmental matters; the expiration during the 1970's of all the 50-year licenses that had been issued by the FPC in the 1920's; and the drastic increase in the cost of fossil fuels.

Commissioner Sheldon offered her insights to the participants as to the steps that needed to be taken to facilitate the development of small scale hydro. She talked about the need for a joint effort on the part of state and federal agencies to assist in expediting the licensing process. She also discussed the need for special-interest groups, including environmentalists, to learn precisely what is being proposed, and to formulate their precise recommendations in the light of the ultimate benefit to the public interest. In addition, the Commissioner urged licensees to approach the licensing process intelligently and thoroughly and to gain a proper understanding of the proper sequence of events in order to minimize delays.

Finally, Commissioner Sheldon outlined the efforts of the FERC to streamline the licensing process. She described the first step toward that end when in 1978 the FERC promulgated its "short-form" license regulations for minor projects. She also stated that work was underway to simplify licensing requirements for major projects (1.5 MW or greater) at existing dams and preliminary permit requirements. She expected that notices of rulemaking on both sets of regulations would be issued in the Spring of 1979.

SUMMARY OF PLENARY SESSION

On the final day of the conference, a panel discussion was held in an effort to summarize a few of the conclusions gathered from the workshop sessions. The panel was moderated by Professor Peter W. Brown, Anthony W. Buxton, Esquire, Senior Research Fellow, Martin J. Ringo, Economist, and Research Assistants Denise Goulet and Robert Olson. What follows is a summary of some of the recommendations voiced at the final plenary session.

A. Pervasive FERC Jurisdiction - Is it necessary and what can be done about it?

After the Federal and State Workshop sessions, the participants in the conference were aware of the pervasive jurisdiction of the Federal Energy Regulatory Commission over the licensing of virtually every small scale hydroelectric project in New England. In attempting to rationalize the allocation of power between the federal government and the state governments in small scale hydroelectric licensing, it was suggested that a negative clearance system be established for the exercise or waiver of FERC jurisdiction. This negative clearance system would require each SSH developer to file a statement with the FERC indicating the place, location, size and other important information of the project under consideration. The FERC would have thirty (30) days in which to respond to the filing. Within the thirty (30) day period, the FERC could either affirmatively waive its jurisdiction or assert it. If the FERC did not act within the thirty (30) day period, then the FERC would be deemed to have waived its jurisdiction. It was suggested that this negative clearance system operate only for small scale projects of between 15 to 80 megawatts at existing dam sites.

On balance, participants at the plenary session were opposed to the negative clearance system. They were opposed to the system for two reasons.

Firstly, there was no assurance under the system that the state licensing process would be an improvement over the FERC licensing process, should the FERC be deemed to have waived its jurisdiction with respect to a particular project under the negative clearance system. Secondly, the participants were concerned about how relationships of federal agencies, such as the Fish and Wildlife Service, would be established with the state licensing system under the circumstances where the FERC had waived its jurisdiction.

Given these two reservations concerning the negative clearance proposal, a counter proposal was offered. This counter proposal sought to follow the scheme of the Federal Clean Water and Clean Air Acts. Under this counter proposal, the FERC would be authorized to approve a state hydro licensing plan which met certain federal criteria for efficiency, control and interface with federal agencies. Once a state plan met federal criteria, the FERC could defer licensing of small scale hydroelectric projects in those states with approved state plans to the state regulatory process. This suggestion achieved a consensus of support at the plenary session.

B. Title II of the Public Utility Regulatory Policies Act

A major concern of participants at the conference, especially those participants from the states of New Hampshire and Maine where there were pending proceedings before those states' regulatory commissions, was the implementation of Title II, and more particularly Section 210 of the Public Utility Regulatory Policies Act (PURPA) of 1978. All of the participants were aware of the possibilities presented by Title II of PURPA for creating a market for the power developed by private entrepreneurs at small scale hydroelectric projects. The provisions of PURPA were regarded as very important and with a great deal of favor by the participants. However, concern was expressed that Section 210 of PURPA would be construed by the FERC so as not to permit a payment for the value

of the capacity provided by the small scale hydroelectric project to the intergrated electric utility. Strong interest was also expressed in a proper definition of the term "incremental cost" also contained in Section 210 of PURPA. It was suggested that a proper definition of the term incremental cost would necessarily require an intergrated utility to pay a small scale hydroelectric producer the capacity value of that producer's plant.

C. Financing Fish Passage Ways

It was recognized by the participants at the plenary session that a significant cost (impediment to development) of a small scale hydroelectric project could be a fish passage way. For the most part, participants at the plenary session did not object to the requirement that fish ladders or fish passages be constructed at small scale hydroelectric projects when the rivers on which these projects were located were scheduled for anadromous or migratory fish restoration programs. It was generally recognized that the Fish and Wildlife Service and the state fish and game agencies were performing important functions in preserving, protecting and restoring fish habitat. However, a large consensus objected to requiring the small scale hydro developer to bear the entire cost of constructing expensive fish passageways at existing dam sites. It was the view of this consensus that because the dam was already in existence and therefore an impediment to fish migration, that it was an improper allocation of societal costs to require the developer who was to restore the project as a power producing project to bear the full costs of a fish passageway. It was suggested that states and even the Federal government could participate in establishing a fish restoration fund to be created by increasing fishing license fees and other taxing mechanisms. There was hardly any debate on the recommendation that fish ladders constructed at existing dam sites by small scale hydro developers be eligible for the investment tax credit and accelerated depreciation

allowances under both federal and state taxing laws. The concensus obviously favored that such credits and allowances be permitted.

D. State Licensing Reform

It appeared that the Massachusetts proposal for lead agency licensing for small hydroelectric projects was highly regarded by the participants and enjoyed strong support by those at the plenary session. From this consensus it can be concluded that the participants approved of state licensing reform which would establish a lead agency with power to require those agencies and persons interested in the project to scope the project in its initial stages, require comments to be submitted on licensing applications within certain time periods and provide for an appeal from a denial of a license to an agency which would consider the energy contribution of the site along with the environmental problems. These features were the most important provisions of the Massachusetts program and, as noted above, enjoyed wide-spread support.

E. Small Scale Hydroelectric Facilities As Public Utilities

As was discussed in the various workshop sessions, the classification of a small scale hydro facility as a public utility carries with it at least two onerous burdens. The first burden is that the small scale hydroelectric facility will be subjected to the pervasive regulation of state regulatory commissions. State Regulatory Commissions generally subject public utilities to reporting, rate-making and other forms of regulation. It was generally agreed that such conventional public utility regulation was not suited for small scale hydroelectric projects. The participants observed that the Public Utility Regulatory Policies Act permitted the FERC to exempt small scale hydroelectric projects of 30 megawatts or less from pervasive state utility regulation. However, it was also pointed out at the plenary session that the FERC may not want to involve itself in that kind of interference with state regulatory processes. After some discussion, it appears that there was a consensus in favor of exempting small scale

hydroelectric facilities from pervasive state utility regulation.

It was also noted that the characterization of small scale hydroelectric facilities as "public utilities" also carried with it significant consequences for purposes of state taxation. It was agreed that public utilities under state taxing legislation were generally subjected to more and heavier tax burdens than other conventional manufacturing and industrial establishments. Accordingly, the participants at the plenary session felt it critical to assure that small scale hydroelectric facilities would not be subjected to the same type of tax treatment at conventional public utilities. The strong consensus was that states not subject small scale hydroelectric facilities to taxation as "public utilities".

F. State Tax Laws

Assuming, as noted above, small scale hydroelectric facilities would not be characterized as public utilities under state law, participants were aware that there were also tax incentives to increase the rate of development under state tax law. There was a consensus that wherever state taxation recognized accelerated depreciation allowances and investment tax credits for various forms of manufacturing and industrial equipment, then these tax provisions should also be applied equally to hydroelectric projects and small scale hydroelectric equipment. Moreover, the participants indicated that wherever there were tax abatement provisions because of some pollution abatement activity of the taxpayer, small scale hydroelectric power should be similarly eligible for that form of tax abatement.

G. Direct Subsidies and Miscellaneous Other Incentives

The participants also favored expanding economic development and industrial development programs to include the development of small scale hydroelectric projects within their particular states. In many states, under industrial

development or economic development legislation, the construction and installation of hydroelectric equipment does not qualify as an activity for which state and Federal economic development funds would be provided. It was recommended that this legislation be changed to expressly include small scale hydroelectric facilities and to assure that these facilities would be eligible for revenue bond and other forms of Federal and state financing.

Due largely to the interest generated in this topic at the economics workshops, support was expressed for the fuel futures contract idea. As explained in the economics workshop, the fuels futures contract would operate as a basis for a voluntary agreement between a small scale hydroelectric producer and a electric utility. Under the fuel futures contract, the utility would pay to the small scale hydroelectric developer a price per kilowatt hour of out-put which would be greater than that which the utility could otherwise purchase or produce the kilowatt hour at the time of the contract. However, under the contract the public utility would be assured of receiving the output of the plant or some percentage of the output of the plant from the small scale hydro developer at that fixed rate for a long term contract, i.e., ten to fifteen (10-15) years. If the price of fossil fuel increased during the term of the contract, obviously the public utility and its rate payers would benefit by the contract with the small scale hydro producer. In the latter years of the contract the utility would purchase electric energy at a rate considerably lower than the price at which the utility could produce it or purchase it in the market. Because it is not clear under traditional state public utility regulation that such futures contracts would be approved by regulatory commissions, and because these futures contracts hold out the promise of providing incentives to small scale hydroelectric development, participants at the conference recommended that State Public Utilities Commissions be authorized to approve such arrangements.

APPENDIX A

SCOPING PAPER FOR CONFERENCE

FRANKLIN PIERCE LAW CENTER

A CONFERENCE

FOR NEW ENGLAND

LEGAL AND INSTITUTIONAL OBSTACLES

AND INCENTIVES TO SMALL SCALE

HYDROELECTRIC DEVELOPMENT

January 30 - 31, 1979

Copley Plaza Hotel

Boston, Massachusetts

2 WHITE STREET CONCORD, NEW HAMPSHIRE 03301 603/228-1541

A CONFERENCE

FOR NEW ENGLAND

LEGAL AND INSTITUTIONAL OBSTACLES AND INCENTIVES TO SMALL SCALE HYDROELECTRIC DEVELOPMENT

Purpose of Conference:

The purpose of this conference is to bring a variety of decisionmakers and interested persons together to examine and discuss certain, significant problems associated with small scale hydroelectric development in the New England Region.

The conference will not examine all of the issues and problems associated with small dams. Rather, the conference will examine the legal and institutional obstacles and incentives to small scale hydroelectric development. This emphasis is prompted by a consensus stated in earlier conferences, i.e., legal and institutional obstacles and the lack of rational incentives for development are the major impediments to small scale hydroelectric development at this time.* Secondly, the earlier conferences at the University of New Hampshire, in September of 1977 and Michigan State University in May of 1978 quite properly addressed the full range of issues from the technical to legal in order to expose participants to the myriad of concerns involving small scale hydroelectric development. The present conference will narrow the focus of participants and attempt to engage participants in in-depth discussion of legal and institutional issues. Accordingly, the conference presumes that small scale hydroelectric technology has arrived and that engineering methods and procedures are well understood and readily applied. The conference will also point out that, especially in New England, considerable, high quality work is being done on resource assessment by the New England River Basins Commission and that information is available on sites and their characteristics for interested persons in New England.

The specific objectives of the conference are:

I. To provide information to conference participants about:

(a) federal and state regulatory systems directly or indirectly affecting small scale hydroelectric development in New England;

(b) institutional relationships affecting small scale hydroelectric development, primarily those relationships between small energy producers and integrated electric systems and state and local agencies and federal agencies such as the Federal Energy Regulatory Commission;

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*See Report of Low-Head/Small Hydro-Electric Workshop, Center for Industrial and Institutional Development, University of New Hampshire, Durham, New Hampshire, September 6-9, 1977.

(c) the systems dynamics approach to systems analysis of the Thayer School and the utility of this approach to decisionmakers;

(d) developments, studies and federal, state, local and private activities having a bearing on small scale hydroelectric development.

II. To receive comments, criticisms and suggestions for additional research with respect to the Franklin Pierce - Thayer study and to assist the National Conference of State Legislatures in developing its technical assistance programs for State legislatures;

III. To receive information on developments and activities in small scale hydroelectric power in New England;

IV. To initiate discussion of policy options and the efficacy, rationality and acceptability of changes in legal and regulatory systems and institutional relationships; and,

V. To assist attendees in structuring and holding conferences, seminars or symposia or undertaking studies in their respective individual states on small scale hydroelectric power.

Participants:

The conference is sponsored by the United States Department of Energy in conjunction with the Franklin Pierce Law Center, Concord, New Hampshire, The National Conference of State Legislatures, Denver, Colorado, and the Thayer School of Engineering, Dartmouth College, Hanover, New Hampshire. Each institution has contractual responsibilities to DOE. These responsibilities will be explained by the introductory panel which will initiate the conference. (See Format description infra.). Persons working for each institution on their respective DOE sponsored research will act as facilitators and discussion leaders throughout the Conference. Representatives of Franklin Pierce will be Professor Peter Brown, Anthony Buxton, senior researcher and Martin Ringo, economist. Mr. Ronald Smith, principal investigator and Ms. Mary Hay, research associate will represent The National Conference. Dr. Paul Kirshen, Jeff Amlin and Glenn Berger will represent the Thayer School. Ralph Burr, Esquire, of Resource Applications of DOE and program manager for the research efforts of Franklin Pierce, The National Conference and Thayer will represent DOE.

Participation will be by invitation and invitations will be addressed to State legislators and their staffs who have expressed or evidenced an interest in energy problems in the region. State and local officials who have responsibility for energy matters or who manage programs affecting small scale hydroelectric development will also be invited. Invitations will also be sent to individual small dam developers, personnel of privately and publicly owned electric utility systems, representatives of regional agencies and other persons who have undertaken studies dealing with small scale hydroelectric development. Total participation, excluding conference facilitators, discussion leaders and sponsors is estimated at seventy (70) persons. There will be no registration fee or charge.

Format:

The conference will begin with registration from 7:00 A.M. to 9:30 A.M. January 30, 1979 and terminate on January 31, 1979 at 5:00 P.M. An introductory panel will commence formal conference proceedings. Members of the panel will be Ralph Burr, Esquire of the Department of Energy; Professor Peter Brown of Franklin Pierce Law Center; John Ehrenfeld, Chairman of the New England River Basins Commission, Mr. Ronald Smith, principal investigator for The National Conference of State Legislators and Dr. Paul Kirshen of The Thayer School of Engineering, Dartmouth College.

The panel will outline the work of the sponsors of the conference on small scale hydroelectric power, describe the materials available to conference participants and disucss the purpose and objectives of the conference. As with all activities of the conference, questions, comments, criticisms and volunteered information from participants at any point in the discussion will be strongly encouraged. Each activity is designed to be an informal, "roll up your sleeves", working session.

After lunch on the first day, participants will be divided into four (4) groups. Each group will attend four (4) workshop sessions in the afternoon of the first day and the morning of the second day. The four (4) workshops will involve discussion of the following areas:

(a) Federal regulatory systems and small scale hydro, prospects and efforts at reform (Discussion leader, Anthony Buxton);

(b) State and local regulatory systems, interfaces with federal systems, prospects and efforts at reform (Discussion leader, Peter Brown);

(c) The economics of small scale hydro, relationships with electric systems, new economic analyses (Discussion leader, Martin Ringo);

(d) Systems Dynamics and the systems dynamics model, Hydro I, a tool for analysis (Discussion leader, Dr. Paul Kirshen).

In the afternoon of the second day, January 31st, there will be a plenary session of the entire conference at which time discussion leaders will summarize workshop sessions and discussion on various new policies will be invited. The conference will end with closing remarks of Mr. Ralph Burr of DOE and Professor Brown.

Conference Material:

A variety of materials will be made available to conference participants at no charge. Certain material will be mailed to participants in advance of the conference. Other material will be available to be picked up by participants during the conference.

The material which will be mailed to participants in advance of the conference will be:

(a) A paper describing the scope and purpose of the conference.

(b) An agenda.

(c) A Preliminary Report, "Legal Obstacles to Small Scale Hydroelectric Development in the Northeastern United States", Franklin Pierce Law Center, September, 1978.

(d) Executive Summary: Report on Federal Regulatory Systems Affecting Small Scale Hydroelectric Facilities - Franklin Pierce Law Center.

(e) Executive Summary: Report on Regulatory Systems Affecting Small Scale Hydroelectric Facilities in the Six New England States - Franklin Pierce Law Center.

(f) An Introduction to Systems Dynamics, the Hydro I model and its utility as an analytical and decisionmaking tool - Thayer.

The following material will be made available at the conference to participants:

(a) Project description paper. This paper will briefly describe the scope, time frame and expected results of research efforts presently underway through DOE grants and contracts, the NERBC, The Corps of Engineers and others in the field of small scale hydroelectric development. Names, addresses and telephone numbers of key people on each project will be listed.

(b) An annotated bibliography of materials, monographs and papers published or available on all aspects of small scale hydroelectric power. Contact persons, subscription services (e.g., NTIS) and prices, where available, will be listed. This material will obviously include references to information on technology, engineering procedures and criteria, demonstration projects and other activities not exclusively concerned with legal and institutional problems.

(c) Underlying detail memoranda for the state, federal, systems dynamics and economic reports of the Franklin Pierce Law Center - Thayer study. These memoranda will be:

(1) Part II of the Federal Report, the detailed analysis of federal regulatory systems, (Part I being the Executive Summary to be distributed in advance).

(2) The detailed legal analysis memoranda for each of the six (6) New England states.

(3) Three Economic papers, Basic Economic Issues of Small Scale Hydroelectric Power; Monopsony Power and Small Scale Hydroelectric Projects; and The Contribution to System Reliability of Small Scale Hydroelectric Facilities.

(4) Background materials on the system dynamics discipline and Hydro I, the system dynamics model.

(d) Examples of the work of NCSL on other similar studies, e.g., the NCSL study on Geothermal Energy.

The decision to make available some of the materials at the conference is prompted by the bulk of materials to be produced and the perceived usefulness of this material to some, but not all, of the conference participants.

Each conference participant will be sent a report of the conference upon its completion. The report will summarize observations and information provided and reprint segments of particularly incisive or valuable discussion.

Conference Results:

In keeping with the objectives of the conference, the expected results of the conference are the transfer of information in manageable form on a variety of disparate activities and problems to decisionmakers and interested persons and the initiation of a continuing disucssion and dialogue of ways to resolve problems affecting small scale hydroelectric power in New England.

The sponsors would expect that the following issues, among others, would be addressed, but not necessarily resolved, by conference participants.

1. What is the appropriate scope of the Federal role in regulating small scale hydro? Should there be a distinction in that role between existing small dams and new dam sites?

2. What can be done immediately to alleviate federal regulatory burdens, but at the same time accord proper recognition to the interests in the competing uses of and ecosystems created by New England's waterways?

3. What is the appropriate scope of the state role in regulating small scale hydro? What changes in that role will alleviate state regulatory burdens, but at the same time give proper recognition to other important interests? Again, should there be distinctions made between exiting dams and new sites?

4. Is the present economic market for the goods produced by small scale hydroelectric facilities (e.g., peaking, cycling and base power, capacity and reliability) structured in such a way to assure production of these goods in a manner which efficiently allocates these resources? (In other words, what regulatory, institutional and economic constraints exist in the relationships between small scale hydroelectric facilities and integrated electric systems which affect small scale hydro development?)

5. Do conference participants view systems dynamics as a helpful tool in analysis and policy making? What improvements do the participants recommend in the Hydro I model? What can be done to make this tool more useful and more readily available to participants?

6. How can DOE and its contractors better disseminate current, accurate information to conference participants, public agencies and the citizenry as a whole? What information is particularly valuable to state legislators, state and local officials, and private citizens?

7. What information and research results would State legislators and their staffs find most helpful to them in addressing issues of hydroelectric power in their respective state legislatures?

Results not readily discernible will undoubtedly be obtained. For example, a number of associations will be established among individual participants. These associations will enable a person in one state to contact a counterpart in another state for information or advice. The staff of the Franklin Pierce, Thayer and National Conference projects will receive comment which, without question, will improve their work. DOE will also be able to understand more completely concerns of the states and private citizenry in an area where DOE is expending resources and effort. This understanding is all the more important because the efforts of DOE are designed to assist states and private citizens in understanding the system in which small scale hydroelectric power is to develop and overcoming and alleviating problems affecting small scale hydro development.

APPENDIX B

LIST OF ATTENDEES

LIST OF ATTENDEES

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APPENDIX C

REPORTS ON SMALL SCALE HYDROPOWER OF THE ENERGY LAW INSTITUTE

Reports and Publications of
The Energy Law Institute,
Franklin Pierce Law Center,
Concord, New Hampshire 03301

I. State Reports

a. Preliminary analysis of legal barriers to small scale hydroelectric power for each of the following states:

Maine
Massachusetts
New Hampshire
Connecticut
Rhode Island
Vermont
New York
New Jersey
Maryland
Pennsylvania
Delaware
Virginia
West Virginia
Kentucky
Ohio
Michigan
Illinois
Indiana
Wisconsin

b. Executive Summary - Legal and Institutional Obstacles and Incentives to the Development of Small Scale Hydroelectric Power in New England and in the Mid-Atlantic States.

c. Legal and Institutional Obstacles and Incentives to the Development of Small Scale Hydroelectric Power in each of the following states:

New England	Mid-Atlantic
Connecticut	Delaware
Maine	Maryland
Massachusetts	New Jersey
New Hampshire	New York
Rhode Island	Pennsylvania
Vermont	Virginia

II. General and Federal Reports

a. Preliminary Report of Legal Obstacles to the Development of Low Head Hydroelectric Power in the Northeastern United States.

b. Report and Executive Summary: Federal Legal and Institutional Obstacles and Incentives to the Development of Small Scale Hydroelectric Power in the Northeastern United States.

c. Recent Federal Action on Dam Safety (As of August, 1978).

III. Economic Reports

a. Fundamental Economic Issues Involving Small Scale Hydroelectric Power.

b. Monopsony and the Supply of Power From Small Generating Stations.

c. The Contribution to System Reliability of Small Scale Hydroelectric Facilities.

IV. NPDES Reports

a. Comments of the U.S. Department of Energy on the Petition of the National Wildlife Federation concerning the regulation of Hydroelectric Dams by the U.S. Environmental Protection Agency Pursuant to the Clean Water Act.

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PWB/dac
Revised 5/01/79

APPENDIX D

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University of New Hampshire
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73 Tremont Street
Boston, Massachusetts 02108 617/727-4732
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Lexington, Kentucky
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Resources Research Institute
Calvin C. Warnick
University of Idaho
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7503 Marin Drive, Suite 2A
Englewood, Colorado 80111
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Northwest Energy Policy Project
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Thomas E. Klock, Hydropower Study Manager
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City of Portland, Oregon
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45. Before the Federal Energy Regulatory Commission
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Augusta, Maine

46. Before the Federal Energy Regulatory Commission
Application for License
Idaho Falls Hydroelectric Project
City of Idaho Falls
March 1978

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Before the Federal Energy Regulatory Commission
In the Matter of Lawrence Hydroelectric Associates
FWR-LP
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June 1977

APPENDIX E

THE FULL TEXT OF REMARKS OF THE HONORABLE GEORGIANNA SHELDON

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This speech was delivered January 31, 1979 by Commissioner Sheldon before the Small Scale Hydro Group in Boston, Massachusetts

I would first like to express my gratitude for this opportunity to speak to you face-to-face. Ensconced in our many-turreted bureaucratic ivory tower in Washington, buffered from those whom we regulate by stringent ex parte rules and a rather substantial agency staff, it is easy for us to grow, not so much callous, as comfortably ignorant. Direct contact such as this reminds us, as regulators, of the practical realities out of which our regulatory mandate grew, and of the very real ill consequences that follow when we regulate carelessly or stupidly.

I am also happy to be here because of a personal fascination with the subject of small scale hydroelectric development. My interest and excitement are tempered by an awareness of the limitations of such development as a source of new power capacity. Much has been made, for example, of the 50,000-odd idle dams reported by the Corps of Engineers in its hastily compiled 1977 inventory. As most of us know, however, even if the cost of fossil fuel continues to rise, the hundreds and perhaps thousands of tiled bogs, stock-watering ponds, and other insignificant impoundments reflected in the inventory will never be harnessed to a turbine or generator. In my opinion, the ballyhoo that has accompanied the resurgence in interest

in small hydro development could ultimately have detrimental effects, as inflated expectations give way to disillusionment and withdrawal from the field altogether. I feel, nevertheless, that it is possible to be at once cautious and enthusiastic. There remains sufficient potential in this relatively inexpensive, environmentally attractive resouce to more than justify the efforts of earnest and intelligent people. This conference bears testimony to that fact.

That the role of the Federal Energy Regulatory Commission and its predecessor, the Federal Power Commission, should be explored at a conference on "legal and institutional obstacles to small scale hydroelectric development" is only fitting. The breadth of our licensing jurisdiction and the comprehensive nature of our regulatory oversight are such that close scrutiny of our functions and procedures cannot be avoided. Moreover, our track record in recent years, while registering some success, has been fraught with frustration and delay. And it doesn't take participation in very many conferences of this nature to discover that our reputation precedes us.

The reports compiled to date by the Franklin Pierce Law Center cover much ground in explaining what our Commission does and how we go about doing it. In addressing the matter of small scale hydro development, I will therefore avoid boring you with a recitation of those subjects, and bore you instead with a few insights I have gained from a Commissioner's perspective.

The PURPA Mandate

The need to develop the existing potential in small scale hydroelectric projects gained some recognition by Congress in the recently-enacted bundle of legislation which is known collectively as the National Energy Act. Among those pieces of legislation is the Public Utility Regulatory Policies Act, already endeared to us in our burgeoning lexicon of acronyms as "PURPA". While there are significant provisions in Title II of PURPA relating to aspects of small-scale hydro development such as marketing and exemption from price regulation, the immediacy of implementation responsibilities has dictated that the Commission focus its attention first on Title IV.

The provisions of Title IV require institution of a program whereby the Secretary of Energy will grant loans for feasibility studies and for construction of "small hydroelectric projects"; that is, projects with installed

capacity of 15 MW or less utilizing the power potential of existing dams. I am informed that, because of difficulties in obtaining appropriations, the Department of Energy is considering a recommendation to Congress to alter the program to one of loan guarantees rather than direct loans.

However that may be, Congress' direction to the FERC will remain the same. Under Section 405 of PURPA, we are required to establish, "consistent with the applicable provisions of law," a program of "simple and expeditious licensing procedures under the Federal Power Act" for "small hydroelectric power projects" as defined in Title IV of PURPA.

Before any license is issued pursuant to these "simple and expeditious" procedures, the Commission must, among other things, provide an opportunity for consultation with the Council on Environmental Quality and the Environmental Protection Agency with respect to the environmental effects of the project. Moreover, Congress made clear that the authorization to implement simple and expeditious procedures does not exempt any project from meeting the requirements of the National Environmental Policy Act, the Fish and Wildlife Coordination Act, the Endangered Species Act, or

any other provision of federal law. In other words -- if I might paraphrase with only slightly ironic inflection -- the Commission is to shorten and streamline its licensing procedures without sacrificing in any way the meticulous, sometimes redundant, and often protracted environmental scrutiny prescribed by Congress itself in the somewhat disjointed existing federal legislation. Having thus dusted its hands of the chronic problem of FPC/FERC regulatory delay, Congress moved on in search of new fields to conquer.

This is all very well and good, but what does it mean, in practical effect? Congress obviously felt there was plenty of room for improvement in our procedures, even leaving aside the problems raised by environmental analysis. There most assuredly is. Later in my remarks I will outline for you some of the steps we propose to take to eliminate needless uncertainty and delay. There are no easy or short-term solutions to the problems besetting our hydroelectric licensing program, however. An explanation as to why this is so requires a brief review of our pre-existing legislative mandate under the Federal Power Act and how it has evolved over the years.

Part I Of The Federal Power Act

In its inception, The Federal Power Commission was a manifestation of Congress' desire to do away with the piecemeal development of water resources through ad hoc legislation. The new Commission, as instituted in the Federal Water Power Act of 1920, was to take a broader view, and was to assure through its licensing process:

> That /each/ project adopted ... shall be such as in the judgment of the Commission will be best adapted to a comprehensive plan for improving or developing a waterway or waterways for the use or benefit of interstate or foreign commerce, for the improvement and utilization of waterpower development, and for other beneficial public uses ....

In those days, the Commission was comprised of the heads of three federal departments: the Secretaries of War, Interior, and Agriculture. Those must have been good times. One can easily conjure up scenes of these three good-ole-boys, chomping their cigars and interrupting bouts of ribald humor to dispose summarily of vast chunks of the Nation's waterways. "Environment" was just a long word, and whatever happened to all of these new projects

under 50-year licenses would never be a matter of concern in their lifetimes. However it may have been in reality, the era was short-lived. In 1930, Congress made the Commission a five-person collegial body responsible, not to the great federal departments, but to Congress itself. The Secretaries were sent packing to their executive lairs, there to test the political winds and lob an occasional opportunistic bomb in the Commission's direction.

The character of the Commission's functions changed significantly in the ensuing decade. The Public Utility Holding Company Act of 1935 revised the old Water Power Act and made it Part I of the new Federal Power Act. Under Part II of that new act, the Commission was given authority to regulate the transmission and wholesale of electric power in interstate commerce. Three years later, in 1938, the Commission was given similar powers under the Natural Gas Act regarding the transportation and sale in interstate commerce of natural gas. These new powers, as fleshed out and elaborated upon by the courts in such landmark pronouncements as the Phillips Petroleum Co. v. Wisconsin case of 1954, steadily eclipsed the Commission's responsibilities in the hydroelectric field.

The era of cheap and abundant fossil fuel and centralization of power production had opened. By contrast, the small local hydro plant became less attractive from an economic standpoint. Over the years, many were allowed to serve out their useful lives and were abandoned or sold for non-power uses when they broke down. Except for an occasional large project, the Commission's hydroelectric licensing program seemed moribund.

In terms of total energy impact and the degree of attention received from the Commission, the FERC hydro licensing program is still relegated to a relatively insignificant, if not vestigial, role among the Commission's functions. As a result of several converging forces in the last twenty years, however, the hydro workload at the Commission has grown by leaps and bounds, outstripping the abilities of our staff resources to keep pace. I will now address those recent developments.

The major forces resulting in the recent hydro workload have been four in number. The first of these forces was the aggressive attitude taken by the Federal Power Commission during the 1960's with regard to jurisdictional matters. As a result of judicial pronouncements refining and expanding the accepted definition of "navigable waterways," most notably the United States v. Appalachian Power Co. case of 1940 and the Wisconsin Public Service Corp. v. FPC case of 1945, there were, by

1960, dozens of existing unlicensed hydroelectric projects which were technically subject to the Commission's jurisdiction, but for which no license applications had ever been filed. In a 1962 opinion involving Public Service Company of New Hampshire, now commonly known as the Androscoggin case, the Commission sought to encourage the owners of these existing projects to file license applications by promising to withhold sanctions -- largely in the form of back annual charges -- if they filed at an early date. While this endeavor was far from totally successful, a large number of applications followed.

Three years later, in 1965, the Supreme Court held in FPC v. Union Electric Co., known popularly as the Taum Sauk case, that hydroelectric projects on non-navigable waterways are jurisdictional if they affect a system of interstate transmission of electric power. Many more existing projects, formerly thought to be outside the purview of the Commission's jurisdiction, thus became jurisdictional overnight. Another wave of license applications ensued.

The Androscoggin and Taum Sauk cases brought their own set of problems to the Commission. Many applications were filed under protest by unwilling project owners who often

demanded hearings on the factual issues they raised. Compliance with Commission filing regulations was halfhearted, leading to deficient applications which applicants lacked incentive to make whole. The problem of chronic deficiencies was exacerbated by the Commission's weak enforcement effort. Finally, since most of these applications did not involve new power capacity, they were considered low priority and received little commitment of staff resources. Some are still pending before us. Of the 217 license applications pending on January 1 of this year, 103 were for initial licenses for constructed projects.

The second great force affecting the hydro workload was the growing public awareness and concern with regard to environmental matters. This new consciousness manifested itself in two ways: increased litigation and a rising tide of federal enactments. The first of these developments is by now familiar to all of us who are involved in one way or another with authorization of new power projects. It is taken as a given that any proposed new project will be resisted on environmental grounds, and that the Commission staff must gear up to deal with environmental issues. This lesson came hard for the Commission, however. In the early days of environment-oriented litigation, the very

name of the Federal Power Commission became synonymous in the minds of environmentalists with industry-oriented insensitivity and bureaucratic intransigence. In the now - famous Scenic Hudson Preservation Conference v. FPC case of 1965, the Second Circuit made clear that the Commission's public interest responsibility under the Federal Power Act encompasses "the conservation of natural resources, the maintenance of natural beauty, and the preservation of historic sites." Moreover, in words by now committed to memory by every environmentalist worth his salt, the court stated that the Commission's role as a representative of the public interest "does not permit it to act as an umpire blandly calling balls and strikes for adversaries appearing before it; the right of the public must receive active and affirmative protection at the hands of the Commission."

In Udall v. FPC, a 1967 case, the Supreme Court reminded the Commission of the breadth of its responsibilities under the Federal Power Act:

> The test is whether the project will be in the public interest. And that determination can be made only after an exploration of all issues relevant to the "public interest," including future power demand and supply, alternate sources of power, the public interest in preserving reaches of wild rivers and wilderness areas, the preservation of anadromous

fish for commercial and recreational purposes, and the protection of wildlife.

As a result of these and similar pronouncements, as well as increased participation by such well-organized intervenors as the Sierra Club, Trout Unlimited, and For Land's Sake, the Commission has greatly expanded the range of factors taken into consideration in its licensing proceedings. The length of its proceedings has expanded accordingly.

The second manifestation of environmental awareness -- federal legislation -- has grown apace. While always well-intended and often unquestionably beneficial, this legislation has too seldom reflected an awareness of the need to accommodate pre-existing delegations of authority and responsibility. A list of enactments impinging in one way or another on the Commission's licensing function would include, to name a few:

the Fish and Wildlife Coordination Act;

the Anadromous Fish Act;

the Wilderness Act;

the Historic Preservation Act;

the Wild and Scenic Rivers Act;

the National Environmental Policy Act of 1969;

the Federal Water Pollution Control Act Amendments of 1972;

the Endangered Species Act; and

the Federal Land Policy and Management Act of 1976.

Such legislation not only expands the Commission's field of inquiry and analysis, but lengthens the list of persons and agencies whom the Commission must consult. Under the Fish and Wildlife Coordination Act, the Commission must consult the U.S. Fish and Wildlife Service and the state agency with expertise in fish and wildlife matters. Under the Historic Preservation Act, the Commission must consult the Advisory Council on Historic Preservation and the State Historic Preservation Officer. Under the Federal Water Pollution Control Act Amendments of 1972, the Commission must be satisfied that the prospective licensee has obtained a Section 401 water quality certificate from the Environmental Protection Agency or the state agency with authority to administer the Section 401 program. And so on. Each one of these consulting entities, moreover, has an independent conception of the binding nature of its input.

A far more serious and troubling problem raised by this legislation is the matter of concurrent or overlapping jurisdiction, where the determination of one agency may be,

in effect, conclusive with respect to the determination of another. Under the Federal Land Policy and Management Act of 1976, for example, the Bureau of Land Management and the Department of Agriculture arguably have authority to deny projects on lands subject to their jurisdiction, giving them an effective veto over Commission action. Under the Federal Water Pollution Control Act Amendments of 1972, the Corps of Engineers must issue a Section 404 permit for any placement of fill or other material in a stream. If project construction calls for such placement, the Corps can kill the project by denying the permit; once again, an effective veto power with respect to Commission action.

Another instance of concurrent authority may soon emerge out of the Federal Water Pollution Control Act Amendments of 1972. Last summer, the Federal District Court for South Carolina, in the South Carolina Wildlife Federation v. Alexander case, held that a hydroelectric dam may, under certain circumstances, be regarded as a "point source" requiring issuance of a National Pollutant Discharge Elimination System permit by the Environmental Protection Agency under Section 402 of that act. EPA is currently considering the advisability of a rulemaking

that would adopt that point of view. The significance of this development need not be spelled out to those who are interested in tapping the power potential of existing dams.

That the problems inherent in concurrent jurisdiction are more than theoretical was demonstrated graphically in the case of the proposed Davis Pumped Storage project in West Virginia. In 1977, after protracted hearings, the Federal Power Commission issued a license for the project. Last year, while the appellate proceedings on the license were in full swing, the Corps of Engineers denied the necessary Section 404 permit, thus effectively killing the project. The appellate proceedings on the FPC license are now being held in abeyance pending appeal and review of the Corps' action.

While Congress may find its way at some future date to remedy the problems occasioned by this slapdash treatment of agency responsibilities, in the meantime both the Commission and prospective applicants must learn to anticipate and make adjustments for these problems. As attractive as the concept of federal one-stop shopping may sound, for the moment it is impossible to render a reality.

The third major factor contributing to the hydro workload was the expiration, during the 1970's, of all of those 50-year licenses that had been issued by the then-new Federal Power Commission in the 1920's. In most instances, the owners of these projects have sought new long-term licenses. However summary the treatment of the initial licenses for these projects may have been, the new climate of environmental awareness and participation has ensured that the projects receive the most careful scrutiny during the relicensing proceedings. Moreover, in many instances competing applications have been filed by persons asserting a more compelling claim to the project. Finally, as with the applications for initial licenses for constructed projects, the applications for new licenses seldom propose installation of new capacity. Consequently, they, too, are considered to be relatively low priority, and movement is slow. Meanwhile, the projects ride forward from year to year under annual licenses perpetuating the old license conditions. As of January 1 of this year, there were 88 relicense applications pending before the Commission.

The fourth and final major influence on the hydro workload has been the drastic increase in the last decade

in the cost of fossil fuels. This trend has resulted in widespread re-evaluation of the relative economies of hydroelectric development, and particularly development at existing dams. This renewed interest is perhaps best gauged by the numbers of applications for preliminary permits that have been filed with the Commission over recent years. On January 1, 1973, there were two applications for preliminary permits pending before the Commission. By January 1, 1975, the number had risen to nine, and by January 1, 1977, to 14. On the first of this year, there were 71 applications for preliminary permits pending.

To summarize, four major forces -- the surge of applications for newly-jurisdictional projects, the new environmental consciousness, the surge of applications for new licenses for licensed projects, and the renewed interest in small-scale hydroelectric development -- have converged rapidly in recent years to place great demands on the Commission's resources. We appear to be at a crossroads where the Commission will either find innovative and practical methods of coping with these challenges, or the entire system will collapse of its own weight. I would like to think that we can take the first of these paths successfully.

Where Do We Go From Here?

As a vehicle with which to proceed on our way, Part I of the Federal Power Act is hardly a well-oiled machine. Given its antiquity and its heavy encrustation of judicial interpretation and legislative whimsy, the FERC licensing apparatus under Part I seems to have taken on all of the dignity, relevance, and functional beauty of a Spanish-American War monument when the pigeons leave. Can it ever work effectively?

Certain truths appear to emerge from my experience with the hydro program to date. First, with regard to large-capacity hydro projects which must be built from scratch, there appears to be a de facto movement back toward the kind of ad hoc legislative determination that the Federal Water Power Act of 1920 was initially intended to avoid. Contemporary political realities are such that ultimate determinations on large proposed projects tend to turn more on who has clout, and on the political mileage that may be derived from controversial issues, than on a tediously compiled factual record in an administrative proceeding. After years of administrative hearings to determine the advisability of hydroelectric

development in the Hells Canyon reach of the Middle Snake River, Congress stepped in and created the Hells Canyon National Recreation Area, thus precluding any hydro development. Similarly, after protracted and expensive administrative proceedings led to the issuance of a license for a proposed major project on the New River in Virginia and North Carolina, and the administrative action was affirmed on appeal, Congress designated the pertinent reach of river as a wild and scenic waterway, once again ruling out hydro development.

Second, and more to the point with regard to small scale hydroelectric projects, a quick and painless approach to obtaining federal authorization for proposed hydro developments cannot be accomplished unilaterally by the FERC. The effort must involve participation by other agencies, special-interest groups, and prospective licensees, as well.

For their part, state and federal agencies, <u>including</u> the FERC, must step back and try to reassess their own roles in the process in an objective manner. They should ask themselves in what way their participation advances the public interest. To the extent that their

own role is redundant, self-serving, or merely formalistic, they should be prepared to accommodate themselves to the functions and defer to the judgments of those who are involved more directly with the matter at hand. Processes of interagency coordination should be developed through such devices as memoranda of understanding, or through less formal and more flexible arrangements, to the end that required consultation may be carried out smoothly and with a minimum of delay.

One might ask why actions so logical and simple have not already been taken. The answer lies in the territorial imperatives of the bureaucratic world. Those of you who are familiar with interagency, and indeed with intra-agency relations, know that no human being will mount the barricades more readily and fight with greater savagery than a career bureaucrat whose carefully nurtured prerogatives are threatened. And many will fight as hard to gain ground as to keep it. To recognize this fact is not to despair of a solution, however. Slow movement in the direction of increased coordination is already underway, and we may discern a glimmer of hope in such tentative initiatives as the lead-agency environmental impact statement, which has been tried with success on several occasions.

The special-interest groups, and particularly the environmentalists, who participate so vigorously in licensing proceedings, must also reassess their role. There can be no question that their efforts have, in many instances, contributed to the public good. Participation based on ill-conceived or unfounded concerns, however, can contribute nothing but delay, and can even be self-defeating. The environmentalist who responds to all proposed development with undifferentiated, knee-jerk opposition, will eventually lose his credibility, like the boy who cried "wolf" once too often. A practical, realistic approach to environmental problems is particularly important in the case of small scale hydro development at existing dams. The major impacts resulting from construction of the dam and creation of the impoundment have already occurred. Their existence is a fait accompli with which we must live. The real question is how we may best use this given situation to our advantage. I think we may safely say that a dam with installed power capacity is more beneficial, in most circumstances, than a dam with nothing at all. And if a prospective developer is so burdened with costly environmental responsibilities that the development is rendered economically or financially infeasible, nothing at all will be all we get.

I would urge any special-interest group, prior to jumping into a licensing proceeding with both feet, to learn precisely what is being proposed, and to formulate its precise recommendations in the light of the ultimate benefit to the public interest. The issue is not whether we are for or against the environment or any other consideration in a particular instance, but how we may attain the social optimum given the circumstances as we find them.

Finally, there is a part in the effort against regulatory delay to be played by the prospective licensees themselves. At the risk of extolling the virtues of common sense ad nauseum, I must point out that a prospective licensee's primary asset as he enters the regulatory gauntlet is a practical and realistic bent. One can rail against the evils of big government all one wants, but it will still be there in the end, as intractable and imposing as ever. Nor is a defiant or intransigent attitude particularly helpful, apart from some short-lived psychological benefits. The most productive approach is to reconcile oneself to touching all of the necessary bureaucratic bases, and then to plot and follow the shortest path to that end. This approach requires early identification of the authorizations which must be obtained at every level of government, an understanding

of the proper sequence of those authorizations in order to minimize delay, and a clear conception of the threshold requirements which must be met in each instance to obtain the authorizations. In order to obtain any part of this information, a prospective licensee should not hesitate to ask an agency staff. That is what a staff is for. In fact, informal communication with an agency staff, so long as it is carried out in accordance with applicable ex parte rules, is one of the best lubricants for moving an application along.

Would-be licensees must also realize that they are proposing to make use of a public resource, and that there are certain obligations and responsibilities which attend that utilization. As Garrett Hardin pointed out in his classic essay "The Tragedy of the Commons," untrammeled use by each individual of a finite public resource will lead eventually to the ruin of that resource for all. A cooperative attitude with regard to remedial or mitigative measures such as minimum flow releases and land use control, besides being the responsible thing to do, will also inevitably shorten the process.

Where do all of these entreaties leave us? Is the solution simply for everyone involved in the process to be self-critical, cooperative, and altruistic? We must guard against our own cynicism and acknowledge that there is room for these virtues. John Stuart Mill may take a half-turn in his grave, but the utilitarian philosophy of the greatest good stemming from the collective pursuit of individual self-interest was discredited long ago. Yet to rely on universal cooperation is not enough. As Hardin recognized, any attempt to save the commons through an appeal to conscience only opens the way to the voracious and conscienceless. Leo Durocher's observation about where nice guys always finish also comes to mind.

The conclusion is that we must regulate, and that regulation must be accepted as conducive to the common good. Our job is to minimize the burden of regulation while ensuring that the maximum common good is elicited. I will briefly address some of our initiatives to improve our existing regulations pertaining to hydroelectric licensing.

Last year, partly in response to the increasing numbers of applications, and partly in anticipation of PURPA, the Commission determined to revise its licensing requirements and procedures in their entirety. This

revision was planned to take place in three stages. The first stage was instituted in September 1978 with issuance of a rulemaking on the "short-form" license procedures applicable to all projects with installed capacity of 1.5 megawatts or less -- the so-called "minor" projects.

The second stage of the reform, upon which the Commission staff is now working feverishly, is planned to take in all projects with installed capacity greater than 1.5 megawatts where at least the dams and reservoirs are already in existence. Besides covering retrofit projects under the PURPA Title IV criteria, therefore, the second stage will apply to unlicensed constructed projects and new licenses for licensed projects, as well.

A third and final stage of the licensing procedures reform will apply to all projects with proposed capacity greater than 1.5 megawatts which must be constructed in their entirety. In addition, because of the close nexus between preliminary permits and licenses, the regulations governing applications for preliminary permits will also be revised. A notice of proposed rulemaking on the revisions to the preliminary permit regulations will in fact be forthcoming in the near future.

In view of the interests of this conference, I will limit my remarks to the preliminary permit and second-stage licensing revisions. The purpose of a preliminary permit is to secure priority of application for a license for a proposed project while the permittee obtains the data and performs the acts required to determine the feasibility of the project and to support an application for a license. The primary goal of the preliminary permit revisions are to eliminate all filing requirements that are not related centrally to the purpose of a permit. For example, the existing preliminary permit regulations require extensive documentation of the nature of the applicant and the extent of his authority to operate power facilities in the state. An applicant must provide multiple copies of corporate charters, by-laws, stockholders' resolutions, state laws, etcetera. The revised regulations eliminate these requirements as superfluous.

The revised regulations reduce the required filings to four substantive exhibits.

The first exhibit is a description of the proposed project, to be provided in whatever specificity the applicant is prepared to give.

The second exhibit includes a study plan and work schedule for the investigations and other activities to be carried out under the permit. The protection afforded by a permit is meaningless unless the permittee files its application for a license during the term of the permit. Therefore, this exhibit requires the applicant to specifiy the interval during the permit when a final determination as to the feasibility of the project will be made, and the interval when an application for a license will be filed (if appropriate). This exhibit will help the Commission assess the applicant's ability to accomplish its plans in the time provided, and will enable the Commission to monitor the progress of the permittee during the permit.

The third exhibit includes a statement of costs and financing. This exhibit informs the Commission as to the financial ability of the applicant to carry out the necessary activities under the permit. Any tentative information that is available concerning the ultimate market for project power will also be provided.

The fourth and final exhibit is a map or maps showing the geographical location of the project, the physical interrelationships of its principal features, and a proposed project boundary.

A similar practical approach will be taken with the second-stage licensing procedures reform, although those requirements must of necessity be more extensive and detailed. While I do not have before me a draft rulemaking from which I can recite, I will outline for you the general principles guiding our efforts.

First, we wish to pare away all of the currently-required materials not essential to the Commission to meet its existing statutory responsibilities. As with the preliminary permit regulations, this process will entail dumping of superfluous documentation and other excess baggage.

Second, the materials that <u>are</u> required should be described with such specificity that we leave as little to the applicant's imagination as possible in complying with the requirements. Descriptive and technical data relating to project features and operations, which are common to all projects, are more susceptible to this kind of short-answer treatment than information pertaining to such subjects as recreational enhancement or environmental impacts, which may vary widely on the basis of site-specific characteristics. Specificity and clarity

in filing requirements will not only aid the prospective applicant in determining what is expected, but will help the Commission staff in determining the sufficiency of the application.

Third, where narrative exposition is dictated by project-specific considerations, the object will be to make clear the minimum requirements while retaining sufficient flexibility to allow for differences in circumstances and equities. These environment and recreation-related requirements will inevitably raise the greatest problems in compliance. The applicants, consulting agencies, and the Commission staff may have different conceptions of the applicants' responsibilities and capabilities.

We cannot forestall these problems. We can only seek to minimize them. The extent to which the procedures relating to these matters are efficient and expeditious will depend as much on the manner of implementation and enforcement as on the specific letter of the regulations. My earlier remarks regarding a spirit of realism and cooperation may be recalled.

Speaking for myself, the fact that these regulations pertain to projects where the dams and reservoirs are already in existence weighs in the balance against the massive reporting and minutely detailed scrutiny that must attend applications for projects to be built from scratch.

Clear and reasonable filing requirements justify an expectation of greater diligence on the part of applicants. The contemplated regulations would therefore seek to eliminate the inordinate amount of effort currently spent on application deficiences, which sometimes linger for months or even years without resolution.

Upon notification of deficiencies in its application for a preliminary permit or a license, an applicant will have a specific period of time to correct the deficiences. If the deficiencies are not corrected in the time specified, the application will be denied without prejudice. Applications without built-in incentives for compliance will be followed up with more intensive enforcement actions.

The new regulations will also address the treatment of competing applications. Such applications will have to be filed within a certain period of time following

public notice of the initial application. A deadline for competing applications will inject a greater element of certainty into preliminary permit and license proceedings, and will help us avoid the indefinite delays that may occur under current circumstances.

This presentation has provided only a thumbnail sketch of the developing revisions to existing regulations. If nothing else, I have at least alerted you to the imminence of these proposed rulemakings. When the notices of proposed rulemakings are issued, all interested persons will have an opportunity to review them and provide suggestions. I encourage all of you who are interested in helping us forge a viable program to make your views known. I look forward eagerly to your fresh insights.

Thank you for your time and patience.

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