Power Distribution in Complex Environmental Negotiations: Does Balance Matter?

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ABSTRACT

We studied six interagency negotiations covering Federal Energy Regulatory Commission (FERC) hydroelectric power licenses. Negotiations occurred between state and federal resource agencies and developers over project operations and natural resource mitigation. We postulated that a balance of power among parties was necessary for successful negotiations. We found a complex relationship between balanced power and success and conclude that a balance of power was associated with success in these negotiations. Power played a dynamic role in the bargaining and illuminates important considerations for regulatory design.

Everyone understands the adage "everything is negotiated." Everything from international treaties to refrigerators is said to be subject to bargaining. One thing that is commonly believed about bargaining is that those who have the power win. A contrary notion is the more balanced the power, the more likely the success.

We tested that premise by examining the effect of balanced power on negotiations over the environmental regulation of six hydroelectric power projects. These multiagency negotiations fall under the regulatory control of the Federal Energy Regulatory Commission (FERC), which licenses hydropower projects. Federal statutes and the FERC's own rules have endeavored to establish a regulatory setting in which the concerns of many parties are well balanced and power among the parties is leveled. This is an important consideration for policy makers because other environmental regulations attempt to achieve a similar balancing.

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THE FERC LICENSING PROCESS

The Federal Power Act of 1920 (16 U.S.C. 792 et seq.) made the FERC responsible for licensing nonfederal hydroelectric power projects. Projects typically receive licenses for a fifty-year period. Applications are expected for more than two hundred renewed licenses before the year 2000 and approximately 150 applications are expected for original licenses (Richard Hunt and Associates 1991; B. Collins 1991). In each case, the applicant for a license is required to consult with state and federal fish and wildlife agencies, Indian tribes, and the general public to plan and conduct studies of the project's effects on a number of nonpower benefits. The subjects under consultation include fish and wildlife habitat, recreation, aesthetics, protection of archeological sites, and preservation of environmental quality. Based on these studies, along with analyses of developmental benefits—such as electric power, flood control, irrigation, and safety—a license application that contains the recommendations of all consulted parties is forwarded to the FERC for decision (Bearzi and Wilkerson 1990; Bearzi 1991). The FERC can deny or issue a license, which may include conditions to protect the environment. Almost all original and renewed licenses contain environmental protection conditions, and most licenses contain instream flow provisions for fish habitat and recreation (Kerwin and Robinson 1985; Mitchnick 1989; Kerwin 1990).

PERMIT NEGOTIATION OR REG-NEG?

Despite the formal prescription for a consultation between agencies and applicant, the conflicts we studied were not very different from other regulatory implementation processes and may be a model for interagency decision making (N. Kerwin 1983). For example, in implementing section 404 of the Clean Water Act (33 U.S.C. 1344 and 33 U.S.C. 401 [1991]) the Army Corps of Engineers is required to consult with the federal and state fish and game agencies (Cavendish and Duncan 1986; Liebesman and Hundemann 1992), and implementation of the Endangered Species Act is basically a consultative process (Yaffee 1982; Freeman 1993). Although the process is prescribed, FERC negotiations involve questions about the distribution of benefits that make success difficult to achieve (Mnookin 1993).

Those benefit distribution questions were raised in the context of regulatory implementation rather than regulation building. Negotiations aimed at building regulations are commonly referred to as regulatory negotiations (*reg-negs*; Harter 1982). A regulatory negotiation is one in which the "representatives of

major interests affected by a proposed regulation meet jointly with senior officials of the appropriate government agency in a structured attempt to reach agreement on the language of the proposed rule (Bingham 1986). Fiorino (1988) discussed the advantages and limitations of negotiated rule making in the Environmental Protection Agency. R.C. Collins (1990) described such a negotiation in the context of building Virginia's instream flow protection program. The requirements for success in a reg-neg are similar to regulatory implementation consultations (Susskind and McMahon 1985), but the conflicts we studied were more limited in scope, were site specific, and were constrained by regulations already in place.

METHODS

We anticipated that evidence of power behavior would be manifested in respondents' recollections of the bargaining experience. We asked interviewees to recall events in which they were able to sanction the behavior of others or when they were sanctioned by others. Their answers allowed us to estimate the kinds of power the actors possessed, how power was employed, and the power's effect on the outcomes of the negotiations.

Comparative Case Studies

The people who represent the parties to FERC consultations are usually technically oriented, with expertise in hydrology, biology, wildlife management, engineering, or project operations. The negotiation behavior of physical and biological science experts can be best understood in the context of specific case examples (Clark and Kellert 1988). We used comparative case studies involving a *most similar systems* design (Przeworski and Teune 1970). The logic behind this design is that by studying cases that are as similar as possible, differences that surface are explanatory. We established seven criteria to guide the choice of cases (exhibit 1). Based on these criteria, candidate cases were identified by personnel from U.S. Fish and Wildlife Service (FWS) field offices and state fish and game agencies. These individuals were requested to nominate cases that, in their opinion, had resulted in successful outcomes. They chose six cases from an initial list of twenty-six. Exhibit 2 illustrates the similarities among these cases.

In 1992-1993, we conducted structured personal interviews with those who had been involved in the negotiations. Involved persons were identified by examining official correspondence for each case, and they typically included representatives from state and federal fish and wildlife agencies, the utility (including their

Exhibit 1
Criteria Used to Select Cases for Study

1) Case involved at least three and no more than fifteen parties;
2) Decision was negotiated in the context of the FERC licensing or relicensing process;
3) Case involved riverine resources as the main focus of negotiation;
4) Project was located in either the northeastern or northwestern United States;
5) No third party imposed its will on the negotiators before they could reach agreement;
6) Actual negotiations did not rise above the regional office level for any involved agency;
7) Issues were resolved after the enactment of PURPA [16 U.S.C. 2601-2633f] and ECPA [16 U.S.C. 803(j)].

lawyers or consultants), local interest groups, and tribes. Forty-two individuals were interviewed, and the interviews were tape recorded and later transcribed.

Power in Negotiation

Dahl (1969) called the study of power a "bottomless swamp." He observed that a central obstacle to studying power is the inability to create an operational concept that can be used in a variety of research settings. Bachrach and Baratz (1969) noted that despite scholarly interest in the concept of power, little consensus has been reached on the meaning of the term because of differences in underlying assumptions and research methodologies. Wrong (1979) defined power as "the capacity of some persons to produce intended and foreseen effects on others" through force, manipulation, or persuasion. Others emphasized dependence: for instance, A has power over B because A has something that B wants (see Bacharach and Lawler 1981; Pfeffer 1981). Whicker et al. (1993) concluded that the complexity of the concept limits its utility. Although power has not been precisely defined, it has been analyzed in terms of sources (Pfeffer 1981; Fisher 1983; Rourke 1984; Pfeffer 1992) and outcomes (Pfeffer 1981) to determine whose preference prevails.

Power is a guiding concept in the field of conflict resolution. Bacharach and Lawler (1981) argued that bargaining theory begins with an analysis of power, because this analysis helps to explain how bargainers interpret contextual cues and position themselves in a given negotiation. Our definition of power was derived from the negotiation and conflict resolution literature. Fisher (1983) called negotiating power "the ability to

Exhibit 2
Similarities among Cases, Describing the Context in Which Negotiations Occurred

Project	Location	No. of Active People	ECPA	Type of Consultation	Time Period	Active Parties*	Natural Resource Issues
Ashton-St. Anthony	Northwest	15	yes	FERC relicense	1983-1992	FWS, St. F&G (2 offices), utility	Flow, passage, turbine mortality, reservoir fishery, wetlands, riparian, nesting
Cataract	Northeast	8	yes	FERC relicense	1984-1989	FWS, St. F&G, St. Env., 2 St. agencies, Salmon Club, utility	Flow, passage, access, water quality
Eastman Falls	Northeast	5	yes	FERC amendment and relicense	1981-1987	FWS (2 offices), St. F&G, resource consortium, utility	Flow, passage, recreation
Koma Kulshan	Northwest	10	no	FERC license	1979-1989	FWS, St. Fish, St. Game, St. Water, USFS, tribe, utility.	Flow, sediment, access
Oswegatchie	Northeast	6	yes	FERC relicense	1980-1992	FWS, St. Env. (4 offices), utility	Flow, recreation, water quality
Pit 3,4,5	Northwest	9	yes	FERC relicense	1980-1993	FWS (2 offices), St. F&G, St. Park, utility, USFS, tribe	Flow, eagle habitat, wetland/riparian, reservoir levels, tribal lands, access

*Legend for agency abbreviations:
FWS—U.S. Fish and Wildlife Service
USFS—U.S. Forest Service
St. F&G—State fish and game agency
St. Env—State environment agency
St. Water—State water management agency
St. Agencies—Other state agencies

influence others." Cormick and Patton (1980) argued that without the ability to impose sanctions, parties have no incentive to bargain in good faith. Cormick (1982) argued that negotiations are more likely to be successful when each party has sufficient power or influence to exercise some sanction over others. Thus, we defined negotiating power as the ability to influence others and to prevent other parties from acting unilaterally.

Balance of Power

A balance of power is thought to contribute to successful negotiation (Cormick 1980; Delli Priscoli 1987). Amy (1983) noted that reasoned dialogue is essential in resolving environmental disputes. When parties have the opportunity to conduct a reasonable dialogue, it is likely that they will move beyond the rigidity of position-based bargaining. Moving beyond position-based negotiation implies an appreciation of the complexities of problem solving and an attention to satisfying mutual interests. Although the parties to a conflict may wish it otherwise, the opportunity for rational dialogue is often a reflection of the power relationship between the parties. The chance for effective bargaining is thought to be enhanced when power among parties is balanced (Amy 1983) or is believed to be shifting toward balance (Zartman 1989).

Measuring Power

We concentrated on two aspects of power: sources and behavior. The source of power is important because it helps to explain the forms of influence. A listing of hypothesized sources of power is presented in exhibit 3. We followed the findings of Rourke (1984) that public organizations derive power from expertise and political support. Expertise is similar to Fisher's (1983) category of skill and knowledge and includes an

Exhibit 3
Theoretical Sources of Power in Negotiation

Sources of Power	Citation
Skill and knowledge	Fisher (1983)
A good relationship	Fisher (1983)
A good alternative to negotiation	Schelling (1960), Fisher (1983)
An elegant solution	Fisher (1983)
Legitimacy	Fisher (1983)
Commitment	Fisher (1983)
Certainty about outcome*	Burtraw (1993)
Consistent expectations among parties	Ashenfelter and Currie (1990)
Congruence between an organization's goals and those of its representatives	Ashenfelter and Currie (1990)
Risk tolerance	Ashenfelter and Currie (1990)
Low Relative negotiation cost**	Ashenfelter and Currie (1990)

*Usually observed in the reverse, the higher the uncertainty the lower the power (similar to Fisher [1983] "Good alternative to negotiation.")
**Similar to Fisher (1983) "Good alternative to negotiation."

organization's technical or scientific knowledge. Political support includes legitimacy and constituency support. Using Rourke's typology, Clarke and McCool (1996) demonstrated the relative power of several natural resource agencies in historical context. Our investigation expanded their analysis by examining sources of power for organizations in specific conflicts. Our analysis of sources of power was derived from a review of the official case documentation and, principally, from the perceptions of respondents.

We also studied power behavior. How do agencies actually use the power they have? Fisher (1983) stated that negotiators must conform to notions of fairness and due process in order to be considered legitimate actors. Some uses of power, such as overt threats, violate these rules and diminish the probability that the parties will be able to reach an agreement acceptable to all. Threats also fracture long-term relationships (Fisher 1983). Other power behaviors fall within an acceptable range and are not contrary to notions of fair play. Examples of legitimate power behaviors are exchanges of promises, agenda control, and the exercise of personal leadership skills. Even acceptable behaviors and tactics can be considered heavy handed; for example, delaying tactics might be recognized as legitimate to a point and then considered disruptive. Interview questions used to measure the balance of power in these negotiations are reported in exhibit 4.

Exhibit 4
Questions of Each Respondent Asked to Assess *Balance of Power*

1. What kind of influence or control did you think that you could exercise over the process?
2. Could you stop it, or could you go on without others?
3. During this phase, was there a time when you thought:
   a. your power **went up** significantly?
   b. your power **went down** significantly?
   If **YES** to "a" or "b":
   What was going on when that happened?
4. Did you think that others had influence or power over you?
   If **YES**: Describe their power.
5. Did the power distribution change notably during this phase?
   If **YES**: When did this occur? What was going on?
6. Overall for this phase, rate the power you had in the discussion on the following scale:
   0 = you had no power
   5 = power was balanced among the parties
   10 = you could freely manipulate others in the process

Respondents were requested to describe their organization's power in the process, the power other parties had over them, and the overall balance of power. Respondents were also asked to rate their organization's power on a ten-point scale, with one meaning that they had no power, five meaning that power was balanced, and ten meaning that they could freely manipulate others. We established three conditions for a finding of balanced power:

- Each party had the ability to stop any other party from acting unilaterally (*stop others*).

- Each party had the ability to prevent the other parties from collectively excluding their interests from being addressed in the negotiated agreement (*prevent exclusion*).

- The balance of power was rated between three and seven on our ten-point scale by all parties throughout the process.

The Concept of Successful Negotiation

We defined a successful negotiation as one that met criteria synthesized from Lee (1982) and Bingham (1986):

- Each party believed that an agreement was reached.

- The agreement included an understanding of implementation procedures and could be monitored.

- The parties would be willing to engage in future negotiations.

To determine the level of success of each negotiation, interviewees were asked to evaluate the agreement in terms of these three criteria. They were also requested to rate the negotiation on a ten-point scale, with one indicating that the negotiation was a complete failure and ten meaning that the negotiation was a complete success. Because all the negotiations shared the attribute that the parties were willing to engage in future negotiations (Burkardt et al. 1995), we discounted that factor in determining success. Although some agreements were reached in all negotiations, we followed Ashenfelter and Currie (1990) in rating as minimally successful those that failed to agree on at least one important question.

RESULTS

We rated two consultations to be fully successful and judged four to be only minimally successful (exhibit 5). The principal reason for a finding of minimal success was that an agreement was not fully negotiated. We judged that an agreement was not fully negotiated when one or more of the major issues was left unresolved by the parties or when a major issue was resolved by the FERC. We found a balance of power on the basis of respondent perceptions. The respondent scores on our scaled question about balance of power were of little assistance in making this judgment, and we relied on the transcript record by ascertaining whether or not respondents reported that they could stop others or prevent exclusion (exhibit 5).

The Koma Kulshan Project

The Koma Kulshan hydroelectric project is located in northwestern Washington State on Sandy and Sulphur Creeks. From 1979 to 1982, three competing applications were filed, but the applicants reached a settlement and combined the three into one project. Construction occurred during 1989 and 1990, and Koma Kulshan began operating in 1991. The applicant and the agencies followed the formal consultation process and reported a low level

Exhibit 5
Ratings of Success and Balance of Power

		Success Measures			Balance Measures		
Project Name	Successful?	Agreement	Respondent Scores	Implementation and Monitoring Negotiated	Respondent Scores	Stop Others	Prevent Exclusion
Koma Kulshan	Fully	Fully negotiated	Range=5-10 Mean=8	Yes	Range=2-8	Yes	Yes
Eastman Falls	Fully	Fully negotiated	Range=7-10 Mean=9	Yes	Range=3-7	Yes	Yes
Oswegatchie	Minimally	Not fully negotiated	Range=7-8 Mean=7	Partially	Range=3-8	No	No
Cataract	Minimally	Not fully negotiated	Range=2-9 Mean=7	Yes	Range=2-10	No	No
Pit 3,4,5	Minimally	Not fully negotiated	Range=1-7 Mean=4	Partially	Range=4-6	No	No
Ashton-St. Anthony	Minimally	Not fully negotiated	Range=3-8	Partially	Range=4-7	No	No

of conflict because of the minimal physical impacts of the project.

Power Behavior. The ebb and flow of power is exemplified by the way applicants saw their power as relatively low in the initial stages because of the belief that if the resource agencies delayed in providing comments the project would not be financially feasible. At the same time, some of the resource agency's representatives believed that the consultation would progress whether or not they made recommendations.

Once the process was well established, all participants viewed it as essentially balanced. In the words of one agency representative:

> We had our goals, they had theirs. It wasn't like anybody was trying to control. The applicant had sat down and figured out where his bottom lines were, and he was doing his job as a negotiator. I can't ever remember going into any of the discussions or negotiations [in which] there was a definite feel that . . . one party had less of a leg to stand on than another, or vying for a power position, or whatever.

At the same time, each party was able to influence some aspects of the process. For example, a representative of the applicant explained how they controlled meeting sites and agendas:

> [W]e led the meetings, so they were our meetings. We conducted them with our published agenda, and I think the whole thing, by virtue of our initiation, gave us more authority in how the meeting was going to be conducted.

By setting meeting agendas, the applicant influenced the issues addressed and was able to control the time allotted to each topic. This put the resource agencies in the position of responding to proposals made by applicants rather than defining the issues themselves.

Sources of Power. The first source of power was engineering expertise and knowledge of the project. Resource agencies could not take unilateral action and draw up their own project proposals because they lacked in-house expertise. Also, the applicant possessed some expertise in instream flow issues and methodologies, and this gave them leverage when they negotiated flow regimes.

Second, the applicants thought that FERC favored development of this project and would probably approve the application. The belief that their interests were supported by the final decision maker gave the applicants a sense of efficacy.

Third, the applicants were legally required to consult with resource agencies. Although applicants were not obliged to incorporate each agency's recommendation into the license application, if resource agencies believed that a consultation did not reflect good faith they could request that FERC delay license issuance until the contested issues were resolved. One agency respondent suggested that while legislation gave his agency significant power in the FERC consultation process, a lack of funds and personnel limited the exercise of this power.

Fourth, representatives of the resource agencies and tribes found that working together and maintaining a unified stance increased their sense of power. One resource agency representative recalled that

> power was in the group of agencies coming at this thing together. If you had a consensus among that group that this was a serious concern for the environment, then you would see pressure put on to get it set aside.

Fifth, since the U.S. Forest Service managed the land on which the project was to be built, that agency's power increased because it could dictate, to some extent, how the project operators would use federal lands.

The Eastman Falls Project

The Eastman Falls Dam is located within the town of West Franklin, New Hampshire, on the Pemigewasset River just upstream from the confluence of the Pemigewasset and the Winnipesaukee Rivers, which forms the Merrimack River. Eastman Falls is one of several hydroelectric facilities on the Pemigewasset and Winnipesaukee Rivers operated by Public Service Company of New Hampshire (PSNH). The Pemigewasset River is believed to contain the bulk of the preproject, upstream Atlantic salmon spawning and rearing habitat in the Merrimack River Basin.

The Eastman Falls project was originally built in 1910, replaced in 1937, and issued a license in 1969. The license was backdated to January 1, 1938, with an expiration date of December 1, 1987. In 1969, the Merrimack River Basin Anadromous Fishery management committees were established as a consortium of resource agencies with responsibilities for water and fish in the basin. This included a policy committee of upper-level decision makers and a technical committee of field-level professionals. The work of these committees was closely coordinated with interagency plans for restoration of Atlantic salmon. In 1981, the committees approved the first Merrimack River Basin

fish passage action plan. Also in 1981, PSNH filed an application with FERC for a license amendment to authorize replacement of a damaged water wheel and turbine at the Eastman Falls Dam. Because the Merrimack River Plan had been adopted, FERC included requirements in the amended license for minimum flow releases and for consultation with state and federal resource agencies regarding fish passage.

In 1985, PSNH began the process of license renewal. Because acceptance of the Merrimack River Plan meant acceptance of fish passage, the main issue in the Eastman Falls negotiation was the timing for the building of fish passage structures at the dams on the river. In August 1987, FERC issued the new license for Eastman Falls; it required minimum flows, fish-passage operations as defined in the Merrimack River Plan, and monitoring of downstream fish passage.

Power Behavior. The timing of fish passage was crucial to the negotiation, and the resource agencies were able to bargain in good faith and adopt a fish-passage plan acceptable to all. The 1981 Merrimack River Plan stipulated staggering the installation of fish-passage facilities so that as anadramous fish moved up the river over a period of years they would not be impeded. Thus, a timetable of installation for passage facilities was part of the plan. PSNH's proposal differed in that the utility agreed to phase in fish-passage facilities but requested that rather than follow a timetable for installing these facilities, biological triggers dictate the time of their installation. This comprehensive plan conditioned power behavior because the issue of whether or not fish passage would be part of the license had been resolved. Respondents reported that the plan diminished the contentiousness of the consultation.

Sources of Power. The first source of power was derived from scientific expertise. Eastman Falls was one of the early test cases for the New England Flow Policy, which is a methodology for determining instream flow requirements based on watershed area. A resource agency representative stated that

> they were using our method . . . New England Flow Policy, with the approach being to use historical flow releases as a way to formulate a recommendation. Other approaches could have been used, but they decided to use our method. So, that gave us some power. FERC was looking to us for recommendations and requiring that the applicant consult with us.

The applicant successfully requested a smaller aquatic base-flow multiplier, which meant that flow releases were diminished from the resource agency recommendation. Because the U.S.

Geological Survey performed the analysis of the base-flow multiplier at the request of PSNH, resource agencies ultimately accepted these lower recommendations.

A second source of power was formal policy. The state resource agency maintained the New England Flow Policy as a formal hydroelectric facility policy. This gave resource agency negotiators power because it established clear areas that were nonnegotiable. To deviate from established policy would have required appeal to agency policy makers and could not occur at the negotiation table itself. As stated by one resource agency representative:

> The Fish and Game Commission, in 1981, adopted a hydro policy that would direct our efforts for all these relicensings . . . we would oppose the construction of new dams, oppose the reconstruction of breached dams, and oppose significant diversions of water. With that policy, I was able to articulate our position. So if it got to a point where we were at odds, it was pretty clear why. The policy is pretty workable.

The third source of power was physical ownership of the project. The project applicant noted that power derived from the existence of several facilities in the Merrimack/Pemigewasset River system. This gave the applicant additional room to bargain. When asked about sources of power in the negotiation, one of the applicant's negotiators replied that

> [p]ower of multiple dams, used to advantage, therefore had a lot of clout. The Comprehensive Plan negotiations took pressure off the Eastman Falls project consultations. At the one-project scale, it becomes a win-lose dialogue. At the river-wide scale, everybody wins.

The fourth source of power was financial status, because the applicant was entering bankruptcy proceedings. A representative of the applicant said:

> Well, there was something else you had to think about; all the agencies understood this. Even though we all felt we were negotiating from the power position, because of the regulatory process, on the other hand we all realized, you're dealing with a company that's in bankruptcy. Public opinion . . . what's going to happen to your credibility if the Company said, "OK, these agencies have jumped all over us to spend 26 million of your dollars . . . we're trying to solve our bankruptcy problem. We don't want to raise rates."

The specter of bankruptcy also conferred power on the applicant because of the uncertainty of what would occur after bankruptcy proceedings. The applicant and the resource agencies had established a functional working relationship and all parties relied on the predictability of that relationship. The attitude

seemed to be that it was better to negotiate with the parties at hand than to wait for a change in the company.

A fifth source of power was legislative connections. As a large public utility, the applicant held power through influence with state legislators and the governor. The applicant noted this as a source of power, and the resource agencies were certainly well aware of this factor. According to one resource agency representative:

> [T]he thinking among the fishery agencies was that if we tried to take a hard stand with fish passage, we may lose the whole restoration program.

The Oswegatchie Project

The Oswegatchie project in upper New York State encompasses six dams and hydropower facilities stretching over more than seventy miles of the river. Originally licensed in the 1920s, the project received a renewal license in 1983. Article 30 of the license required consultation with resource agencies in order to determine minimum flow releases. After two years of nonaction, the utility requested that it be relieved of its consultation obligations. The request was denied, prompting action by all parties to move the process forward. From 1986 to 1989, environmental studies were conducted, and agreement was reached on all issues except for minimum flow releases in one bypass reach. The resource agencies requested winter flows in this reach of thirty cubic feet per second (cfs), but the utility stated that a flow of fifteen cfs during the winter months would be adequate. Conflicting flow recommendations were submitted to FERC and those of the utility were accepted. The final order establishing permanent minimum flows was issued by FERC in December 1991. State and federal agencies objected, and the state suggested that it might reopen the 401 Water Quality Certificate on the grounds that conditions had changed substantially since original certificate issuance. Because 401 certificates require specific quantities of water to be released as dilution flows, the state resource agencies believed that a revised 401 certificate might provide the higher flows they had recommended.

Power Behavior. Reflecting about the balance of power in this consultation, a representative of the applicant gave the following account:

> My influence over the resource agencies was minimal. I could certainly get their attention and get them to listen to me. I guess I put myself in the middle: I'm having some influence on this process but I'm not manipulating. I didn't have control.

Representatives of the resource agencies told similar stories:

We didn't have any power, except persuasion. It was, I think, mutually recognized interchange between the [resource agency] and State on this one.

We didn't have any unilateral power. We tried to negotiate with consensus. I think we're looked on as the resource agency with the best idea of flow requirements.

[T]here wouldn't have been power to get what you wanted without the cooperation of the others. But we believed at that point that we had their cooperation.

Sources of Power. Applicants anticipated a source of power in their authority to actually file the license application with FERC. This gave them control over deadlines for agency comments. However, this potential source of power was diminished because during the initial phase of the negotiation, agencies did not always meet deadlines when they made comments. This left the applicant in the position of having an incomplete—and late—application, which the applicant felt damaged its credibility with FERC. The applicant could have filed the application without agency comments before the deadlines passed, but perceived this as a risky strategy. After one case of agency tardiness in providing comments, the applicant became more demanding:

We could hold things but we proposed the scope of work and unless [the resource agency] commented, there was nothing to go to FERC with. I think we took a little more aggressive tack later on in that we said 'here's our proposal; here's what we propose, if we don't hear from you in thirty days, or sixty days or whatever it is, we're going to file it with FERC.' We had taken the tack of being responsive and we felt that FERC had told us to get the agencies' comments and we tried to do that and when they didn't respond, well we didn't submit anything but then we got burned by FERC because we didn't respond. So subsequent to that we came back and said 'well forget it, we aren't going to do this again.' It didn't feel very good, you know. So, like I said, we became more aggressive in terms of filing things with or without agency comments.

Q: Was there a time during that phase when you felt your power increase or decrease significantly?
A: I guess looking at it, when [the resource agency] just canceled the meeting and never called back, it kind of felt like our power to act had been taken away. We were moving along, we had a dialogue going, and then when they just dropped out of the picture I would say our power diminished because we had lost the ability to talk with the people.

Another potential source of power for the applicant was physical control of the project. Oswegatchie was an existing project and would continue to operate in the historic manner until it was ordered by FERC to implement minimum flow releases:

We basically couldn't get anything out of [the resource agency]. We were operating the projects, and it was a matter of, fine, if they don't want to push it, we aren't going to push it.

The most notable feature of interviewees' responses was that they almost unanimously referred to the power of FERC in this process. While individuals realized that they had some power in the negotiations, the specter of FERC as the ultimate authority led to the perception that power, in the sense of having the ability to take unilateral action, was severely limited. Because the intentions of FERC were uncertain and seemed to change during the course of the consultation, the interviewees felt powerful when they believed that FERC supported their interests and recommendations. For example, in the early phases of the consultation the resource agencies submitted recommendations for interim minimum flows. These were accepted by FERC, giving the resource agencies a sense that the entire consultation might go their way. Later, when it seemed that FERC had changed its attitude toward the project, the balance of power shifted. According to a resource agency representative:

One meeting, [the applicant] indicated that they wanted a lower flow than we'd agreed upon, and there weren't going to be any further studies and that it was going to be left up to FERC.
Q: Do you have any idea why that was recommended?
A: I would say that a pendulum swung at FERC a little bit more towards the developers and they felt they could get what they wanted through the FERC process. I would say it [power] appeared to swing toward the company.

The negotiation on the Oswegatchie project concluded when the license application was submitted to FERC with conflicting streamflow recommendations, and FERC granted the utility's request for winter flows lower than those requested by the resource agencies. This led to conflict about the project's Section 401 Water Quality Certificate, because the agencies claimed that the lower flows would not satisfy the requirements of the certificate issued by the state in 1972. The prospect of using the Section 401 process to reopen the question of flows increased the resource agencies' perception of their power.

The Cataract Project

The Cataract project in Maine consists of four dams. The original license was issued in 1968, backdated to the first operating date of 1938, and expired at the end of 1987. The utility initiated the consultation process in June 1984. Appropriate agencies and groups responded, and the process proceeded smoothly. In July 1986 the utility submitted the license application to FERC. Because the Electric Consumers Protection Act

(16 U.S.C. 803[j]; ECPA) had recently been passed, FERC responded to the application with a request for further input by fish and wildlife resource agencies. The applicant and fish and wildlife agencies consulted on the issues of minimum flows, fish passage, impacts on resources, and public access. In January 1989, the utility submitted a revised application, and FERC issued the license in June of that year. However, several licensing issues were unresolved, and at the time of our interviews the validity of including the state's Section 401 Water Quality Certificate as a license condition was still being contested by the project operator.

Power Behavior. Public interest groups played a pivotal role in these consultations, and their involvement was not entirely appreciated. Some lamented that including these groups transformed the process from what should have been impartial fact finding to an adversarial process. The public interest groups probably ascribed their behavior to different motives:

> [W]e have had some influence on the process. That influence has come from outside the process; it hasn't come from within. It's come from us manipulating the politics; getting our legislators to ride herd on FERC.

At the time of our interviews, the applicant was contesting the state's Section 401 Water Quality certification. The Department of Environmental Protection (DEP) had successfully petitioned FERC to predate the Section 401 certificate so that certain minimum flows were required below one of the dams. Once FERC made a final decision about required flows below Cataract Dam, the state water quality agency attempted to intervene by exercising the authority to require a Section 401 Water Quality Certificate as a license condition. At this point, power was unbalanced because the DEP held a great deal of power and was able to act unilaterally. However, the DEP chose not to take such strong measures until all other options were exhausted. The applicant protested on grounds that the DEP had failed to raise the issue during the formal comment period and that meanwhile the applicant had entered into agreements with two communities to provide adequate flows for waste assimilation.

Sources of Power. In addition to Section 401, another source of power held by participants was the expertise each lent to the decision-making process. Although the kinds of expertise varied, all offered some unique expertise that added value to the negotiation. Applicant representatives asserted that the validity of their scientific methods gave them power:

[P]ower was balanced. We had very strong scientific grounds for all our assertions. We did not ask for anything, or suggest, or recommend anything that we could not scientifically justify.

Likewise, representatives of resource agencies realized that certain forms of expertise helped to strengthen their negotiating position:

Clearly, when it comes to issues of dissolved oxygen, the [state resource agency] is going to have significant power. When it comes to questions of fish passage, fish restoration—at least at consultation—fisheries agencies have significant power. It's their issue.

Another resource agency representative stated that knowledge of the FERC process itself was a source of power:

[W]e were bringing in this knowledge and expertise in the FERC process that I don't think the other agencies necessarily had, or maybe even necessarily cared about, so I think they look to us for advice, guidance on the FERC process.

In this context, power gained through procedural knowledge gave the resource agency some leverage in advancing its interests when a coalition was being formed among several resource agencies. While resource agencies tended to share the same general interests in these consultations, their specific agendas were often very different.

Access to legislators was the most important source of power for the local interest groups. Another source of power came from the requirements and opportunities of the FERC consultation process itself. Having gained intervenor status, these groups were actually in a position to stall the proceedings by appealing FERC decisions during the consultation. In one instance, FERC made a decision about the Cataract license that was appealed by a local environmental group. The process came to a standstill until the issue was resolved. Local interest groups increased their power through alliances with national groups. Partly because of these alliances, the interest groups were able to contribute to the development of a fish hatchery. This enhanced their credibility and increased their legitimacy with others.

Several participants in this consultation referred to the presence of FERC as the ultimate authority. One respondent defined *power* in this context as "what everybody thinks they have, but nobody really has any"—because FERC makes the final decision.

The Ashton-St. Anthony Project

The Ashton-St. Anthony project is located on the Henry's Fork of the Snake River in eastern Idaho. The project consists of two developments: A reservoir, dam, and powerhouse near the community of Ashton and a diversion and electrical power-generating facility within the city limits of St. Anthony. The original license was issued in 1977, with an effective date of January 1938, and the renewal license was issued on August 3, 1987. Included in the renewal license were five articles relating to fish passage, fishery and wildlife enhancement, and turbine mortality. The agencies and the applicant were directed by FERC to resolve the issues in the articles.

Power Behavior. Several respondents indicated that the Ashton-St. Anthony received the first license renewal issued after passage of ECPA. Consequently, none of the parties knew what power they actually had or how the FERC was likely to rule on the license application. One respondent characterized the process as

> uncertainty of what was really needed in a license application. How far did one have to go? How much did you have to give? When was enough, enough? How much mitigation was appropriate? Things were never spelled out at that point in time.

A logical reaction to this uncertainty was to take an active role in the process in order to promote one's own interests in one way or another. For example, the applicant had a substantial financial interest in gaining a license and was willing and able to commit significant resources to license preparation. If the applicant wanted to conduct a study using a specific methodology, the study went forward despite agency warnings about inadequacies. This is not to suggest that the applicant always had the power to overwhelm others in the process. However, having the financial ability to persist undoubtedly gave the applicant power. The applicant also set meeting agendas and was able to control, to some extent, the range of issues discussed.

Sources of Power. Resource agencies' sources of power derived largely from their expertise. One manifestation of this was that, rather than contract with a third party, the applicant paid the state resource agency to conduct a two-year reservoir study. Results of this study were to assist in determining how to manage the reservoir's fishery. Illustrating the idea that resource agencies find power in their biological expertise, one respondent stated:

I felt that our power that we could exercise in the negotiation process came primarily from the facts—from biological studies.

Another respondent referred directly to the agency's ability to control studies:

We were able to influence the management goals, all those things that we have statutory authority over, we were able to persist on. The only thing we really had control over was once the study got going, since we had direct supervision of it, we were able to control the activities and the timeliness of that information.

Thus, for the resource agency, power came not only from having the expertise to conduct the study but from using that expertise to determine the parameters of the study and to interpret results. The applicant believed that the resource agency overstepped agreements because study results were conveyed directly to FERC without applicant approval.

Another respondent noted that the new procedures dictated by ECPA gave resource agencies a sense that they could wield power and that they had some legal basis for this:

[W]e never felt we had the ability to actually control behavior. Again, we put a lot of stock in the new law [ECPA]. For a change, we actually felt we had some legal basis to be there.

Passage of ECPA conferred new legitimacy on resource agencies. Several respondents from state and federal resource agencies mentioned ECPA as a basis of power. However, the power gained through ECPA was uncertain.

Pit 3,4,5

The Pit River of northern California empties into Shasta Reservoir on the Sacramento River. The Pit is marked by a sequence of dams with downstream reaches bypassed by a penstock. Pit 3,4,5 is a series of three diversion structures and power stations. Although the project included three developments, the negotiations focused on flow in the Pit 3 reach for two reasons. First, the Pit is a major forage river for bald eagle, with the primary forage fish being the Sacramento sucker and Sacramento squawfish. The eagles prey upon the suckers and squawfish while those species occupy the shallow margins of the river. The Pit 3 reach lacked these shallow areas because of persistent low flows. Second, although anadromous fish runs to the Pit River were blocked by construction of Shasta Dam, the Pit had historically been the site of significant salmon spawning. To mitigate this loss, fish and wildlife agencies asked for increased

flows to produce rainbow trout. Rainbow trout were an issue in their own right because of the popularity of the Pit River with sport anglers.

Other important issues included limiting fluctuations in the level of Lake Britton so that recreation on the reservoir could be maintained, satisfying the Pit Indians about preservation of cultural sites, providing recreation access to Lake Britton, ending diversion of flows from Rock Creek—a tributary to the Pit River, and meeting U.S. Forest Service (USFS) concerns about road safety and access.

The round of consultation we focused on began in 1981 and continued at the time of our interviews in the fall of 1993 because the parties remained in official disagreement about streamflows needed in the Pit 3 reach. In 1987 the FERC issued an order that required a minimum release of 150 cfs from the Pit 3 Dam (38 FERC 62,078). The agencies protested, seeking a minimum release of 300 cfs. Most other issues were resolved by the parties and the agreements noted by FERC (38 FERC 62,104).

Power Behavior. Although all parties had opportunities to exercise some control, the role of the utility was predominant. The utility was able to exercise this control because they devoted extensive resources to the consultation in the form of funding and personnel and because the FERC allowed the negotiation to proceed at an unhurried pace. As one agency respondent observed:

> I really was frustrated with the lack of FERC involvement throughout the whole process. FERC was the administering agent, and I think we saw FERC people twice. And that was tied more to inspections on the project, one gal came out and reviewed the Exhibit R stuff. . . . Oh, she was a breath of fresh air. She came out and she asked some real pointed questions of [the applicant] about recreational development and what are they doing for the user public, and she really felt like [the applicant] had a responsibility here, and that they weren't living up to it. And, like I say, she was a breath of fresh air, and one meeting and she was gone. And then there wasn't a whole lot of follow-up, I'll tell you. She shook up [the applicant] that one meeting she was there, and they thought, 'Wow,' you know. They started paying a little bit more attention to what we were saying. But, boy, if she'd have followed through, why we'd have really had something there.

The parties agreed, in the early stages, on what to study but were unable to agree on how to interpret the results. An agency representative said:

We had a lot of influence from the standpoint that the licensee came to us and, I believe, sincerely wanted to negotiate from the standpoint of process and with respect to studies and things of that nature. We had a tremendous amount of cooperation. And as a result of that, we did have a lot of influence. When it came down to determining measures to go into a license, for protection of fish and wildlife, then we had very little.

The negotiations were led by a company negotiator who was accompanied by a phalanx of technical experts. One agency representative described a typical meeting this way:

I'd show up in my jeans and my whatever, and [the utility] would bring in their ten guys in three piece suits, and they always had one guy over in the corner, they had this big stack of computer printout. And they'd say, 'Oh, 100 cfs, how much is that gonna be?' And he'd flip through this thing and, 'Oh, that's so many millions of dollars if we release that much water.'

A company representative agreed, observing, "I should point out that my role as a biologist is different than the [agency] biologist. Working for the company; we had a negotiator."

Sources of Power. Although the agencies had sources of power that could have been used in the negotiation, those resources were not employed effectively. For example, the FWS could have used the endangered species status of the bald eagle as a source of power. But the agency evidenced uncertainty about bald eagle forage-flow requirements. A representative of the FWS recalled the difficulties this way:

[W]e had almost two different positions coming out from the Fish and Wildlife Service, in a sense there ended up being a bald eagle management plan that was written for that whole area. And the results of that plan, even though there was a disclaimer at the beginning of the plan, not the results, but rather the conclusions of that plan, were different from what we had concluded as the Fish and Wildlife Service. Because, you know, we were just one person on an entire group. And [the utility] made a big point of trying to, even though there was a disclaimer at the front of this plan, that this was not necessarily the opinion of any one of the individuals on this committee. They continually represented this plan as the Fish and Wildlife Service's bald eagle management plan. And they continually referred to it as that. And we were continually back[ing] away from it. Because the conclusion in that plan was that 150 was the appropriate minimum flow, whereas the official Service position, which I got concurrence from our endangered species person for, was 300 cfs.

DISCUSSION

Was Power Balanced in These Negotiations?

We explored the proposition that a balance of power is a necessary condition for successful negotiation. We concluded that

the two cases of successful negotiation exhibited balanced power, and the four minimally successful negotiations did not (exhibit 5). One obvious conclusion from this finding is that even regulations designed to promote balance may not achieve that result. Parties understood the power relationships in these consultations and worked to enhance their own power within that context. They filled every gap in the regulatory process with calculations of their ability to influence the outcome. We saw no cases in which one party gained all that they sought, leaving others with nothing. The decision arena was controlled, because FERC acted as a third-party decision maker and was required to adhere to the principle of balancing electric power production and resource protection.

Because the parties sought to build their influence, we were able to observe the play of power in a process that was designed to level the playing field. For example, during the Cataract interviews we were given balance of power ratings as low as two and as high as ten on our ten-point scale. The impression that the balance of power was dynamic during the course of negotiation is supported when one looks beyond the numbers and focuses on the transcripts. A typical response is captured in this statement: "Well, sometimes we felt powerful and really in control of these negotiations, and other times we felt that we had no power at all. It really depended on what was actually going on at that point in the consultation." Thus, while participants could see that power was not balanced at every point in the process, their overall belief was that power was shared. Each party possessed and expressed power but the actual balance was fluid. When we evaluated the balance of power alongside participants' comments about unilateral action, we observed that each party's belief about its ability to affect the negotiation was combined with an understanding of available sources of power. Negotiators were able to use these sources at appropriate times, and it was at these times that they reported feeling powerful. Where a negotiation was successful, the overall context could be described as a balance of power.

What Were Participants' Sources of Power?

The Power of Expertise. All the participants we interviewed stressed the importance of expertise. For resource agencies with expertise in fish and wildlife management this meant that when issues of streamflows, fish and wildlife habitat, and mitigation were discussed they believed that their knowledge of the subject gave them power to influence the outcome. When the applicant had little or no expertise in these areas, it was difficult to argue persuasively against a resource agency's proposal.

FERC licensing regulations establish the presumption of the validity of agency expertise. During the first stage of the consultation process, after the applicant provides resource agencies with detailed information about the project and proposes studies, the resource agencies reply with written comments. As part of this process, resource agencies propose appropriate studies. If applicants object to the studies, they can appeal to the FERC to determine whether proposed studies are reasonable and appropriate. In subsequent phases of the process a similar procedure is followed. Thus, while the applicant can object to studies and ask FERC to determine the reasonableness of agency requests, it is presumed that resource agencies possess the expertise required to specify appropriate studies. However, the Ashton-St. Anthony case illustrates how powerful applicants can accede to studies but prevail on related issues such as research methods. Because of their expertise, energetic agencies are able to hold sway because they have a required voice in defining studies. Applicants we interviewed stated that their expertise in engineering and project design enhanced their sense of power. At times it was difficult for agency personnel to comment on projects without intensive knowledge of project operations and impacts. They had to rely on information provided by the applicant. Applicants often supplemented biological expertise by hiring consultants, but resource agencies generally lacked funds to hire consultants to supplement engineering knowledge.

Knowledge of the process is yet another kind of expertise that any party can hold. This was manifested as knowledge of the licensing process and negotiation skill. One resource agency representative noted that his understanding of the intricacies of the FERC process put him in a leadership position in the consultation process. Most interviewees made no mention of their own skill in negotiation. Some resource agency respondents firmly stated that the consultation process was not a negotiation, but rather a forum for presenting factual information. A few resource agency personnel and many applicants do not see it that way. For example, applicants hired consultants or assigned personnel specifically for their negotiation skills and knowledge of the FERC process, and agency representatives sometimes lamented their lack of negotiation skill or commented on how a broader understanding of the FERC process could have enhanced their power.

The Power of Agenda Control. Participants in these consultations were aware of the fact that control of agendas and meeting sites was a source of power. Because the FERC consultation process requires applicants to request input from resource agencies about license conditions, it usually falls to the applicant to

plan meetings. This gives the applicant a certain edge. Resource agency representatives described meetings in which their concerns were given short shrift because their interests were not included on the written agenda.

Although applicants usually controlled meeting agendas, agency representatives were sometimes able to use an agenda to their advantage. This was seen when discussions turned to areas of resource agency expertise in which agency personnel were requested to provide input. Use of the power of expertise to achieve some level of agenda control was one way to overcome the fact that another party constructed the agenda.

Another means to gain some control over an agenda was to form coalitions with other resource agencies. If agencies were able to agree on some common goals and present a united front, it was possible to be aggressive about promoting a more friendly agenda.

The Power of Precedent. Fisher and Ury (1981) described the concept of BATNA: the best alternative to a negotiated agreement. When one is involved in a negotiation, assessment of one's BATNA helps answer the question "Is this a waste of time, or do I have something to gain?" The BATNA is the negotiator's estimate of the probable outcome of the dispute or issue if negotiation is not pursued. If it appears that a more favorable outcome would result without engaging in negotiation, the logical conclusion is to not negotiate. Fisher (1983) calls this the power of a good alternative. A BATNA can be determined, in part, by analyzing how similar cases have been decided in the past.

Most resource agencies we studied had no good alternatives to negotiation. Without negotiating on appropriate measures to protect resources it was unlikely that fish and wildlife agencies could achieve their goals. In the Oswegatchie consultation, there was a point early in the process when the state resource agency was confident about its ability to have its independent recommendations accepted by FERC. However, later on resource agencies felt that "a pendulum swung a little at FERC" and agency recommendations were no longer accepted without question.

For the applicants, deciding not to negotiate would have implied gathering all license recommendations and simply submitting them to FERC, thereby minimally fulfilling FERC's consultation requirements. FERC then would make the licensing decision. Applicants seemed to prefer to avoid this uncertainty and chose to rely on their own negotiation skills.

Another aspect of assessing alternatives to negotiation was reluctance to set the precedent of entirely turning the decision over to a third party. By definition, this would diminish the power of consulting parties. Because it was uncertain what would be gained by asking FERC to settle project operation issues, parties preferred to control decision making to the extent possible.

The Power of Timeliness. Five of the six case studies involved the relicensing of existing projects; the other case involved application for a new license. Once the decision was made to pursue the new license, the applicant actively moved the consultation process along, because delay meant no electric power generation. In the cases of existing projects, applicants seemed much less hurried about completing the consultation. With a project in place and operating—and with licenses granted before the consultation was completed—the applicant had little incentive to expedite the negotiation.

One manifestation of power is the ability to control the pace of the consultation. When negotiations dragged on for several years, the resource agencies were unable to maintain a consistently high level of interest and commitment. Personnel changed and continuity was lost. On the other hand, when the consultation moved quickly the resource agencies had problems devoting the necessary time and attention to the project. Control of the pace of negotiations allows a party to adjust a time frame to meet its own needs.

The Power of Personality. Most of the people we interviewed reported that they would negotiate with the same parties in the future. Some of this was by choice and some because of professional responsibility. Because parties were cognizant of the need to preserve long-term relationships, they were usually careful to act in good faith. Heavy-handed tactics were probably avoided in some cases because of a mutual interest in maintaining good will over the long haul. In several cases, respondents noted that personality played a part in the negotiations either because an individual with a strong personality assumed a leadership role or because one with an unpleasant personality stymied progress. Both situations are forms of power because they allow someone to control the conduct of the negotiation.

In one case, an individual who was noted to have a strong personality determined that the negotiations were dragging and that a central authority was required. He proceeded to schedule meetings and set deadlines. By his account, the negotiation would have taken much longer if he—or someone—had not taken a

leadership role. In any case, his initiative gave him power because he was able to set agendas and timetables, and thus he became accepted as the leader of the consultation process.

Having Power and Using Power

In every case we studied—successful and unsuccessful—individuals were able to describe sources of power. No one reported feeling completely powerless. The variability in the exercise of power can be explained by an examination of relevant behavior. Two of the cases, Eastman Falls and Koma Kulshan, were successful and power was balanced. Negotiators were aware of their sources of power. They made the decision to use these sources as points of leverage, but not as hammers. They made certain that the extent of their potential power was known, but they did not fully exercise it. For example, in the Eastman Falls consultation the resource agencies had the authority to require fish passage. As a counter to this, the utility was known to hold political clout. But rather than resort to aggressive posturing, the parties assessed the balance of power and based their expectations of the final outcome on the relative power distribution. The key power behavior was power wielded in a subtle, yet effective, manner. The parties bargained and both sides made concessions. Perhaps coincidentally, negotiators in both these cases reported positive feelings about the other negotiators.

The four unsuccessful cases, all with unbalanced power, fell into two general categories of power behavior. In Ashton-St. Anthony and Pit 3,4,5 the pattern was to recognize (perhaps after the fact) sources of power but to neglect to use them. This seemed especially true for the resource agencies. In Pit, resource agencies suspected that the Endangered Species Act could be used to some advantage, but no one pursued the idea. In the end, power was not balanced because the applicant effectively used available resources, especially in terms of commitment of time and personnel. This pattern of applicant dominance was also found in Ashton-St.Anthony, where all parties were confounded by the uncertainty of the new licensing requirements but the applicant consistently devoted personnel and financial resources to the process.

Negotiators in Oswegatchie and Cataract were aware of their power and did not fail to exercise it. Both cases were marked by the hope of all parties that FERC would make the final decision in their favor and by the search for an issue that could cause this to happen. The individual negotiators focused almost entirely on discerning the intentions and inclinations of FERC. When FERC eventually ruled in favor of the applicants' proposed flows, the

state agency in each case filed for intervention based on the inadequacy of these flows for satisfying Section 401 Water Quality Certificate conditions. At this point, the philosophy may have been that the state agency had nothing to lose and that strong measures were necessary. However, the move to reopen the Section 401 Certificate was beyond the scope of typical negotiation behavior and was considered unreasonable by project applicants. Rather than attempt to influence the process as it unfolded, participants pinned all their hopes on forcing the FERC to respond positively to them by using a regulatory trump card after FERC made its ruling.

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