

**GOVERNANCE STRUCTURES FOR
AN INDEPENDENT SYSTEM OPERATOR
(ISO)**

**WILLIAM W. HOGAN
CARRIE CULLEN HITT
JANELLE SCHMIDT**

BACKGROUND PAPER

Harvard Electricity Policy Group

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Center for Business and Government
John F. Kennedy School of Government
Harvard University
Cambridge, Massachusetts 02138

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GOVERNANCE STRUCTURES FOR AN INDEPENDENT SYSTEM OPERATOR (ISO)

William W. Hogan, Carrie Cullen Hitt, Janelle Schmidt¹

INTRODUCTION

In April of 1996, the Federal Energy Regulatory Commission (FERC) adopted its initial rules to support competition in the wholesale electricity market.² The FERC called for open access and non-discriminatory transmission services. Public utilities would be required to file tariffs which would allow others to have equal access to the transmission grid. In addition, the rule emphasized a standard embraced by FERC which would require all transmission owning utilities to provide all actual or potential transmission users with "comparable" service on the transmission grid. Subsequent to its initial notice of a proposed rulemaking, commonly known as the Mega-NOPR,³ the concept of creating an independent system operator (ISO) arose as an approach to providing non-discriminatory access to the transmission grid. In its order, the FERC included a discussion of the emerging initiatives to create independent system operators, but stopped short of making an ISO mandatory. However, the FERC advanced a set of principles which extended the discussion.⁴ Coupled with the growing number of proposals for an ISO, there

¹ William W. Hogan is the Thornton Bradshaw Professor of Public Policy and Management, John F. Kennedy School of Government, Harvard University, and Director, Putnam, Hayes & Bartlett, Inc. Carrie Cullen Hitt and Janelle Schmidt are, respectively, Assistant Director and Research Assistant for the Harvard Electricity Policy Group. This paper draws on work for the Harvard Electricity Policy Group and the Harvard-Japan Project on Energy and the Environment. Many individuals have provided helpful comments and assistance. William Hogan is or has been a consultant on electric market reform and transmission issues for British National Grid Company, General Public Utilities Corporation, Duquesne Light Company, Electricity Corporation of New Zealand, National Independent Energy Producers, New York Power Pool, New York Utilities Collaborative, Niagara Mohawk Corporation, San Diego Gas & Electric Corporation, Trans Power of New Zealand, and Wisconsin Electric Power Company. The views presented here are not necessarily attributable to any of those mentioned, and the remaining errors are solely the responsibility of the authors.

² Federal Energy Regulatory Commission, Promoting Wholesale Competition Through Open Access Non-discriminatory Transmission Services by Public Utilities & Recovery of Stranded Costs by Public Utilities and Transmitting Utilities, Docket No. RM95-8-000 and Docket No. RM94-7-001, Order No. 888, Washington, DC, April 24, 1996.

³ Federal Energy Regulatory Commission, Promoting Wholesale Competition Through Open Access Non-Discriminatory Transmission Services by Public Utilities and Recovery of Stranded Costs by Public Utilities and Transmitting Utilities, Notice of Proposed Rulemaking and Supplemental Notice of Proposed Rulemaking, (Docket No. RM 95-8-000 and RM94-7-001), March 29, 1995.

⁴ See Appendix I.

is an increased interest in the associated governance issues.

The notion of an ISO offers an alternative that advances the FERC view of restructuring and could alleviate many of the difficult problems in providing open transmission access as part of the restructuring of the electricity market. There are significant advantages in this approach. There is wide recognition that there must be a system operator coordinating use of the transmission system. That this system operator should also be independent of the existing transmission owning utilities and other market participants is attractive in its simplicity in achieving equal treatment of all market entities. Hence, the easy-to-state but hard-to-enforce principle of comparability would be transformed into an easier to enforce principle of non-discrimination. However, the precise goals, criteria and options for the ISO are not well understood or well posed. The tension is clear: the ISO should be independent but also responsive; stable but also flexible; limited but also substantial. The scope of responsibility, rules for operations and decisions on who should decide define an agenda of important details that are being examined or overlooked, decided explicitly or adopted implicitly in intense parallel conversations in different regions of the country. An investigation of the governance, scope and rules for the ISO presents an opportunity to unify seemingly independent conversations that are or should be about the same thing, namely how to deal with the special characteristics of electric networks in order to support a competitive electricity market.

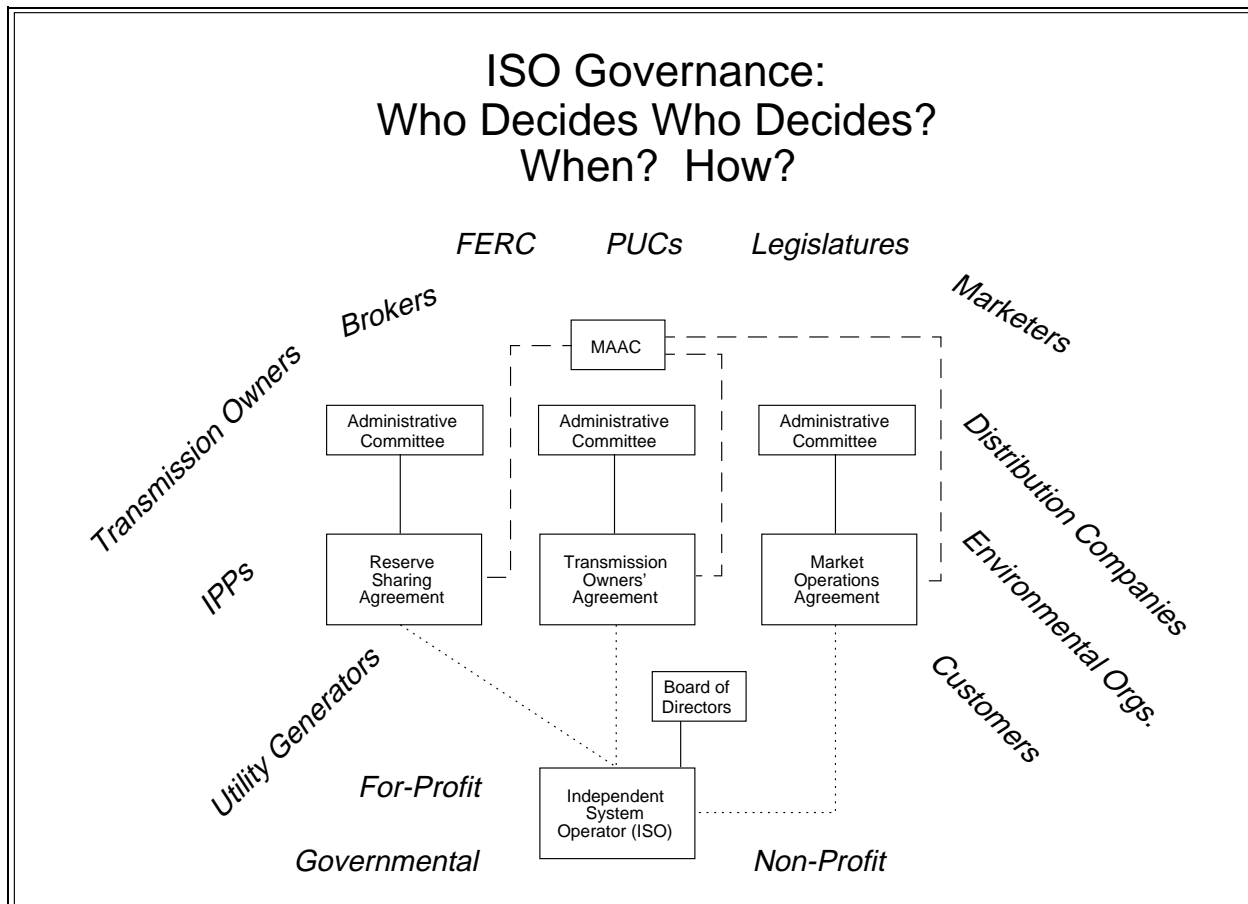
The purpose of this background paper is to provide an overview of the basic governance discussion and illustrate the range of proposals that are under development in various regions and electricity markets.

GOVERNANCE ISSUES

Although a number of interests in the U.S. have already announced their intention to form ISOs (the California Public Utility Commission leading to the implementation by the combined utilities, the PJM power pool proposal, the "Midwest Independent System Operator"⁵, and so on) and a number of advocates are calling for ISO formation, the issue of who will govern the ISO, and under what authority, has not been resolved nor even fully explained. Given the importance of an ISO in a restructured world, this is a significant issue. Unlike the North American Electric Reliability Council (NERC), governance by generators and transmission owners alone may not suffice for ISO's. There are arguments for including virtually every type of market participant in the governance structure. Yet, including such a variety of interests could yield an oversight structure that could be vulnerable to its own failings.

The governance structure cannot be decided without parallel attention to the functions

⁵ The plans for a Midwest Independent System Operator are being developed by American Electric Power (AEP), CINergy, Centerior Energy, Detroit Edison, Northern Indiana Public Service, and Wisconsin Electric.



and responsibilities of the ISO.⁶ A minimalist view of the responsibilities and discretion of the ISO would greatly simplify the development of governance mechanisms. But as the ISO responsibilities expand in scope and horizon, there will be greater concern with devising governance schemes that satisfy many conflicting interests.

Examples of questions engendered by the issue of ISO governance include:

Should the ISO be governed by a public or private entity?

If governed by a private entity, should it be administered as a for profit or not for profit?

If governed by a board or committee, who should be on that board? Who should have voting rights? What should be the voting structure?

How can the need for expertise in ISO governance be balanced against the need to ensure that

⁶ For one discussion of the criteria, see W. Hogan, "An Independent System Operator: Criteria for Competitive Electricity Markets," Harvard University, March 1996.

the ISO does not discriminate in its operations?

Will those entities with special responsibilities for reliability or an obligation to serve enjoy any preferred standing in decision making?

Who decides who decides? When? How?

Insight into the range of answers that can be provided to these questions is offered in the examples of proposed governance structures.

EXISTING POOL STRUCTURES

Existing power pools embody many of the functions of possible future ISO structures. In some visions, the ISO would assume the responsibilities of the existing pools while expanding access. Other approaches argue that the responsibilities of the ISO should be more limited, excluding dispatch functions or any responsibility for long-term planning.

New England Power Pool (NEPOOL)

As it currently exists, NEPOOL is an agreement among New England utilities which provides control area services, transmission services for pool planned units, and coordinated billing and settlement functions.⁷ NEPOOL is characterized as a “tight” pool as it provides centrally controlled, economic dispatch of electricity for its members. Pools in some other regions may be referred to as “loose” pools, if they do not have a central dispatching function.⁸

NEPOOL has approximately 95 members. It has a CEO and a staff of about thirty-five. All members have a vote but their votes are weighted by the amount of firm load service they have (this requirement includes members who are not utilities). IPPs are considered participants, however, their participation is limited by this provision. The approval of eighty-five percent of the voting participants is required to amend the Agreement.

NEPOOL's current governance structure includes: There are four NEPOOL committees established by the NEPOOL Agreement that vote on NEPOOL matters -- the Management Committee, the Executive Committee, the Operations Committee and the Policy Planning

⁷ B. Forshaw, “Comments,” Promoting Wholesale Competition Through Open Access Non-Discriminatory Transmission Services by Public Utilities Power Pool Conference, Docket No. RM95-8-000, Federal Energy Regulatory Commission, December 6, 1995.

⁸ N. Brown, “Comments,” Promoting Wholesale Competition Through Open Access Non-Discriminatory Transmission Services by Public Utilities Power Pool Conference, Docket No. RM95-8-000, Federal Energy Regulatory Commission, December 6, 1995.

Committee. Every participant has representation on every committee, either individually or through a common representative with other Participants. Every NEPOOL participant has a vote on the Management Committee in proportion to its load. The executive is elected by the Management. Municipal-owned participants appoint one Executive Committee member and one alternate. Historically, the Management committee has also designated one member and an alternate to represent the interests of small investor-owned participants.

In addition to their representative membership on each of these NEPOOL Committees, Participants can individually attend all Committee meetings and can require arbitration of any action taken by the Management Committee by which they are aggrieved.⁹

The New York Power Pool

Another tight pool, the NYPP includes the New York Power Authority and seven utility members in the state of New York (Central Hudson Gas & Electric Corp., Consolidated Edison Company of New York, Long Island Lighting Co., New York State Electric & Gas, Niagara Mohawk Power Corp., Orange and Rockland Utilities, and Rochester Gas & Electric).

The members agree "...to (1) provide and maintain Required System Capability and Operating Capability requirements; (2) purchase and sell Firm Capability and transmit energy associated therewith under separate contract with any of the other parties hereto upon mutually satisfactory terms and conditions; (3) purchase and sell Operating Capability and energy for the purposes and under the conditions set forth herein; and (4) make the capacity of its transmission facilities not otherwise committed available for transactions involving the purchase and of Operating Capability and energy."¹⁰

Included in these responsibilities are functions that range from the operation of a short-term central dispatch to long-term planning for facilities addition coordinated with the member companies. Members have representatives on each of six committees: executive, operating, planning, environmental, public relations and audit committees. The Executive Committee is the principal governing body and consists of the CEOs of the eight member companies. According to the Pool Agreement, "The unanimous affirmative vote or consent of all members of the Executive Committee shall be required to authorize any action or determination by such Committee."¹¹

⁹ NEPOOL, Amendment to NEPOOL Agreement, Docket ER95-1782-000, Federal Energy Regulatory Commission, September 14, 1995.

¹⁰ New York Power Pool, Agreement, Section 2.02, July 16, 1991.

¹¹ New York Power Pool, Agreement, Section 3.02, July 16, 1991.

PJM (Pennsylvania, New Jersey, Maryland Power Pool)

The PJM Power Pool, established by three members in 1927, is the oldest centrally dispatched pool of individual systems in the world. It has more than 55,000 MW of pooled generating capacity. It currently has eight utility and utility coalition members from five states (Delaware, Maryland, New Jersey, Pennsylvania and Virginia) and the District of Columbia. The member utilities include Public Service Electric and Gas Co., PECO Energy Company, Pennsylvania Power & Light Company Group, Baltimore Gas and Electric Co., General Public Utilities System, Potomac Electric Power Co., Atlantic Electric Co., and Delmarva Power & Light Co.

The PJM Management Committee, as established in the PJM Interconnection Agreement, oversees operation of the Pool. The Committee is composed of senior management officials from each member company and the President of the Interconnection Association. Each member has one vote and a unanimous vote is required for passage of "significant matters." If a member vetoes an action, he/she must demonstrate that the proposed action will cause financial harm to their company (there are guidelines for making this claim). Pool members also appoint representatives to the Interconnection Association, Planning and Engineering Committee and the Operating Committee.

Through the staff of the Interconnection Association (IA), the Pool carries out coordination functions, including forecasting, scheduling, generation coordination and transmission maintenance coordination. Each member is required to support the reserve sharing mechanism. The IA administers cost-based economic dispatch for generation, subject to the right of each individual company to self-schedule its owned (or contracted-for) generation to its own load. In what is called the "Net Pool" operation "each Pool member retains the right to its generation, in that only the net energy over-and-above the member's requirements is exchanged between Pool members as wholesale interchange."¹²

EXPERIENCE IN OTHER INDUSTRIES

There is a great deal of experience in governance of quasi-public entities. When there are conflicting interests among the groups represented, the choices of governance narrow. In many cases, direct government operation or close regulation of the activities has been applied. In other case, voluntary private agreements exist that delineate the scope and processes of decisions.

¹² PJM, Federal Energy Regulatory Commission Technical Conference on Comparability for Power Pools: in re Dockets No. RM95-8-000 and RM94-7-001: Supplemental Comments of the Supporting PJM Companies, November 30, 1995, p. 2.

Cooperative Self-Governance

With relative common interests among the members, cooperative organizations abound. For example, agricultural cooperatives have existed for many decades, and there is an extensive literature on the experience with such organizations. More to the point of the ISO, however, would be the experience in cooperative self-governance in the presence of more heterogeneous interests. Here the experience is less extensive and the lessons sound a note of caution for developing the rules for governance of an ISO.

For example, consider the conclusions of Hansmann's review of the experience with worker ownership and governance:

"A survey of the types of firms in which worker ownership has succeeded suggest strongly that the costs associated with collective decision-making are extremely important in determining where worker ownership is viable and how it is organized."¹³

The costs of collective decision-making include the costs of "inefficient decisions" and then the "costs of the decision making process itself." In the presence of heterogeneous interests among the participants, the tendency to compromise does not follow the Coasian model of the most efficient outcome with side payments. Rather, the voting process can lead more to a least common denominator solution that sacrifices efficiency. Furthermore, the debate and negotiation process itself can be significant as attention is diverted to the internal conversation and away from the mission of the organization. According to Hansmann,

"The evidence suggest, however, that direct worker control of the firm brings substantial costs with a heterogeneous workforce -- costs that are generally large enough to outweigh the benefits that worker ownership otherwise offers."¹⁴

This experience in cooperative self government is reinforced by a survey of contracting experience in the management of a common resource, in this case the operation of oil fields with multiple owners. The problem of prorationing to control production from an oil field has certain common elements with the problem of providing access to the transmission grid. In a review of the experience, there is an echo of the difficulty of managing the process when there are many conflicting interests:

¹³ Henry Hansmann, "When Does Worker Ownership Work? ESOPs, Law Firms, Codetermination and Economic Democracy," The Yale Law Journal, Vol. 99, no. 8, June 1990, p. 1783. See also, Henry Hansmann, The Ownership of Enterprise, Harvard University Press, (forthcoming).

¹⁴ Henry Hansmann, "When Does Worker Ownership Work? ESOPs, Law Firms, Codetermination and Economic Democracy," The Yale Law Journal, Vol. 99, no. 8, June 1990, p. 1810.

"...a major finding of the research is the high degree of concentration necessary to achieve successful coordination. Private agreements were completed when the numbers equivalent (note 1/HHI) was less than 5; state enforcement brought compliance when it was approximately 10-12; but when concentration was less, state intervention could not control production without the use of troops."¹⁵

In the case of the electricity market, with many parties and strongly conflicting interests, this research reinforces the natural caution about the ability of voluntary negotiation to resolve the complex issues or the success of cooperative management without some public oversight. Public oversight, of course, could take many forms.

Interstate Compacts

Interstate compacts have been used to coordinate the cross-state management of everything from bridges to water rights, pest control and criminal corrections. These compacts are provided for in the U.S. constitution to allow states, normally forbidden from such activities, to enter into the equivalent of cross-state treaties. An interstate compact requires a high level of agreement between all affected states, and thus can be quite difficult to negotiate. If agreement between states is reached, Congress must review and endorse the proposed compact through passage of an Act.

Because of the difficulty of bringing multiple states into agreement, most compacts are either precise or very general. The precise compacts commit states to take on limited responsibilities - such as the 1980 High Speed Rail Compact which commits 10 states to sharing the cost of a railroad expansion feasibility study. General compacts commit states to very little. An example of this is the Western Regional Education Compact which "Establishes a commission to assist states of the region in working together to increase educational opportunities, to improve programs of colleges and universities, to expand the supply of specialized manpower, and to inform the public as to needs of higher education."¹⁶

In the energy sector, a primary use of interstate compacts has been to coordinate radioactive waste disposal/transportation policies (Southern Interstate Energy Compact, Western Interstate Energy Compact). These compacts fall into the generally defined responsibility category, as they primarily commit states to discuss regional cooperation. One example of a more ambitious interstate compact, one that could serve as a model for an ISO, was the compact

¹⁵ Gary B. Libecap and Steven N. Wiggins, "Contractual Responses to the Common Pool: Prorating of Crude Oil Production," American Economic Review, Vol. 74, No. 1, March 1984, p. 96.

¹⁶ Interstate Compacts and Agencies, Published by the Council of State Governments, Lexington, Kentucky, 1983, p. 20.

established the 1980 Northwest Power Planning and Conservation Act (the Act).¹⁷ The Act was passed in response to electric power planning debates that raged in the Pacific Northwest in the late '70's. Its goals were varied (the legislation tried to meet the needs of all advocates in the debates), but primarily intended to “assist the electrical consumers of the Pacific Northwest through use of the Federal Columbia River Power System to achieve cost-effective energy conservation, to encourage the development of renewable energy resources, to establish a representative regional planning process, to assure the region of an efficient and adequate power supply, and for other purposes.”¹⁸

The Act created the Northwest Power Planning Council (the Council) to oversee these responsibilities by coordinating regional discussions on the use of the Columbia River Power System and to develop regional power plans to guide the power acquisition and hydro management activities of the Bonneville Power Administration, the administrator of this power system. The Council's eight members are appointed by the Governors of the compact's signatory states - Washington, Oregon, Idaho, and Montana. Although the Council and its staff of roughly 50 economists, ecologists and policy analysts has little statutory authority over BPA decision making, or the decision making of the utilities served by BPA's wholesale power, they have significant political influence over that body. The structure of the Council is defined more by the public processes that it is responsible for guiding than by actual organizational structure. The Council meets publicly twice a month in locations throughout the Pacific Northwest to address issues salient to its responsibilities and its staff uses the results to develop (every two years) extensive twenty year Power Plans which are submitted to the Administrator of BPA. The Council's structure is fairly simple, consisting of the Council's eight members and two statutorily required scientific and statistical advisory committees. The Council appoints members to a number of additional advisory committees created as needs arise. Appointees to these committees are required by law to include representatives of Federal, regional, State local and Tribal Governments together with consumer groups and customers.¹⁹

Despite the fact that the Council has ushered the Northwest through some difficult policy planning horizons (such as the enormous debt default of the Washington Public Power Supply System) and been a significant influence in the region's development of aggressive conservation programs²⁰, its influence is now threatened as the need for the very existence of BPA (its primary route for affecting policy) is being questioned. Nonetheless, the Council does offer a plausible starting point for a model for an ISO. Factors that might be considered

¹⁷ 96th U.S. Congress, Public Law 96-501, 1980

¹⁸ 96th U.S. Congress, Public Law 96-501, 1980, Preamble.

¹⁹ 96th U.S. Congress, Public Law 96-501, 1980, § 4.(c)(13).

²⁰ For more on the Council's successes, see Kai N. Lee, Compass and Gyroscope: Integrating Science and Politics for the Environment, Island Press, 1993.

in determining whether it is a feasible model include the following:

1. The Council has little actually authority to require actions by utilities. It could be difficult to create a similar body for governance of an ISO with dispatch authority, as states may be unwilling to create an Interstate Compact which confers such power on a regional body.²¹
2. While the Council has done an admirable job of incorporating the voice of many different players in Northwest Energy debates into its decision making, the process has been time consuming. An ISO may not be able to operate under the long lead times needed to conduct the kind of cooperative decision making that any compact is likely to require.

Automated Teller Machine (ATM) Networks

Shared ATM network systems offer a useful example of governance structures for an ISO. In these shared networks, financial institutions engage in agreements through which they agree to a set of operating rules and accept each other member's cards at its own machines, in return for a network-set fee.²² The largest networks in the U.S. are CIRRUS, operated by Mastercard and Plus, operated by Visa.

Network sharing arrangements are governed by antitrust laws and may be challenged by the Department of Justice, state antitrust officials and private parties.²³ In addition, the Federal Trade Commission, and federal bank regulatory agencies (the Federal Reserve Board and Office of Comptroller of Currency) may examine the competitive effects of proposed network arrangements. Although network arrangements have raised considerable questions concerning antitrust laws, the federal regulatory agencies have "generally approved network arrangements brought to their attention and have not interposed antitrust concerns as a bar to the development of such arrangements."²⁴ Many states have taken an active role in promoting network arrangements by implementing mandatory network sharing laws.

²¹ See, Harvard Electricity Policy Group, Conference Summary - The ISO Governance Scope and Rules: How Independent? What System? Which Operations?, March 21, 1996 pages 22-25.

²² Donald I. Baker, "Compulsory Network Joint Ventures Under the Sherman Act: Rules or Roulette?" Utah Law Review, Vol.999, no.4 1993, p.1013-1014.

²³ Branching (the definition and establishment) of automated teller machines is governed by a different set of acts related to the type of institution. For example, the MacFadden Act governs the establishment of ATMs by *national* banks.

²⁴ Donald I. Baker and Roland E. Brandel, The Law of Electronic Fund Transfer Systems, Third Edition, Warren, Gorham & Lamont, 1996, ¶ 25.03[3][a], p.26-27.

There are two types of shared networks, the proprietary system and a non-proprietary shared network. In the former, a processor (financial institutions hire "processors" to handle their ATM transactions), of a given financial institution may access the cards and drive ATMs of a number of financial institutions it services. Transactions within such a shared proprietary system do not require switching outside the network. For example, if Bank X and Bank Y use the same processor, their customers can use each other's machines. In the latter, non-proprietary system, the various processors members use are connected through a central computer switch, enabling ATMs driven by one processor to be accessed by card-issuing banks within the system that are driven by another processor for example, Bank X uses processor 1 and Bank Y uses processor 2, however the processors are connected through a central switch, allowing customers to conduct business at either bank. Transactions handled through a network switch are called "network" or "foreign" transactions.²⁵

The PULSE network is an example of the a large non-proprietary network which has a well established governance structure. PULSE is a regional network based in Texas with over 1600 members and 8000 ATMs throughout the central southwest. PULSE's function is to link the processors of member banks through a central switch, provide a common logo and identify the machines at which PULSE cards are accepted. It does not issue cards, own or operate ATMs. Members are not prohibited from making bilateral links amongst themselves and bypassing the PULSE switch.²⁶

Seven Texas-based holding companies created Financial Interchange Inc. (FII), a non-profit membership corporation in 1981.²⁷ FII linked the then proprietary systems of these institutions through PULSE, the network it operates. The seven founding members each contributed \$75,000 (since repaid) to the initial organization of the network, established its initial Operating Rules, Bylaws and fee structure. PULSE's membership has expanded and now includes various types of financial institutions such as processors, banks, savings and loans and credit institutions. Thus, the governance structure incorporates a number of heterogenous and competing interests. The governance structure includes:

Each member [financial institution] has one vote. PULSE is governed by a sixteen member Board of Directors. Seven directors are selected from the

²⁵ Arbitration Between First Texas Savings Association and Financial Interchange, Inc., 55 Antitrust & Trade Reg. Rep. (BNA) No. 1380 August 25, 1988 (Kaufer Arb.) at p. 341.

²⁶ "Arbitration Between First Texas Savings Association and Financial Interchange, Inc., 55 Antitrust & Trade Reg. Rep. (BNA) No. 1380 August 25, 1988 (Kaufer Arb.) at p. 340.

²⁷ "Arbitration Between First Texas Savings Association and Financial Interchange, Inc., 55 Antitrust & Trade Reg. Rep. (BNA) No. 1380 August 25, 1988 (Kaufer Arb.) at p. 341. Allied Bankshares Inc. (recently acquired by Interstate), Cullen Frost Bankers, Inc., First City (now merged with Republic Bancorporation), Texas American Bancshares Inc., Texas Commerce Bancshares Inc. (subsequently acquired by Chemical and Southwest Bancshares, Inc. (later merged with MCorp).

founding members, while eight are selected by the membership. Of these eight, two are representatives of smaller banks or bank holding companies, two are representatives of savings and loans associations, one is a representative of credit unions, and three are selected at large. The President and Chief Executive of PULSE, a full time employee of PULSE, also serves on the Board. The Board normally meets every three months. It is charged with responsibility for the direction of PULSE. among other things, the Board must make decisions about fee changes.

An Executive Committee, appointed by the Board, meets in-between Board meetings to deal with the issues related to day-to-day operation of the PULSE network. It does not make decisions concerning fees. The Executive Committee includes the Chairman and Vice-Chairman of the Board, the Treasurer, the President and Board members from three other member institutions.....The majority of this Executive Committee is comprised of the founding members, although there is no rule requiring this to be the case.

PULSE's operations are conducted by full-time staff, head by a full-time President and Chief Executive Officer.....²⁸

Financial Accounting Standards Board (FASB)

The organization and governance of FASB provides an interesting model for an ISO. The FASB sets standards for financial accounting that govern a wide array of private institutions. The Securities and Exchange Commission (SEC) relies on FASB to deal with most of the details of standard setting, although the SEC has its own statutory authority and can overrule FASB on decisions affecting companies under SEC jurisdiction. Although the functions are different than those of an ISO, FASB has important features in the approach found in many discussions of the ISO concept. There is a largely self-regulated, private, non-profit organization that serves an important public purpose in supporting an open and efficient market. The institution must bridge sharply conflicting interests:

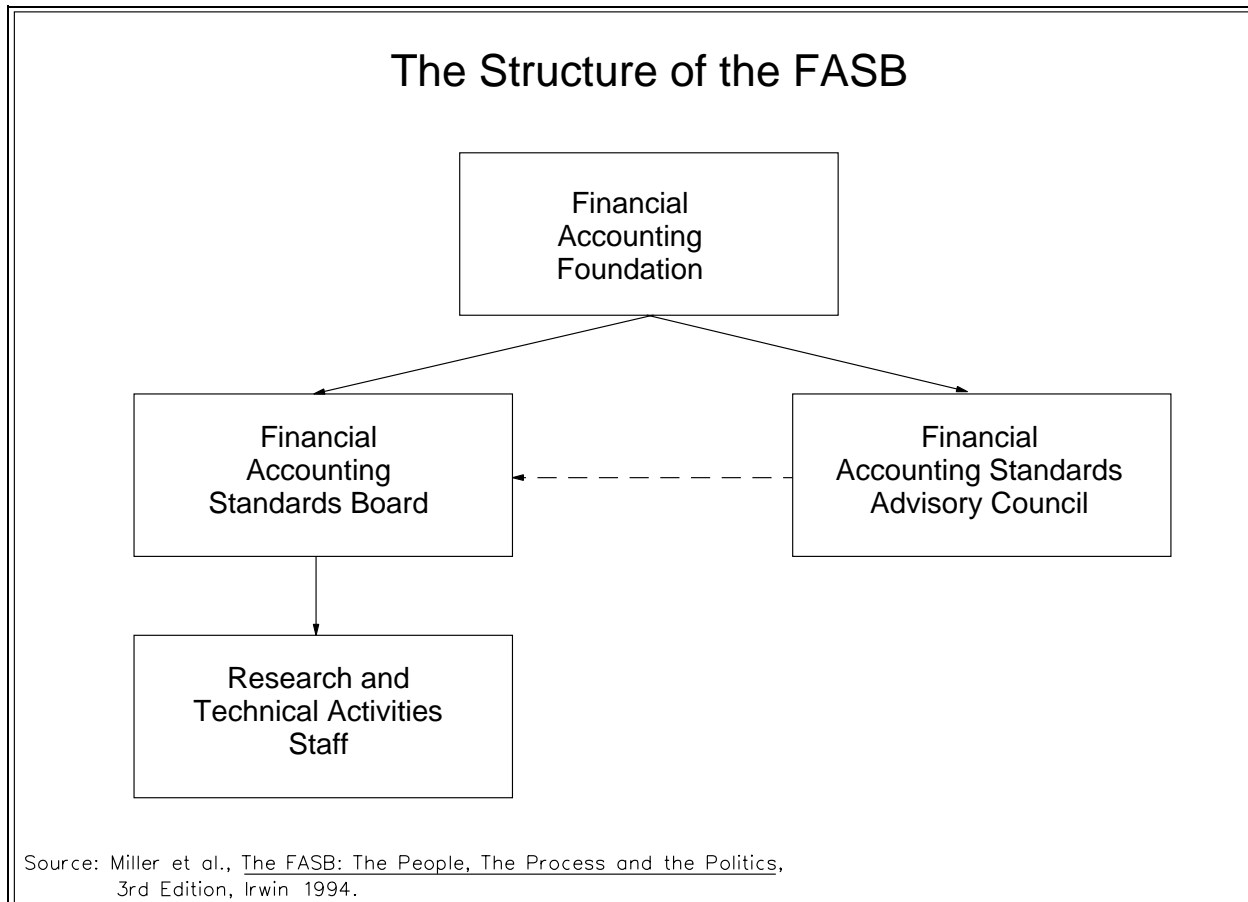
...a variety of groups are affected by and interested in financial accounting. They have different points of view and interests, even to the extent of having goals for the standard-setting process that are in direct or nearly direct opposition. Furthermore, they each have power and influence and

²⁸ "Arbitration Between First Texas Savings Association and Financial Interchange, Inc.," 55 Antitrust & Trade Reg. Rep. (BNA) No. 1380 August 25, 1988 (Kauper Arb.) at p. 342.

attempt to affect the process in ways that protect or advance their interests.²⁹

Part of the challenge for FASB was in developing governance mechanisms that would both represent and balance these conflicting interests. The result is an approach which is seen as unique, and may have lessons for the development of an ISO structure:

It was literally unique in almost every respect, most notably in the fact that it was a rule-making body financed and operated entirely in the private sector but whose decisions would be backed by federal law and a powerful federal regulatory agency. A "bold experiment in self-regulation," some called it, carefully conceived and soundly financed.³⁰



²⁹ P. W. Miller, R. J. Redding, and P. R. Bahnsen, The FASB: The People, The Process, and the Politics, Third Edition, Richard D. Irwin, Inc., 1994, p. 16.

³⁰ R. Van Riper, Setting Standards for Financial Reporting: FASB and the Struggle for Control of a Critical Process. Westport, Connecticut: Quorum Books, 1994, p. 13.

The organization of FASB was designed with a series of legitimizing processes and internal buffers to protect both the integrity and realism of the process.

The *Financial Accounting Foundation* (FAF) is the parent organization, and its trustees constitute the governing body. The foundation is recognized as a nonprofit organization under the Internal Revenue Code. The Foundation has an executive vice president and is administered by 16 trustees. The two primary tasks of the trustees are to raise funds for the operation of the organization and to appoint members of the FASB.³¹ Under the Foundation's bylaws, the trustees are not to interfere in any way with the standards-setting work of the FASB. Of course, their power to appoint and reappoint members provides the opportunity for the trustees to have indirect influence over the process in the long run just as the president of the United States can influence future decisions of the Supreme Court through appointments of the justices.

The *Financial Accounting Standards Advisory Council* (FASAC) is a group of approximately 30 influential persons. The number actually serving of FASAC varies from year to year; the bylaws merely call for at least 20 members to be appointed. The actual number serving has grown larger to obtain representation of more groups of interested parties. The purpose of the Council is to advise the FASB, particularly on financial accounting issues and on the priorities that should be placed on resolving them. FASAC also advises the FASB on the suitability of its tentative resolutions of the issues that it is addressing. The members of the Council are appointed by the trustees of the Foundation.³²

The process for election and appointment builds in a series of protections that provide a mix of (i) deference to the individual interests and (ii) an ability to make decisions and change the rules. As shown in the figure, the sponsoring organizations span the interests in the industry

³¹ The trustees also raise funds for and appoint the members of the Government Accounting Standards Board (GASB), which develops standards to be used in preparing financial statements for state and local government entities. [footnote in original]

³² P. W. Miller, R. J. Redding, and P. R. Bahnsen, The FASB: The People, The Process, and the Politics, Third Edition, Richard D. Irwin, Inc., 1994, p. 18.

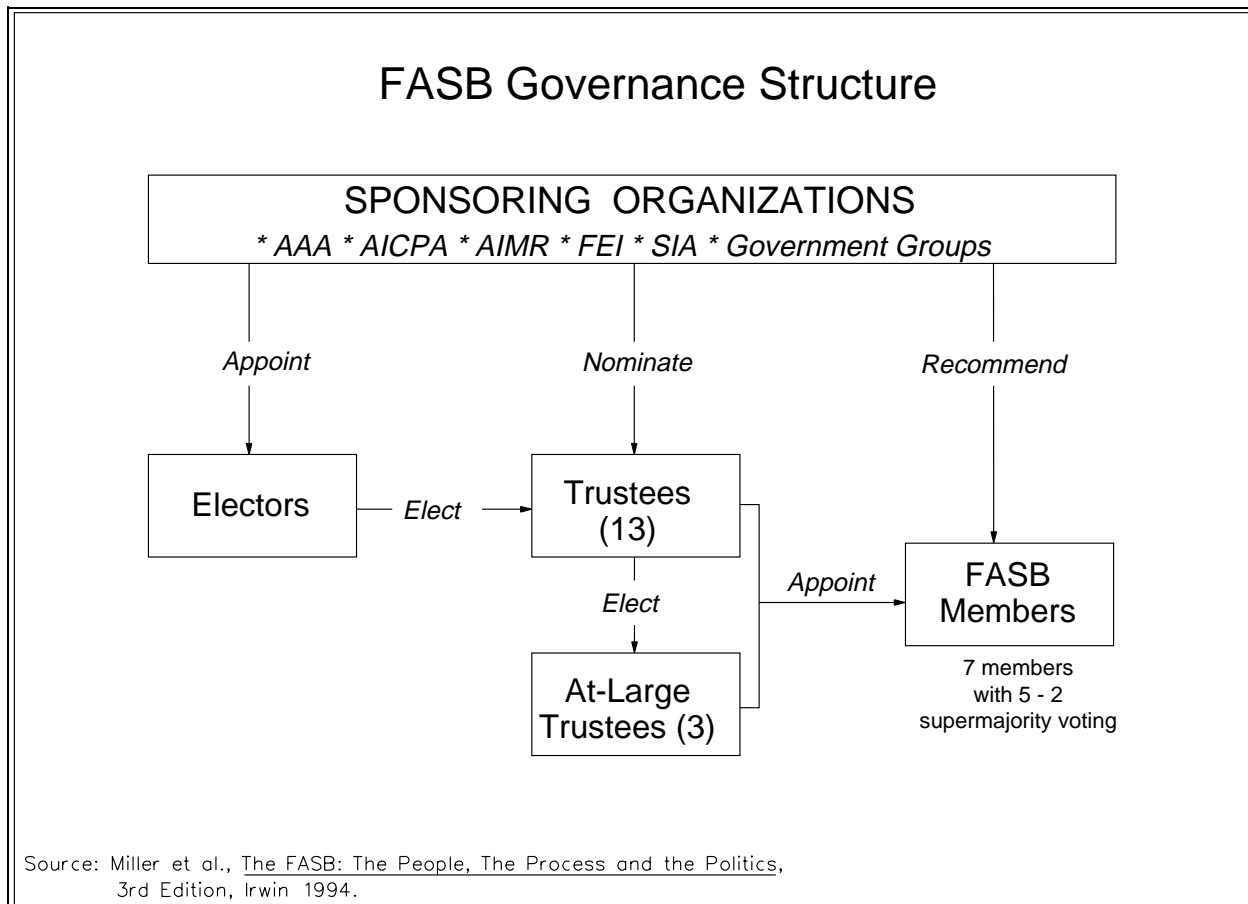
and provide power to elect the trustees.³³ The trustees in turn have the power to appoint the Board members, but the trustees have no power to guide the individual decisions. There is a supermajority voting rule for new or changed standards issued by the Board. In general, the FASB sees the checks and balances as having been effective without creating gridlock.³⁴

Foreshadowing the debate underway addressing alternative models as part of the restructuring of the electricity industry, FASB began with a major effort to define the "Conceptual Framework" for accounting standards. The effort arose out of a concern with the failings of a more *ad hoc* process and the need for a consistent model as the basis for accounting standards:

When the FASB faces controversial issues, particularly in a public arena, it is understandable that its members would want to deal with the questions one at a time rather than as parts of a larger whole. If a one-at-a-time (or *ad hoc*) approach is adopted, compromises and resolutions tend to be taken on customized forms to deal with the needs of specific constituents. Because different groups are affected differently by different issues, the standards setters can drift into this *ad hoc* approach under which each issue is resolved without regard to previously developed resolutions of others. For example, similar transactions may occur in two different industry settings and create what appears to be two separate problems, with the result that the standards setters would have to deal with the two different constituent groups. If the *ad hoc* approach were to be used, the standards setters could compromise and reach a different consensus solution for the seemingly different problems. The likelihood of inconsistency is even greater if several years intervene between two projects and new appointees

³³ The sponsoring organizations include:
 * American Institute of Certified Public Accountants (AICPA)
 * Securities Industry Association (SIA)
 ---investment bankers.
 * Association for Investment Management and Research (AIMR)
 ---investment advisers.
 * Financial Executives Institutes (FEI)
 ---corporate accounting officers at highest levels.
 * Institute of Management Accountants (IMA)
 ---corporate accountants at all levels.
 * American Accounting Association (AAA)
 ---accountants from various fields, but predominantly professors.

³⁴ From the beginning through today, there have been dissents disputing the "independence" of the Board. See, The Accounting Establishment. A Staff Study Prepared by the Subcommittee on Reports, Accounting and Management of the Committee on Government Operations, US Senate, USGAO, 1977, p.1. R. Van Riper, Setting Standards for Financial Reporting: FASB and the Struggle for Control of a Critical Process. Westport, Connecticut: Quorum Books, 1994, pp. 193-4.



are serving on the authoritative body. These situations are generally undesirable because they may introduce inconsistencies and contradictions among standards that can rob the financial statements of comparability and other attributes of usefulness.

The ad hoc approach is also undesirable because it tends to create redundancy in discussions when the same basic issues are debated over and over again with the different constituents involved in different specific projects.³⁵

The effort to create this "conceptual framework" produced mixed results. The process took much longer than anticipated (formally, 12 years) and the outcome failed to meet the

³⁵ P. W. Miller, R. J. Redding, and P. R. Bahnsen, *The FASB: The People, The Process, and the Politics*, Third Edition, Richard D. Irwin, Inc., 1994, p. 25.

expectations of many, perhaps because the expectations had been too high.³⁶ Importantly, several other countries (including the UK, Australia and Canada) watched the process and then emulated it to pursue their own definition of a conceptual framework.³⁷

EXPERIENCE IN OTHER COUNTRIES

Electricity restructuring outside the U.S. has yielded a variety of operating formats for transmission, most of which look something like an ISO. Their organization and governance structures are described, in brief, below.

Alberta, Canada³⁸

The Power Pool of Alberta (PPA) was launched at the beginning of this year, under the authority of the Province's Electric Utilities Act (EUA) of May, 1995. It provides for open transmission access and competition in wholesale generation. The pool functions as a spot market, with centralized buying and selling of electricity at hourly prices established by competition between suppliers and purchasers bidding into the pool. The pool is not comprehensive, in that existing generation continues to receive regulated cost-of-service payments covering fixed costs. Only eligible buyers can purchase power from the pool. These are called "entitled" distributors, and include TransAlta Utilities, Alberta Power, and the cities of Calgary, Edmonton, Lethbridge, and Red Deer, the Transmission Administrator, and any exporters seeking to sell power outside the province.

The EUA established GRID Co. of Alberta (Gridco) as its ISO. It operates as a joint venture between TransAlta Utilities, Alberta Power, and the cities of Edmonton and Calgary and will be regulated by the Alberta Energy and Utilities Board. Gridco was appointed as Alberta's "Transmission Administrator" by the Provincial government, as specified in the EUA. Gridco's responsibilities include receiving bids and offers, performing scheduling, determining financial settlements, and reporting pool prices. It also performs dispatch, ensures reliability and safety, and arranges for system support. Non-discriminatory access is guaranteed by law to anyone willing to pay a postage stamp transmission charge. Gridco's tariffs will eventually be unbundled to identify specific system support services and access considerations.

³⁶ P. Gore, The FASB Conceptual Framework Project 1973-1985: An Analysis, Manchester University Press, 1992, pp. 57-58.

³⁷ P. Gore, The FASB Conceptual Framework Project 1973-1985: An Analysis, Manchester University Press, 1992, pp. 124-130.

³⁸ Information on Alberta is drawn from Bill 34 of the 3rd session of its 23rd legislature and from "Alberta Leads North America in Creating Competitive Power Pools," Energy Report, January 15, 1996

The EUA also provides for an "Electric Transmission Council", which "advises and makes recommendations to owners of transmission facilities and the Transmission Administrator." This Council includes representatives from all of the members of the Power Pool Council, including utilities, city governments, the Industrial Power Consumers Association of Alberta, the Independent Power Producers Society of Alberta, the Alberta Association of Municipal Districts and Counties, the Alberta Irrigation Projects Association, Public Institutional Consumers of Alberta, and other parties appointed by the Council.

Victoria, Australia

In 1995, the State of Victoria, Australia, introduced a comprehensive market-based pricing system. The wholesale electricity market has two components: the competitive energy market (the Pool) - a spot market for electricity - and sales by contracts between electricity buyers and sellers outside the Pool.³⁹ Although some generation has been privatized, the electricity network remains under government ownership.

A not-for profit, government-owned corporation, the Victorian Power Exchange (VPX) operates and administers the market for spot trading of electricity; controls generation dispatch and matches available generation and demand; controls the security of the main power system; operates the electricity transmission system; and plans and directs the augmentation of the extra high voltage transmission system. PowerNet is the high voltage transmission grid owner. It is responsible for maintaining the HV network and building new lines. It collects grid usage and connection fees from generators, distributors and retailers. PowerNet is also a government owned corporation that has a regulated return on its assets. PowerNet and VPX are statutory agencies overseen by the state's Office of the Regulator-General. This office was created by the Victorian Parliament in 1994 as an independent watchdog on customer service and performance standards of the electricity industry.⁴⁰

³⁹ The Australian government plans to have a national electricity market in place by 1999. It has created the National Grid Management Council (NGMC) to oversee the establishment of inter-state electricity trading. In particular, the NGMC would arrange the global system planning of regional grids. For information on proposed governance arrangements of this structure see Governance Arrangements for Global System Planning, Draft 1, National Grid Management Council. May 12, 1995.

⁴⁰ New release from the Offices of the Treasurer and Energy Minister (Victoria), "Government Welcomes Regulator-General's Report," October 3, 1995.

Norway and Sweden⁴¹

The Norwegian Electricity Act of 1991 introduced competitive generation and left the transmission and distribution of electricity as a natural monopoly. The Act reformed the existing pool system and created a separate company, Statnett Marked AS, to coordinate the hourly spot market and weekly contracts for power. The Act also created the Norwegian Water Resources and Energy Administration (NVE) to regulate the transmission and distribution companies, as well as oversee the competitive generation market.⁴² As it is expected that a competitive supply market will take root, there is little regulatory oversight of the generation market. NVE's main responsibilities regarding generation is to ensure that the main and local grid systems provide open access to suppliers and that companies which own networks and supply do not use tariffs to cross-subsidize.

In compliance with the Act, the NVE established guidelines transmission tariffs, implementing the cost-of-service approach. Due to the large number of companies it oversees (over 200), NVE does not systematically review companies' compliance with the guidelines. Instead, it checks the compliance of companies in response to complaints and keeps an eye on companies' returns. Excess profits are required to be returned to customers, therefore, some companies under-report their returns (20 in 1995). NVE handles complaints concerning tariff charges to system users. Regulated companies can appeal NVE's decisions to the Royal Ministry of Petroleum and Energy. Companies can also appeal NVE's decisions in court.

On the first of January this year major electricity restructuring reforms took effect in Sweden. The most significant component of the change was the opening of the a common Norwegian-Swedish electricity exchange. The Statnett Marked AS now coordinates the hourly spot market and weekly contracts for power for market participants from both countries. Swedish buyers and sellers of electricity work with their government agency, Svenska Kraftnät, to coordinate exchanges. Eventually the governments would like to establish common ownership of the exchange, provided that the exchange becomes the only market Swedish exchanges.⁴³ The federal government remains the principle owner of transmission facilities in each country.

⁴¹ The section draws from information in Jan Moen, "Regulation and Competition Without Privatization Experiences from the Norwegian Electric Supply Industry," Norwegian Water Resources and Energy Administration, Draft, August 1995.

⁴² The generation and supply market is also overseen by the Norwegian Competition Authority.

⁴³ J. Moen, "A Common Electricity Market Norway and Sweden, Prerequisites, Development and Results So Far", Draft, May 19, 1996, page 3.

Chile and Argentina⁴⁴

In Chile, three private “Transco's” own the regional and high voltage grids. The Transco's and Disco's fulfill concession contracts to the government and can be penalized if they do not fulfill the open access requirements of those contracts. All Genco's must agree to be centrally dispatched by a regional power pool (owned by regional Gencos) which is, in turn, governed by the Economic Load Dispatch Center (Centro de Despacho Económico de Carga or, CDEC). The settlement of energy and power purchases are made between generators. The CDEC is responsible for the operations of the interconnected system; the valuation of energy and power transfers between generating entities; the charges for the shared use of the transmission system (but transmission prices are determined by Transcos); and the maintenance of generating equipment. CDEC's ownership is equally shared by Gencos with more than 2% installed system capacity. A regulatory body, the National Energy Commission (CNE) provides arbitration in case of disputes between CDEC member, and coordinates indicative planning functions.

The wholesale electricity market in Argentina is coordinated through a pool called Compañía Administradora del Mercado Mayorista de Electricidad S.A. (CAMESSA). CAMESSA manages the dispatch, reliability and pooling functions. It acts as a clearing house for the settlement of energy and power purchases. CAMESSA's ownership is equally shared by Gencos, Transcos, Discos, large users and the Secretariat of Energy. CAMESSA may participate in transmission planning, but not ownership. Transcos own existing transmission facilities. As in Chile, a regulatory body, the Ente Nacional Regulador Del Electricidad (ENRE), arbitrates the any disputes between market players.

United Kingdom

The UK operates a central dispatch power pool that is administered by the National Grid Company (NGC) which also operates the settlement system (which determines which plants receive payments for having been constrained on or constrained off). The pool responsibilities are limited to short-term operations. The NGC performs the settlement function under contract with the Pool Executive, a body which consists of representatives of generators, statutory supply companies (similar to distribution companies), IPPs and brokers. The NGC itself is owned by the statutory supply companies, but their control over the actions of the NGC is limited. The NGC's other main function is to maintain and expand the transmission grid, but this responsibility is separate from the narrow duties as the ISO for the electricity market.

⁴⁴ Information on Chile was drawn from two sources: “Transmission Open Access in Chile” by Hugh Rudnick, an Invited Paper for the Fourth Plenary Session of the Harvard Electricity Policy Group, Cambridge, Massachusetts, October 27-28, 1994 and “Evaluation of Alternatives for Power System Coordination and Pooling in a Competitive Environment” by Hugh Rudnick, Ruy Varela and William Hogan, Presented at the 1996 IEEE Power Engineering Society Winter Meeting in Baltimore, MD, January 21-25, 1996.

The organization and governance structure of the pool severely limit the ability to make changes as experience develops with the market.

“The Pool is not a company; it is an agreement between members -- generators and suppliers -- to create an unincorporated association (which cannot be sued), organized basically as a cooperative undertaking to trade electricity and to employ NGC subsidiaries and other companies as agents to perform various functions on its behalf. The Agreement also defines constitutional arrangements for itself. The members’ key control over the operation of the Agreement is their voting power at the annual general meeting and at extraordinary general meetings, which are the decision making basics for the Agreement.⁴⁵ (The structure of voting rights was designed to prevent coalitions of either generators or RECs from dominating development of the Pool; this builds in inertia to decision making.) The day to day operation of the Agreement is supervised by the Pool Executive Committee which includes representatives of both generators and suppliers, and there are some twenty standing and ad-hoc sub-committees for (among other things) finance, resolving basic data disputes that affect payments, metering, developing the Pool Rules and systems, and an "Odds and Ends Working Group." To enable the Pool Executive Committee to function, the office of Pool Chief Executive has been created and the first appointee is Mrs. Thompson.

“The Pool can be likened to a golf club, where subject to paying dues anyone can be a member; different members have different interests and make use of the club to differing degrees; the Pool Chief Executive is the club secretary; and the NGC is the groundsman. Indeed, fundamental to understanding the Pool it is necessary to appreciate that NGC does not run or control the Pool -- rather two of NGC’s "separate businesses" provide administrative services to the Pool as agent of the Pool members.”⁴⁶

⁴⁵ At the annual general meeting the members

- appoint the Pool Auditor, currently Coopers and Lybrand
- appoint the Settlement System administrator which is currently Energy Settlements and Information Services Ltd, a subsidiary of NGC. The Settlement System Administrator calculates the Pool Purchase and Selling prices and the payments. In 1992/93 6.3 bn pounds changed hands through the pool and it cost 26m pounds to develop and administer.
- appoint the Pool Funds Administrator, which is currently Energy Pool Funds Administration Ltd, a subsidiary of the NGC
- appoint the Pool Banker, which is currently Barclays Bank Plc
- may change the Agreement. [footnote in original]

⁴⁶ Alex Henney, A Study of the Privatisation of the Electricity Supply Industry in England and Wales, London, EEI Ltd, 1994, p.118.

As mentioned above, the voting structure for the general meetings and the executive is organized to maintain a balance between interest groups. Every member is allowed at least one vote at general meetings. Generators and suppliers receive one weighted vote for every gigawatt hour generated or distributed within a given time period. The distribution of the total number of weighted votes is adjusted to reflect the overall proportion between generators and suppliers. This is done to maintain a balance of representation between the generators and suppliers. No single generator or single supplier can have more than 44% of the votes within its particular class. Votes at general meetings are decided in one of two ways: 1) by a simple majority of membership votes on a show of hands; and 2) by a simple majority of weighted votes on a poll.⁴⁷

The Executive Committee is responsible for running the day to day operations of the Pool. Its members are appointed by suppliers and generators belonging to the Pool. Each group elects five members. Generators select their representative using the weighting scheme described above. RECs are divided into four geographic regions, with each receiving one representative. The remaining seat is filled by a representative chosen by independent suppliers. Decisions are made based on a simple majority. The Pool Chairman is elected at the annual meeting of Pool Members and is nominated by Executive Committee Members (nomination alternates year to year between the Members appointed by suppliers and members appointed by generators).⁴⁸

LEGAL STRUCTURES FOR ISOs

The ISO's legal structure would be an essential element in determining the appropriate governance structure. An ISO could be structured in many ways including: not-for-profit, private for-profit, regional public governance, or federal administration.

Not for Profit: Establishing an ISO as a not-for-profit is a suggestion that has been part of a number of ISO proposals (e.g., PJM and WEPEX proposals, below). It is thought that a not-for-profit format will insulate the ISO from competitive pressures. The non-profit format is only as insulated from competitive pressures as are its board members. The fact that the ISO is a non-profit will not automatically protect electricity markets from unfair competition. If the non-profit is run by large entities it could well be used to ensure the market power of those interests. On the other hand, as indicated in Hansmann's research cited below, including representatives of too many different interests could cripple the decision making processes of the ISO. The Financial Accounting Standards Board (FASB) is an example of a voluntary and non-profit governance model.

⁴⁷ The Electricity Pool of England and Wales, Pool Settlement Agreement, Section 10.6,p.65-66.

⁴⁸ The Electricity Pool of England and Wales, Pool Settlement Agreement, Sections 11-15 and Schedule 14.

For-Profit: A for-profit ISO could take several primary forms. It could be run by a board of directors who represent transmission owners and work to maximize the returns to their transmission investments. Alternately, it could be the single transmission owner. In either of these cases returns to transmission assets would have to be regulated as a natural monopoly, perhaps on a traditional cost of service basis. As an entity which is essentially hired (by transmission owners) to run a transmission system, this sort of ISO would be subject to intermittent competition and its market position might be contestable. To this extent, it would be unlikely to be able to extract monopoly rents.

Regional Public Governance: A regional public governance system may be appropriate for an ISO whose control area extends across several states. This might involve state governments a role in the oversight of functions which affect their well-being (electricity delivery) while still allowing for the federal oversight of transmission systems which FERC been given.⁴⁹ If this structure were used, it would mostly likely need to be supported by an interstate compact.

Federal Administration: Another way to organize the ISO would be to establish a federal administrator, appointed by Congress, the Department of Energy, or the President, responsible for operating regional transmission systems. This approach could encompass both operational and system expansion responsibilities.

ISO PROPOSALS

Proposals for ISOs have appeared in various parts of the country, and with different states of maturity. Some, such as the recent suggestion by a consortium of Midwest utilities (AEP, CINergy, Centerior Energy, Detroit Edison, Northern Indiana Public Service, and Wisconsin Electric) have enunciated principles but are at an early stage of developing the details of either operations or governance. Others have varying degrees of detail on the responsibilities of the ISO or the structure for governance.

⁴⁹ The Federal Power Act granted FERC exclusive authority over the regulation of wholesale rates. 16 U.S.C. §§ 791a et seq. (1988 & Supp. IV 1992)

California Proposal⁵⁰

In December of last year, the California Public Utilities Commission issued an order which called for the creation of an ISO.⁵¹ The CPUC set forth operating principles for the ISO, which include the provision that the ISO should have no financial interest in the source of generation. The ISO's independence from the source of electricity generation is critical to ensuring nondiscriminatory access to the transmission system. The CPUC proposal did not set forth a preferred governance mechanism, and this was the subject of discussion as part of the development of implementing rules for the CPUC order.

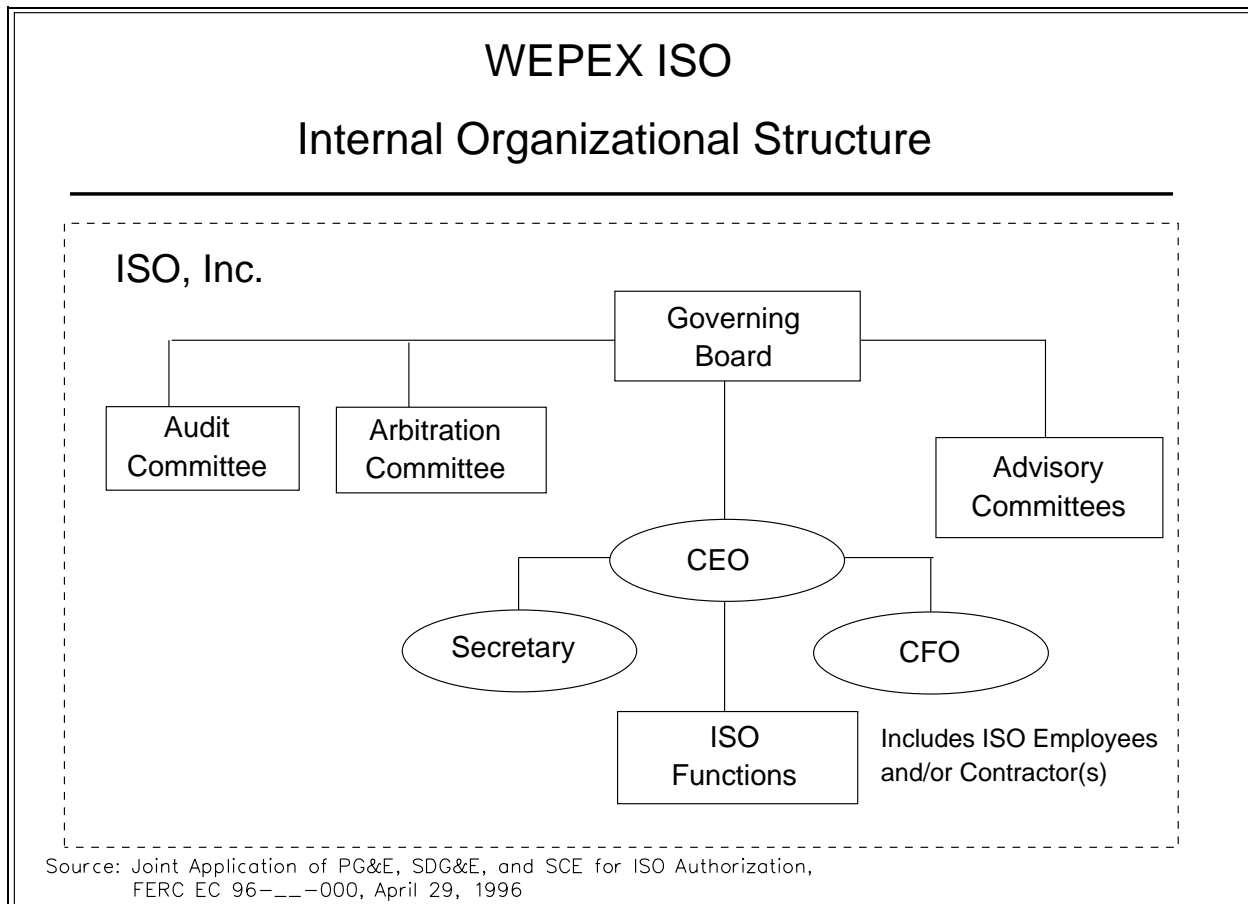
A formal structure for discussions, the Western Power Exchange (WEPEX), provided a forum for parties interested to work on the implementation of the CPUC's objectives. California's three utilities, Pacific Gas & Electric, Southern California Edison and San Diego Gas & Electric, utilized the WEPEX process in designing their ISO and Power Exchange Proposal. Although a WEPEX-wide consensus was not reached, the three utilities filed a joint application with FERC transfer operational control (but not ownership) of certain transmission facilities to an ISO and to sell energy at market-based rates using a Power Exchange (PX) drafted facilities to the ISO.⁵²

The PX will function as a clearing house for the generation spot market. It will be a non-profit entity separate from and independent from the ISO. The ISO, a non-profit corporation, will control and operate the state's transmission system, which includes scheduling the delivery of electric power supplies, ensuring that actual demand is met with sufficient power supplies, and seeing that all standards for transmission service are satisfied, as well as communicating any problems in delivering power supply to the appropriate parties. The PX will provide the ISO least-cost preferred hourly schedules of generation and loads on a day ahead basis.

⁵⁰ Joint Application of Pacific Gas and Electric Company. San Diego Gas & Electric Company, and Southern California Edison For Authorization to Convey Operational Control of Designated Jurisdictional Facilities to an Independent System Operator Before to FERC, Docket No. EC96_-000, April 29, 1996 and Joint Application of Pacific Gas and Electric Company. San Diego Gas & Electric Company, and Southern California Edison For Authorization to Convey Operational Control of Designated Jurisdictional Facilities to an Independent System Operator Before the FERC For Authority to Sell Electric Energy at Market-Based Rates Using A Power Exchange, Docket No. ER96-1663-000, April 29, 1996.

⁵¹ California Public Utilities Commission, Order Instituting Rulemaking of the Commission's Proposed Policies Governing Restructuring California's Electric Services Industry and Reforming Regulation, Docket No. R.94-04-31, and Order Instituting Investigation on the Commission's Proposed Policies Governing Restructuring California's Electric Services Industry and Reforming Regulation Docket No. I.94-04-032, Dec. 20, 1995.

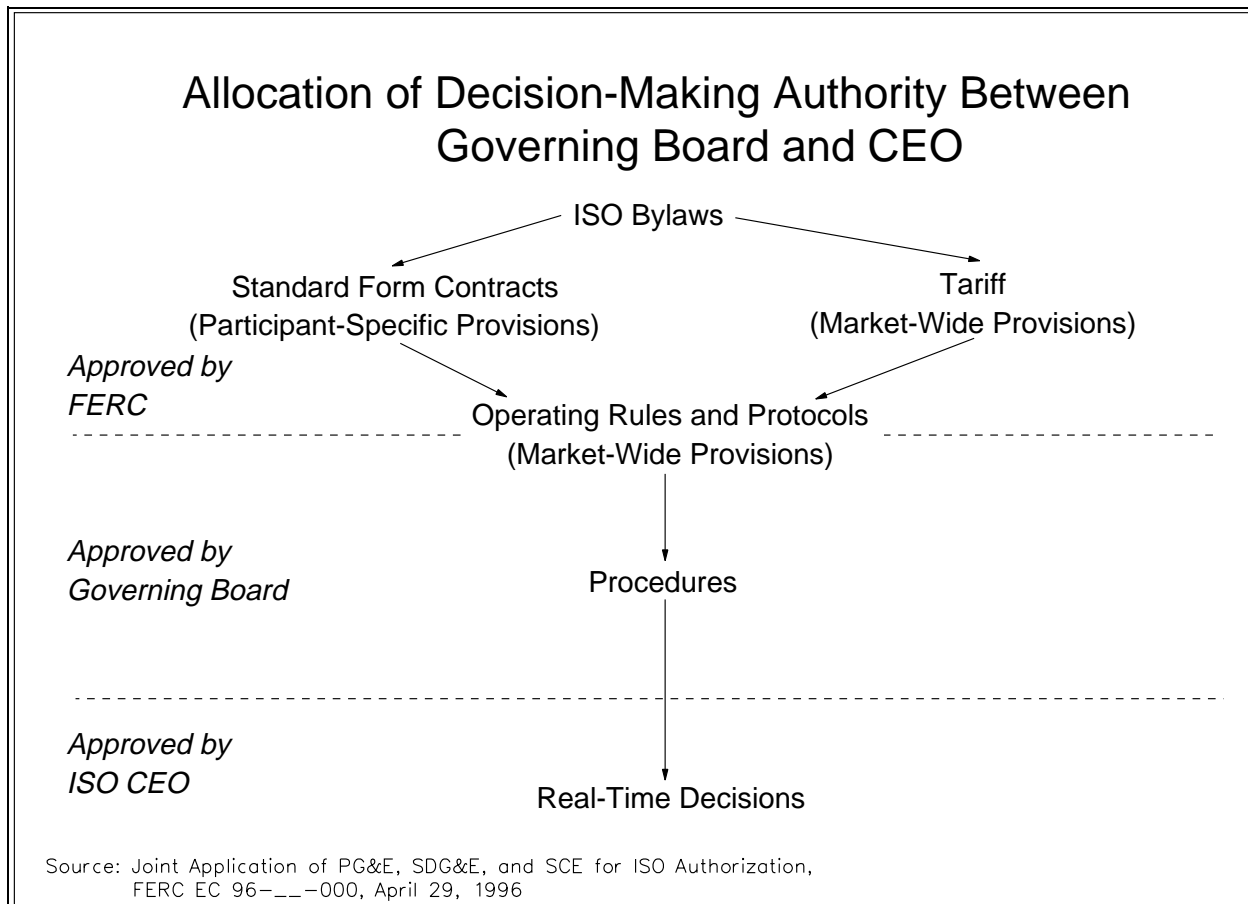
⁵² Joint Application of Pacific Gas and Electric Company. San Diego Gas & Electric Company, and Southern California Edison For Authorization to Convey Operational Control of Designated Jurisdictional Facilities to an Independent System Operator Before the FERC For Authority to Sell Electric Energy at Market-Based Rates Using A Power Exchange, Docket No. ER96-1663-000, April 29, 1996.



The ISO will have a Governing Board, similar to a board of directors, a CEO, audit, arbitration, and advisory committees. The arbitration committee offers alternative dispute resolution. Market participants may appeal the Committee's decision to the CPUC.

The Governing Board will be responsible for establishing and enforcing ISO policies and procedures. The Board will also determine whether and when the ISO will apply to FERC for changes and conditions of the transmission tariff, changes in the ISO organizational structure and changes in standard contracts with market participants. It will hire and fire the CEO, and oversee the corporation's budget. It will not participate in day-to-day operations of the corporation. The CEO will be ultimately responsible for day-to-day management of ISO functions and for providing operating instructions under emergency conditions. The CEO will be responsible for implementation of the ISO's system operating functions such as real-time operational decisions and minor changes to procedure.

The Governing Board will be composed of both elected and appointed directors. The directors will be selected by five "classes" of participants: IOU Transmission Owners, Government/Municipal and Seller, End-Users and Non-Stakeholders/Public. The latter four classes elect their directors for three year terms, while the non-stakeholder/public director



positions will be filled by professionals appointed to serve two year terms. Once elected to the Board, members will vote individually, not as a "class". Each vote carries equal weight. The table below shows the number of directors each class may elect and the number of votes needed for decisions under the WEPEX proposal.

Class	Initial Number of Directors	Maximum Number of Directors
IOU Transmission Owners	3	4
Govt/Municipal	3	4
Sellers	3	3
End-User	4	4
Non-Stakeholders/Public	2	3
<u>Total</u>	<u>15</u>	<u>18</u>

Votes Needed to Adopt Most Measures	10	12
Votes Needed to Veto Most Measures	6	7

In order to adopt measures, two-thirds majority vote is needed. To veto most measures, one-third plus one vote is needed.⁵³

Proposed Changes to NEPOOL - NEPOOL Plus

NEPOOL is in the process of reformulating its membership and voting arrangements. The organization sees itself as an alternative to the creation of an ISO. Thus far it has suggested several transitional measures that allow for the partial participation of non-utility entities. These measures would extend participation to power marketers and brokers, regulators, interest group representatives, non-member utilities and IPPs. However, the non-utility representatives will have a seat but not a vote on the Executive, Operations or Policy Planning Committees. NEPOOL is considering new structures to allow for full participation of these parties.⁵⁴

Competitive Power Coalition (CPC)⁵⁵

CPC's proposal would transform NEPOOL into an ISO. The ISO would have responsibility for network coordination. It would lease transmission facilities from current owners (investor-owned utilities), contract for the right to call upon resources for ancillary services and contract for maintenance facilities. The ISO would ensure that energy nominated by suppliers and buyers will be delivered. It would not attempt to ensure economic dispatch of energy through a centralized dispatch of generating systems.

⁵³ "Very significant actions, such as removal of directors or dissolution, will require an 80% majority vote." Joint Application of Pacific Gas and Electric Company, San Diego Gas & Electric Company, and Southern California Edison For Authorization to Convey Operational Control of Designated Jurisdictional Facilities to an Independent System Operator Before the FERC For Authority to Sell Electric Energy at Market-Based Rates Using A Power Exchange, Docket No. ER96-1663-000, April 29, 1996, page 28.

⁵⁴ NEPOOL, Amendment to NEPOOL Agreement, Docket ER95-1782-000, Federal Energy Regulatory Commission, September 14, 1995.

⁵⁵ The Competitive Power Coalition is a New-England-wide organization of independent power producers, cogenerators, and power marketers. CPC has advocated the benefits of competitive and environmentally-responsible independent power industry.

According to the CPC, the ISO must be independent and have no commercial interests in the electricity market. “Market participants will have no authority over the ISO and therefore, there simply will be no need for cumbersome voting and governance rules like those currently used by NEPOOL.”⁵⁶ CPC offers no recommendations for an alternative governance structure.

James Caldwell (for Conservation Law Foundation)

Caldwell's proposal creates an ISO governance board which encompasses New England and New York and uses operations centers which already coordinate the two areas. Unlike other proposals, the Board is made up of political appointees rather than market participants. Through an interstate compact a new regional body called the New England Power Planning Council would be created. The Council would have a Board of Governors consisting of one appointee by each governor in the compact. The Chair's position would be rotated among the states and is the only full-time Board position. There would be twelve full-time employees. The Council would have four committees:

1. Market Operations Committee

Would consist of market participants (transmission owners, brokers, aggregators, etc) and have 2-3 employees skilled in anti-trust. Its role would be to ensure self-regulation in this area, recommend changes to operating procedure, and set tariffs. This role is advisory with the only enforcement through dispute resolution, consensus or FERC appeal.

2. Dispute Resolution Committee

One full-time staff member to serve as logistics coordinator and ombudsman for dispute resolution. Contract out for the resolution process itself. Could recommend changes for ISO procedure and tariffs to the Market Operations Committee.

3. Planning Committee

Would consist of six professional staff with the responsibility for developing and maintaining a regional plan (siting of facilities). Information would be public and opportunities would be available for intervenors to contribute to the Committee's operating procedures.

4. Compensation Committee

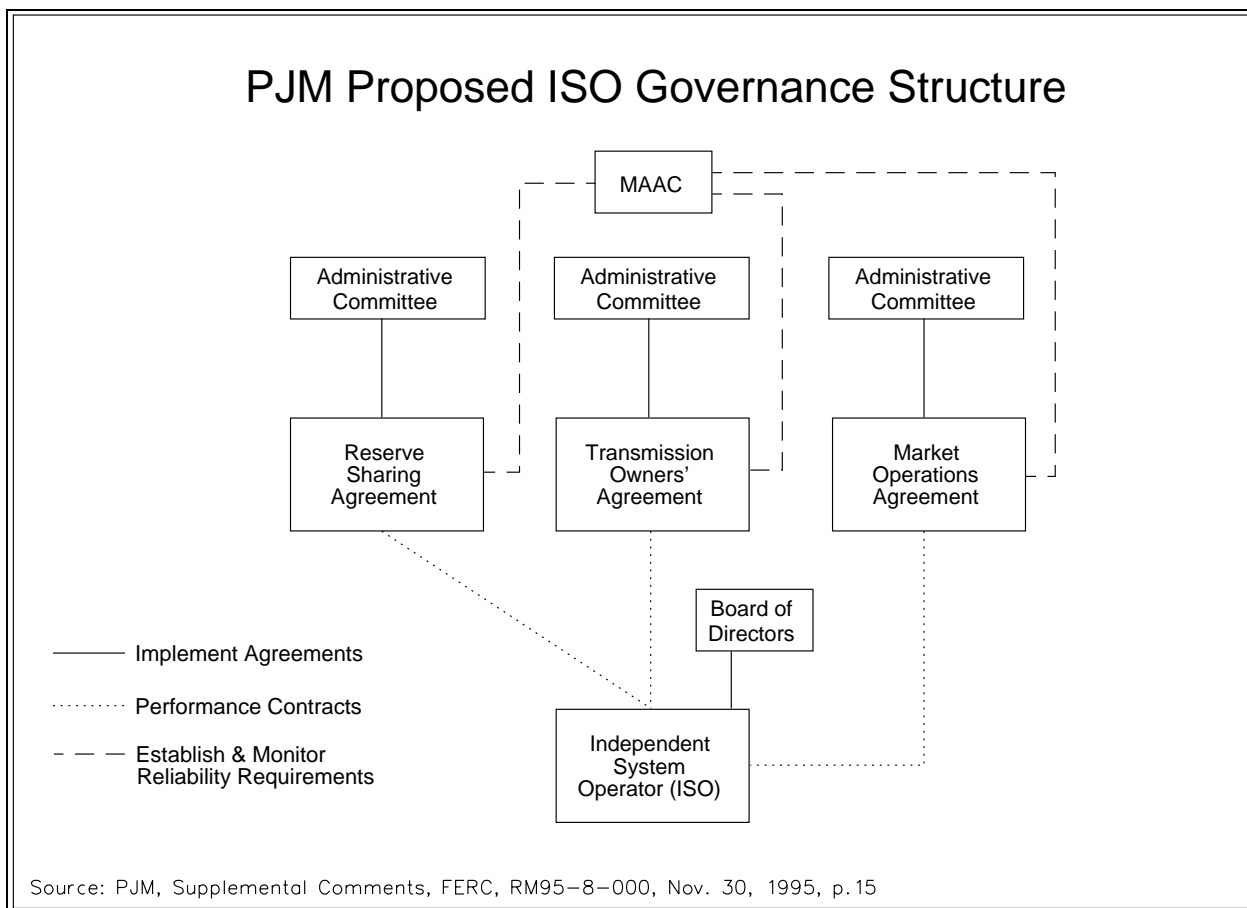
Would be chaired by the Council Chair. Other members would include the Board of Governors and a representative of the Market Operations Committee. This Committee would set the terms for hiring/firing the ISO and design incentive mechanisms for compensation of the ISO,

⁵⁶ Competitive Power Coalition of New England, Inc., “A Blueprint for a Competitive Electricity Supply System in New England,” January 5, 1996.

subject to FERC approval of tariff terms.⁵⁷

Pennsylvania, New Jersey, Maryland Power Pool (PJM)

The initial reorganization of the PJM power pool centers on the development of the three agreements governing transmission planning, reserve sharing and market operations. These agreements define the rules and criteria for the various operations of the power pool. The responsibility of the ISO is to implement these agreements. As envisioned, the agreements would specify the specific tasks of the ISO under a performance contract. The process for changing the agreements would be a part of the initial rules submitted for FERC approval.



PJM will eliminate the “pool membership” component and then become an ISO. The ISO will administer the bulk power system and transmission tariffs, implement the pool energy market and administer the pool-wide planning process. PJM will replace the existing system of

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J. Caldwell “Governance of the New England Wholesale Market”, 1995.

cost-based dispatch with an expanded hourly bid price pool in which all sellers can bid into the pool.⁵⁸

The ISO will not be a market participant and will have no economic interest in the operation of the market. It will be a not-for-profit organization. Performance contracts will be established between the ISO and the various participants. The ISO will be overseen by a Board of Directors, which will do the following:

- Select ISO officers, monitor their performance and set compensation
- Approve human resource policies
- Assess performance of the ISO
- Approve operating plans and budgets
- Establish control and operating procedures

The Board will have seven members: one will be the CEO, and the other six will be independent. During the transition, the Board will have three members from the existing PJM member companies and three independent members. After three years, the former will be phased out and replaced by these additional independent members.

Pacific Northwest Utility Coordinating Council

The Pacific Northwest Utility Coordinating Council (PNUCC) is a not-for-profit advocacy group that represents the wholesale customers of Bonneville Power Administration. With a history of providing a platform for regional discussions of electricity policy, it has become a forum for the region's restructuring discussions. Through this process, PNUCC's members have developed and evaluated four detailed proposals for governing the Northwest's power grid. Their analysis is the most thorough of all existing written materials on the subject.⁵⁹

The formats examined include:

⁵⁸ PJM, "Supplemental Comments of the Supporting PJM Companies for Technical Conference on Comparability for Power Pools," Federal Energy Regulatory Commission, Notice of Proposed Rulemaking Regarding Promoting Wholesale Competition Through Open Access Non-Discriminatory Transmission Services by Public Utilities, Supplemental Notice of Proposed Rulemaking Regarding Recovery of Stranded Costs by Public Utilities and Transmitting Utilities, Docket No. RM 95-8-000 and Docket RM94-7-001, November 30, 1996.

⁵⁹ Pacific Northwest Utility Conference Committee, "Evaluation & Description of Alternative Organizational Structures," report of on Northwest Transmission Restructuring, March 5, 1996 draft.

1. Transmission Coordination Agreement (TCA)

Under the TCA format, Transmission owners would retain ownership and control of their facilities, but would negotiate a coordination contract that would attempt to operate and price transmission services in a way that is as close as possible to that which would be provided by a one-owner model.

2. Independent Grid Operator without Ownership (IGO-Limited)

Under this structure, a new organization would be formed that would operate the transmission system. Ownership would remain in the hands of current holders, but the IGO-L would be organized to ensure independence from power marketing efforts. The IGO-L would plan transmission improvements, but would not be permitted to construct or own transmission facilities. Thus, system owners would have to mutually (through the IGO structure) agree upon maintenance and expansion needs and take actions as the group sees fit.

3. Independent Grid Operator with Ownership (IGO-O)

This would be similar to IGO-L, in that the IGO would be operated independently of power marketing and that most existing transmission lines would remain with current owners, but the IGO would retain the option of building and owning additional facilities.

4. Single Transmission System Ownership (TRANSCO)

The TRANSCO would have all current transmission owners divest themselves of their transmission assets, selling them to a single system operator. This new transmission entity would have ultimate responsibility for managing and operating the transmission system as a separate business.

In the paper, "Draft Phase I Report on Northwest Transmission Restructuring," PNUCC has analyzed the costs and benefits of the formats, outlined the possible governance structures for each, identified regulatory implications of the different responsibilities, and looked at other salient characteristics of the options.

Panel Members at FERC Technical Conference on ISOs⁶⁰

In January of this year, FERC hosted a technical conference on issues addressing ISOs and power pools. Although the ISO proposals suggested at the conference are too numerous to review in this paper, governance issues raised by three participants are reviewed below.

⁶⁰ FERC Technical Conference on ISOs, January 24, 1996.

Paul Joskow, MIT

Joskow proposes that power pools are the ideal platforms for the development of an ISO. Indeed, he maintains:

“...the pool's management and personnel constitute the organization that we now refer to as an independent system operator (ISO). Precisely how independent the network operator is in practice, and how its behavior can be affected by the members of the pool, depends of course on the provisions of the charter establishing the pool and the ways in which collective decisions are made (e.g. the allocation of voting rights and rules), how these decisions are conveyed to the pool's management and ultimately enforced.”⁶¹

He proposes the “club model” as the institutional framework for the ISO/pool. The pool would be a non-profit joint venture or voluntary association. The pool would not own any part of the grid or any generation facilities; would not be capitalized; would operate only as an exchange, not a buyer and seller of energy; and would have rules mandating that its revenues balance its operating costs.

The pool would have a board of directors with equal representation for all of the players. The board of directors would solicit tenders from private management companies for five year contracts. The contract would be incentive-based, with senior management compensation partially tied to performance criteria.

Alan Richardson, American Public Power Association

In his testimony before FERC, Richardson suggested that the ISO be a not-for-profit publicly owned entity, and be the owner of the transmission grid. In addition, he suggested that the formation of the ISO be “based on institutional concepts that attract the maximum number of voluntary participants”.⁶²

⁶¹ P. Joskow, “Comments of Paul L. Joskow,” Technical Conference Concerning Independent System Operators and the Reform of Power Pools Under the Federal Power Act, Federal Energy Regulatory Commission, January 24, 1996. p. 5.

⁶² A. Richardson, “Comments, Technical Conference Concerning Independent System Operators and Reform of Power Pools Under the Federal Power Act,” Federal Energy Regulatory Commission, January 24, 1996, p. 7.

Roy Thilly, General Manager, The Wisconsin Power Inc. System (WPPI)

Thilly proposed the following: ISOs be established on a regional basis; if utilities retain ownership of transmission, they must be fully separated from operation and control; and ideally, the ISO should be organized so that it can own and build facilities.⁶³

Federal Energy Regulatory Commission

In its Mega-NOPR FERC recommended that Regional Transmission Groups (RTGs) be formed to assist in the development of the wholesale market. RTGs are defined as “ a voluntary organization of transmission owners, transmission users and other entities approved by the Commission to efficiently coordinate transmission planning (and expansion), operation and use on a regional (and interregional basis).⁶⁴ RTGs are extensions of regional planning councils which maintain reliability standards for regional grids. The RTG proposal does not change the ownership of the transmission grid, rather, it allows non-owners to participate in the planning and coordinating of the system. They would not perform the same functions as an ISO. Although a few RTGs have been set up in the Midwest, in general, the idea has been overtaken by new developments such as the ISO. In its final rule of April 24, 1996 concerning open access and stranded costs, FERC recognized that utilities across the country have, or will be, submitting proposals to form ISOs.⁶⁵ Appendix I contains an excerpt from the decision which lays out FERC’s guidelines for ISOs.

Evaluating ISO Governance Structures

The roles and responsibilities attributed to an ISO narrow the field of feasible options for any particular ISO governance structure. For example, if an ISO is to be a regulated private, for-profit single-owner transmission system, it would not make sense to call for multi-party governance structure. Or, the ISO might not own any part of the transmission system, leaving that responsibility with current (integrated utility) owners and asking the ISO only to operate

⁶³ R. Thilly, "Comments, Technical Conference Concerning Independent System Operators and Reform of Power Pools Under the Federal Power Act," Federal Energy Regulatory Commission, January 24, 1996, p. 3.

⁶⁴ Federal Energy Regulatory Commission, Promoting Wholesale Competition Through Open Access Non-Discriminatory Transmission Services by Public Utilities and Recovery of Stranded Costs by Public Utilities and Transmitting Utilities, Notice of Proposed Rulemaking and Supplemental Notice of Proposed Rulemaking, (Docket No. RM 95-8-000 and RM94-7-001), Mar. 29,1995, at Appendix C.

⁶⁵ Federal Energy Regulatory Commission, Promoting Wholesale Competition Through Open Access Non-discriminatory Transmission Services by Public Utilities & Recovery of Stranded Costs by Public Utilities and Transmitting Utilities, Docket No. RM95-8-000 and Docket No. RM94-7-001, Order No. 888, Washington, DC, April 24, 1996.

those systems (as with California's proposal, described above). Alternatively, the ISO could lease transmission facilities from utility owners. As another option, the ISO could build and own only new transmission facilities.⁶⁶ Finally, utilities could be required to divest transmission assets and have a public or private entity own them outright (as suggested by Alan Richardson of the American Public Power Association). These different ownership responsibilities have different governance implications.

The ISO's relationship to electricity markets is another example of a role which would affect an ISO's governance structure. The extent to which these should work cooperatively is open to debate. Some have argued that the only way to make an ISO serve competition would be to completely remove it from electricity markets - its responsibilities would be limited to responding to the demands of those who submit firm bilateral contracts and to maintaining system reliability. Others have argued that the only way (due to the physical laws that govern electricity movement) to create efficient electricity markets is to have an ISO match bids from buyers and sellers, determine and impose congestion costs, and dispatch generators accordingly. Bridging these two proposals are those who suggest that a spot market for power be established by a power exchange (PX) that maintains links to the ISO (as in California). The geographic size of an ISO's control area and the ISO's transmission planning responsibilities also could affect ideal governance options. Ultimately, the roles assigned to an ISO must be considered in the formulation of its governance structure.

⁶⁶ This suggestion was presented in the Pacific Northwest Utility Conference Committee's "Evaluation & Description of Alternative Organizational Structures" report of their study on Northwest Transmission Restructuring, March 5, 1996 draft. Their IGO-O (O=ownership) model embodied this idea.

APPENDIX I
FERC's Proposed Principles for Independent System Operators

FERC Order 888⁶⁷
April 24, 1996
(extract from pp. 279-286)
Docket Nos. RM95-8-000 and RM94-7-001

The Commission recognizes that some utilities are exploring the concept of an Independent System Operator and that the tight power pools are considering restructuring proposals that involve an ISO. While the Commission is not requiring any utility to form an ISO at this time, we wish to encourage the formation of properly-structured ISOs. To this end, we believe it is important to give the industry some guidance on ISOs at this time. Accordingly, we here set out certain principles that will be used in assessing ISO proposals that may be submitted to the Commission in the future.

These principles are applicable only to ISOs that would be control area operators, including any ISO established in the restructuring of power pools. We recognize that some utilities are exploring concepts that do not involve full operational control of the grid. Without in any way prejudging the merits of such arrangements, the following principles do not apply to independent administrators or coordinators that lack operational control. We do not have enough information at this time to offer guidance about such entities, but recognize that they could perform a useful role in a restructured industry.

Because an ISO will be a public utility subject to our jurisdiction,⁶⁸ the ISO's operating standards and procedures must be approved by the Commission. In addition, a properly constituted ISO is a means by which public utilities can comply with the Commission's non-discriminatory transmission tariff requirements. The principles for ISOs are:

1. The ISO's governance should be structured in a fair and non-discriminatory manner.

The primary purpose of an ISO is to ensure fair and non-discriminatory

⁶⁷ Federal Energy Regulatory Commission, Promoting Wholesale Competition Through Open Access Non-discriminatory Transmission Services by Public Utilities & Recovery of Stranded Costs by Public Utilities and Transmitting Utilities, Docket No. RM95-8-000 and Docket No. RM94-7-001, Order No. 888, Washington, DC, April 24, 1996.

⁶⁸ (footnote 425 in original) A public utility is any person that owns or operates facilities used for the transmission of electric energy in interstate commerce or the sale of electric energy at wholesale in interstate commerce. An ISO will operate facilities used for the transmission of electric energy in interstate commerce and thus will be subject to the Open Access and OASIS rules.

access to transmission services and ancillary services for all users of the system. As such, an ISO should be independent of any individual market participant or any one class of participants (e.g., transmission owners or end-users). A governance structure that includes fair representation of all types of users of the system would help ensure that the ISO formulates policies, operates the system, and resolves disputes in a fair and non-discriminatory manner. The ISO's rules of governance, however, should prevent control, and appearance of control, of decision-making by any class of participants.

2. An ISO and its employees should have no financial interest in the economic performance of any power market participant. An ISO should adopt and enforce strict conflict of interest standards.

To be truly independent, an ISO cannot be owned by any market participant. We recognize that transmission owners need to be able to hold the ISO accountable in its fiduciary role, but should not be able to dictate day-to-day operational matters. Employees of the ISO should also be financially independent of market participants. We recognize, however, that a short transition period (we believe 6 months would be adequate) will be needed for employees of a newly formed ISO to sever all ties with former transmission owners and to make appropriate arrangements for pension plans, health programs and so on. In addition, an ISO should not undertake any contractual arrangement with generation or transmission owners or transmission users that is not at arm's length. In order to ensure independence, a strict conflict of interest standard should be adopted and enforced.

3. An ISO should provide open access to the transmission system and all services under its control at non-pancaked rates pursuant to a single, unbundled, grid-wide tariff that applies to all eligible users in a non-discriminatory manner.

An ISO should be responsible for ensuring that all users have non-discriminatory access to the transmission system and all services under ISO control. The portion of the transmission grid operated by a single ISO should be as large as possible, consistent with the agreement of market participants, and the ISO should schedule all transmission on the portion of the grid it controls. An ISO should have clear tariffs for services that neither favor nor disfavor any user or class of users.

4. An ISO should have the primary responsibility in ensuring short-term reliability of

grid operations. Its role in this responsibility should be well-defined and comply with applicable standards set by NERC and the regional reliability council.

Reliability and security of the transmission system are critical functions for a system operator. As part of this responsibility an ISO should oversee all maintenance of the transmission facilities under its control, including any day-to-day maintenance contracted to be performed by others. An ISO may also have a role with respect to reliability planning. In any case, the ISO should be responsible for ensuring that services (for all users, including new users) can be provided reliably, and for developing and implementing policies related to curtailment to ensure the on-going reliability and security of the system.

5. An ISO should have control over the operation of interconnected transmission facilities within its region.

An ISO is an operator of a designated set of transmission facilities.

6. An ISO should identify constraints on the system and be able to take operational actions to relieve those constraints within the trading rules established by the governing body. These rules should promote efficient trading.

A key function of an ISO will be to accommodate transactions made in a free and competitive market while remaining at arm's length from those transactions. The ISO may need to exercise some level of operational control over generation facilities in order to regulate and balance the power system, especially when transmission constraints limit trading over interfaces in some circumstances. It is important that the ISO's operational control be exercised in accordance with the trading rules established by the governing body. The trading rules should promote efficiency in the marketplace. In addition, we would expect that an ISO would provide, or cause to be provided, the ancillary services described in this Rule.

7. The ISO should have appropriate incentives for efficient management and administration and should procure the services needed for such management and administration in an open competitive market.

Management and administration of the ISO should be carried out in an efficient manner. In addition to personnel and administrative functions, an ISO could perform certain operational functions, such as:

determination of appropriate system expansions, transmission maintenance, administering transmission contracts, operation of a settlements system, and operation of an energy auction. The ISO should use competitive procurement, to the extent possible, for all services provided by the ISO that are needed to operate the system. All procedures and protocols should be publicly available.

8. An ISO's transmission and ancillary services pricing policies should promote the efficient use of and investment in generation, transmission, and consumption. An ISO or an RTG of which the ISO is a member should conduct such studies as may be necessary to identify operational problems or appropriate expansions.

Appropriate price signals are essential to achieve efficient investment in generation and transmission and consumption of energy. The pricing policies pursued by the ISO should reflect a number of attributes, including affording non-discriminatory access to services, ensuring cost recovery for transmission owners and those providing ancillary services, ensuring reliability and stability of the system and providing efficient price signals of the costs of using the transmission grid. In particular, the Commission would consider transmission pricing proposals for addressing network congestion that are consistent with our Transmission Pricing Policy Statement. In addition, an ISO should conduct such studies and coordinate with market participants including RTGs, as may be necessary to identify transmission constraints on its system, loop flow impacts between its system and neighboring systems, and other factors that might affect system operation or expansion.

9. An ISO should make transmission system information publicly available on a timely basis via an electronic information network consistent with the Commission's requirements.

A free-flow of information between the ISO and market participants is required for an ISO to perform its functions and for market participants to efficiently participate in the market. At a minimum, information on system operation, conditions, available capacity and constraints, and all contracts or other service arrangements of the ISO should be made publicly available. This information should be made available on an OASIS operated by the ISO.

10. An ISO should develop mechanisms to coordinate with neighboring control areas.

An ISO will be required to coordinate power scheduling with other entities operating transmission systems. Such coordination is necessary to ensure provision of transmission services that cross system boundaries and to ensure reliability and stability of the systems. The mechanisms by which ISOs and other transmission operators coordinate can be left to those parties to determine.

11. An ISO should establish an ADR process to resolve disputes in the first instance.

An ISO should provide for a voluntary dispute resolution process that allows parties to resolve technical, financial, and other issues without resort to filing complaints at the Commission. We would encourage the ISO to establish rules and procedures to implement alternative dispute resolution processes.