

**Harvard Electric Utility Policy Group
Planning Meeting
Taubman Center, 5th Floor
Kennedy School of Government, Harvard University
Wednesday, July 7, 1993
Summary of Meeting¹**

I MORNING SESSION

The session was called to order at 10:00 AM with an introduction and overview by John White. The purpose of the planning meeting is to launch the project with agreed priorities and a research agenda.

1.1 Objectives and Research Agenda

In his opening remarks, William Hogan summarized the purpose of the project. A draft research agenda circulated in advance identified the objectives, organization and background, including:

Objectives: To address key policy issues related to the transition to a more competitive electricity market; sponsor research and analyses; provide a forum for informed and open debate; and supply a vehicle for contributing to the wider public policy agenda.

Organization: The Harvard Electric Utility Policy Group operates as an Executive Session under the auspices of the Center for Business and Government at the John F. Kennedy School of Government at Harvard University. The participants include leading government officials, senior executives in the electric and related industries, academics and public policy analysts. The participants do not necessarily adopt or endorse the ideas contained in the research to be produced and published over the expected two year duration of the project. Funding is provided by the Center for Business and Government and contributions from participating organizations.

Background: With passage of the National Energy Policy Act of 1992 (EPAct), change in the federal Administration, implementation of the Clean Air Act Amendments of 1990, and continued pressures for economic restructuring, the electric utility industry and its regulators face dramatic challenges and opportunities.

¹The summary is organized chronologically, in some instances, however, speakers' contributions were rearranged to enhance topical continuity.

Many of these center on the evolution of relationships: between private incentives and public interests, between business and government, between state and federal regulators. The EPOA requires the Federal Energy Regulatory Commission and the state regulatory agencies to address issues that will have an enormous impact on the future structure of the utility industry. Development and implementation of new provisions for transmission open access and pricing will test the capacity of existing institutions to balance many interests in the search for long-run benefits. Electric utilities will continue to be a **focal** point in accommodating the need for both greater energy efficiency and improved economic competitiveness. Environmental and other externalities will receive expanded emphasis in the utility regulatory process. And electric utilities will accelerate the process of adjusting to an increasingly competitive market.

Individual discussion of the proposed research agenda had revealed a tension between those who saw the highest priority for the Group as focused on the underlying market fundamentals and longer term issues, versus an emphasis on the immediate, pressing transitional questions. To address this issue of the priorities for the **Group's work**, Hogan suggested a possible thematic structure for a proposed sequence of meetings of the Group:

- Fall meeting: Examples of competitive market mechanisms, alternative theories, and experience in other countries/industries;
- Winter meeting: The relevance of these cases to the U.S. utility industry; examination of special conditions;
- Spring meeting: Transition issues.

The morning's discussion ought to emphasize the first meeting's agenda, including perhaps 2-3 alternative visions of the future and a critique of the applicability of these models.

Responding to these suggestions, one participant expressed concern that spring 1994 might be too late a date to tackle transition issues. Processes were already unfolding in the industry which might lead to the Group's work being overtaken by events.

Another participant pointed out that the summer NARUC meeting intends to address the implementation of the Energy Policy Act of 1992, including a vision of how bulk power markets should work. It might be expected that FERC will publish draft rules in The Federal Register next spring; thus, next spring might indeed be too late for outputs from the Group to receive consideration.

The general view expressed was that the transmission pricing inquiry from FERC would not be a *fait accompli* by next spring.

Another speaker argued that the substantive contribution for which this Group was best

suited would be to articulate a vision of *how we* get to where we are going. Naturally, this contribution must be timely. It was indicated that customers are already actively discussing retail wheeling options, and that this issue was an example of a question which would not stand still for two years awaiting a carefully crafted industry response. Skepticism was also voiced as to whether international cases would be an appropriate starting point for the Group's activities.

Referring back to the themes for future Group meetings suggested at the beginning of the meeting, it was proposed to collapse the first two topics into one topic for the upcoming fall meeting: illumination of the relevance of alternative competitive market mechanisms, experience in other countries/industries, and the relevance for the U.S. case.

Another participant argued that, in order to address the issue of transition, a notional "100-page paper" outlining the end state of this transition ought to exist or, at a minimum, be able to be readily produced. He knew of no such document, however, and this indicated the need to develop and examine such issues. Given a differentiated characterization of the end state, "backing out" the transition path should be relatively straightforward.

One regulator indicated that the sense of urgency which he heard expressed in the meeting thus far was not present in his state. There, "evolution," and not "revolution," appeared to be the watchword of institutional change within the electric supply industry.

One participant supported the inclusion of an intermediate conceptual step before addressing transmission: that of examining alternative future models and their attributes (examining, for example, other relevant industries). It was emphasized that by rushing to consider transition issues, the Group would likely sidestep the very area, namely, the analytical comparison of various modes of sectoral organization, for which the Group is best equipped to make a contribution.

Another speaker countered that because market forces were already driving so many changes in the industry (witness deregulated generation, retail wheeling proposals, and market-driven rates), it seemed that we were standing atop the proverbial "slippery slope." Accordingly, the speaker was anxious to get into the substance of pressing transitional issues.

It was argued that, because of the enormous variance across the industry in the degree to which competitive forces shape the present business environment, writing the aforementioned "100-page paper" such that it was truly representative of industry experience might not be straightforward. Some would be in a position to learn more from such a paper than others, as people had differing amounts of exposure to issues of competition and some utilities were further along the evolutionary path than others.

Another speaker voiced the opinion that it was highly unlikely that FERC would arrive at a definitive resolution of the essential structural issues for the industry within the next two years; the debate is still very much in flux. Consequently, that speaker did not feel that the

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aforementioned "100-page paper" existed at present, either. Further, it was argued that this "paper" had not existed for the restructuring of the airline and telecommunication industries. However, those familiar with the airline case reported that the accompanying Senate hearings were useful in gathering the relevant economic and practical arguments into one room, and just such an overview paper had been prepared and was important in the process.

Other doubts were expressed as to whether one such definitive paper could be written at this time for the utility industry. Furthermore, since the marketplace was driving the changes, it would soon "roll over" any theoretical paper.

Turning to the question of what, if anything, maybe learned from experiences of other countries, it is often claimed that comparisons of the evolution of the U.S. and U.K. electrical supply industries are not useful since the U.K. industry was publicly owned. While it is true that the actual transition to competition in the U.K. electricity supply industry was very different, the forward-looking analyses of various competitive "end-games" that were produced do "travel well"; these may usefully inform the restructuring process within the U.S. One key feature of the present U.K. industry which evolved out of such analyses is that two-part tariffs (ie, separate capacity and energy payments) no longer exist. Such a development would be a dramatic change from present U.S. practice having tremendous economic implications for the utility industry. Further, under such a competitive regime, it would no longer be the duty of the utility to protect the customer. Rather, the customer must signal the utility with a price offer, and the obligation to serve would be redefined. These examples illustrated the dramatic differences of a competitive market, and suggested the importance of a close analysis of the underlying fundamentals.

The relevance of such international experience was acknowledged, and the desire reiterated to have the essential meaning of these experiences distilled for the U.S. environment. The focus should be on "what's working, and what's not."

Although the exact picture of where the industry is headed may not yet be sharply in focus, it is clear, said one speaker, that certain issues will be on the table in the transition process, namely transmission issues, unbundling, economic issues (pricing, access, ownership, ...) within the various segments of the industry and the particular form and function of regulatory institutions. In other words, some of the "waystops" along the transition path are clear.

Another speaker agreed that a useful exercise for the Group would be to gather current empirical information on "where we are" to help inform federal and state regulators about the nature of present-day transition problems. This view was amplified by another participant, who was already dealing with competitive transition issues on a daily basis. This speaker was not certain if his organization was "doing the right thing" with regard to market-driven rates. Essentially, it was felt that a study produced after two years would not be very helpful, since the transition is already upon us.

One participant asserted that a better understanding of where the Group thinks the industry is going would be very valuable. For instance, the trend toward unbundling of services into generation, transmission, and distribution appears inevitable; unbundling may well not stop there. Exactly how products and services of the industry are defined is critical to our conceptualization of the future and thus to the Group's work. Being conscious of pitfalls which should be avoided is also useful. For example, if prior to any transition, transmission prices were to be decoupled from real costs, this would result in inefficiencies in subsequent transmission transactions.

A useful metaphor offered by one participant may capture the essence of the industry's situation: shooting the rapids on a river. One is repeatedly faced with the alternatives of cautiously pulling the boat over and surveying the upcoming stretch of river, or boldly "going for it." Barring disaster, both strategies will land one in the same place, though not necessarily in the same condition!

A certain tension existed in the view of many of those present between, on the one hand, the need to take a step back to examine critically the direction in which the industry is headed and on the other, the need to address concerns of immediate relevance to daily business. One suggested agenda for the next meeting included presentations on current problems and barriers within the industry and alternative assessments of where the industry is going. Another pointed out that a Group such as this one was ill-suited to address questions of near-term competitive decision making.

A question arose whether, without further analysis, open access was clearly an objective of FERC (in a straw poll, no one disagreed with the proposition that wholesale open access would become the industry norm). One speaker pointed out that there are tradeoffs among FERC's several objectives, and that these were too abstract and too highly aggregated to be a useful starting point for the Group's work.

Regarding equal access, it was claimed that this paradigm would not work as it has in other industries, since the industry has already evolved along a certain path (monopoly IOUs). A *new institutional responsibility* for the grid -- grid operator, government agency, non-profit or other entity -- would be required.

Another expressed a concern about insufficiently flexible alternative future visions not capturing the many complexities -- often poorly understood -- of the current system: certification and siting rules, obligation to serve, scope of service, corporate structure and finance, integrated ownership, IRP and ratemaking, to name a few.

Several participants felt that there was not a consensus on where the industry was headed, but there is a common perception that the system was in motion. It made sense to identify what the significant transitional issues are and, in light of several plausible views of the future, to discuss these issues.

Similarly, another participant felt that while no single comprehensive vision of the industry's future was possible, a broad if not unanimous consensus on the importance of individual issues such as retail wheeling existed. The key contribution of the **Group** could be to frame and articulate such issues and to identify future options for the industry and their implications. In doing so, having well-defined objectives is important to keep the dialogue from going in circles.

One participant offered the following list of transitional issues:

stranded investment
transmission access/pricing
environmental/social issues.

Another speaker added "obligation to serve" to this list and added that a holistic view which "fits all the pieces together" is essential in understanding how these issues play out in a real-world context: one classic example of interaction among individual issues is the problem of internalizing externalities under a competitive regime for generation.

A utility representative was asked if a particular case involving a customer's request for a lower rate could be presented, illuminating both the particulars of the case at hand and the general policy of the utility in responding to such requests. Apart from some constraints due to confidentiality, several utilities indicated that such a case could be presented (see Section 2.3, "Summary of agreements" below).

One speaker wished to concentrate the discussion on the question of what *this* Group should do first. In her view, we should actively deal with the "vision thing," leaving details of transitional issues, generally speaking, to other groups. The Group should avail itself of the opportunities available by virtue of its affiliation with an academic institution while still remaining sensitive to the fact that "reality is happening" as we deliberate and study.

Against the backdrop of alternative future visions for the utility industry, **Group** members could present *their* day-to-day transition problems, which may well look different depending on the assumed underlying model/vision.

William Hogan wrapped up the morning session by identifying two separate conceptual strands which were crystallizing out of the discussion:

- *case studies* informed by current problems facing the industry illuminating how we got to where we are and identifying important questions to be addressed; and

vision papers characterizing the end state toward which we are or should be heading in terms of regulatory and industry structures and functions.

The vision papers and case studies -- in draft form -- could constitute the focal point for discussion at the next meeting.

The session was adjourned at 12:00 PM.

2 AFTERNOON SESSION

The session was called to order at 1:40 PM.

2-1 *Objectives and Research Agenda (continued from morning session)*

The afternoon session began with Ashley Brown sketching three visions which he felt represented the range of plausible paradigms for the industry and reflected the discussions of the morning session. These were suggested as the *competitive*, the "*Cavanagh*," and the "*muddle through*" (*evolutionary*) visions. These different **visions are explained in some detail** in Section 2.3, "Summary of agreements," below.

Next, an extensive "laundry list" of issues which the aforementioned visions might address was compiled:

- Industry structure/Divestiture
- Obligation to serve/buy
- Regulatory assets (eg, deferred accounts)
- State/federal jurisdiction
- Core/non-core customer classes
- Social implications (environmental goals/effects, etc.)
- Rate effects
- Risk - reward relationship
- Capital market behavior
- Siting
- RoR regulation vs. market-based pricing
- Price volatility
- Procedural issues / Dispute resolution (ADR)
- Technology issues
- R&D
- Role of monopoly provider/ Energy service
- IRP/Planning
- Proprietary information
- Reliability
- Power pools
- Economies of scale

- Uncertainty
- Political reality
- Universal service

It became apparent that, for the sake of tractability and of not losing sight of the forest for the trees, the Group would have to limit its list of issues upon which to focus when delineating each alternative vision – perhaps to 5 or 6 essential issues. In addition, one participant asserted that a visionary paper drafted by a committee of 40 might not, in the end, be so visionary; thus, having a very small number of authors for each paper would likely yield the best results.

Concern was expressed regarding the "muddle-through" vision that a spirit of "more competition, but only a little bit" would ultimately be infeasible. An analogy which illustrates the problem would be a policy to change the side of the road on which people drive, but to phase it in so that, at first, the new convention applies only to trucks! It was emphasized that all visions would have to be internally consistent. Another speaker commented that the phenomenon of "muddling through," while perhaps not the best designation, merely described the incremental, evolutionary nature of change so commonly observed in social systems.

Turning to the case studies, three particular cases were initially offered to be studied by various participants: 1) Niagara Mohawk's experience with market-based rates from competing generators, 2) Duquesne and GPU's confrontation of the transmission expansion issue, and 3) analysis of the stranded cost issue by several parties. Further discussion generated interest on the part of some others in working on these three cases. In addition, there was some discussion as to whether another industry's (particularly, the natural gas and telephone industries) handling of its transition would be illuminating. In Section 2.3, "Summary of agreements" below, those participants who expressed an interest in working on these three cases are listed.

The stranded cost issue stimulated some discussion. It was mentioned that natural gas contracts may provide a useful analogy for the case of a competitive electric industry. Another speaker indicated that in the case of natural gas, FERC has been reluctant to admit that take or pay contracts were a problem. The pipeline industry had absorbed billions of dollars in stranded costs. Thus, some issues to watch for are the pass-through of costs and exit fees. Accounting for such costs at the beginning of a transition in the industry is essential. For the Group, deriving a quantitative estimate of the magnitude of the industry's exposure to stranded costs – perhaps as a sub-task of the associated case study – would be a valuable exercise, according to several participants.

As for the actual preparation and writing of the case studies, it was suggested that Kennedy School students be asked to support these tasks. The Harvard representatives in the group will follow up on this possibility to organize the effort.

Ashley Brown wrapped up the discussion by asking for suggestions of major electricity consumers which could be invited to subsequent Group sessions. The Harvard representatives in the group will follow up with the firms mentioned in this regard to recruit an appropriate number of consumers.

2.2 *Scheduling*

The next meeting will be in early October. Based on the Group's availability, the Harvard team will set a date and notify the Group promptly. Tentative dates for the winter and spring meetings will also be suggested at this time.

2.3 *Summary of agreements*

2.3.1 *Re "vision papers"*

1. Energy Service Market Model (the "Cavanagh" Model): This is a world in which there is a blend of wholesale competition and a preserved or new vision of the industry as an ultimate provider of (bundled) energy services. This model is intended to capture the perspective and policy recommendations implicit in the arguments advanced by Ralph Cavanagh. The Harvard team will discuss these ideas with Ralph and see if he is willing to write such a paper for circulation within the Group.

2. Pool Market Model (the "competitive" model): This is a model with all current operations and transactions conducted on a short-term marginal cost basis designed around a location-specific version of a power pool(s). Generation and load are both paid, or pay location-specific prices determined in the short-term spot market through an ex post settlements system. Most generation and "enough" of the load is dispatchable to allow the short-term market to clear without affecting "reliability." There is a new definition of the obligation to serve. All long-term arrangements are based on contracts between willing buyers and willing sellers; these contracts are focused on compensation depending on conditions in the short-term market rather than on specific performance. The Harvard team will assume responsibility for clarifying this idea and writing a paper.

market for many years is a mixture of traditional rate base, average cost supplies, and new bilateral deals between suppliers and customers that emerge as part of the evolving competitive market. Customer demand is primarily of the current type

without relying on much in the way of short-term pricing response. The Harvard team will work on further defining this model and getting someone to prepare this paper.

2.3.2 **Re case studies**

1. **Transmission Expansion:** The Duquesne-GPU case was proposed by Dave Marshall. This would summarize the issues addressed and confronted, the problems, and the time-consuming process involved in siting and approving a new transmission line. GPU should also be consulted since they are involved in this. Oxbow recently built a new transmission line, and might provide an interesting added and different perspective. Ralph Cavanagh later suggested that a large transmission expansion in the West be included. The Harvard team will follow up with the appropriate contacts.

2. **Market Competition:** NIMO, NYSEG, and Boston Edison volunteered to explain what has been happening to them as real competition has entered to supply their customers. This would be a comparative study to explain what has been happening, why it is happening, and what each has done to adjust to the new circumstances. If possible, the case would conclude with a discussion of prospective strategies or at least a catalog of unanswered questions. The Harvard team will follow up with these three companies.

3. **Stranded Costs:** There are few examples that would constitute a case study. Here, we may need to look to analysis in a prospective mode, for which the "case study" would become an illustrative quantification of the magnitude of the industry's exposure and a description of alternative proposals for dealing with the costs. John Graham/GPU, Jeff Sterba/PNM, and Thomas Coughlin/Merrill Lynch volunteered to help on this process.

4. **Other industries:** The Harvard team will attempt to find some existing literature summarizing how transition costs were handled in other industries such as natural gas, telephones, and the airlines.

5. **Other long-term issues:** The role of integrated resource planning; changes in institutional structures, especially federal and state jurisdictions; restructuring and incentive regulation.

The meeting was adjourned at 3:40 PM.