

HARVARD UNIVERSITY

JOHN F. KENNEDY SCHOOL OF
GOVERNMENT

Harvard Electricity Policy Group



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HARVARD ELECTRICITY POLICY GROUP FOURTH PLENARY SESSION

Harvard University
Thursday, May 12 - Friday, May 13, 1994

MEETING SUMMARY

The topics covered at this conference of the Harvard Electricity Policy Group are telling indicators of the distance that these issues -- and the HEPG -- have traveled in a single year. We have moved from an initial exploration of market "visions" and case studies to the analysis of specific initiatives by state and federal regulators. We have expanded our discussion of transition strategies to include an examination of efficiency considerations, equity debates, and detailed proposals of policy options. We have pursued a wide range of subjects involving jurisdiction and regulatory process. Enormous ground remains to be covered in developing options for the structural and regulatory transition of the industry.

Due to the events of the weeks immediately preceding the session, the presentations of a number of distinguished speakers, and a lively and sophisticated discussion, this conference was an enormous success which has advanced the debate on many of these issues.

Thanks to all HEPG members and conference participants for their contribution to these discussions.

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¹ Papers and outlines collected for this seminar are listed at the end of this summary,

Thursday, May 12th

The morning began with a welcome and introduction from Ashley Brown, Executive Director of the HEPG. The morning's first speaker was Congressman Philip Sharp, Chair of the Energy and Power Subcommittee, U.S. House of Representatives. Congressman Sharp spoke on the Energy Policy Act of 1992 and related federal energy initiatives. He was followed by commissioners from three states who discussed the dialogue taking place in their states with regard to competition.

In the afternoon, a panel on regional transmission groups discussed the usefulness of RTGs in addressing access and pricing issues. The day finished up with an account of one state commission's attempts to explore reform of the regulatory decision-making process.

FEDERAL ENERGY INITIATIVES AND THE ENERGY POLICY ACT

The Energy Policy Act of 1992 (EPAct) established wholesale electricity competition as a major new national objective. The many provisions, including transmission pricing and access, present significant challenges in implementation. A legislative perspective by way of a review of the progress and problems encountered in implementation offers an opportunity to discuss the key issues that remain. How has the first year and a half of experience under the EPAct compared with the assumptions made when the bill was passed? Are there issues that may require further legislation? For this discussion, the HEPG had the benefit of the experience of Congressman Philip Sharp, Chair, Energy and Power Subcommittee, U.S. House of Representatives.

Congressman Sharp:

I look forward today to learning many of the things that we probably should have known *before* we passed the Energy Policy Act. When President Bush proposed to the Congress that we reform PUHCA, in hopes of bringing more competition into the bulk power market, many of us in Congress eventually came to agree, but this agreement was not instantaneous. The full Committee chair, Mr. Dingell, began with a deep suspicion -- others said, "We're open to the question -- we haven't looked at it before." Some committee

members had experience from the natural gas industry, and had come to realize that these monopolistic utilities -- in the case of natural gas, the pipelines -- could actually become quite different entities. (They can even go bankrupt, of course.) This experience led us to accept the proposition on the House side that we could have bulk power competition, but many of us insisted that, without transmission access, many of the utilities would act to protect their territory, even when it wasn't necessarily in their economic self-interest. Some people don't accept the theory that monopolies don't operate toward their own interest, but I believe that political power is involved in these decisions as well, and there was anecdotal evidence that, even when a sale of transmission access might make sense, it didn't happen. There were utilities, of course, on the "Just say no." side, who thought competition was a fundamental mistake.

We were very sensitive to the question of whether we might be allowing to escape from regulation utility activities that might come back to haunt us in the form of cross-subsidization from the regulated to the unregulated segment of the business, but besides the natural gas experience, many of us had been through PURPA, and had come to the conclusion that the monopoly could be cracked, that the system would not crumble, and that reliability could be maintained.

So we ended up being caught up in the idea that competition could result in savings in an industry that's very capital-intensive. Of course, in addition to the changes in capital investment, and as something of a sociological aside, it remains to be seen if the major impact ends up being on the shrinking middle class -- in the natural gas industry, competition seems to have had a major impact, not only on how the capital gets spent, but

also who runs the show and how many of them are needed to run it.

We focused heavily on transmission -- our expectation was that the FERC would move ahead with EWGs [exempt wholesale generators], as they have done. One thing we doubted, however, was that the open transmission authority would actually be exercised. Not only had there been the "just say no" crowd, much of the utility industry didn't even appear to have transmission access on their agenda. Thought follows action, however, (and I expect this is true right now in spades at the California and Michigan commissions), and once we put this on the table, people started thinking about it, taking it seriously, and by the end of the year we had all kinds of people coming out of the woodwork on the subject of transmission access.

The critics said, "You'll have multiple orders, the FERC will be inundated with transmission access requests, and this will be an administrative nightmare." Our theory was the opposite -- that if the FERC would only make it clear from the outset that it was going to exercise its authority, that marvelous things would happen in the industry. Utilities would begin to negotiate, and open access would begin to happen. In my view, the FERC began its implementation of this authority very effectively, making clear through a couple of cases and with speeches by the commissioners, that they intended to carry out the intent of their transmission access authority.

Given what has happened recently, this almost sounds passé, but last year after the EPAct was passed, our first goal was to make sure the Commission was going to take this seriously and exercise its power. We had them up for a hearing, and I said, "We're not going to legislate this again, so don't come back here and start pushing us for things."

Because we anticipated that some people, either through the courts or Congress, or by trying to make the Commission tepid on the subject, would try to undo transmission access. So far, I'm very pleased that the FERC has taken it very seriously and moved ahead. Obviously, they haven't gotten to some of the tougher questions, notably pricing policy, but they are moving strongly, the world is obviously changing, and I think that it is generally for the good.

So the resistance we anticipated from the industry and from the FERC does not seem to have materialized. What we did *not* focus on, of course, has become even more important in many ways. We started out with some stringent guidelines on transmission pricing, but I had doubts about how much detail we should ever get into in Congress, because we have a great deal of trouble undoing things -- it took us 30 years in natural gas. We ended up with what I think is a reasonable proposition, which is to let the FERC handle it, as long as they were going to move on it. We were very fearful that they might choose to protect native load to an extent that would preclude the possibility of open transmission access, so we didn't do pricing. But so far, as I've said, the movement at the FERC has been very encouraging.

The other thing we *didn't* do was resolve state-federal concerns. Ashley and others were very articulate, very aggressive, in trying to find us some common ground for resolving some of the federal-state jurisdictional conflicts, but in the end we found it impossible. The country's only been struggling with federalism for 200 years. It has a dramatic impact on regulatory activities, and we're forever trying to sort it out, but in the end what we had to do was politically throw up our hands and say, "We cannot get people to agree on this."

The third issue of course was Regional Transmission Groups (RTGs). This was a proposal that came to us in the last hours of the conference, and, even though it was supposed to reflect a consensus, we, I think wisely, said, "If they only just got their act together, we wouldn't be good public servants if we just adopted this without hearing criticism of it, without having a chance for people to turn it over in their heads." But we made it clear to the FERC that it was a concept that we were interested in. It has been surprising that, given the amount of interest at the time the legislation passed, they have not developed very rapidly. My suspicion is that, once pricing guidelines are in place, RTGs may begin to gel as well.

The one thing we missed altogether was that the states would become so aggressive on retail wheeling. Of course John Anderson was trying to convince us that we should consider the possibilities of retail wheeling, but it was really crossing the religious barrier to do that. We already had two thirds of the industry up in arms with wholesale transmission access. So we didn't do it, and I'm very eager to find out how it can be worked out at this point.

My approach to legislation is usually a cautious one -- when we in the Congress get involved in something, we have a terrible time making consistent policy. We tend to distort all sorts of other activities inadvertently, and our legislation frequently has consequences we didn't expect. I believe that Congress should be a last resort, after a lot of private negotiation and public comment has gone forward.

Currently, the conversations about these topics on Capitol Hill are between those who lobby, three or four staff members, and zero to one or two members of the House and

Senate. Health care, Superfund, and all kinds of other issues are dominating our attention, but electricity policy is not being talked about. The last time I had a conversation with my colleagues on this subject was two years ago, when we voted on the legislation. We're not into follow-up on the Hill, which in a way is too bad -- we did something two years ago that we thought would have a fairly dramatic impact, and now no one wants to talk about it. So I'm looking forward to hearing from you today about where all this has been going. Thank you.

Discussion

[This section is a summary of the remarks of various seminar participants following Congressman Sharp's speech]

_: What would Congress do differently if it had the Energy Policy Act to do all over again?

Sharp: I suppose if anyone had known what the California Commission was going to do with respect to retail wheeling, we would have been inundated by opponents who wanted to stop it. We don't cater to lobbyists, but they do help set the agenda. There are also an enormous number of consumer groups that help set the agenda. Maybe it's a defensive reaction, but I don't think we actually did as much as we thought we were doing. We thought we were making revolutionary changes, but looking back, obviously these changes were already underway in the industry and all we did was accelerate them. Are there some things you think we ought to have done?

_: Should we have lobbied harder against retail wheeling?

Sharp: Wow, it sure seems to me you were lobbying hard at the time. We obviously should have spent a lot more time on the other parts of the bill -- we were focussing on nailing down the part about the FERC not having the power to order retail wheeling -- that seemed to be the only political equation that would work -- but some of the other consequences didn't get the intense examination they might have had and would have had if we had thought we were going to potentially produce retail wheeling, anyway.

_: Recognizing that the Congress did punt on the federal-state jurisdiction issue, we are

still in need of some mechanism that allows the states and the FERC to go into a room and discuss these jurisdictional conflicts. Do you think that the Congress would be receptive to providing that type of mechanism in the context of revisions to the Open Meetings Act, as opposed to taking it up in substantive legislation like the Energy Policy Act?

Sharp: Possibly -- we're certainly open to proposals. With the Natural Gas Policy Act, the only reason we were able to get agreement on this was because we violated the rules and went into secret session.

—: The Energy Policy Act, in addition to the sections on PUHCA, transmission access, etc., contains a great deal of interest in integrated resource planning (IRP), promotion of energy conservation, renewables, and so forth. Did you think there were conflicts between the increase in competition and some of these other goals?

Sharp: This is obviously the central question that was raised when we were talking about retail wheeling. We recognized that competition would cut into subsidization to some degree. Is there any line that can be drawn because we didn't go as far as retail wheeling? That's an open question. My own sense was that, while there were some subsidies I'd like to see promoted, we were trying to get more efficient use of the capital, and to that extent that wasn't inherently any conflict. I admit that it is hard to maintain that principle when you look at some DSM programs. Another problem is that, in the past, states could come up with different programs -- but in a competitive system, they have to be universal. It's much more difficult to insist on a subsidy in one system that their competitor does not also have.

As I said, we also didn't realize this would develop so rapidly, because we saw so much resistance to the legislation, and we thought this resistance would continue after the fact.

—: There are those who argue that, as we move toward more competitive markets, PURPA has outlived its usefulness. Would you care to comment on that?

Sharp: That's a question that we looked at at the time, but we were unwilling to give up what some of us thought were the gains of PURPA in exchange for the more uncertain gains of the Energy Policy Act. Some of the utilities were eager for us to eliminate PURPA, and there is a potential conflict between the goals of the two acts. There is still a potential that Congress will make some changes along those lines.

You talked about the Energy Policy Act stopping short of retail access, and I wonder if you were aware at the time of the possibility that providing for wholesale access would prompt a wave of municipalizations. Municipals are only regulated in six states, and utilities are very worried that municipals will proliferate and no one will have the jurisdiction to handle transition costs and other issues.

Sharp: I'm not up on this issue -- where is it happening? Are lots of new municipals being formed?

In our own service territory there are three communities that are all of a sudden interested in it. My own prediction is that, when all the rules for wholesale access are in place, independent power brokers will take off, and all hell will break loose. We haven't

seen it yet, but all the pieces are in place. This is not only limited to municipalities -- the Energy Policy Act says that the FERC may order wheeling to any political subdivision of the state.

The policy issue is mass uneconomic restructuring of the entire industry. Uneconomic bypass in terms of the optimal efficient size firm to provide electricity services. Do we want this proliferation of state authorities happening simply because people want to get around a law which makes a distinction between wholesale and retail -- a distinction which it turns out isn't really real because of the ability to form municipal utilities? Do we want to create an incentive for entities to declare themselves an Authority, which is now entitled to open transmission access, purely to avoid the sunk costs or other obligations of utilities?

Sharp: There may be an incentive to do that, but I guess I'd have to see it actually happening in a widespread way and causing all these problems. In natural gas we had a lot of people saying, "The little LDCs, how on earth are they going to protect themselves, how can they possibly engage in buying and selling gas? They'll be aced out." Well, of course, some of them will merge, some will find independent brokers who will buy for them. A variety of things could happen, and we gave up the idea that we had to protect the least efficient of them. I'm not sure how parallel this experience is, and I'm not sure I'm arguing against what you said, but I think the case needs to be made that there is a true danger as to why we shouldn't have this option, this flexibility.

There are a tremendous number of federal subsidies available to municipals and rural

electric co-ops, both in the form of tax exemptions and in the form of preference power, which have the potential to significantly skew the competitive market and to allow municipalities to make inefficient, uneconomic decisions. Do you think Congress will ever grapple with these issues?

Sharp: This is a regular complaint, and the past history would suggest that the answer is "No.", but it's possible, in this new context, that the argument will be heard to greater effect. I think the only way this would happen would be if there is serious worry that the transition costs are going to fall unfairly on some sector of the population. I must say, however, that we haven't been hearing from people much about this.

_: At the time the Energy Policy Act was passed, did you envision a restructuring of utility businesses into generation, transmission, distribution, etc.?

Sharp: We were aware that this was a possibility, and we had done some examination of the changes in Great Britain. But, as I said, we saw ourselves as simply opening up new possibilities, not setting out what the model should be. Again, going back to natural gas, we could not foresee what the model was. We were continually given different theories about how the system might work -- some of them by the same people, who came to testify over the course of two years. So I became less concerned that we had to know what the model looked like, as long as we had enough people comfortable with the general parameters, and that adjustments could be made.

_: What are your thoughts on what the Congress thought it was doing when the prohibition

against the FERC ordering retail wheeling was put in place? For example, did Congress have any opinion about whether or not the **FERC** should act affirmatively if a state were to order retail service over transmission lines regulated by the **FERC**?

Sharp: We hadn't thought through it in those terms. In fact the provision did not get the kind of discussion it is getting now. There were a limited number of people focused on it, and it was driven more by a political need to stem the concern from the industry than it was a rational, thorough examination.

: Some people have suggested that the FERC should do what it did with natural gas -- take the new authority that the Congress gave them, where you clearly did not define the end result, create a national policy for the electricity industry, deal with the transition problems on a national basis, and move forward. Others feel strongly that it ought to be handled on a state-by-state basis, and solve what are essentially state and regional problems on a state and regional basis. (Also, in the natural gas area, the FERC clearly had all the jurisdictional responsibilities, which is not true in electricity regulation) Do you care to comment as to where you think these problems should be handled?

Sharp: Maybe at the end of this conference I'll have a stronger view about that -- I don't, at this point. My own sense about the way decisions get made is that there is going to be an interaction between the two. Order 636 came up after a long history of orders and changes, and I suspect that is going to be the nature of things in the utility industry. The events in California will stimulate discussion by people on both sides, and will certainly accelerate the issue, but it is still hard to lay it all out ahead of time.

I think most of us at the time thought of transmission as increasingly a federal issue - -- fewer entities are genuinely intra-state. But as I said, the consequences of this were never sufficiently articulated -- we never anticipated that the state commissions would move ahead so quickly.

_: The evolution to competition has gone ahead much more quickly than many of us thought it would, and so the transition issues are much more urgent than we thought they would be at this point. People are now thinking hard about how we should handle stranded assets, and how we could do it fairly, and everything falls into place until you get to nuclear plants. Nuclear plants may be the majority of the stranded asset question, and it may be the majority of the problem of trying to create a privately competitive generating sector. The U.K. tried to sell it off, but ended up keeping it and putting together a nuclear levy that everyone had to pay. Whether it's decommissioning costs, or what we're going to do with the waste, or the liability, etc. -- this issue has the potential to ripen up and come back to the Congress.

Sharp: This question has been raised with some of us, and I have heard the argument that nuclear assets are the most difficult to deal with. This issue may well become ripe for Congress very quickly, but it is clearly not under discussion at this point. Unless some broad-based group of people comes to us and says, "Here is an honest-to-God problem, and only the Congress can solve it", it won't happen. (There is, of course, always the possibility that someone will be successful in getting bailed out through something in the appropriations process, or some other alteration, where there won't be any policy

discussion.)

Moderator: This is a policy question that is related to the issue of municipalization. The question is, what is the magnitude of the inefficiencies, relative to what people can do to avoid it? If you're talking about avoiding sunk costs which are 5% of rates, there might not be a great deal of motivation for people to do things. If you're talking about 20-30% of rates, there might be motivation for people to do things that wouldn't make sense otherwise. So the numbers do matter, independent of transition allocation questions, in terms of the incentives people have to do efficient or inefficient things.

Moderator: A year before the Energy Policy Act was passed, we asked if it would be a good idea to try to organize an activity like this to try to feed ideas into the discussion of the Energy Policy Act, and the consensus was that it was "too late" -- that a year before the Act was passed, people had their lobbyists lined up and we were beyond the stage where ideas and discussion in an open forum were going to be helpful. So we decided to wait until after the Act had passed, and think instead about the problems that would arise with implementation of the Act.

Sharp: It's an extremely important role, and one which it's critical does happen. It may not give you comfort that we don't have this type of discussion in advance, but I assume that your activities will be an important part of what's feeding into the California Commission and the FERC and others.

Moderator: Thank you very much for kicking off this discussion today.

Current State Initiatives in Electricity Market Reform

California On April 20, 1994, the California Public Utilities Commission proposed for comment a plan which will allow direct access customers with 50 kV service and above to shop for power beyond their local utility beginning in January of 1996. By 2002, all consumers in the state who wish to do so could choose suppliers in the competitive power supply market other than their local utility. Electric utilities would be freed of requirements to buy non-utility generation and restraints against self-supplying.

Speaker: I'm going to assume that everyone in this room has read the proposal that the California Commission put forward on April 20th. I am not going to criticize or defend this proposal, but I will say that it has made me very unhappy to read statements in a variety of publications which have asserted that this was a final order of the commission. It was no such thing. Some members of the commission simply felt that it was time to move the debate on the future of this industry, the role of competition, and the consequences to what is probably as close to an explicit social contract as we can find in the United States, out into public for discussion. I feared that there was a conventional wisdom maturing among those of us who might perhaps describe ourselves as the cognoscenti of this business that there were certain things which were inevitable. Those inevitabilities involve a plethora of assumptions about society, and if there is to be a further crystallizing of thought among opinion leaders, I think it is time to bring those thoughts forward and allow the sunshine of other views to either cause them to develop and mature or to wither and die, as the case may be.

I would also like to see discussed the question of the power market which includes Mexico and Canada - a physical market which currently has no political or regulatory counterpart. We only know two attitudes in the U.S. -- it's either a federal problem or a

state problem. But this isn't a problem we can just punt to Washington. The last time I met with a current member of the FERC, I asked, "Have you ever read the NAFTA agreement?", "No," was the response, "I have not." I said, "Neither have I -- I think we ought to go to our respective offices and dig it out." In the NAFTA agreement, the U.S. agreed that we would respect the arrangements that obtain in Mexico and Canada, and we would not ask for any reciprocity of those agreements. What type of governance structure could be set up? Is it necessary to have all the various private sector players operating with similar public sector obligations? None of the changes to the industry that we are discussing were taken into account when the agreement was negotiated.

Another problem with these anticipated changes is one I have spoken about in the past. In all this discussion of taking apart vertically integrated monopolies, of replacing generating assets which have been dedicated to public use under a regulated environment with a series of contractual arrangements, we have yet to address the issue of contract failure and how it should be dealt with. Are we going to try these cases in civil court? To ask a judge who has just completed a parole revocation and is about to issue a divorce decree to try to understand the language this industry has adopted? (I can tell you that as a stranger to the industry I found the study of Russian easier.) If that individual somehow manages to swim upstream and ends up getting it right, then all of the lawyers in this room know that the legal profession will immediately unite to make sure she never sits on another case in this area again. It will be years before we develop any body of appellate judicial decisions that will help us to decide whether there's anything special about contracts for necessities -- what are we going to do in the meantime?

What I'm looking for is a discussion that will take six to eight to ten months -- as long as it takes to come close to getting it right. The commission has set forth four full-panel hearings to start this discussion. There may be more. One of the things I'm looking for is for Professor Hogan to make good on the statement that he could design something that could be used in the west as the functional equivalent of the British pool. The last time I was here, on my way home on the plane I saw a movie that was utterly reminiscent of many of the great academics I've known in my life. It starred Steve Martin, playing a preacher who traveled around the South and the Midwest holding revivals. He had a magnificent choir that traveled with him to soften up the crowd, and the choir belted out a song that went, "Are you ready for a miracle?", and the answer was, "Ready as I can be." So with regard to Professor Hogan's statement that he can do these things, my answer is, "Ready as I can be."

Michigan: *On April 11, 1994, the Michigan PSC approved the terms and conditions of a retail wheeling experiment, and remanded the case to the administrative law judge for hearings on a retail wheeling rate.*

Speaker: Right before the more serious discussions of the Energy Policy Act got underway, Michigan convened a task force, bringing together all the players in the industry: the utilities, the large industrial customers, other consumer groups, etc., because we felt that transmission policy was going to play a key role in the development of the industry. It was

all going well until one of the utilities told the industrials, "You just don't understand the electric utility industry."

Why did he say that? We've had some experience with wholesale and even retail wheeling on a sort of "You scratch my back, I'll scratch yours", good ol' boy kind of basis, so we knew it was technically possible, but we realized that we didn't have very much empirical data about whether these changes in the industry were in the public interest or not, so we decided to propose this experiment to generate the necessary data. On page 51 of the order, the commission tried to identify some of the criteria that might be used in an evaluation of whether this arrangement served the public interest.

The idea of an experiment had come up before in rate cases -- it had been proposed as a DSM issue, it had been posed in our power supply cost recovery cases, and each time the commission had rejected it as part of those proceedings. But it prompted ELCON (Or ABATE, as it is called in Michigan) to come up with the proposal that the commission eventually accepted.

As you may know, it was the administrative law judge's position that the commission had no authority to mandate retail wheeling. The commission, however, argued that it is indisputably the responsibility of the state, and within the jurisdiction of a state commission, to deal with local retail distribution issues. The commission has complete authority through statutory interpretation and case law to set rates, terms, and conditions of bundled retail services. It wasn't difficult to then say that the commission has jurisdictional control over those services when they are unbundled, as well. The commission was not requiring utilities to do anything they currently do not do -- they didn't have to change any existing

transactions to retail transactions, they don't have to go build transmission facilities -- they don't have to do anything they haven't or cannot do with the existing system. All the commission required was that the utilities develop a transmission-only tariff -- a tariff being just another subunit of the basic function of setting rates, terms, and conditions.

The commission interpreted its plenary authority on this issue on Michigan Act 69, which gives the commission the authority to approve any utility that intends to produce transactions in the electricity industry. Coupled with the savings clause of the Energy Policy Act, section 212 (g), which requires the FERC to deal with all state laws, the commission argued that it had the appropriate authority to unbundle an existing tariff.

The Michigan utilities argued that the commission didn't have jurisdiction over unbundled transmission -- that it was preempted in transmission by the FERC, and that the FERC in turn had been prohibited by the Energy Policy Act from ordering retail wheeling - - we're still waiting for the end of the comment period, so we'll see what other issues come up. The commission's position was that the Congress explicitly reserved retail responsibility and jurisdiction to the state commissions, and it found nothing in state statute or case law that bore on the federal preemption argued by the utilities.

From there, the commission took up the question of what would be required of a third-party supplier. It required that any supplier must be subject to the state's Act 69, and have a certificate of public convenience and necessity. This is a statutory guideline -- even when the entity transacting business does not have any facilities in the state, delivering services within a utility's franchise is, in fact, transacting business for local distribution requirements. That entity must also obtain a franchise agreement from the local

municipalities. Again, this is an existing statutory requirement.

Right now, in Michigan, there are at least three efforts to municipalize in the works. As was mentioned earlier, these raise the same issues that retail wheeling would raise. Michigan is also faced with plant shutdowns and shifting production of major industrials. The commission wanted to be responsive, and make sure that utility customers had options, whether they made use of them or not. At the same time, it was not willing to sell the utility up the river. This is why the experiment was couched in terms of future expansion - it tried to create a "win-win" situation. It took the issue of stranded investment off the table for the utilities (and the captive customers), and it provided for growth and economic development in the state.

We in Michigan are moving very cautiously, but what we're looking to see at the end of this experiment is, just what is the impact? It may or may not turn out to make economic sense. It may or may not be in the public interest.

Massachusetts. Last fall, the Weld Administration announced the formation of the Electric Utility Market Reform Task Force -- a group of industry and government leaders formed to propose measures to streamline regulation and provide incentives for cost reduction and efficient utility operations. The Task Force has been considering a wide range of issues where Massachusetts can make a significant contribution to designing regulation more compatible with competition in electricity markets.

First Speaker: I am going to be talking about an unfinished product. I am aware that the mere fact of public discussion can propel an issue forward, and the Task Force has not yet committed itself to a specific course of investigation.

The Task Force formed out of a strong sense that something is wrong with electricity regulation in Massachusetts, and that, more broadly, electricity prices were "high", where "high" is not a well-defined term, but one which is connected with concerns about the state's economy. There is also substantial excess capacity in the region, which some people have been able to use to their advantage and others have not, contributing to the pressure to change the way we do things. Discounting on various grounds, most commonly in the form of economic development rates, is going on in most states in the region. The municipalization issue that was discussed earlier is before us in Massachusetts. And we have several other instances, such as the MBTA case now before the FERC, where the legislature made a retail customer into a wholesale customer, and what I'll call "border situations", which raise questions about customers and franchises. Finally, there are ongoing disagreements about the IRP methodology in Massachusetts -- some call it "rigid, time-consuming, and expensive", others say that it has achieved some significant goals, like bringing environmental externalities into the utility planning process, that we should not give up. This is the context of the discussions the Task Force has been having.

There is as yet no agreement among the members as to what the recommendations of the Task Force should be. There is general agreement that it would be worthwhile to continue to try and make the wholesale competitive markets in electricity in the Northeast more efficient, be it for its own sake, or because some people think most of the potential gains from competition could come about through wholesale competition. This is connected to retail issues in the sense that, if the wholesale principles are well-defined, you've made substantial progress toward getting the retail principles right. In what ways are these

principles different? That set of issues has not been resolved, but at least we have a way of allowing the discussion to move forward.

The attempt to get transmission principles right actually began about five years ago, and the RTG proposal seems to be moving again at the moment. This is recognized to be consistent with the broader goals of lowering costs and creating more efficient markets. Some of the principles that ought to be adopted in such a group aren't particularly problematic: preserving system reliability; usage pricing that is consistent with economic dispatch (this is present in the region now and shouldn't be lost); and regional consistency in energy policy. There has been discussion of unbundling transmission rates and services, but needless to say, transmission would remain a monopoly. We have talked about defining transmission capacity rights and ways of providing incentives for efficient expansion of the system.

Recovery of sunk costs and the treatment of social goals have been two areas where the nervousness of the various parties shows up most clearly. Theoretically, it is appealing to have these costs and any other fixed costs appear separately, so that how you recover them doesn't distort the price signals from the rest of the system. But many people are doubtful about the credibility of such pricing -- whether, once these charges are explicit, people will actually allow them to go into effect.

There are some other concerns as well, and other issues the Task Force has addressed, but right now I'd like to turn it over to my colleague for his comments.

Second Speaker: When Massachusetts prepared its state energy plan last year, it was

remarkable what unanimity existed among consumers of all sizes, independent generators, utilities, regulators, and advocates -- they all said, "The way we regulate electricity is broken. We need to fix it." The energy office, which prepared the Energy Plan, is supposed to ensure that the state's energy supply is safe, reliable, and adequate, as well as being least-cost and environmentally compatible. As we've wrestled with these issues here in Massachusetts, it has become clear that the threat of retail competition is causing a paralysis which endangers the reliability, safety, and adequacy of the state's electricity services.

The electric infrastructure of New England is ageing. 50% or more of generating capacity is over 25 years old. As we regain economic vigor, are the commitments that we need to be making to replace that capacity being made? If I were a utility right now, I'd want to be long on cash. When Florida Power and Light recently reduced their dividend, they were basically saying, "We're putting out too much of our earnings in dividends -- we need to retain more right now so we'll be able to deal with a competitive environment." As we go forward, we have to make sure that we address the fact that our infrastructure is fragile.

Discussion

The creation of a rational, efficient regulatory system will depend vitally on whose decision it is to make. Unlike Great Britain, we have many separate jurisdictions and much conflicting legislation and precedent controlling the outcome of this debate. On one hand, it can be argued that the Federal Power Act empowers the FERC to decide all transmission

pricing issues, although the FERC has never exercised this jurisdiction over retail transmission. The FERC has also asserted authority over retail transmission access in several cases in the past. On the flip side, the EPAct explicitly forbade the FERC from mandating retail wheeling. The Congress also added some mystical language about not interfering with the existing authority of the state -- whatever that means, it seems pretty clear that the FERC has nothing to say about transmission access at the retail level.

Turning from legal arguments, let's look at the policy questions. What happens if a utility goes to its state commission and says, "You don't have the authority to order retail wheeling -- we're going to seek a declaratory ruling from the FERC?" Implicit in this argument is an acceptance of FERC jurisdiction over transmission pricing at the retail level, which in essence means that the FERC has the authority to vertically dis-aggregate every utility in the U.S. Does a utility really want to make that argument? This is one of the policy implications of a challenge to a state retail wheeling order.

Another policy question is, how much uncertainty do we want to add to the system? Is it possible, with the degree of interconnection we enjoy in our electric system today, that we can maintain a stable transmission pricing regime at both the state and federal level? If the FERC has jurisdiction over retail transmission pricing, how do the states make planning and siting decisions?

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As I understand the speaker from Massachusetts, he wants investment in the state's electric system against the day when the state's economy revives, and he's worried that he won't get it with a competitive regime. Is that because an investor would consider **more**

reliable the social contract offered him by the regulator than the return offered him by a market?

(Speaker): Currently, the utility is serving as a gatekeeper. The customer only has access to power through the utility. Utilities today, threatened with retail competition, may be unwilling to make the necessary commitments to meet my consumers' needs. —: But this regulator, who now seems to be a less certain ally, is the one on whom you are relying for your return. You are dealing with a comparison, in other words, between potential sources of return -- not an absolute.

(Speaker): I don't want to be prescriptive as regards the outcome of the retail access question. I simply believe we have to resolve the issue one way or the other to overcome this paralysis I see in utility investment. The current surplus of power gives us an opportunity to address these issues, and try to define what we want the future landscape to look like, and if we eventually decide to give customers direct access, then I believe that suppliers will come forward who are willing to make those commitments. The question of environmental sustainability is another matter, of course.

—: This is a question to the whole panel. With respect to retail wheeling, what role do you see state legislatures playing? Do you believe you have the legal authority to act without any new legislation? If so, do you think it is politically feasible to act without positive legislative action?

(Speaker): The issue differs, state to state. If the vision laid out in the California proposal were to be implemented, it would certainly entail amendments to statute, and the legislature

would have to be persuaded that certain statutory mandates in the state had outlived their usefulness, or needed to be recapitulated. This was made very clear in the proposal.

(Speaker): The Michigan order deliberately attempted to couch the experiment within the existing statutory guidelines that are currently on the books. Nevertheless, if the commission goes too far, too fast, I believe that the legislature would respond. Moreover, commissions usually do not act in a political vacuum -- when the Michigan commission issued its order, the state legislature had already established a task force to take testimony from a number of people across the country about retail wheeling and what its impacts might be.

(Speaker): In Massachusetts, the legislature has actually been leading on retail access, in the sense that we've seen a number of bills introduced to allow particular customers access other than through the utility whose territory they're in. In one case, allowing the customer to purchase wholesale was a way of avoiding an additional budget allocation. This is different from retail wheeling -- it is driven by costs, tight governmental budgets, economic development pressures -- and I think the legislature would be much less interested in this issue if we had a booming state economy. But we don't, so they are. I think their involvement will continue to be in these specific cases, however, as opposed to setting general principles.

(Speaker): The most effective course of action would be for the legislature to engage in this debate regarding retail competition, because without it, there will continue to be political pressure to address these specific problems, and we will continue to deal with it through piecemeal deregulation. This to me means that we should be addressing the broader question, and relieve the pressure to keep addressing only parts of the problem.

How does any state contemplating retail wheeling hope to achieve both savings from retail wheeling and compensation to utilities for stranded investment?

If your goal in those states is to make the system more efficient -- to increase the size of the pie -- then there ought to be more to go around, and we should be able to find ways to make everybody better off. Now some people may have an expectation of lower rates that is inconsistent with the amount that the pie will increase. But if expectations are consistent with actual increases in the efficiency of the system, then in principle they can be compensated. The issue of how you credibly compensate is another question altogether.

The concern of the investment community is that, when push comes to shove, compensation will not be provided for investment that was deemed to be prudent in the past. When Florida Power and Light cut its dividend, this was a healthy company, with a forecast of growing earnings, saying, "There is so much volatility in this business right now that we can't afford to maintain our dividend." When utility stocks drop, the result will be a significant increase in the cost of capital, and higher prices to consumers.

—: There is an assumption in what you say that utilities should be held harmless from the effects of competition. But earlier we were talking about municipalization -- this could have the same effect, regardless of the decisions made in terms of retail wheeling.

(Speaker): The British pool has accomplished two things. The first is the de-mystifying of the cost of electricity -- anyone can pick up the Financial Times and see what electricity cost yesterday. This has allowed customers to make consumption decisions that are

extraordinarily useful, and also has (much overlooked) conservation consequences. The other tremendous accomplishment of the pool is that it has de-linked physical transactions with regard to the generation and consumption of electricity from what is in reality a set of financial arrangements that are beyond the interest of the government -- the arrangements that risk tolerant and risk averse people make with one another.

The pool also creates the capacity to heal breaches of contracts -- if an entity has bid into the pool and fails to deliver power, for whatever reason, the system automatically kicks in, brings the next highest increment on line, and resolves the economic consequences of the breach of contract. I understand that there are some disappointing dimensions of the British system, but the "uplift" seems to have provided a rug under which they can sweep all the unanticipated outcomes of the system, and you need that kind of thing. If you've ever visited my home, there are certain rooms that are definitely off limits.

_: I remember going to prudency hearings, and how difficult it is politically to put fixed charges on a customer's bill. Whether it was a big industrial customer or a small low-income household, the idea of an inescapable fixed charge of any size was politically a bombshell. It was hard enough with prudency hearings, but now commissioners are contemplating a process of "Let's figure out what's uneconomic and how we will charge it to you." Even in Michigan, certain customers will enjoy the opportunity to get power at marginal cost, and other folks won't. With the California proposal, some customers are going to get it now and others will have to wait. How are you going to do this politically? Will commissioners be able to make these structural changes?

(Speaker): That is a very thoughtful question, and I would put it in the context of what we've heard today. We've had a distinguished member of Congress saying, "Don't dare come back to us with this problem." The California legislature might make a decision to preempt the California commission from doing anything, or it could sit back and reserve some right to say, "Go ahead and formulate a proposal, but don't launch anything without our sanction.". So it will become proactive either at the beginning or at the end -- I anticipate that it will become proactive at the end.

Politically, I am also hopeful of the chances for change because no one I've met has told me that the existing system is going to be sustainable. That goes for investors who own stock in these companies as well as customers in all classes. I take heart that no one has had the guts to come to me and say, "If it ain't broke, don't fix it."

(Speaker): I agree -- no one is happy with the status quo, and that gives you a political edge. But it's also important to remember that the whole idea behind introducing competition is that the total costs to be dealt with will actually be smaller over some period -- that also helps.

I also agree that the perception of equity is important, and if we contemplate making these competitive changes we ought to be looking for a scheme that allows everyone to participate in the benefits. If you want to switch everyone from driving on the left side of the road to driving on the right side, and you do it by starting with the trucks, you're going to have some problems. If we can come up with a scheme that allows broader participation, say through aggregators or resellers, even if it doesn't happen overnight, there will be more of a feeling of equity, and it will be politically easier to sell. I haven't seen any clearly laid

out proposals on this yet, but we know from restructuring telephone rates that it can be done -- in some states it had a very high political profile, in some states it was easier.

The last element that will help us politically is a sense of inevitability. Even while we're debating systematic shifts in structure, other people are simply taking advantage of whatever opportunities they can find at the margin. When those cumulatively become substantial enough, you will find yourself over the crest on the roller coaster.

(Speaker): We are already moving down this road of retail competition, be it through retail wheeling or municipalization, and I believe that legislatures are going to say, "Wait a minute, I don't need this -- that's why we created a commission in the first place -- to be a buffer between these difficult technical and political decisions that we need to make to set policy on these issues." If we go too far, or too fast, or if there is no consensus that this is a decision the commissions should be making, there are plenty of intervenors out there with access to the legislature who can deal with minor fluctuations.

(Speaker): I agree that the commissions will be able to deal with these questions ably on a state level. Dealing with these issues regionally, however, is going to be a major challenge.

—: Don't you think it is possible that utilities, facing competition, will not only survive but will be successful, will emerge in effect stronger fiscally than before?

(Speaker): I not only believe that utilities can do that -- I believe that they have no choice. The managements of the three utilities in California are beginning to display very different personalities. As we move into this new world, it becomes apparent that they are not identical triplets. They should be allowed to develop different solutions for their future --

one size emphatically cannot fit all.

How are we going to resolve the issue of obligation to serve? Other models like the U.K. or Norway, said, "We're not going to do any more planning -- the market will bring supply and demand into balance, and when the price gets high enough, people will build things." That's their position now - if they ever have shortages that affect their economy, **I** suspect they'll change their minds. In Norway, they had too much capacity. They wanted to stop building new capacity, so they turned what had been a safe business into a risky business, and guess what? All new construction stopped. Are we prepared to accept this new paradigm? Let the market decide? If we do that but say, "There's still an obligation to serve", we're going to get the airline model -- tight competition and prices that clear below replacement costs. And **I** wonder whether that's going to lead to an incentive to build anything.

(Speaker): Obviously, if you go to competition, the definition of obligation to serve changes. **I'm** not familiar with Norway, but it sounds to me like they were bringing what is in reality a regulatory lever to bear under the guise of a market. **I** think the question of incentive to build remains open, and as you described it, it seems that the U.K. experience as it unfolds will offer us better information.

You have identified a tension, though -- when do you finally let go? When do you really "deregulate"? That's what your question really comes down to. **I** don't know when we'll get to the question of whether the obligation to serve is going to go away, or what it will look like. Whether it changes overnight in terms of how regulators view power

purchases, I don't know.

_: **In** listening to this discussion I am reminded of two events in the history of regulation in California. One was the introduction of marginal cost pricing during the 1970s, when California was a leader, took a very cautious approach, did experiments, implemented it gradually over time. The commission did a service to California ratepayers in terms of innovative rates, and to the rest of the country, which learned from California's experience. The second event was the Title II of PURPA, the OF experience, where California *didn't* take a cautious approach, but rushed forward quickly, aggressively, and it turned into a fiasco. In this case, Michigan seems to be taking the cautious approach, and the California proposal could be read, and perhaps misinterpreted as, "We're going to do this as fast as we can and really don't have to take time to learn about the effects of these actions." I don't think it's the report that gave me this impression -- the proposal is basically a set of very thoughtful and, I think, correct principles. There are very few details about how this might be implemented, but there is a schedule, and this may be the source of people's concern. Is the commission going to take the time to get it right, or is the schedule going to be binding?

(Speaker): The schedule is not actually part of the order, and the commission made it clear on the day the order was articulated that the idea that this could be done by August was preposterous. The commission issued an order 24 hours ago which makes it very clear that this is the case. If you're going to do something like this, how do you do it? One recommendation was to move forward aggressively, but I fear for the state's well-being if

you get it wrong. Will moving along a more deliberate path, which gives every interest time to organize, obstruct the development and exhaust the benefits of any significant reform? It remains to be seen.

—: Why wasn't there anything like the Michigan proposal in California's "Blue Book"?

(Speaker): The commission in California didn't see the Michigan proposal until April 12th, by which time the California proposal was already in place. Now that the Michigan proposal is out there, it provides a possible structure for something that is called for in the California proposal, which is, "If anyone out there has a better idea, we want to hear about it." Something akin to the Michigan proposal is emphatically among the potential outcomes in California.

Transmission Access and Regional Transmission Groups

What role will RTGs fill? Are they 'Reliability Council-Plus'? Do they enhance the likelihood of access and therefore promote competition? Do they assure coordination in the face of competition? Do they resolve any federal-state jurisdictional conflicts? What deference, if any, will state and federal regulators accord them? Do they help resolve pricing disputes?

Moderator: Regional Transmission Groups (RTGs) have been suggested as a possible vehicle for achieving a more systematic and smooth-running regime of transmission access. What value they have, and what functions they should serve, is the subject of debate, and their development is something that all of us are watching. The two regions which have moved the furthest in developing RTG proposals are the Western states and New England. The first three people on this panel will speak about these proposals. On a somewhat related subject, we will have a review of where the FERC is with its transmission pricing docket.

First Speaker: There has been significant progress in the West on RTGs, and there may be as many as four RTGs that will file by-laws with the FERC by the end of this month. I'd like to give you a little history of the state regulatory perspective in the west and how that supported the development of RTGs, a brief description of the four RTGs that are currently in the final stages of their by-law development, and then finally a few comments on the state regulatory commitment that is necessary to promote the RTG approach.

In the West, the RTGs really started ten years ago when we formed our Western Committee on Electric Power Cooperation, which has participants from the Western commissions, the governors' energy advisors, and the director of the state energy office or

equivalent activity in each of the Western states. When we formed that committee, one of the first things we did was establish a liaison with our reliability council, the Western Systems Coordinating Council (WSCC), and begin to question the industry about regional efficiency -- not just reliability issues, but issues of regional efficiency. Was the lowest cost generation being used to meet the region's needs? The early efforts of that committee and of the WSCC in the 80s used transmission studies to identify bottlenecks and to look at additional augmentation of the Western interconnected grid. Those studies were participated in exclusively by the transmission owning utilities. Another thing that pushed the effort forward for many of the Western states was that seven of them at least had the equivalent of the Energy Policy Act happen in 1989 with the Pacific Corp. merger order, so they had a couple of years' head start on most of the states.

In 1990 the WSCC became the first reliability council to open its membership to non-utility suppliers -- partially at the urging of state regulators. **In** 1991 the WSCC initiated an effort to involve outside stakeholders in transmission planning through the initiation of a regional policy planning committee. Part of that effort is an outreach group which involves regulators, environmental interests, consumer advocates and -- very important in the West - - the federal land management agencies, in an effort in identify transmission planning and siting problems up front.

In October of 1992, just prior to the passage of the Energy Act, we approved a resolution supporting the RTG approach and pledging to work constructively on the development of RTGs in the West. On the industry side, in the last two years, Idaho Power particularly wanted to look at a new transmission line diagonally across the West, and a lot

of people think that it is an economic proposition. In contrast to the efforts in the 1980s, like the inland inter-tie study which was done exclusively by transmission-owning utilities, this study had open participation, and twenty-nine different groups agreed to participate in the study, including transmission-dependent utilities and independent energy producers (IPPs). So it was clear that the industry was changing very rapidly in terms of how it was looking at the planning function for the future.

That effort led to some significant improvements in modelling of our Western transmission system, and those models and the database which includes the system lambdas of all of the Western utilities, transmission costs, and capacity constraints, now reside in the reliability council, and use of the database is open to basically all comers at this point.

This history of increasing cooperation and coordination has helped to contribute to the process of the development of RTGs in the region.

There are four groups: the Western Regional Transmission Association, or West-wide; WATSCO, the Western Association for Transmission System Coordination; SWRTA, the South West Regional Transmission Association; and the North West Regional Transmission Association, all of which are proceeding at a good pace to develop by-laws which they'll soon be submitting to the FERC.

I'll run very quickly through the similarities of all of these just to give you a background.

They all offer a broad open membership. Any entity that is subject to or can apply for a Section 211 order from the FERC can be a member.

Each of the RTGs is divided into three classes of membership: transmission-owning

utilities; transmission-dependent utilities; and non-utility suppliers. Each RTG requires a two-thirds vote of each of those classes in order to take major action. Each of the Western RTGs has a strong component of consultation and coordination with state regulatory authorities, and each one incorporates the idea of *ex officio* membership of state commission members on their boards and inclusion in their planning committees -- this arms' length relationship being the products of concern of state regulators that they not participate directly in the voting activities of the RTG on issues that may come back to their particular state.

Each of the Western RTGs has specific service obligations and terms and conditions. Each requires members to accept the obligation to meet transmission service requests from either existing facilities or by building new incremental facilities. Each of the RTGs has exit provisions, whereby a member can withdraw by giving notice, but each incorporates the principle that a member cannot escape from a transmission service request by withdrawing from the organization, that is, any outstanding service requests must be met and carried through even if the member decides to withdraw from the RTG.

Each incorporates a coordinated transmission planning approach. They provide for bottoms-up transmission planning rather than a top-down directed planning approach. Each has committed to working with the WSCC or reliability council to accomplish the planning effort without creating a wasteful duplication of organization and effort. On dispute resolution, each of the RTGs has a multi-step process that begins with mediation, and they each include an arbitration provision, although the SWRTA has

a provision that after mediation the parties can choose to go directly to the FERC rather than going to binding arbitration. Each also has an appeal process to the FERC on the arbitrator's decision. With some differences in what they requesting from the FERC in terms of deference to the arbitration decision, I think they all ask for consideration of the record developed by the arbitrator. There are some differences, however, in the actual conditions of appeal.

Those are the similarities of the groups. There are two other major issues. One is the "seams" issue: with four organizations developing in the West, one of which incorporates the entire interconnected grid and the other three of which are sub-regions, under which circumstances do you go to the West-wide group, and under what circumstances do you go to one of the sub-regional groups? There's general agreement in the by-laws that if the transmission request involves parties that are not all in one sub-regional group, that they would go to the West-wide organization, but there are some differences in the SWRTA by-laws in that SWRTA by-laws incorporate the principle that if another party wants to make a request in the SWRTA area they have to play by the SWRTA by-laws rather than the West-wide. That issue is still going to be subject to some continuing work.

The West is one interconnected grid and one reliability council, Texas is one interconnected grid and one reliability council, but the East is one interconnected grid and seven reliability councils. This issue of seams and what is the appropriate size of an RTG is one that's going to be quite critical in the East, and whether the existing boundaries of the existing reliability councils are the appropriate boundaries for RTGs is one I'm sure that

you're attempting to deal with. Whether some kind of market definition of the extent of the transmission groups is more appropriate than the reliability council boundaries is going to have to be worked out.

Are RTGs "reliability council-plus"? In my view, that is a good way to describe it, and one of the efforts that we have encouraged in the west is continuing work on integrating the reliability counsel and the RTG concept. Having two separate organizations doesn't make a lot of sense, as far as I'm concerned.

All of the by-laws of the Western RTGs have a provision that either prohibits retail wheeling or at least indicates that transmission service is not required unless it is requested by an entity which can go to the FERC for a 211 order. It will be interesting to see how that will be dealt with in terms of California's proposal on direct access.

Finally, all of the Western RTGs punt on pricing. They probably took their cue from the New England experience and said, "We're not going to get anywhere if we try and deal with pricing, so pricing will be as determined by the FERC." When the participants in the various Western RTG efforts sat down around the table and tried to take on the pricing issue, given the uncertainty still at the FERC about how it is going to treat pricing, no one was willing to give up anything when there was a chance they might get a better deal from the FERC. It may be that they'll return to that after the FERC puts a little more flesh on the pricing question.

In terms of regulatory commitment, I gave an indication of why in the West we have been promoting a course of action that will lead to cooperation on transmission planning. The Western Electricity Committee met two weeks ago and drafted a statement of support

for the RTG filings before the FERC. That statement is circulating among the eleven Western states now, and we don't take any action unless we get unanimous agreement, so we have to wait and see if that's going to come back positive. But the statement will include a commitment by the states to participate in the RTG process and to utilize the results of the RTG planning process in our state proceedings. No one has volunteered at this point the word "deference", but I think there's general agreement that this is a positive step.

This last meeting was also in conjunction with a workshop that the DOE funded, to deal with the issues of integrated resource planning and RTGs, and how the two can fit together, and we made some good progress in that regard. The resolution will also urge further consideration of integration or at least clearer coordination of the regional-subregional approaches. We have recognized that there are some issues that are better dealt with in a smaller backyard -- this is particularly felt by some of the smaller utilities and IPPs which are not national in scope. They like the idea of having a smaller area or group to deal with on transmission issues. On the other hand, the West is an interconnected grid, and there are a number of issues which are much better dealt with by a broad regional approach. We see the benefit in each of those, but we're urging the participants to further define how those two approaches can work in conjunction with each other and not result in inefficiencies in the market. Hopefully we'll have that statement from the Western commissions in the next week or two to forward to the FERC.

In closing, let me remind the group that NARUC also adopted a resolution supporting RTGs and recommending that the individual states participate and encourage the RTG process in their region -- hopefully that has gotten the attention of state regulators

and there will be additional participation in other regions of the country. In order for RTGs to happen, it is essential that state regulators participate in the process actively and support the advance of the process. We had some considerable discussions in the NARUC Electricity Committee about the benefits of being able to work out regional solutions and not having to go to Washington for each and every transmission access decision.

Second Speaker: Commissioner Massey has made it clear to us at least that the FERC will not hesitate to use its authority to order transmission access, and that gives us a lot of motivation to try to help make these RTGs work. We've been working on WATSCO now for about a couple of years, and it has taken a more detailed contract approach, where the parties have tried to deal with issues at really at a very detailed level. This can be contrasted with the West-wide proposal, which has taken more of a constitutional approach and is a little more general in nature. Each approach has its advantages.

Both RTGs are structured so that each state can play a collaborative or *ex officio* role on a non-voting basis, and their participation is essential. It will increase the information available to transmission planners, and commissions will be able to assist in developing a consensus regarding needed transmission additions. None of these regional groups will impair a state commission's current authority. On the contrary, the states are offered a stake in effective regional planning and open access transmission.

What about increasing the burden on the electric industry? The ultimate answer to that question will turn on the extent of state participation in the process and the FERC's willingness to give deference to RTG decisions. As we have struggled through with a lot

of the detail issues at WATSCO, it has left me with the belief that strong leadership is going to be needed from the FERC, particularly on dispute resolution. When you get into issues that simply can't be resolved, it's easy to say, "Well we'll just take it to the FERC and they will resolve it." But the intent of the FERC is to create a forum for those issues to be resolved at the regional level, and they're going to have to push issues back to that forum if in fact we're going to be able to cut down on the number of issues that are brought to the FERC.

WATSCO has a much more clearly defined transmission request and response process and a dispute resolution process than does SWRTA. There was tremendous debate on the issue of dispute resolution, and whether or not issues should go back to FERC. I think of WATSCO as a horse that will run if it gets enough members to join, and assuming the FERC approves this model. SWRTA or West-wide is a horse that will get on a track, but will it run given that a lot of the details haven't yet been worked out?

Another debate was on ownership. Particularly in WATSCO, the municipal participants want to own what they pay for. The IOUs, on the other hand, have been concerned about ownership of additional facilities within networks where the transfer capability isn't easily determined. As a compromise, we developed the concept of ownership-like rights for facilities financed through contributions and aided construction. For transmission service between points of receipt and delivery requiring upgrades in the network, the transmission provider assures the requester that a specified amount of transmission service will be maintained for the life of the facilities that are paid for by the requester. The requester would then receive rights equal to ownership while the provider

retains actual ownership and the ability to make unilateral modifications to the facilities. In regards to intertie facilities, the parties reached agreement that a requester has the right to own these new facilities that have clearly identifiable transfer ratings, if the requester pays the cost of the incremental facilities. In the case of WATSCO, however, the provider has the obligation to build such intertie facilities if it has plurality interest in the ownership of the lines.

It seems to me that federal policy makers will insist that the wholesale transmission grid be made available to the market on an open access basis. All of the FERC commissioners at one time or another have encouraged the development of regional transmission groups to solve some of these thorny issues of open access. We are looking forward to moving the ball forward, and I believe that by the end of this month we will have filings made at the FERC.

Third Speaker: With 90-plus electric industry entities and six states, in a region that has less load than New York and considerably less load than California, it shouldn't surprise you that necessity really was the mother of invention in the creation of the New England Power Pool back in 1971. There was no way that we could operate an intertwined network without it. We operate as a single dispatch for all of New England, and we share the benefits as well as the reserve sharing that comes from rules that we have set up to share the benefits of that pool.

From day one, we were never able to get the kind of agreement on transmission that we were able to get in the area of sharing the obligations and benefits of energy and

capacity, because of the difficulties of identifying who has rights to use transmission, and who has priority if there is congestion. Currently there are certain services that are provided by NEPool that relate to transmission, and other services that are provided by individual utilities which are almost all by tariff. A combination of tariffs, voluntary arrangements, and NEPool services has produced a very effective means of providing transmission services up to this point in New England. So what more is needed?

Back in 1989, we tried to make some changes in the NEPool transmission arrangements which would assure an even more open and transparent use of the system, making greater wholesale competition possible. That led to the attempt to develop a regional transmission agreement in the context of the Northeast Utilities-Public Service New Hampshire merger, and the approach was to have a single tariff for all New England. Grandfathering became an issue because of this question of, "Who has what rights *already*?", and pretty soon certain things are grandfathered and other things would only take place for new services that would begin, who knows, maybe five years hence. Finally it fell apart, due to a number of things that occurred in the same time frame. First were some FERC orders on the NU-PSNH merger, second was the Energy Policy Act, and third and very significantly, neither of these dealt with what was clearly an emerging issue and the big eight hundred pound gorilla -- the stranded investment issue. So the proposal died.

I am hopeful that this time the FERC has in fact created the opportunity to really have a regional transmission group, and we will be able to create a regional transmission proposal that is adopted for all New England, consistent with the seven principles that the FERC has enumerated. The basic strategy this time differs from the last strategy that failed,

but it also differs from the strategy being followed in the west, where they said, "Forget pricing -- look what happened in New England, it fell apart." There are two ways to go at this. You can either not deal with pricing, or you can embrace it and say, "The way you get a solution is by dealing with all the critical issues together in such a way that the parties know that when they're conceding something they're getting something in return".

There are two major thorny issues that we've been discussing in this group, and in fact one of the HEPG's snowstorm meetings down in Washington brought together these two issues -- RTGs and stranded investment. What we have done in this proposal is to say, "There's a basic quid pro quo -- the transmission-owning utilities will create a more open transmission access network and pricing that creates benefits that go beyond what could be mandated in a FERC 211 order, and in return, if there are stranded investment issues, they will be explicitly dealt with." That's one of the biggest problems I see as we all take on this issue of stranded investment -- nobody's quite sure how to look at the whole puzzle in a way that moves the ball forward toward increasing competition while dealing with the stranded investment issue.

That's the basic strategy of this proposal in New England, and from the comments we have received back from some of the parties who would be involved, I'm hopeful it's not a bad starting point. We've had comments that say, "It's too open and the price is too low", and comments that say, "The price is too high -- we've got to have one tariff and no pancaking at all". So those parties may in fact come together, and I think that the strategy of trying to deal explicitly with the stranded investment issue means that this time we'll be successful.

We've also got the FERC making it very clear that this is what they want, and oh, by the way, this is what they want, and oh, by the way, if you haven't got the message, this is what they want. The New England Conference of Public Utilities Commissioners has also gotten together and begun to develop its own set of principles as to what it would like to see accomplished. So if we've got the six states saying they want it and the FERC wants it and the utilities have a vehicle for dealing with all the issues together, we may be successful.

Let me quickly run down some of the aspects of the proposal. Starting off, the group is separate from NEPool, because at least for the moment the governance of NEPool is based on specific agreements which are different than the nature of the agreements that would obtain in a regional transmission organization. But I believe that NEPool will have to evolve as well, and perhaps at some point the two may come together, but at least at this point we are thinking of them as going down parallel tracks -- NEPool evolving so as to make itself a more viable entity in an increasingly competitive market, and the RTG dealing with transmission access issues.

Governance in this proposal is very similar to the western RTG proposals, with three different groups: the Haves, the Have-Nots, and Other.

In terms of coordinated information gathering and planning, the proposal is to pick up what's being done already by NEPool for the Northeast as part of the Northeast Power Coordinating Council. The product is a tri-annual planning document that looks out into the future to look at the adequacy of resources. We would suggest that function would be picked up by the RTG, perhaps contracting for the services from NEPool, and creating one-stop information shopping -- something equivalent to a bulletin board, but available to

anyone who wants to get across New England through multiple tariffs. It would list what the tariffs are, so that you wouldn't have to go to every company.

With regard to state input, it's absolutely critical that this effort go forward as we all come up the learning curve together. The FERC has made it clear that they want the state commissions to be on board, not just at the end, but to have been deeply involved throughout the process, and that's something we're seeking to do.

There are two types of obligation to serve. There is an obligation of all participants who own transmission to actually have filed tariffs for firm and nonfirm uses of transmission. An interesting negotiation is, what provisions must be in the tariff? The Have-Nots will clearly focus on the anti-pancaking provisions, and I would expect the Haves to focus more on the charge that's built in there. I'm hoping that we can come to some agreement on these with the additional piece of the access charge for departing say a load. The other obligation is to build. This had been negotiated in the earlier Regional Transmission Agreement -- something called Pool Designated Transmission Facilities.

In summary, we believe that this does meet the FERC RTG guidelines. It will deeply involve states. We think it will in fact create a very open transmission system, but deal with all the tough issues all at once. Can it work? I don't know. We're committed to doing everything we can to try to make it work. And I think the forces are coming together which give it some hope at this time.

Discussion

_: If we accept the premise that, to make competition work, we need to separate the grid functions and have a pricing system that prices both generation and transmission, is it possible that creating RTGs would actually create new institutional barriers that would prevent this from happening?

_: This pricing structure -- postage stamp rates, embedded incremental costs of upgrade, and so forth -- has a lot of appeal, because it isn't dramatically different from what we've done in the past. It has the disadvantage of having nothing to do with the underlying economics of transmission. If you create a system which is significantly different from the underlying economics, will people find ways to game the system and do things which are inconsistent with the underlying economics and shift costs from themselves to somebody else? My guess is, yes, they will.

It's not the RTG or the pool that you should worry about so much as the possibility that you may be creating an institution that people will be able to exploit in this way. It's an empirical question whether that exploitation turns out to be a big deal or a little deal -- in situations where the system is seldom congested, this proposal will be a little deal. When the system starts to get congested and it is hard to build new transmission, it will turn out to be a big deal.

How comfortable are you with the fact that the state commissions are *ex officio*? How much confidence do you have that they will sign off on the RTG's decisions?

(Speaker): The original by-laws of the West-wide organization included commissioners as

voting members, but state regulators were concerned about potential conflicts -- they would still have responsibility to their individual states, and participation as a voting member in the RTG might cause some problems down the line. There is, however, a very serious commitment among the Western regulators to make this thing work. One of the biggest problems is participation -- how do state regulators find the time and especially the money to get to these meetings?

_: New England has been looking for an alternative approach to simply an ex officio membership, but we haven't gotten that far with our decision-making framework.

_: One of the things that bothers me is that we've opened membership up to IPPs, but there are still actors that are currently excluded, be they industrial customers, environmentalists, etc. Getting these groups heard is an issue we're beginning to focus on. How did you in the West deal with these groups which are not players at the wholesale level, but with which state regulators must deal?

(Speaker): This hasn't been entirely resolved, but we've made some progress. The WSCC has formed a regional policy planning committee, which includes the various stakeholder groups -- the environmental community, consumer advocates, the federal land agencies (which are very important in the West in terms of transmission siting) -- in an effort to incorporate their input into the transmission planning process. Unlike the reliability council, where the input from these groups takes place as part of an outreach group of a committee of the council, commission membership in the RTGs is direct. We'll have to see as we move forward if that relationship provides for sufficient participation in the planning

process.

I want to ask about an implicit assumption that I expect may be included in the RTG model. Let me offer two extreme versions of what planning for expansion of the transmission system could mean.

The first is the traditional planning mode, where people do a careful analysis of what they think might be needed, they build the facility, and then they establish a tariff. Because of this careful planning, we know we've done the right thing, and people are supposed to use it and pay for it.

The other model would define property rights in the transmission grid, separating ownership and usage, and the planning process is a process of negotiating with people who want to purchase these property rights. Fundamentally, the decision about what gets built is the decision of the person who is going to pay the money -- when it is done, they pay for it and they get what they paid for. This is the proposal now in operation at Transpower in New Zealand. No third party decides to build it and establish it as a tariff, and if you use it you pay for it. You have to commit yourself up front.

These are two different models, and I'm not sure which one we're heading toward with RTGs. It sounds more like the traditional way, where we may occasionally get some input from the people who are going to be using it, but there's no signing on the dotted line agreeing to pay for it, and in return getting a property right that they could use or trade. What is the assumption in the RTG models that are evolving?

(Speaker): The days when a single utility is going to go out and build a transmission line

all by itself and then charge a tariff are gone. The project that Idaho Power initiated, the Southwest Intertie Project, had 29 participants sign up, and I expect that whoever shows up with their money will be the owners. The critical questions are what the pricing treatment will be for those owners, and what it will be for non-owners who show up later and want access.

(Speaker): In New England, I don't think anyone is thinking about building new transmission, so I think we'll be leaning more toward the first model. Congestion is not a critical issue, and it's very difficult to define property rights on a line that was built some time ago. The problem for New England is on lines that already exist where there are interface limits that are less than the sum of the capabilities of the individual lines, and who gets what and under what circumstances. We've never solved that one, and it is why there has never been a NEPool agreement on transmission.

(Speaker): We've had enough trouble dealing with ownership-like rights at the transmission boundary, much less for the whole transmission system. As a theoretical construct, it is worth thinking about, but we would have to make sure, if you go to a system that postulates that transmission won't get built until a point that the market determines, that we wouldn't run into reliability problems. The time required to site and build new transmission is getting longer every day.

Review of FERC transmission pricing technical conference:

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Review of FERC transmission pricing technical conference:

The commission started off this inquiry by asking some fundamental questions. Is some sort of reform of transmission pricing appropriate in order to support the competitive

power markets that we all see around the country? If so, what would an appropriate form of pricing look like, and how would we get there from where we are today?

Where we are today is basically a rolled-in, embedded-cost, postage-stamp-styled rate, based upon the industry's business practices using contract paths to schedule power movements. That postage stamp method has been modified in our so-called "NU" pricing model which is to take into account the incremental cost of expansion when that's appropriate and the third party needs new facilities built, and also opportunity cost pricing when there's some constraint on the system where the appropriate way to relieve the constraint is not to build but to do some sort of operational change and the operational change creates these opportunity costs.

We have combined those ideas in our so-called "or" pricing policy. That is, a utility can recover either the embedded cost of providing the service *or* the incremental expansion cost, but not the sum of the two. I think it's fair to say that, as far as we can tell, everybody hates "or" pricing. That means either one of two things. Either we got it about right, or possibly there's room for improvement.

There were three major questions that we identified for firm service pricing reform: parallel path pricing, or how to deal with loop flow; should pricing be sensitive to distance?; and incremental cost pricing (sometimes called contract pricing) -- how far should the commission press with incremental cost type pricing?

The issues we raised for non-firm service were, what kind of capital cost recovery would be appropriate in a non-firm transmission rate, and a whole plethora of issues that crop up when we get into spot transmission pricing. So those are basically the reform issues.

There are all kinds of themes and cross-themes that emerged in the comments that we received.

In incremental pricing, assuming that you want incremental pricing at all, and that you want to move away from embedded cost pricing, do you try to implement that through some sort of customer-specific type of incremental cost (which is more or less what the commission has started to do already with our incremental cost pricing policy as it stands). How far do you press that? Or do you take some sort of group average way of doing marginal cost pricing, perhaps as advocated by Duke Power and others, or some sort of replacement cost pricing?

Another theme or contrast is, how do you approach the whole loop flow issue? Do you try to do it the way that the west tries to do it, with what Steve Walton calls their "enhanced contract path" approach, where they have a line-rating methodology that tries to deal with the loop flow issue before the new transmission investment is actually made, and tries to sort out what incremental capacity rights are created up front? Or do you do it with some sort of flow-based pricing, or parallel path pricing which tries to address the loop flow issue after the fact -- after the investment has been made. When that happens, we compensate all of the parallel path owners using some sort of flow-based approach.

We had a whole series of comments on spot transmission pricing, and how to collect marginal line losses plus some version of congestion costs. Do you have to address short term trading, power trading arrangements if you're going to try to incorporate a spot pricing scheme?

Those being the issues, I have been charged with summarizing what amounts to about

7,000 pages of comment plus 12 hours of technical conference. At first I declined but then I thought, well why not? There's a sportscaster in my local area, Warner Wolf, who, when he shows a highlight film, says, "Let's go to the videotape." That's what I've been assigned to do here -- produce a highlights film of the comments. So let's go to the videotape.

Only somebody who comes from academia would think to produce a chart this complicated.² Along this dimension I have physical details -- how detailed a look are you going to take at the grid? As you move from left to right, you're taking a more and more disaggregated view of the grid, you're breaking it into smaller and smaller pieces -- this is sort of a "precision" dimension of the comments that we received. You can think of that precision dimension as pertaining, not only to the physical assets, but also to questions like, "How are you going to deal with the congestion?" Going from left to right, you deal with congestion either a very aggregated way or a very disaggregated way.

On the vertical axis is, "How are you going to think about managing and expanding the grid?" Is it going to be a collective decision-making approach, or is it going to be a customer-driven approach, where individual customers decide how much transmission capacity they want and they pay for it and when they pay for it they get something in return, like capacity rights. When you move up this way, you get into capacity rights and ability to trade those capacity rights and so on. This is the "Accountability" dimension. Who's going to be accountable for the grid?

Today, we're at the corporation-wide level on the physical detail axis and we're somewhere in the middle on accountability. Certainly our incremental cost pricing approach

² Refer to transmission policy summary chart in conference materials

moves us towards individual accountability, but on the other hand, we can't define capacity rights and expansion is a collective exercise for the most part.

I'll roughly characterize four different suggestions as to which direction we should go in. We've received comments from the transmission-owning utilities which I would characterize as either "Stay where you are", or "You've got to go to some sort of regional approach", which actually moves toward a more collective type approach -- a regional postage stamp instead of a corporate postage stamp.

Some of the Western investor-owned utilities are saying, "Let's try to move toward individual accountability and capacity rights, at least for incremental expansion."

The Eastern IOUs -- what I call the ITCF approach -- is one which says, "Let's keep it on a corporate postage stamp method, but move towards flow-based pricing." Flow-based pricing is a collective type of approach, where all of the parallel path owners get together and they decide to divide up the transmission charge in fixed proportions according to how the power flows. That's very much a collective way of thinking about the pricing. Generally all of the utilities in the East seem to favor flow based pricing, more or less on the grounds that we can't figure out the capacity rights.

And I would characterize the Hogan and PHB models as saying we ought to have capacity rights and deal with it on a bus by bus basis.

After I did the chart, I kind of liked it, because it shows that we received comments recommending that we reform the system basically every possible way that you could go. There's certainly no consensus on what to do about "and/or". There's no consensus on how to deal with loop flow, do we do it with flow based versus the contract basis? There's no

consensus on that. As far as I can tell, if the Western utilities decided to approach that question one way and the eastern utilities decided to do it another way, as long as it was consistent with the business practices in each of those regions, I think the commission would say that's perfectly ok.

I got a heightened sense that the commission's "or" policy may be a bit more incompatible with state siting laws than I had previously appreciated. We had several state regulators who said that state siting laws require a showing of a benefit for building a transmission line, and you could interpret the commission's "or" pricing policy as being one where there's no harm, but there's also no benefit - for the most part the transmission utility is pretty much held indifferent. There's something of a tension there between a state law that says you've got to have a benefit and a federal policy that says it should be neutral.

Chair Moler asked two panels, "Do you need guidance from the commission?", and right down the line, every single presenter said, "Yes we do." That was a pretty strong message to the commission that some sort of guidance by the commission would be appropriate. What that might be, I have no idea. We certainly were hopeful that regional transmission groups, if formed, could deal with pricing, but I think one of the lessons of the inquiry is they probably cannot deal with pricing without some sort of guidance from the commission, and I think that was heard and understood.

Regulatory Decision-making Reform

The increasingly competitive nature of the electricity business will place added burdens on regulatory agencies for timely and coherent decisionmaking. How will those agencies respond? Are their decisionmaking processes too rigid to allow for meaningful policy formulation? Is the judicialized decisionmaking model too burdensome and litigious to be timely? Do ex parte and "sunshine" requirements impede effective policymaking? Are there alternative models that can ensure fairness? How do we design regulatory processes that will not be abused by competitors? A recently released proposal by the California Public Utilities Commission proposes reforms to the state's regulatory process that shift away from traditional ratemaking toward a performance-based regulatory approach.

Moderator: A topic we have been exploring in some depth, and not coincidentally one which once again involves the states of California and Michigan, is the subject of reform of the method and process of regulatory decision-making.

Is the judicial model applied too vigorously to some regulatory proceedings? Which functions of a commission are quasi-legislative, and when should sunshine laws and *ex parte* rules apply? These questions were the subject of a special seminar the HEPG held in April in San Francisco.

Speaker: I'd like to talk to you about the quality of decision-making. It's clear from the discussion today that our society, be it the state of Michigan, Illinois, or the federal government, has an interest in getting it right. In California, if we get it right, it will be in spite of, not because of, the procedures under which we operate. There are four points I'd like to make briefly, and then I'll open it up to other people's thoughts.

- What is the appropriate interaction among commissioners? Commissioners in California serve on a five-person committee, and each is only allowed to meet with

one other member of that committee at a time.

- What restraints or restrictions should be attached to the concept that people who are affected directly by a commissioner's decisions should be able to talk to him or her? These are called ex pane contacts.
- What are the long-term implications of a process, the center of which is a trial-type hearing?
- What is added and subtracted from a system by subjecting it to extensive and easily accessible judicial review?

Today, all four of the issues above are under assault. There is a movement in the legislature to further limit conversations between commissioners, countered by a movement to gain an exception for the commission from the so-called "Sunshine" rule. There is a question whether sunshine rules are sufficient to cover ex parte contacts, or whether there ought to be an outright prohibition rule. The commission has developed alternatives to trial-type hearings which place the emphasis on cooperation rather than confrontation. This matter is being opposed, particularly by individuals who appear before the commission as consumer representatives. There is currently a movement in the legislature to subject commission decisions to a state court of appeal -- a change that would rework and redefine many more commission decisions.

The thesis of remarks by a professor of law at the HEPG seminar in April was that there is an advantage to society in public decisions which are made by a committee rather than a single individual, if you have a variety of backgrounds and outlooks in the group.

When you have such a group making decisions, everything will depend on what he called the "Three C's": Candid, Continuous, Communication.

He went on to say that this can only exist if there is a fourth "C": Confidentiality. In the state government, the legislature sits in public session, but no one denies the fact that the caucuses of the two political parties meet every Monday, and it is then that the majority party decides its agenda. Not only is that a meeting to which the public is not invited, but 18 members of the Senate also don't get to go. When we try cases in court, the evidence is presented in public, the jury announces its findings in public, but we would consider it lunacy if the jury were to deliberate in public.

What is it that animates courts and legislatures to act in this fashion? It is the necessity that these individuals who are charged with making decisions inform themselves in circumstances that are conducive to the acquisition of information: that are spontaneous, not contrived; that can arise as occasion requires and not with 10 days' notice; that have the capacity for the exchange of views where no one is expected to decide anything and no one has to declare his or her opinion. It is absurd to create a group and then prevent the group from ever sitting until it has made a decision, but that is the way that the California commission must operate, and the price the public pays for accountability is very high.

No one thinks it strange that the staff of commissioners meet continuously, while the commissioners themselves cannot. No one thinks it strange that utilities and consumer advocates are forced to conduct 5 separate briefings of the commissioners. We have all played the game where Bob whispers to Ron who whispers to Steve who finally repeats the message out loud, and everyone is amused at how the story has altered in the transmission

-- but it's a hell of a thing to make \$65 billion a year worth of decisions at the end of that kind of process.

We should ask ourselves -- what is the public getting out of a process which significantly cripples the ability of the commission to evolve policy? Suspicion and distrust are two of the most corrosive forces in human interaction. It shatters marriages, it destroys families, it can rend asunder the most powerful institutions -- and yet we live in a world where there is an assumption that, when a vacancy occurs on a commission, the first thing the governor does is go out and find the most base creature in the state, who is then mindlessly confirmed by the Senate, and we spend the rest of our time trying to make damn sure that we contain the damage that this odious creature will do.

I ask you to turn over in your minds the question -- have we indulged in a little overkill? I believe that someone who is affected by the decisions of the commission ought to be able, in his own words, to state his case. I believe that the substance of this conversation ought to be made known. I believe that any documents or other information should be available to others. But I also believe that fifteen parties who are giving their opinion about how things might possibly work in the future should not be forced to do so under oath. There is a place for trials and for trial-type hearings, but there is also a need to frame long-term policy, so that the commission is not always devising solutions to problems which the industry has long since gone by.

Finally, with regard to judicial review -- only three times in the past three years has the Supreme Court of California taken a case from the commission, and it has affirmed the commission in all three cases. The Court has pretty well decided that the policies adopted

by the commission should not be second-guessed by the courts. If the commission abides by the rules of due process and fundamental fairness, there is no great occasion for more judicial presence in these matters.

So as you interact with bodies like the California Public Utilities Commission, I ask that you be critical of the quality of the decision-making. If you find fault with it, look at the circumstances under which the parties are asked to function, and consider. Do they optimize whatever it was that individual might have had to offer, or do they frustrate and nullify whatever might have been accomplished?

Moderator: Thank you. One state that has been able to obtain some relief from the circumstances just described is Michigan, and we will have several brief comments on the application of sunshine laws in that state.

Speaker: Since 1988, the Michigan commission has had exemptions from both the Open Meetings Act and the state's Administrative Procedures Act as regards the ability of the commissioners to meet and inform themselves.

The exemption from the Open Meetings Act allows the three commissioners to go into a room, close the door, and discuss things with each other. We're in the process of downsizing the state government in Michigan, and the commissioners were under a great deal of pressure to reduce the commission's backlog. This helped obtain the exemption, and it has resulted in just what was mentioned previously: Candid, continuous communications, to which I would add, "Collegial". We started with a group of commissioners that was about

as diverse as you could get: a black from the inner city of Detroit; a Jewish lawyer from New York; and a British economist. But the ability to interact gives these very different people the chance to evaluate the views of the others. The commission can bring in particular staff members, even if they were witnesses in a case, to get technical advice and understand arguments that have been made.

With the ability to talk to each other, several other things happen. Parties to the case which had historically been going to the staff to make agreements no longer could assume that those agreements would be accepted by the commission. It allows for case management -- for the first time since the inception of the commission, there is no backlog.

The commission has tried to handle *ex parte* communication through disclosure. Someone is always going to write a letter to the commission advocating one outcome or another, and they should be able to. Any communication is immediately sent out to all parties in a case, so that they know what the commission has been exposed to and they can take any action they deem necessary.

I wholeheartedly recommend that all states adopt these practices, because the issues that commissions are asked to decide are only going to get more, not less, complex.

Friday, May 13

Stranded Assets: Who Pays?

The stranded asset issue remains the most challenging complication in designing alternative transitions to a more competitive electricity market. There is widespread recognition that, in many regions of the country, the magnitude of the potential stranded assets exposure is enough to preclude any simple treatment without consideration of the effects on the entire process of reform. Strategies for addressing the stranded asset issue include rate unbundling, restructuring, transition periods, cost reallocations, and more. This session examined the ideas behind recent or nascent proposals for action or inaction in treatment of stranded assets and movement to open access in support of a competitive electricity market.

First Speaker: It is always a pleasure to address a rally of threatened vested interests. We have here utility executives who fear that their careers, like their assets, may become stranded; regulators who see that their power and importance will be diminished by increased reliance on competition; environmentalists who worry that the costs they've been imposing on society will now become visible; consumer representatives who fear that residential customers may have to pay the real costs of the electricity they use; and independent power producers who fear that the trough from which they have been feeding may run dry.

Now the reasons a group such as this makes a good audience is obvious, their nerves area quiver, stomachs are churning, big money is at stake. An attentive audience is assured when it consists of threatened interests. And this talk, besides having been assured of a good audience, has the added attraction of providing an opportunity to undermine a huge structure of fictions that has been erected by the regulatory process over the years:

- A deferred cost becomes something called a regulatory asset. I've never understood that language.

- A refusal to allow recovery of a cost becomes an allowance for funds used during construction. This is an IOU from somebody who refuses to be bound by his IOUs. Investments in facilities that people say are needed become imprudent, and hence become liabilities.
- Forced purchases at prices that equal a multiple of marginal cost are called competition.
- Socially desirable environmental costs are concealed, lest society discover them and refuse to pay them.
- Nuclear investments which are incurred with the hope, forlorn as it turns out, of benefitting customers by lowering rates become albatrosses around the necks of investors who would not have benefitted from them if they had succeeded.

It's a strange world that we have been living in, and all of this nonsense is made possible by the tacit cooperation of regulators and monopoly utilities operating in hermetically sealed markets.

Well, the seal's been cracked -- it's been cracked by technology, by economics, by forward-looking regulators, and by utility executives who know the end of a game when they see one. Competition is pouring in, and it cares not what artificial values regulators and utilities assign to assets. Competition destroys and creates values, it's not designed to preserve the status quo. Yet, with the possible exception of President Fessler and a few others, the debate about stranded assets has been a debate about how to preserve the status quo. A status quo gussied up a bit, given a little bit of cosmetic surgery to make it look a

little younger and more modern, but a status quo nevertheless.

Utilities would persuade us that their stranded commitments were acquired pursuant to a social compact that they entered into with regulators in whom they had great faith. But remember all the ex post prudence hearings you've been to, in which commissions refused to allow recovery of costs that they had in some instances virtually ordered be incurred? Remember the meetings you've been at, the cocktail parties you've been at, at which the unreliability of regulators was the common currency of conversation? I've been with utility people denouncing regulators as kind of untrustworthy sorts, who refuse to be bound by their own past decisions, much less by those of their predecessors -- this is not strange in a profession in which Huey Long got his political start and to which Bull Connor repaired after raising the training of dogs and the use of high pressure hoses to a new level of visibility. So the idea that utilities were operating pursuant to some social compact, at least since the 1970s, seems to me to be nonsense. Nobody trusted regulators then, present company excepted, and I don't think they can rely on that as an argument now.

Consider too, in this desire to maintain the status quo, or this desire to pass off stranded assets, the tenacity with which environmentalists cling to the existing regulatory system, because only that system can conceal from the ratepayer the costs that environmentalists have imposed on them. The notion of letting the sun shine in to make environmental costs visible, and of letting it illuminate demand-side management programs, is abhorrent to the green machine.

Consider finally the nervousness of those swashbuckling entrepreneurial competitors -- independent power producers. Suddenly, real markets are rearing their threatening heads,

revealing the exploitative level of the prices these firms have been able to impose on customers by manipulating the regulatory and legislative processes.

Now I have great sympathy and admiration for the accomplishments of all of these players, as I stand back and look at what's happened in regulation over the years. The electric utilities have, after all, provided the country with a cheap, reliable supply of electrical energy come hell or low water, through oil crises and nuclear disallowances and so on. And they did, indeed, assume an obligation to serve all comers, even when their financial circumstances made that extraordinarily difficult to do.

The environmentalists made an enormous contribution to economic reality, both by forcing the internalization of the external costs of producing electricity and by weighing in on the side of those of us who were pressing for rational economic pricing of electricity, rather than the use of embedded cost pricing.

And finally, independent entrants into the generation business were essentially the lever that opened that market to competition, and laid a foundation on which many of us are trying to build.

It's important to recognize both the attraction of the status quo to these players, and to recognize their past contributions to progress. We have to do that in order to avoid devising a policy towards stranded assets that is vindictive. We are not here to settle scores. There is praise enough and blame enough to go around.

With that said, it remains the case that history is not irrelevant, because no solution of the stranded assets problem is possible if it offends most people's sense of equity. Once, when faced with this problem, I said that the question of who bears the cost of stranded

assets is merely about distributive justice -- to which somebody replied "That's all the French Revolution was about".

Partly for that reason, partly because Bill Hogan is always pushing me to take a step beyond economic analysis into the world of political economy, to abandon logic in favor of practical solutions, and because Paul Joskow is quite correctly urging all of us to seek efficient competitive solutions to the problem we face, let me make a few very tentative suggestions on both the equity and efficiency fronts.

Let's begin our hunt for equity by using the helpful road map that Theresa Flaim set forth in her April 7th paper. Dr. Flaim divides what she calls "potentially standard commitments" into four broad categories: stranded assets, which are basically generating plants; stranded liabilities, which are basically purchase contracts; regulatory assets, which are deferred expenses; and stranded social programs, which are environmentalism, etc.

Is it reasonable to argue that investments made in generating plants, after the first round of prudence hearings, were made in full knowledge that the regulatory compact was frayed if not tattered? In short, those investments were undertaken by managers who should have known better than to commit more capital to the industry. So let's put the cost of writing them off in the shareholder's column. So much for "stranded assets".

Stranded liabilities are another matter. These contracts generally contain prices and conditions that were dictated in large part by state law and regulatory policy. That policy has now been changed. So should the coerced buyers -- utilities -- not make every effort to break these contracts, perhaps aided by amicus briefs filed by state commissions, on the grounds that circumstances have changed? Westinghouse did it to utilities with uranium

contracts. I don't know enough about contract law to know how successful such an action might be, except in increasing the attractiveness of Asia to Roger Sant, but I understand that such suits would be far from frivolous. If won, it would put the cost of these stranded liabilities on the backs of the sellers who imposed uneconomically high prices on utilities and their customers.

Failing that, commissions should step up to the plate. But how? After all, commissions are judgment-proof. They have no money. Like Robin Hood, they took it from somebody and gave it all away. They might therefore, by way of atonement, relax the constraint on increasing rights to consumers not in a position to avail themselves of competing suppliers; and set up a schedule permitting utilities to recover these stranded liabilities, from those who can't flee the system.

So let's put the cost of stranded liabilities either in the unregulated generator's column, and failing that, in the captive consumer's problem. My bet is that a challenge to the contracts will produce some backing off on the price, some renegotiation, and some sharing of their costs between the unregulated generators and customers.

That leaves so-called "regulatory assets". That's a phrase so deceptive that I'm surprised that the SEC hasn't sent those who use it to visit with John Gotti for a little while. Here we have two culpable candidates who might share these costs: the commissions that made the promise of eventual repayment; and the utilities that believed them. So let's put a portion of these costs onto the captive consumers, who the commission promised would one day pay up, and a portion onto the shareholders who's designated managers trusted the heirs of Huey Long. I could, I might add, make a case for putting this latter portion into

a column marked "existing customers", on the quite plausible assumption that the costs were incurred on their behalf, and then deferred. But I'm reluctant to do so lest the full force of competition be diluted. In other words, I have a bias against loading costs onto exiting customers or entering competitors.

Finally, we have "stranded social programs." Since I'm unfamiliar with the components of these programs in each state, let me just pick environmental programs as a proxy for all the rest. The costs that represent the internalization of external costs and no more should be borne by all electricity users. The best way to handle this would be through a state tax on electricity. The bill for the cost of the environmental programs that exceed benefits can be handled quite easily -- eliminate the programs. Now I recognize that state legislatures might be reluctant to confront electricity users with a tax, since raising taxes seems to threaten the careers of politicians with last names other than Kennedy. But if a state wishes to maintain environmental standards that make its electricity suppliers vulnerable to competition from suppliers in more benighted jurisdictions, the higher cost should be reflected in a charge for the use of the transmission and distribution wires, thereby creating the legendary level playing field for all power producers, while at the same time preserving social policies the state has decided are essential.

In addition, to what I hope is a ring of equity, I think these modest proposals, and I emphasize that these are very tentative, are consistent with Paul's injunction that we seek competitive and efficient solutions. Customers who want to leave the system are not burdened with an outrageous tax for exercising their newly found freedom. Utility investors are not forced to raise the asking price for use of their capital more than they have already

done in response to disallowances for past imprudence. Customers are held responsible only for the past errors of the commissions who trumpet the fact that they are in the pockets of these consumers (usually hands first). And utilities do not face costs not also confronted by their competitors.

I can't conclude without pointing out that I think it's important that we not lose sight of the fact that any program to cope with stranded investment must, of necessity, be part of a broader scheme for regulatory reform. For regulation is going remain with us so long as ownership of the wires confers monopoly power.

What should such regulation look like? First, de-regulation of generation would seem to be in order. That should be possible now where generating markets are already sufficiently de-concentrated. (I've avoided using the word "contestable" because there's a whole bunch of economic jargon about contestable markets that's wrong and I don't really want to get into it. So I use de-concentrated, it's old fashioned but at least has the virtue of being correct.) In the case of highly concentrated markets, some horizontal disintegration may prove a necessary prerequisite to de-regulation. Perhaps market incumbents can be given a choice; spin off some of your generating stations and that is the price of freedom from regulation. In Britain they were finally driven to some of horizontal de-integration on the margin.

Second, we must resolve the questions raised by vertical integration of monopoly owners of wires into generation. The FERC's recent conclusion, which I think parallels the position that Fred Kahn took before the Massachusetts Commission recently, is a simple one - access for non-integrated competitors on the same terms as the stations of the vertically

integrated competitors. Maybe that's the solution -- I can't help wondering if it wouldn't simplify matters a great deal and enhance the vigor of competition if utilities were required to spin off their generating facilities, perhaps by setting up separate companies and spinning the shares off to existing shareholders, thereby avoiding capital gains taxes. That would mean, of course, that the generating assets would be valued by investors at that point in time -- something that will disturb those of you who doubt the rationality of securities markets. I worry less about that -- I compare the judgment of markets with the judgment of people who are supposed to be giving you judgments about markets, and prefer the former.

Third, in this process of regulatory reform, I think it's important that we reappraise our views about allocating cost burdens across customer classes. Here I fear the California plan may need some adjustment, because it attempts to freeze the cost burden allocated to residential customers. I understand the political resonance of such a plan, but I wonder if it's sensible. For one thing, the entire point of the exercise in which we are engaged, the entire point of this transition to competition was to have better service at lower prices. In other words, a bigger pie. If there are transition costs to be born along the way, those costs should be paid by all of the beneficiaries of this stunning policy change. If there aren't these advantages, we should all go home. But I think we see advantages and increasing benefits to everybody.

Now, another reason why we have to look at this notion of freezing allocations to the residential class, is a policy of loading all the transition costs on those industrial and commercial customers who are unable to flee would have macro economic effects which we find undesirable. While they couldn't flee, it would certainly impede their ability to grow,

and I think that's something that at least two of the states represented here, Massachusetts and California, would be reluctant to do given their desire to rejoin the country on its path to prosperity.

Fourth, I think we will have to review the propriety of both the capital structures and the rates of return allowed to investors. My guess is that increased competition will require a higher portion of equity in those capital structures and a higher allowed return on that equity, both to reflect the increased risk investors may perceive in the new era.

Finally, we're going to have plunge forward with moves toward performance-based regulation. The California order has glancing references to the work that the commission is doing, moving towards performance based regulation. The fact that the references are glancing doesn't mean there's not a whole pile of work behind them. If generation is deregulated, it shouldn't be a problem in the long run, but incentives must be provided to encourage efficient purchasing, superior planning of transmission and distribution systems, development of new products and services, and efficient operation. That remains a regulatory problem. And again, California has before it a host of very interesting possibilities in this area. I assume other states have other devices -- I know New York has some devices. But we're going to have to really push ahead if we want to fix this system.

I emphasize again that these remarks are nothing more than musings. A setting up of targets for the superior markspersons who will follow me to shoot at, and I will take no questions. Thank you.

Second Speaker: I strongly disagree with one of the speaker's propositions, and that's the notion that utility shareholders ought to bear all the costs of the generation assets stranded in the transition. I will, for simplicity, refer to this as the "stick it to the utility shareholder, but don't be vindictive" strategy. I'm going to respond to that proposition, and then move directly from that to the less exciting but more useful task of thinking about how we would actually measure these things and collect them.

Here we go: the "Top ten reasons why electric utilities should be allowed to recover transition costs". I like to think of this as an optimal combination of policy issues and cheap shots.

- Reason number 10 -- The recommendation that we should stick shareholders with the cost of the transition came from an economist. That's a person who helps you manage your money until it's all gone.
- Reason number 9 -- If you stick shareholders with the entire costs, I'm one of those managers who's probably going to lose her job, and then I might have to suck up to Irwin Stelzer to try to find another one.
- Reason number 8 -- I think the speaker misread the order. It talks about "wheeling", not "stealing". The notion that the financial exposure that utility shareholders face due to the complete competitive restructuring of the industry is the same kind of exposure they've always faced under prudence reviews under traditional regulation is a total crock. Let me know if I'm getting too technical with my jargon.
- Reason number 7 -- We can't do what the speaker recommends, we can only try. Look at the jurisdictional quagmire we're in in this industry. If ever the cooperation

of an industry was needed it's now.

- Reason number 6 -- If you think that any utility manager is going to go along meekly with any plan that involves putting the bulk of these costs on shareholders, you are out of your minds. We just had our annual shareholder meeting a couple of weeks ago, and I'm telling you, these people were hot. This was not a happy group of people. When I hear this proposition as calmly annunciated as Irwin did this morning, I think, "What is going through these people's minds? Do they really think that I would stand up in front of that angry mob and say, "Well, I asked them if they'd give me the money back, but they said go to hell, so I guess you're screwed, sorry."" This is not going to happen.
- Reason number 5 -- Unless we develop a plan for the transition that deals equitably with transition costs, the transition period is going to be chaotic.
- Reason number 4 -- Without an agreement on transition costs, we will all spend the next 10 years of our lives in unproductive litigation.
- Reason number 3 -- Such unproductive litigation will only serve to line the pockets of lawyers and the economic consultants in their employ.
- Reason number 2 -- An agreement on transition costs is needed, not only to prevent uneconomic bypass, but the complete uneconomic restructuring of the industry, which is what mass municipalization would involve.
- And the Number One reason why utilities should be allowed to recover transition costs -- If we are going to design a competitive industry in the United States, we all have a hell of a lot of hard work to do. Bill Hogan a cannot do this alone. We need

to get these transition cost issues out of the way, so that we can get on with the business of figuring out the things that are going to have to be done in order to make the system work in this institutional environment.

Now **I'm** going to shift gears, we're going to go on to a less exciting but more germane topic. How do you estimate and collect transition costs now that we've all agreed that utilities should be allowed to collect them?

These are the main cost recovery issues: What are they? Who pays? Who decides? How much? For how long? By what mechanism?

The previous speaker already ran down the list of what they are -- I'll only add that it turns out, based on some of our legal research, that what they are has implications for what jurisdiction you might be able to collect them from.

Who pays? The debate usually focuses around these groups: core customers, non-core customers, taxpayer and shareholders. If you are talking about utility shareholders eating any of these costs, you've got to be talking about unregulated generators' shareholders as well. But most of what I'm going to be talking about is how you split things between core and non-core customers.

How you estimate these things and how do you allocate them?

1. Separate book costs, operating costs as well as capital costs, into two piles: generation and non-generation costs.
2. Determine the market value of the generation function.
3. Look at the market value of the non-generation function, then subtract the two.

When your book costs are greater than the market value, you have a transition cost. 4.

Figure out how to allocate that to the different customer groups.

What do you do with contracts with unregulated generators? I would argue that generation is generation, and if you're going to separate generation, it will be a risky part of your business, and it should all go together. I've heard IPP's argue "Oh no. Our obligation is with the guy that's still got the monopoly and can pay us. So we don't want to go over there, we just want your assets to go over there." But it's a decision that has to be made.

What do you do with regulatory assets? Look at what they are. If they're generation-related because of previously flowed-through tax benefits from construction, put them with generation, and leave the rest elsewhere.

What do you do with DSM costs? Environmentalists have argued very strenuously that DSM is a resource, it shouldn't be treated like a service. If you use that logic, you'd put it over there with the generation. If you believe that it's a service, you'd put it there.

How do you determine the market value of generation? You have two options. One, you can just sell it and let the market determine it directly. This is what they did in

England, and this is what happened with the divestiture of the AT&T system. Or, you can re-organize, sell targeted stock, or form separate companies and put all your non-performing, your poorly performing assets into one company. How do you think the capital markets would value a generation company that was spun off, if the regulatory regime and the rules under which this company was going to operate were highly uncertain? This could

be a strategy which would maximize transition costs, because the investors might take a very conservative position about this company's income-earning opportunities.

What if the vertically integrated monopoly doesn't want to spin these assets off? Then you have to estimate the market value by simulating what competitive market prices would be. Most of us in California and New York and a lot of other states have long run avoided cost proceedings, where we develop proxies for a competitive market price.

Now what about the non-generation function, which is everything else in the business? A lot of times when we have these discussions about restructuring the industry, the discussion takes place as if the real competitive pressure is on generation, and if you could somehow separate generation because there is a monopoly on wires, you could load all those costs on the wires and you're OK. I want to examine that proposition here. Is it total costs that are subject to competitive pressure, or is it only generation? There are clearly bypass opportunities from municipalization, and in some cases, if you've got a crazy quilt service territory, from wheeling from another utility just by constructing a transmission line. There is political pressure to bring prices down.

But the real priority in states like California and New York who have suffered enormously in the last recession is concerns about industrial flight from the state and economic development. Given this, I would argue all aspects of the utility's costs are under competitive pressure. It isn't simply a generation issue. I've mentioned this to one of my colleagues and his answer has been "Yes that's true, but these are problems you face anyway; you've got to deal with them even if you stay regulated." But it's conceptually hard to separate them as you start thinking about how to estimate them.

Assuming we've now gotten done with the problem of how do you estimate what transition costs are, now we have to allocate them. We have traditional techniques for rate making that the industry has used for years. We have accelerated depreciation, but if we don't have offsetting cost reductions it raises prices in the short run and makes competition even more difficult. Or you can shift from cost-based to market-based valuation methods.

How you actually collect the money? What about using existing revenue allocation and rate design methods? **The** advantage is that the techniques are well established, and we're used to arguing about them. The disadvantage may be, that it may involve unpopular and infeasible redistribution of costs to residential customers. You basically have the choice, whether you're talking about an exit fee or an access fee, of collecting the money volumetrically or collecting it in the form of a fixed payment somehow. Volumetric surcharges are very familiar -- this industry has a long tradition of recovering fixed costs volumetrically, and it might actually work in an efficient way if it's applied to transmission service if people can't escape it. The disadvantages with volumetric cost recovery in general is that large customers are going to pay more than small users, so you might actually encourage uneconomic bypass. The other alternative, of course, is to use customer charges. Yesterday we heard a lot of discussion about how hard that is to do because that's so politically unpopular. Exit fees are notoriously hard to collect, but might be possible in the case of municipalization if you can establish who has jurisdiction to order it.

Third Speaker: Let me try to articulate what I see as a fundamental question here, and what troubles me about this discussion. There's this equity issue, and there's the real transition cost issue. Let me talk first about the equity issue. How many people in here have read the book by Douglas Hofstadter, "Gödel, Escher, Bach"? In the book, he looks at the fundamental characteristics of contradiction. What are the fundamental problems of contradiction? Escher's prints have hands that reach around and write on themselves, streams that fall and then flow back around on top of themselves -- all of these contradictions. How can the stairs go down and come back around? I'm not a musician, but Bach's music has the same characteristics. Gödel was a very famous German mathematician who examined some of the fundamental problems of contradiction and the logic of mathematics. And it turns out all of these three things have in common the very same characteristic -- self referencing. In all of these works, these contradictions arise because someplace in the argument is something which refers back to itself.

Now, let's take this equity argument, which runs like this: at all these prudency hearings the investors, the shareholders, the managers of the utilities should have seen this coming -- you can't trust those regulators. And it seems to me that I remember a couple of meetings like that, and it rings a bell of truth. However, the fact that it rings a bell of truth does not persuade me that it's a powerful argument to be applied here, and the problem I have with it is the notion that it is *regulators* who should use the argument that the reason that this should be disallowed is because you cannot trust *us*. There is something wrong with this. So for that reason, I am still not convinced by our first speaker's argument.

Putting the equity issue aside, there's the transition cost issue, which can be referred

to as the need for cooperation and efficiency, or as one of my colleagues calls it, the "bribery strategy." And I think that there is something to that.

- If stranded asset costs are large and recovery is not envisioned, any smooth transition to a deregulated generation market would be thwarted and the cost increased.

Transition is not a zero-sum game.

- Recovery of some costs need not forestall the transition to a more competitive market.

What we need to figure out is how do you do this in a way that is consistent with actually moving beyond the status quo. One of the things that we should worry about during the transition is that, if we don't come to an agreement about treatment of stranded costs, an opportunity will open up for people to "game the system". For example, while we're waiting to settle the stranded assets issue, say a customer is faced with the choice of buying power from two sources. The first price is 10 cents, of which 5 cents is sunk costs. The other generator says, "Let me put up this new plant and sell you 7-cent power". The customer is going to go for the 7 cent power (because it's cheaper to him), but the total cost of the system is going to go up. This is the sort of behavior that has the potential to eat up some of the net benefits we hope to get from going to a competitive market, unless we settle the allocation of that 5 cents of sunk costs.

What I would really like to do is to concentrate on the problems with various means of implementation, because that's the part that is most important. Basically I see three

dimensions 3 : bottom-up/top-down, *ex-ante/ex-post*, and administrative/market approaches to dealing with the measurement problem. By "bottom-up" I mean the kind of things that people naturally think about first, which is to say "Let's look at this asset by asset", and say "this one's stranded, that one's not." There are advantages and disadvantages to this approach. With a "top-down" strategy, we start out with a projection of the regulated rates by customer class and essentially back into the stranded assets, as opposed to adding them up component by component. I'm going to spend some time talking about that because I think it's a very appealing idea.

Ex-ante means you decide today, you make the deal, and it's over with. *Ex-post* means we keep adjusting the deal every year based on new information as we go along. There are complications with each of those.

An "administrative" approach would mean you're forecasting, doing calculations, doing estimates like any kind of rate design projections, and we set the estimate of the stranded cost based on these calculations. Another way to look at it is through some kind of market test, where somebody writes a check in effect, and there's an actual transaction that takes place. And for a variety of reasons, the more I've been thinking about this problem, I've been leaning in the direction that something like the market mechanism might be appropriate.

These alternative approaches differ very fundamentally in terms of the analytical requirements for forecasting and estimation, the risk allocations, the restructuring requirements for the companies, and of course, the regulatory exposure that occurs after the

³ Refer to stranded asset presentation in conference materials

fact.

First let me dispose of the bottom up because I'm convinced that the fundamental problem of this approach is that, in identifying specific assets as stranded assets, you are certain to increase the probability that you will be correct. This asset is clearly uneconomic, what do you think about that? You go through the list and pretty soon you will find out you are right. I think people have noticed this aspect of this approach and they don't like it.

Is the California suggestion of comparing the marginal cost of each of the generating plants with the system average marginal cost a bottom-up approach?

(Speaker): Yes, that would be an example of implementation of that idea. It's not impossible, but I just think it presents problems, and there are alternative ways to do the same thing that the California plan describes, but with different mechanics.

The "top-down" is an alternative concept, which I'd like to talk about a little bit, because it's important to understand it, and I've discovered that it confuses a lot of people. Basically, the idea comes out of telephones and residual pricing. With this approach, you start out with your rate forecast, which you've already got. And secondly we have a projection of what the market price of energy is. For instance, we know that a new combined cycle plant would cost. We start out in a situation where the market price is less than the cost of this combined cycle because we've got excess capacity out there that's competing, and so it might be down to the marginal fuel cost of the existing plants. And eventually that price will rise over time as we use up the existing capacity, we start building new units and so on. That's a number which we can conceptually identify and get some reasonable estimates for. Finally, we have a sort of traditional T&D charge that we would

add on to that using our classic cost of service rate.

Now you take the difference between this market price plus transmission and distribution and the traditional regulated price, and by definition, all of the stranded assets are in there in that number. One person characterized this at an earlier seminar as the Prego spaghetti sauce solution - where is the tomato? It's in there. Where is the garlic? It's in there. Everything is in there. This is the great attraction of this approach. You don't have to identify every component and make them individually at risk, but you can get the aggregate number by backing into it this way. And if you're literally charged this difference, you could tell all of the different rate classes and customers, "Your rates on day one don't turn out to be any different than they would have been under the regulated regime. And now, you are allowed to go buy the competitive commodity energy from anybody you want. You can buy it from the traditional supplier, you can buy it from a new supplier who wants to provide it at this market price of energy."

And then if you can find new ways to purchase energy or different packages of products so people could do it more efficiently, or the existing utilities can lower their costs in order to run the same plants and do things more efficiently, you can actually get savings because it's not a zero-sum game. Costs can go down, especially the cost of plants which truth be known, if it wasn't for the necessity to keep them in ratebase, would be shut down because the operating costs are higher than the marginal costs in the marketplace. Once you did this and got these fixed costs out of the way, they'd shut down the next day and the total cost of the system would go down. There are lots of things like that that over time would produce savings for all customers - without necessarily any requirement that rates go

up initially for anybody. There is a way to calculate the stranded assets in principle and assign them and collect them that does not require rates to go up.

The only thing that happens, of course, is people who thought that they could buy 5 cent power instead of 10 cent power and avoid paying the sunk cost, may not be able to do it.

I think, as a practical matter, that this is the only way to do it, but I wouldn't use the market price, then back in to estimating market price. The right way to do it is actually to use the estimates of the utility's avoided costs. Because then you will undermine a nuclear plant which shouldn't be operating, which you might not do if you use a market price.

(Speaker): What's the difference between the two?

—: Well, if you think the utilities are inefficient which is supposedly one of the motivations for doing this, the bill credit you want to give which is essentially what this is, should be the utility's marginal cost. And if you can beat that you make money on it if you're a customer.

(Speaker): But you want to use the short run avoided cost.

Well, you want to have a curve that's going to look like yours -- you don't want to always put people in the short run situation -- it's got to be exactly the kind of framework you have, and then there's no incentive to keep the nuclear point running.

(Speaker): Well, if it's inefficient relative to the marketplace, there is also no incentive to do it.

Can I make an observation on this approach? I like this approach a lot. I don't think it will ever work in practice. In practice the bottom up and the top down approach are

going to merge together. And the reason is that traditional regulation is all about armies of regulators and armies of intervenors who argue every year what this number is. And a huge barrier in trying to do this is you're going to disenfranchise all of those people who do that for a living. A conventional regulator will argue in the face of incentive regulation, "You don't need to do this price cap stuff, you just give me a bigger hammer and more armies of accountants, and I'll get to the bottom of this and ferret out all of that waste and inefficiency."

But the shareholder bears none of the costs...
—: No, the shareholder would bear costs if they're running inefficient generating units and customers come in and can find cheaper energy, they will get a big bill credit. : **The cost-based T&D** charge would be depreciated original cost?

(Speaker): Well, there is a debate whether it would be original cost or replacement cost, but it doesn't make any difference. There is a big difference in the number; the principal is what we're trying to get established here. If you say replacement cost, it would lower the stranded asset estimate. If you use embedded cost, it makes a higher stranded asset estimate. It's just a pot you're putting it in...

If you've got a replacement cost regime you have to calculate the carrying charges differently. You have to use economic carrying charges, which are going to turn out to be roughly half of traditional carrying charges. And you have to use economic depreciations. So just as a first approximation, if you think the transmission costs are double what they are now, at a first estimate it's going to come out the same.

_: One of the things that I think several of the questioners are getting at when we look at the pricing of the transmission and distribution system, we're trying to develop a transition mechanism that will accommodate the flow through of these past sunk investments over say a 10 or 15 year period. There's going to come a point in time we hope in the not too distant future, where we've dealt with the transition to a competitive market. Thereafter, we still have a monopoly transmission distribution system, and I don't think people will tolerate paying market-based prices for the wires part of the system.

(Speaker): I think it's a legitimate issue, and it gets back to this replacement versus embedded costing...

_: There's a jurisdictional point here. I think state regulators should essentially keep people on their retail tariffs and say, "You now become the power procurer, and we're going to give you a credit that's going to reflect what the alternative incremental costs would have been." And I don't see a FERC jurisdictional transaction there. You're still on the retail rate...

(Speaker): I think that's right, because it could all be done in the state.

Let me suggest a set of problems with this approach. The picture may actually look like this -- initially they're stranded assets, and then later on it's actually positive if you applied the same principle. And what you want is the present value - it's not always the other way. So it's not just a year by year thing that's going to be some easy thing to do. You have to think through this present value part of the story, and I think that that means that there are complications involved in actually implementing this, even though I must say I've found great appeal in it because it does not require reallocation of costs necessarily, and

that becomes a decision we can make separately.

As you actually get into the details of how to do this top down and figure out what the present value of the stranded asset is, under lots of different assumptions and you don't know exactly what's going to happen, and do you want to do it now or ex post ... the obvious alternative is to say, "At least for the assets that are assets, just sell them." There's nothing like somebody writing a check to find out what the value of the thing is, as opposed to going through the revenue recovery calculations and estimates for 15 years under lots of different assumptions and all of the complications that are associated with that. If they wrote a check for the assets, I wouldn't have any trouble at all thinking about how much they were worth, and then subtracting that against the book value, and then the difference is the stranded asset charge that would stay with the wires company and be collected over time.

This approach is attractive because you can rely on the market to deal with a lot of long-run uncertainties. A principal drawback is going to be the fact that people hate to sell their assets. It's not at all obvious that this is going to have what you could call rabid appeal in the industry. However, there are reasons that we might imagine that it would be either driven by the regulatory process, the divestiture scenario, and/or part of a natural business strategy for the companies to say, "Let's get this generation out and operate it as a competitive business, because then we don't have to deal with all this regulatory structure and we can operate efficiently in that market and our shareholders can take advantage of it and capture that benefit in the future".

_: You need to recognize the difference between what that value might be if you have a contract as opposed to a spot market. If you look at the trades that occur in Argentina on

the spot market, they are a fraction of the replacement cost. The trades that have occurred where a contract is associated with it, the valuation is close to what the value should be.

(Speaker): That's a fair point, if spinning the assets off without a contract really lowers the total value of the enterprise.

How would you put all these things together? This has got to be a package deal. We cannot first decide on how we're going to deal with stranded assets and then figure out how we're going to deal with the open access market because they interact with each other so strongly, and because the stakes are so great for all of the players. Here's one combination. Spin off the existing generation. There's the problem of valuing it, but we will get into that later. Roll the regulatory deferred costs from the past into the calculation of the wires charge, which will get smaller over time. Collect social costs as fees on the wires, because that is the remaining monopoly. These fees admittedly do not solve the problem of people who can leave the system to escape them. That's a real problem, but it's not one created by competition in the electricity market -- it's created by competition in the world. I also think you're actually going to find relatively little of that.

Discussion

: Is it fair to say that the only argument that matters is that the shareholder should be held liable for these errors of judgment as to the integrity of regulators, simply because it will slow the process? Are you saying, "You can do whatever you want, but the more you pay them the less they will oppose", and having them not oppose is a good thing because the transition will be faster and less costly, all the other arguments [about how to handle

stranded assets] are really kind of irrelevant.

(Speaker): If we decide to go to a competitive market without compensating for these historical costs, people will fight it. That is a reality, and there's no simple decision that we can make which disposes of that. But I don't think it's the only thing that matters, because I don't accept the initial premise that we should just go cold turkey.

: It would be really helpful if there was some sort of immediate potential benefit that people could get out of this restructuring above and beyond reallocation. The work we've done suggests that there really are some significant cost savings that you can get from running existing power plants in a deregulated manner. We've done some studies and others have done studies that suggest it's maybe in the range of 20%, which is a big number. If that's true, what will happen when you spin off the assets is that people who are bidding in for those assets will take into account the fact that they're going to cut the costs.

—: If you're right, aren't you saying that the prudence reviews weren't rigorous enough?

—: It means the structure of the system is wrong, because under a regulated regime you have no incentive to cut costs. You get to pass them through. It isn't anybody's fault -- the system is wrong.

(Speaker): For example, in a competitive generation market, you don't have to file a lot of documentation with the regulators anymore to recover the costs for running your plant -- you just have to satisfy the management of the plant that you're doing a good job. You could save a lot of money that way. And your incentives change -- there are a lot of things you might do in running a plant these days just because you have to be able to demonstrate

after the fact that you were doing the right thing to somebody as opposed to making a judgement call. There are a whole lot of things that will happen that will be different. We've seen this happen in all the other industries that have become competitive.

: I don't think people should go away thinking that the issue of how you deal with historical cost obligations is just a matter of distributive justice. I think there is a public policy interest in making it possible for regulators to make credible commitments and to have them stick to their commitments. The issue is not that people think that regulators are going to behave badly. The public policy question is, do we want a regime where we force regulators to make credible commitments and to stick to their bargains? If we don't, the efficiency loss in the long run will be disincentive for investment. We have a public policy interest in having people keep their contracts.

I agree -- during these transitions, you look at one insanity and you try to figure out how to get out of it and so you end up maybe piling another insanity on top. What we're trying to do, however, is figure out some way to wipe the slate clean. Our speaker would wipe it slowly and carefully across the board. I'm inclined to take a giant wet sponge and just do the job. But you're quite right -- I could get kicked out of AEI for saying "Break contracts. The hell with property rights". Not exactly a ringing call for neo-conservatives.
—: Let me say that we regulators did try to keep up our end of the bargain by allowing the 20% inefficiency and not subjecting it to prudence reviews.

Panel Discussion: Utility Diversification

What is the appropriate risk/reward scenario between ratepayers and investors? Does diversification lead to better utilization of utility assets (e.g. fiberoptic used for DSM as well as other applications)? What standards should regulators apply when approving foreign investment?

This panel examined the question of whether, in a changing industry structure, we ought to reassess public policy governing diversification by utilities. The panel included two representatives from utilities that have looked at diversification, two attorneys who have examined diversification in terms of its impact on regulation and consumer protection, and an economist who has done some theoretical work on the overall efficiency implications of diversification.

[The following is a selection of points made by various speakers on the panel]

Speaker (Utility):

"As happens in most industries when they become competitive, the core business will remain the strongest and most viable part of the business, but profit margins and the cash returns from that industry will be put under increasing stress. For us the case for business expansion is very simple. We have a slow growth core business, and we have skills that we believe can be exercised effectively in areas related to that core business."

"Can we be an effective competitor and also be responsive to regulators? We have to demonstrate that we can."

Speaker (Consumer advocacy attorney):

"Many people talk about the Energy Policy Act as being a pro-competitive statute. It is pro-competitive in the sense that it allowed new entrants, existing utilities, and non-utility

businesses to create wholesale generators anywhere in the world. It was *not* pro-competitive in the sense that it permitted the continued retention by expanding utilities of their existing retail monopolies. Letting particular companies become more "competitive" is not the same things as creating a competitive marketplace. Creating a competitive marketplace should be the focus of public policy."

"It doesn't matter that the two types of business are similar, simply because they fall under the rubric of energy services. This is diversification, not "business expansion", because there are captive customers present on one side of the business and not the other. Those who say that there should be no regulatory protections in the area of diversification are really saying that it should be the task of utility management to balance shareholder goals with ratepayer goals. That's not an appropriate role for utility management to play."

"The bottom line [in regulating diversifying utilities] is: make it easy to apply; easy for a utility to win the right to expand; and easy for a regulator to stop expansion if it is dangerous to the ratepayers. That means some sort of advance review -- the more clarity at the start, the less second-guessing. Who's managing the capital? Where's the contract that says what the interaffiliate pricing is, and what's the penalty if someone disobeys the contract?"

Speaker (Utility):

"I believe that our industry is going through a period of disaggregation. This process is causing utilities to do some self-evaluation. What will be in the best interest of our shareholders in the future if we either do or do not own generation, and if it is either regulated or unregulated?"

"There is no reason why we can't learn from other countries and other business areas and bring that learning back to the utility business. To be always looking inward and focussing on the regulated industry is just the opposite of what we should be doing. It creates inefficiencies, it creates narrow employees."

"I think that the state utility commission has to have access to whatever information it need to ensure that no cross-subsidization is taking place. I think the encumbering of utility assets is something which ought to be strictly regulated."

Speaker (Regulatory Counsel):

"Although I have come to understand and accept that diversification can be a good thing, I still have heart palpitations when I open the paper and see that Entergy is proposing to invest in a plant in China and project financing is not yet clearly available. In part, this is because regulators and utilities have such different interests when looking at diversification. Regulators look at these ventures and assume failure. We assume the worst case, and how

we can protect the ratepayer from it. Utilities assume some degree of success -- otherwise they presumably wouldn't be investing in the project."

"The registered holding companies are new to diversification, and their regulators are as well. They want very badly to enter markets which are going to be hotly contested. This argues for the development of safeguards that work, and unfortunately, the regulatory structure for registered holding companies is a mess. There's no other way to describe it. It must be very confusing and daunting for a company to try to make long-term business decisions in this environment. I think that protections need to be implemented on both sides, and the most important element is clear and meaningful audit authority."

"Monitoring the increasing business activities of utilities is going to become very difficult for regulators to accomplish to everyone's satisfaction. I wonder if utilities' interest in diversification is going to push retail regulators to look at competition at the retail level as a better way than audits and other regulatory measures of dealing with cross-subsidy and other issues."

Speaker (Economist):

"If you have economies of scope, and the regulated part of the business is subject to cost-of-service regulation, then it could be the case that allowing that regulated business to diversify could provide additional incentives for innovative activity that might come back as benefits

for the regulated customers. For instance, to the extent that cost-of-service regulation inhibits incentives for R&D, the regulated firm might be inspired to do some R&D by the prospect of earning profits in the unregulated market, and that might end up benefitting both sets of customers."

"Cross-subsidization might be very hard to detect, and you might end up with a situation where you have inefficient entry into a market, and the subsidizing firm keeps more efficient competitors out. In addition, of course, we don't want to burden the ratepayer with the costs of running this inefficient business. An incentive-based regulatory system, where rates are divorced from costs, might create less of an incentive for the regulated firm to engage in this type of behavior."

Discussion

_: Diversification is a way for the managers of a company to say, "Rather than give the money back to the shareholders, we will decide for them what to do with it." Would the shareholders like utility managers to be in charge of diversifying their portfolios for them? It wouldn't be the people *I'd* pick -- they're the ones, after all, who built all those nuclear plants. In some sense, you're conscripting the capital.

This is an industry where the demands for capital are diminishing and the cash flows are increasing. Why are they interested in diversification? Management does not want the organization to shrink. It's more fun to be head of a big company.

When is diversification likely to be economically efficient? When there is excess capacity in a utility asset that might be sold off or rented or purveyed for nonutility uses. But you've got these consumer advocates saying, "If you make money, I'm going to make you give it to the ratepayers, and if you lose money, your stockholders are going to pay for it." Regulators will go for that kind of one-way bet -- but if you're the utility, watch out -- you're playing with someone else's dice.

(Speaker): The fact is that, when some countries privatize, a requirement to play is that you have to have ownership of utility assets and operating experience. A couple of years ago, the United States was out of the game because its eligible companies couldn't bid. to bring the U.S. to the table, you have to let the utilities play.

_: If a utility, in diversifying abroad, overbids an asset, is that cross-subsidization? (Speaker): No. If they're bidding shareholder money, and they pay too much for it, that's a shareholder problem, and it would not be a regulatory concern unless there was an impact on the utility's cost of capital.

: There are different kinds of diversification. The first is horizontal diversification -- do you allow a utility to go into a different or slightly related business, like fiberoptics? Then there is vertical integration -- utilities own unregulated businesses now, like coal companies, and as long as you protect the ratepayers this isn't necessarily a bad thing. Finally, there's diversification into the same business outside of the franchise area, like abroad. Again, I think this is a good idea. We've learned, with respect to the American steel industry, that

a localized regional industry is not healthy -- seeing competition abroad makes the company smarter, and they bring that back to the U.S. You may want to regulate the activity, but I don't think you want to discourage that kind of diversity.

Discussion: Future directions of the HEPG

We should do some work on current issues associated with the development of competitive wholesale markets. What rules need to be adopted? Is the playing field level? What is the relationship to incentive rate-making?

We should hold a session based on the subjects that come out of the California hearings. I'd take the group's direction from what happens in California. [Another participant disagreed, saying that California would do what California would do, and why should we rehash it?]

What are the viable alternatives to retail wheeling? We should develop alternative models.

- How can we reconcile IRP and competition?
- We should do more outreach -- possibly a large conference sometime next year -- so more people can get involved. A book or series of articles would also be good.
- What is going to happen to the obligation to serve?

To the extent that we hang costs on the grid, whether it's stranded assets, environmental programs, etc., how much are the benefits or competition diminished?

Update on research project: "Environmental Impacts of Increased Competition in the U.S. Electricity Industry"

This was a report on a seminar held on April 28th, for which a summary is available.

Update on developments in competitive power supply in New Zealand and the United Kingdom

This was a report on a seminar held on April 22nd, for which a summary is available.

**Materials distributed for Harvard Electricity Policy Group
Fourth Plenary Session, 5/12-13/94**

Some of the materials listed below were prepared specifically for the seminar. Please do not cite any materials marked 'Draft'.

- Asimow, Michael *California Underground Regulations* 44 Administrative Law Review 43 (1992).
- Brown, Ashley *Sunshine May Cloud Good Decision Making* Forum for Applied Research and Public Policy Summer 1992.
- California Public Utilities Commission *Alternatives to Litigation Program* Outline, October 12, 1993.

California Public Utilities Commission *Decision Making at the California Public Utilities Commission: Alternatives to Litigation* A Discussion Paper for the Workshops on Alternatives to Litigation, January 1993.

California Public Utilities Commission *Decision Making at the California Public Utilities Commission: Alternatives to Litigation* Second Discussion Paper, August 1993.

California Public Utilities Commission *Assigned Commissioner's Ruling: Order Instituting Rulemaking and Order Instituting Investigation on the Commission's Proposed Policies Governing Restructuring California's Electric Services Industry and Reforming Regulation* Case No. R.94-04-031, Case No. 194-04-032.

- California Public Utilities Commission *News Release. CPUC Proposes Competition for Electric Utilities and Open Electric Supply Market for Consumers* April 20, 1994.

California Public Utilities Commission *Order Instituting Rulemaking and Order Instituting Investigation on the Commission's Proposed Policies Governing Restructuring California's Electric Services Industry and Reforming Regulation* Case No. R.94-04-031 and Case No. 1.94-04-032.

- Cavanagh, Ralph *Some Reactions to California's Restructuring Proposals* Memo, May 8, 1994.

Federal Energy Regulatory Commission *Commission Issues Two New Orders Setting Criteria and Pricing for New Open Access Transmission Tariffs* News Release May 11, 1994.

- Federal Energy Regulatory Commission *Order on Rehearing and Clarification: American Electric Power Service Corporation* Docket No. ER93-540-001.

- Flaim, Theresa *How Do You Estimate and Collect Transition Costs?* Presentation Slides, May 13, 1994.
- Flaim, Theresa *The Impacts of Emerging Competition in the Electric Utility Industry* April 7, 1994.
- Foley, Cheryl *Regulation of U.S. Utility Investment in Foreign Utility Operations* March 23-25, 1994.
- Hempling, Scott *Expansion of Electric Utility Monopolies. The Need for Regulatory Alertness* March 1994.
- Henderson, J. Stephen "Dimensions of Advanced Pricing Concepts" May 1994.
- Hogan, William *Efficient Pricing and Transmission Rights in Support of a Competitive Electricity Market* (Comments for Technical Conference on Responses to the Inquiry Concerning the Commission's Pricing Policy for Transmission Services Provided by Public Utilities Under the Federal Power Act) Response to Federal Energy Regulatory Commission Notice of Technical Conference and Request for Comments (June 30, 1993), Docket No. RM93-19-000, April 15, 1994.
- Jones, Douglas *Sunshine Laws and Public Utility Commissions: Par* Sunny Preferable?* NRRI Quarterly Bulletin 15:1.
- Michigan Public Service Commission *Major Elements of the Retail Wheeling Framework* Cases Nos. U-10143 and U-10176.
- Michigan Public Service Commission *Retail Wheeling Experiment Order* Case No. U-10143 and Case No. U-10176.
- Michigan Public Service Commission *Retail Wheeling Press Release* April 11, 1994.
- *Michigan PSC Sets 150 MW Retail Wheeling Experiment* The Electricity Daily Vol. 2, No. 71 April 13, 1994.
- New England Electric System *New England RTG Proposal* April 5, 1994.
- O'Driscoll, Mary *Landmark FERC Decisions Rock Industry* The Energy Daily ED Volume 22, Number 90 May 12, 1994.
- Pierce, Richard *Regulatory Decisionmaking Reform* Draft Outline, April 1994.
- Pierce, Richard *Unruly Judicial Review of Rulemaking* Natural Resources and Environment Vol. 5, No. 2 (Fall 1990).

- Quirk, Sherry, Jeanette M. Pablo, and Montina M. Cole *Utility Diversification* May 13, 1994. (With related documents: Levitt, Arthur Letter to Chairman Markey, Subcommittee on Telecommunications and Finance February 17, 1994 and Division of Investment Management Memorandum February 17, 1994.)
- Southwest Regional Transmission Association (SWRTA) *Summary* March 31, 1994.
- Stalon, Charles *Regulating In Pursuit of Efficient and Just Prices* Draft Outline, April 15, 1994.
- Stelzer, Irwin *Stranded Investment. Who Pays the Bill?* (Remarks Delivered at Southeastern Electric Exchange) March 30, 1994.
- Tranen, Jeffrey *New England RTG Proposal* Presentation Slides, May 12, 1994.
- Walton, S. *Summary Description of Western Regional Transmission Association* April 2, 1994.
- Western Association for Transmission Systems Coordination (WATSCO) *Summary of the December 1993 Draft Bylaws and Subsequent Revisions* April 6, 1994.
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