Sixteenth Plenary Session
Harvard Electricity Policy Group
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Rapporteur's Summary*

Session I: Stranded Costs / Stranded Benefits

The issue for Congress is two-fold: what should the policy be and who should decide it? Is it appropriate that provision for stranded cost recovery be made in Federal legislation? What should be the forms of recovery? What criteria should be applied to stranded asset recovery (e.g., prudently incurred costs, costs stranded solely as a result of the passage of national restructuring legislation, costs incurred solely as the result of some sort of government mandate or preapproval)? What measures of the value of those assets allegedly stranded should be utilized in legislation? What stranded benefits, if any, should be included in national restructuring legislation? Should Congress designate them, or should that be delegated to regulators at the state or federal level, or to the state legislatures? Should there be federal legislation assuring recovery of assets which are stranded as a result of legislation or restructuring done at the state level? What is federal "backstop" authority over stranded asset recovery (i.e., authority which can be employed only if the state regulatory agency or legislature lacks the power to decide such question, or authority if a state agency possesses the discretion to allow recovery but chooses not to do so)? Should there be federal backstop authority to recognize stranded benefits?

Speaker One

The first question regarding the role of stranded assets in federal legislation is whether there is a fundamental right to recovery of stranded assets. I have framed the question as whether legislation should *create* a right to recovery. Those who feel that an absolute right exists would insist that the word "create" is misplaced, and that the right word is something more along the lines of "recognized." I do not think there is an absolute right to recovery.

Pre-emptive federal legislation could be justified if different states reaching different outcomes on stranded cost recovery would somehow harm the national interest. We're now far enough down the road to restructuring in various states that establishing a clear national interest in uniformity is a pretty tough sell. For

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instance, it does not seem that various stalemates on stranded cost recovery in New Hampshire, Vermont and neighboring states are retarding restructuring in Massachusetts. Actually, states are learning from the different ways their neighbors approach restructuring and the various bargains that are struck.

Clearly, if there were a uniform national regulatory compact, there would be no strong argument against recognizing it in federal legislation. However, if there is a uniform compact, it doesn't spring from the Constitution. The *Duquesne Electric Power* case nearly a decade ago established beyond question that states have the power to disallow prudent investment. Some other states have since disallowed much larger amounts. When some sought to appeal to the Supreme Court, the court would not hear those appeals. So, the general issue that prudent investment can be disallowed even if it does damage is really not a Constitutional question at all.

There are also Supreme Court cases ruling that losses attributable to changes in technology and in competition are not entitled to constitutional protection. We would not be talking about stranded costs of anywhere near the magnitude that we are today were it not for changes in certain power generation technologies, particularly gas combined cycle, and changes in the price of fossil fuels.

Utility investors have never been entitled to lien protection against technological and competitive changes. As to the changes due to governmental decisions, there is an argument for striking a balance on the basis of fairness, but the issue is what kind of balance to strike. The question is whether Congress or the states should strike the balance. This comes back to the question of the nature of the alleged compact.

The concept of a regulatory compact does not appear in any of the texts or articles written about utility regulation until 1984. In 1984, the regulatory compact invariably appeared in the context of claims by spokesmen for the regulated industries that this newly discovered compact had been breached because of the large disallowances that were coming out of state prudence reviews with regard to nuclear power plants.

One has to ask how investors could be relying on a compact that they'd never heard of until 1984, and then only in the context of Wall Street or utility CEOs telling them that regulators could not be trusted to honor it. Looking back at the compensation investors received in the late '70s and early '80s, as well as over the last 20 or 30 years, it is difficult to conclude that investors have not known that they face the risk of substantial losses. Investors have faced losses in the past for the very reasons that stranded investment issues are now arising: High-cost nuclear construction and changing demand.

Moreover, given that much restructuring is driven by concerns about the shortcomings of regulation as an institution and of regulators' capabilities, it seems odd that we would use past regulatory decisions as the measure of exactly how much investment should be deemed prudent and recoverable. Those of us who have sat on regulatory commissions know that they don't remotely scrutinize every dollar for prudence. Furthermore, we can all recall cases in which commissions had to go back and in fact disallow money that had been allowed in previous rate cases.

I have already mentioned the sense of fairness based on the history in individual states. That justification obviously is not susceptible to a broad federal mandate; in fact it pushes very strongly towards state by state resolution of these issues.

So, we come down to the justification of just getting the job done. Maybe I don't mind paying a bribe as long as I'm getting what I want in return for what I'm paying. This may be the closest thing to a real justification for dealing with the stranded cost question in federal legislation. What does the public interest require in return for stranded cost recovery?

Because of the ways that restructuring has unfolded, we seem now to have the condition of competition without competitors, markets without marketers, and customer choice without alternatives, at least in the residential sector. So, not only are the utilities getting their money up front, but they are getting a considerable head start on the competition.

The device of securitization of stranded costs has consequences that may be somewhat at variance with the assertion that stranded cost recovery doesn't need to distort competition. States that securitize are driven, for example, to consider exit fees much more seriously. Exit fees fly against the logic that justifies stranded cost recovery. Until restructuring, the investors and large industrial customers never believed that they could not cogenerate or self-generate, or that they would have to pay quite substantial fees to the utility if they did.

The balance being struck now, four years into the restructuring process, seems to favor the companies that seemed to be in the greatest jeopardy at the beginning of this process. The question I would pass on is, are we getting enough in return for the level of stranded cost recovery and much greater security than existed four or five years ago? If there is federal legislation at all, shouldn't we be driving a much harder bargain in terms of creating the customer choice that restructuring was supposed to be all about?

Speaker Two

Bill Massey gave a presentation recently in which he said, “I only know about three things, don't ask me about anything else, and that is ISO's, mergers, and reliability.” Of course, if you were thinking about stranded costs, you were struck by the absence of the hundred to $200 billion issue that's out there in front of us. Afterwards, he essentially said that stranded cost recovery at the wholesale level, handled fairly cleanly the way FERC did with a very simple revenues-lost formula, has saved a lot of gnashing of teeth and a lot of litigation.

Phil O'Connor of Coopers and Lybrand wrote a paper reviewing transitions to de-regulation in other network industries. In all cases, we've not dealt 100% with stranded costs.

One of the fundamental reasons for adopting stranded cost recovery was to put all competitors on the same footing, vis-a-vis sunk costs, allowing them to compete on marginal costs. This approach is consistent with efficient component pricing. You are recovering the costs of past investment without harming competition because the stranded costs charge would not implicate marginal costs.

With stranded cost recovery, there is no cost shifting. FERC has certainly followed a principle of cost causation with regard to assigning costs in the past. Stranded cost recovery really keeps a consistent policy

rather than shifting costs to shareholders. It also sends correct price signals. You do not want to have customers buying a commodity which is underpriced vis-a-vis the total capital investment that you have made in that industry.

As to the question of a fundamental right to recovery, I'm not sure you want to argue public policy decisions using such a legalistic approach. In response to *Duquesne*, I raise *Windstar* and *UDC v. FERC*. The lawyers can do their two-step, nose to nose up to the Supreme Court, but I'm not sure we want to spend our time doing that.

In the other industries, especially in telecommunications and natural gas, time worked in the favor of stranded cost recovery. There wasn't so much foot-dragging and delay, it is just that time allowed the previous expectation of recovery to become recovered as the industry transitioned.

In a couple of industries, trucking and airlines, they relaxed the rules for mergers thinking that if you allow the efficiencies that are claimed by merger applicants, that would go a ways toward mitigating some of the stranded costs.

What are the stranded costs? High fixed costs of nuclear plants. Our studies point to numerous governmental policies starting after World War II that basically said the atom is the source of energy for the future, and we ended up with some very expensive power plants. Long-term purchase contracts were, again, governmental policy. PURPA had made a lot of sense, but we're paying the cost now. Regulatory assets were another governmentally driven policy to delay recovery of certain costs in order to ease rate shock. These were choices that companies didn't make on their own.

We also need to talk about transition costs. Those of you from California can speak to the high costs of creating an ISO. I know that in Order 636, one of the four categories of transition costs was, in fact, costs to institute the new regime.

The question is why do we have stranded costs? In the legalistic blame game the first reason is, of course, the companies' bad investments. Somehow because they were companies, and because they were regulated, they had to have had nefarious motives, and, therefore, their greed cannot go unpunished. What about regulators asleep at the switch? The regulators were there. They let those rates go into effect. Or ratepayers not really caring. I would suggest that what we really care about is the long term view, the length of time required for the transition, and future market structures.

Trial staff at FERC is taking a very businesslike approach to this, fundamentally asking the companies and the customers, "what can you live with?" Forget about reasonable expectations. What's the number that each of you can live with? The companies that I've talked to that have settled are very happy with their settlements.

Most of the states are following FERC, adopting variations of the federal approach. The but-for test is central in Maine, Montana, New Hampshire, and New York. Mitigation is required, the calculation has no explicit mechanism in state legislation, and most are being done case by case.

A number of states have securitized. I can understand the stiffening of the spine at the thought of all of those Wall Street investment bankers making so much money

off of securitization, but on the other hand, it typically does bring lower rates and allows the stranded costs to go through at a lower cost. The smart states and the smart companies are, in fact, limiting the uses of securitization.

We need to have principles for restructuring. We want Congress to look for economic efficiency and symmetry: no cost shifting, parity pricing, percent cost recovery symmetry. The legislation would need to put non-jurisdictional entities on the same footing as jurisdictional entities, and establish reciprocity between the states.

Speaker Three

I've been asked to talk about stranded benefits. We sometimes think of the electric industry as being very low on the invention curve. In fact, we do have a history of inventing institutions to meet our public objectives. The Electric Power Research Institute (EPRI), the national labs, reliability councils, NERC, power pools, SO_2 allowance trading, IRP and DSM programs, we've actually invented a lot of mechanisms over the years. We have to figure out how we can adjust those mechanisms to serve the public good as we go forward.

I have three points to get across. First, the public interest is in trouble. The threat of coming competition is unraveling the gains that we've made in many areas over the past 10 or 15 years. Second, there is a national public interest in a sound energy future for the nation. The answer to this present challenge is not just increasing the Department of Energy's budget, but to providing a national system of support for decentralized and state-run programs. Third, the traditions of utility regulation offer answers to these challenges. We have in rates today both the mechanisms and the dollars to support these issues.

Markets alone are not enough. There are market barriers, market failures, market imperfections. The citizens that we serve—I use the word citizens—are not just consumers. If we focus only on their pocketbooks, we will have missed the boat.

Environmental costs are very large, and they are largely unpriced. They are market externalities and we all know that the invisible hand can't guide that which it can't even grasp. The efficiencies that will come from competition are substantial, and I support moving to competition in order to capture them. But, the efficiencies that we can gain by strategic interventions in energy efficiency are equally large, and also offer substantial environmental benefits.

There is a very large reservoir of opportunities for energy efficiency in the nation remaining today. This work is by no means done, and there are empirically demonstrated market barriers to the deployment of those efficiency resources.

We know that electric service is a necessity in a modern economy. The lowest income households in the country spend about 20% of their income on energy, about two-thirds of that on electricity. The rest of us spend about 3% of our household income on energy. There are huge disparities that have to be addressed if we're going to have a system that the nation will stand for.

Renewable energy is an important part of our nation's energy future. This is not something that we can just walk away from if we give any regard to the sustainability of the nation's energy future, of intergenerational equities or environmental consequences.

Research and development is also a serious problem. Over the past 25 years probably 90% of EPRI's R&D funds have come from ratepayer contributions essentially built in as a non-bypassable wires charge. We know that the social returns to R&D greatly exceed the private returns, particularly in the basic technology research. Utility R&D spending used to be about 3/10 of 1% of total revenue, far lower than in many other important industries, and is now dropping.

Since the advent of competition in the electric industry we're seeing dramatic drops in the achievement and funds spent on public interest programs. In demand-side management programs, instead of a 45% increase predicted in '93, we have a 45% decline in DSM spending. There has also been a significant drop in low-income home energy assistance, and in weatherization programs. R&D by investor-owned utilities is down about 23% since 1993. The high technology R&D, such as fuel cells, photovoltaics, and advanced combustion turbines, is down 66%, according to EPRI. Renewable energy capacity additions are dropping like a stone. Even generation from the installed base of renewables in the United States has been dropping. Actual generation between 1994 and 1998 has declined by 25%.

What we're seeing across the country, across the industry, is a dramatic race to the bottom. Companies are starting to think about themselves as competitive players and increasingly unable to contribute to public interest objectives.

The positive news is there're lots of mechanisms to employ to remedy that. The system benefits trust is a proposal designed and supported by a group of utility regulators across the country. It has been included in Congressman DeFazio's bill in the House of Representatives, in a bill introduced by Senator Jeffords from Vermont, and it's in the Clinton administration proposal as well.

These are the design criteria that we used in coming up with this idea. It should protect the key stranded benefits. It should promote competition by being competitively neutral. It should be directly related to the provision of utility services. It should also inspire and support state initiatives. The idea of the system benefits trust is not to create a federal bureaucracy or federal mandates but to encourage a lot of state action.

The proposal requires that states raise funds, if they wish to support the public interest objectives, and federal funds will match them. This requires that the states design and run their own programs so you've got local control and administration. It maximizes state flexibility with respect to the design of those programs.

A renewable portfolio standard is a requirement that every retail seller include in their mix a certain proportion of qualified renewable generation. This takes renewables out of the situation of being a charitable contribution that green customers make to the nation. Instead it requires at least a base level of support from everybody.

I would add that along with this, we will need federal standards or a national system to ensure some degree of uniformity with respect to the disclosure to customers of where their electricity is coming from, how it was generated.

General Discussion

Question: Are you tying low income home energy assistance programs (LIHEAP) and weatherization programs in any way to

the move toward competition? Those are federal programs, taken up in Congress. Isn't their decline an expression of the value of those programs versus the value of alternative programs?

Response: I agree that it's not mainly due to the onset of competition. A portion of LIHEAP and a portion of the weatherization program are targeted to the electricity needs of low-income households. To the extent that those programs are being cut back, they are increasing the stress on those low income households with respect to the payment of their electricity bills. If utility-sponsored low income programs are also being cut back, then we have a double whammy on those households.

Question: I have never understood why the argument for a system benefits charge gets characterized as a stranded benefits argument in the same context as stranded assets. The notion of stranded seems to me to go with past sunk costs, not going forward costs, and regulators or legislators can always authorize wires charges to fund these programs on a non-discriminatory basis.

Response: The non-substantive answer is that it's just marketing. When this debate began, stranded costs was an issue that the industry was bringing front and center. When the National Association of Regulatory Utility Commissioners (NARUC) passed a resolution addressing this issue, the term stranded benefits suggested itself as a means of calling for equity and for the debating floor.

There is a substantive answer too. If we were to switch to unvarnished competition, we'd lose a lot of shareholder value, but we'd also lose a lot of public purpose programs and consumer benefits. To the extent that we would lose them, they would also be stranded.

Looking at what is in rates today, we have market value generation, T&D, a little bit of public purpose dollars, and a lot of above-market power costs. I don't see why the public should support outcomes in which they are asked to continue to pay these stranded costs and not get the benefits of these programs that serve them.

Response: I've felt for some years that it's a mistake to make the distinction between expense and cost and stranded benefits. To me they're all strandable expectations. The transition in every case involves working out a fair balance as to how to deal with these expectations. The right way to balance all of these out involves recognizing that there are some equities that surround all of them, and they're all just expectations about money flows in the future.

Response: I would try to conceptualize the stranded cost issue as an endgame problem of how to move from one way of regulating to another. I think the benefits issue is an ongoing policy debate over what to do with externalities.

Question: You talked about competition without competitors and choice without alternatives. How do we know what we're talking about when we make the distinction between, in the antitrust sense, supporting competition and supporting competitors? You might have ease of entry but the system is so efficient that there are not big profit opportunities for a lot of entrants so you don't get a lot of entrants. Alternatively you might have barriers to entry and entry would be profitable but people can't enter. Both situations produce the data that you don't have a lot of entrants. The broader question

is what should go in national legislation to specify what you want to get on the other side of the deal?

Response: My concern starts with the proposition that restructuring is about creating customer choice. We have conferred very substantial benefits on the incumbent utilities, often getting something significant in return, like divestiture of power plant generation. But in fact, we don't seem to have created across-the-board choice for all of the customers of suppliers and of different types of products.

If I were in Congress considering passing legislation, I would look at putting limits on the extent to which utility-affiliated marketers could start out with essentially 100% market share. I would want to put an affirmative obligation on the regulators to promote competition and to enhance competitive opportunities, and perhaps also on the state attorneys general or on the U.S. Department of Justice in the context of merger review and ongoing market review.

Question: The public interest stranded benefits that were identified have really two distinct types of characteristics and I think there's a problem when you lump them together. The first is generic governmental goods that relate to reliability, perhaps some in environmental questions and low income.

At the other end of the continuum you start to handicap the marketplace. I think a lot more thought should be put into not cloaking handicapping the marketplace in public good questions, because you're going to end up with solar power being the nuclear power of the next century.

Response: I agree with the observation that there may be at least two different kinds of public goods. That's actually part of the problem in these discussions because we devote 2/3 of the time to stranded costs and 1/3 to stranded benefits, but the stranded benefits issue actually has embedded in it environment, renewables, low income, consumer protection, a whole lot of interests that I assure you the public really does care about.

As for the observation about handicapping the market by advancing renewables, what else is new in the energy world? If we would decommission the part of the Navy that's devoted to protecting the flow of energy into this country, for example, then we might have a different discussion.

Question: When we look at competition and model it, we find that while a lot of attention is paid to stranded costs, we also find increasingly over time lots of assets whose market values exceed their book values. I'm curious as to how you would treat those cases, because we actually see those cases as almost being dominant over time.

Response: The answer is easiest in states that have committed to full recovery because at that point restructuring is going to be kind of a grand cashing out. The risk that some assets now have market values below their book value falls on the customers to the extent that other assets have market values above their book value. How can you say anything other than that the customers are entitled to the gain on those assets? The more difficult question, and I don't know the answer to it, is if you're in a state that allows 50% recovery, then they have to reflect that in the mitigation principles as well. If you say that the investors are on the hook for this risk, then they're entitled to a proportionate share of the benefit.

Comment: You don't want to confuse future market value with current-sum costs. You've got depreciation schedules and so forth that make your plants more valuable over time. If you sell them today, presumably the market has reflected that value and that should go to offset current stranded costs. I don't think you want to start saying that if you have a market value five years from now that the bargain is still in place when in fact you've moved to a competitive era. It seems to me the shareholders should get that value.

Response: To keep it all at one point in time, consider a situation where the market values of the entire system today exceed the book value. The solution is that you have a negative wires charge. If we can create positive wires charges to recover otherwise unmet stranded costs, the same principle would lead to a negative wires charge. This would have the effect of writing down your transmission and distribution rates, and why not?

Comment: Regarding negative stranded costs and wires charges, I certainly agree that customers are entitled to those monies in some way or other, but I think just as much thought has to be given to how those are passed back. If you want to keep the system working well, they should go back perhaps as customer charges or something of that sort.

In addition, if you leave the social stranded benefits as part of the utility package, with some explicit additions and other portions more implicit, then you set up conditions that are going to make competition possibly quite difficult.

Setting up the conditions that will enable competition to take place will all come to naught if you leave this complex structure still embedded in utility regulations. You'll be forced to policies that create competitors.

Response: You know as a regulator that you're going to be wrong, in essence, almost all the time. A fair part of regulation is deciding what kinds of mistakes are the least damaging. The choice appears to be whether you're willing to err on the side of creating a deregulated de facto monopoly or on the side of churning things a little too much and getting some competitors in who eventually fall out because the conditions they require aren't going to continue indefinitely. Between those two types of mistakes, it may well be the pro-competitive mistakes that do the least damage.

As to the difference between stranded costs and stranded benefits it's a spectrum. There are some things, like energy efficiency, that may well be taken up and delivered with more vitality and more imagination in the competitive market. It would be a mistake to try to keep those in the utility field.

However, among this spectrum of stranded expectations, it isn't just the investor expectations that are based on the sum costs. If you're a town manager, with property taxes that are based on this nuclear plant that last year was worth, as far as you knew, a great deal, and now you're told is worth zero; if anything, it's more of a liability to the town on a going-forward basis than it has been in the past. The conceptualization of investor expectations as being sunk and all others as being going forward may not be quite right.

Response: When we make big changes and try to address public interest, we should do it in the most rational way possible. However, we should not accept a solution that just assumes them away. If this has historically been delivered to the public

through the franchise system of regulation, let's consider a) do we want to do this anymore at all, and b) if we want to continue, how do we assure, as a practical matter, that we actually continue to deliver it.

Question: To what extent does the issue of stranded benefits require federal resolution versus allowing each state to decide what is worth continuing?

Response: There is a national interest in each of the areas that I identified. At the same time, I am wary of creating federal bureaucracies and federal programs because it has been so well demonstrated that the states are closer to the customers and the dollars, and they're going to do a better job on program design and implementation. Let the states design and run the programs and have the national pool pay for part of the cost of doing so. The answer is both.

Question: Would you advocate that divestiture be a primary consideration in any stranded cost recovery discussion or proposal?

Response: If I were still regulating, I would put the burden very heavily on anyone who wanted to maintain vertical integration between competitive businesses and the essential facility monopoly, even for the nuclear plants. I have little confidence in the ability of regulatory commissions to police the kind of mischief that seems inevitable as long as competitive businesses are linked by close affiliate relationships to monopoly wires.

Response: There are two reasons why one might want to order divestiture. One is stranded asset recovery. The other is part of figuring out the optimal configuration of the market for competition. Those two goals are almost mutually exclusive. If you want to maximize the mitigation of stranded assets, the thing to do is sell the market power incumbents may have. That'll attract far more dollars than breaking it up into its optimal units for competition. A carte blanche requirement to sell off stranded assets or generation assets may do permanent damage to the competitiveness in the marketplace.

Response: Being a monopolist is not illegal; it's the exercise of undue market power that you want to guard against. The anti-trust laws are out there to be used. To presume not only that restructuring has to mandate competition, but that we also know what the market structure ought to be, could create a whole lot more mistakes than letting the anti-trust laws work.

Response: We have seen such divergence between the pre-bid claims and the after-bid experiences of the incumbents that any regulator looks at this as an opportunity to get it closer to right.

Question: Would you, as a regulator, be opposed to the distributor identifying this benefits charge as a tax or some other mechanism?

Response: I do not object to telling customers what they're paying and what for. However, there are many, many costs of the system embedded in rates and it would misinform customers if we stripped out only that relatively small portion of rates—2- 3% of total costs today—devoted to public benefits, and itemized them on the bill.

Question: For multi-state utilities, how do you see handling questions like the stranded cost recoveries where the multiple jurisdictions seem to be intertwined and they can't really be treated separately? On the related question of divestiture, it's not even possible to look at putting some plants up

for auction without getting multiple state approvals or multiple state ordering. Without federal legislation for restructuring, how do you handle these multi-state issues?

Response: I wonder if these difficulties really aren't being handled now. That is, it's always possible for Oregon and California to value a power plant differently or to come out differently on the prudence of a power plant that serves both jurisdictions. There must be a number of areas on which those utilities now have to get approvals from both states to go forward. What you're talking about is certainly a larger and more cumbersome package of decisions.

Session II: Reliability and Inter-Regional Transfers

The change to a competitive market in electricity does not lead to any diminution of the public's expectation of reliability. Nonetheless, the old protocols which assured reliability are no longer appropriate for the more competitive market. Should Congress address this subject? Should it continue to rely on the voluntary understandings worked out by players in the marketplace to assure reliability? Should it mandate, or delegate to regulators the authority to mandate, steps that must be taken to assure reliability? What authority over reliability should be exercised by state authorities, as opposed to federal agencies? If voluntary arrangements are sufficient, what steps should be taken to make certain that no actor uses its role in assuring reliability to better its position in the competitive market? What, if anything, should Congress do to sort out the roles of the various "cops" on the transmission/reliability beat (e.g., ISOs, OASIS and Security Coordinators)? Should national legislation speak to the interaction between reliability and commercial activities? Should Congress address the question of who has the residual obligation to build transmission? How should transmission planning be done to assure both reliability and sufficient capacity for a robust marketplace for trading in electricity? Should Congress create a federal siting process? If so, how should that relate to state siting processes already in existence? What about transactions between ISOs? Should Congress provide some means for assuring that inter-regional transactions are not subjected to discriminatory treatment vis-a-vis intra-regional transactions?

Speaker One

Electric systems reliability has two components: system security and adequacy. System security means that the transmission system stays on all the time, regardless of what happens. And adequacy means that the customer can make use of the system the way he wants to and there's enough capacity for the customer to do his job without being impacted by lack of capacity of the transmission or generation system.

A system can be secure even when it is not adequate. However, a system cannot be adequate if it isn't secure. We will take action to maintain system security even if it requires that we drop firm load.

To maintain system security, we implement operating practices. We have rules. The rules are not perfect, but even an imperfect rule will do the job and having no rule is not an option. There's a concern that the rules will be prevented from doing their job, because the rules are not considered to be fair. I assure you that that would be a disaster.

Based on what has been happening as recently as last Monday and Tuesday in the Eastern interconnection, I think we can ask whether we are getting to an adequacy failure. On May 19, there were several major systems in the Eastern interface declaring control emergencies. That means that in the Eastern interconnection, major systems did not have enough capacity to serve load.

May had unusually hot weather, and we are still doing maintenance in May, so there's a lot of outage on maintenance. There is also major nuclear generation out of service in the eastern interconnection. All of that obviously can spur a high load, low generation problem. Is this a trend or is this an immediate failure?

This is not an unfortunate coincidence. I believe there is a fast-moving trend that has immediate and long-term impacts. First, we're having a lot of generation out of service, and remember the industry has traditionally had a lot of reserves. Now we're finding nuclear generation being shut down. We are also looking toward major coal perhaps shutting down.

Those units are the ones that provide the greatest portion for reliability. The transmission system was designed with them in service. They use the transmission system most, with greatest efficiency, because they use less of it. When they're moved out of service, it will become very difficult to replace them for environmental and for siting reasons. The current seekers will find themselves with new generation in locations which are going to be remote from the load centers and require more transmission at a time when transmission has become very difficult to build.

We all know the number of transactions and interconnections has grown significantly. In the past we could only transact with those directly connected to us. Today we regularly buy and sell from Wisconsin to Oklahoma and Virginia. Large transactions over large distances means there are a lot of flows for which nobody knows the origin. There is a greater reluctance in sharing information, even among system operators, because we are reluctant to give away market information.

As for construction of transmission, with the present bundled service tariffs, the local customer pays the bulk of the cost of transmission and the state regulators are very reluctant to approve construction unless there is a strong component of local benefit. Which means that regional transmission intended for regional use is not very popular.

The picture for continued electric system reliability is not good. I think it's going to require action. First of all, we talk about legislation. I think it's very important to identify what legislation should not do because the unintended consequences of legislation can be devastating. Reliability can not be legislated any more that you can write off the second law of thermal dynamics. Second, reliability is a regional and international issue, so we cannot take unilateral action.

Neither Congress nor the states should set individual reliability criteria rules; criteria and rules by law would be a serious, serious mistake. I do think legislation is needed, whether it's comprehensive legislation or targeted legislation to address reliability. Congress should act to establish a federal authority for the establishment and enforcement of reliability rules. NERC, as constituted today, is not able to establish mandatory rules with penalties.

Seconding what the reliability task force concluded, FERC must be given the authority for all the reliability activities in the U.S. I think that FERC should be able to establish a self-regulating reliability organization, following the pattern of SEC and NASDAQ. There would be an organization composed of industry people that have authority coming from a federal agency.

We have to unbundle transmission services. I think a lot of the opposition to transmission construction is based on the tariff, and having regional tariffs will ensure that regional projects are paid for regionally.

The next item is the issue of planning and siting. There has to be regional regulation if

there's going to be regional operation and regional planning. The issue of transmission planning in the future is going to become so touchy that invariably, it's going to have to be done at the federal level. Ultimately, however, because of public opposition to building transmission, I suspect that it will become necessary to have regional regulatory agencies. It is essential that the states get involved, that the local touch be added to transmission siting.

Speaker Two

The North America Electric Reliability Council, NERC, is made up of 10 regional reliability councils. Every electric utility, every participant, in Canada, the United States, and a part of Mexico is in one of these 10 regional electric reliability councils. Nobody is a member of NERC other than these regional councils. They own it.

In the current organization we have a board of trustees, an operating committee, and an engineering committee. Two members from each region are sent to the NERC Board, and it's now populated with independent power producers, power marketers, customers, IOUs, municipal utilities, state utilities, federal utilities, cooperative utilities, provincial utilities. If we don't have two from each of these sectors I just mentioned, then the board is instructed to elect others. We currently have a membership of 37 board members.

We have 23 security coordinators, who are responsible for oversight of the three major interconnections: the East, the West, and Texas. These folks have the authority to tell others to do things to protect the grid. Of course, it has to be done in line with certain protocols and procedures, many of which are being debated now before FERC.

We took the pledge, back in 1992, that all these rules, procedures that we used, would become mandatory on all of the operating players. Further along the line, in 1993, we published a book called NERC 2000, which said that the regional councils must start admitting the new market players.

We appointed a blue ribbon reliability panel to look at the future of NERC. The basic outcome of the report is that a new electric oversight system is needed. However, we want to be able to keep the competencies of the voluntary system.

We need the governments that are involved in NERC—Canada, the United States and Mexico—to give some coordinated grant of authority to a self-regulating reliability organization. This self-regulating organization obviously is too large to have some central organization run the entire continent from a reliability standpoint. They would likely have district offices or regional offices. The new term for these is Regional Reliability Organizations, which are a close parallel to what we have now in the Regional Reliability Councils.

Seven independent board members would be elected in January, seated by May. They would serve with the existing board until the following three conditions are met: the grant of authority from the governments, NAERO (the North American Electric Reliability Organization, the new name for NERC) becoming a self-regulating reliability organization, and decoupling funding from the regions. The way the organization is now, the regions own NERC. This role is going to be somewhat reversed. NAERO is going to be negotiating with the regions or the regional reliability organizations and hand down some of the authority that they would get from the government. So we might have regional

oversight, regional sanctions and things of that nature.

The members of NERC are not going to be the regional councils anymore. There are going to be two classes of membership: Must members and May members. The Must members are operating entities. There are 139 control areas in North America right now. Any entity that has a direct physical or commercial interaction can join as a May member. That could be large customers, public interest groups, regulators.

The Electric Reliability Panel told NERC to drop planning, that the market would take care of it. However, regulators in each state have a different process for siting transmission and generation and they have people employed. It is hard to convince anybody that the market is going to take over for that function. We have put back in an adequacy or a planning committee, and their responsibilities will be to ensure the reliability of the interconnected systems and to do assessments.

A new committee is something now called a Market Interface Committee. It will address the impacts of new and evolving market practices on reliability and the reverse. We are going to address reliability standards from a commercial perspective, so this is going to be truly an interface group.

There is a compliance enforcement program. It is intended to be completely separate from the other committee functions, because this needs to be a group that is not influenced in any way by the normal operations. It has to have the ability to take a look at what they're doing, to decide that they are doing it right or wrong, and if they are doing it wrong to offer sanctions of some kind.

We had a group that dealt with funding. They have decided that reliability should be paid for by the user. There will be a membership fee, now being proposed at $5,000 a year. There will be other fees and sanctions. The board will be compensated, including a per meeting directors fee, some kind of per diem for meeting expenses, and maybe an amount that would be thirty or more thousand dollars a year. This is very low if you look at corporate boards, as well as the liability that might be associated with this, particularly before we have legislation.

The board has also decided to file our transmission loading relief procedures with FERC within the next couple of weeks. We are now getting stronger and stronger in the belief that if we need reliability legislation, we are going to have reliability legislation and it is not going to be touched by anybody else.

Speaker Three

Last week the market almost didn't provide. There were actually 15 companies that curtailed sales to interruptible customers. Nobody to my knowledge interrupted firm load. There were a large number of folks in emergencies. What that means is the next step is something that affects firm load customers, meaning residential customers. Either voltage reductions, for which certain people are already in public appeals, or rotating blackouts will be used. It is a serious situation. Although it had some unique aspects to it, it does portend things for the future.

With respect to the issue of voluntary versus mandatory compliance or membership in whatever it is that is going to ensure the reliability of the system, I think there is almost unanimity that the voluntary system which has worked well just cannot work in the new environment. One of the regions initially refused to comply this summer with

the existing reliability rules that NERC formed. That is a formula for disaster.

The biggest issues we have are the United States versus Canada. The problem is that the regulators are much more engaged in the United States than they are in Canada right now. Particularly because there are multiple provinces, that process needs to get going or else it could either delay things or cause a problem somewhere in the future.

The rules for reliability are really the same rules that we have used for a long time. Particularly the market-based nature of what is coming in the future is going to require some adjustment. However, the fundamental transmission planning and operating criteria are generally not going to change a lot, because they are governed by the laws of physics, not the laws of economics.

It just seems reasonable that all of the expertise and all the experience that has grown up in NERC be modified to become this self-regulating organization. This independent organization, with full participation by all players in the industry, is the right way to do it.

The key is, while we can elect independent board members and modify procedures, if we don't have the ability to mandate compliance with reliability criteria, there is going to be a problem. Clearly, the cleanest way would be to just have enabling legislation that did this, but a lot of folks know what happens when somebody tries to introduce one piece of this like PUHCA. I agree that'd be the way to do it. Whether we are going to be able to do it that way is something else.

Interregional transfers are another issue we talked about. The interesting part of this is that there is still margin available most of the time to increase the amount of non-firm sales in the system. There is virtually no margin for firm sales on peak days. It is true on enough interfaces to really say that you are just not going to be able to do any more of this, because the system is not designed for it.

Some things will help, such as more consistent standards. Maybe we'll do the ATC calculations more consistently. New technologies may help. Some of these FACTS (Flexible AC Transmission System) devices may get more out of the existing system without having to build new transmission, although we're finding out they've got their own limitations. Distributed generation is going to help at some point, but nobody is building any generation. And the ISOs and RROs and whatever multi-state pacts get put together are all going to help increase the liquidity and the transfer capability of the system. Whether that is going to prove sufficient for a robust electric market is an open question.

ISOs are one way to address some of these things, including FERC potentially planning and building transmission systems, but they are only one way. I just caution that ISOs may not be the be-all and end-all. The ISOs that are operating are going to be very interesting to watch. We need to see how California operates when they have a tough transmission situation, and we need to see what happens when they start to get squirrelly market conditions flying all over the place.

Planning to expand the system can actually be done by an ISO, regional reliability organizations, multi-state compacts; all of the things you see people talking about could do that. Probably any of those would work to a point, and the market is certainly going to provide pressure for trying to build transmission. The problem is going to be

that while some things will happen, the not-in-my-backyard syndrome is not getting better, it is getting worse. The alternative to this is to start to build generation someplace where you probably shouldn't be building generation.

Speaker Four

There is a call for some kind of national legislation to put someone in charge and make the rules enforceable. Does it require legislation? I think the answer is probably. These are quite real problems. Do we know what legislation should include? If we go beyond general principles, I think we just don't know what to do. One of the debates going on is over whether you can separate reliability from commercial concerns, and some comments were that you'd have to put those things together, a position that I would take as well.

When do we need legislation for reliability? Well, I come down right in the firm position that we need it later and sooner. I think we need it later, because we really don't know what to put in it and until we figure it out we might do more harm than good. On the other hand, the problems are immediate problems and they are right on top of us. If there is a way to get something with the rifle shot approach and we could pull it off, that is a very healthy direction in which to think about going, even just as a transition mechanism, and not as what we are going to do in the long run.

The way I see it we are like most human beings: we want mutually inconsistent things. We want to have this big interconnected grid. We have multiple control areas with different approaches to scheduling and coordination. This is part of the great experiment in the laboratory of democracy in the states. We want maximum opportunities and flexibility for trading and commerce, so everybody can do anything that they want to do, because that sounds like a good idea. We want no interference for the commercial market. Everybody wants maximum economic efficiency and of course we want more, not less, reliability.

What do we actually have? We have an interconnected grid where everything affects everything else, and it happens fast. This is the short term problem that we are talking about. These are real problems, and they happen relatively quickly in real time operations.

We have conflicting agendas and ideologies. This is reflected in the log rolling on the legislation, people trying to set things up so they can change the rules so they can make more money in the market where they are setting up the rules. It is kind of a normal process, but it is very seriously complicating this.

We have too many good ideas. When you have a problem where you have many different good ideas in some sense it means you don't know what you are doing. The OASIS system is often portrayed as an innocuous information system, but in fact is a model of how the system is supposed to work and is imposed on the industry. NERC Security Coordinators I would characterize as a response to the flaws of the OASIS system. We have ISOs of different forms and types with a range of methods for dealing with some of the same functions. We have a proposal for the Capacity Reservation Tariff, to which we ought to be giving more thought. The challenge is to support market transactions while preserving reliability.

The problem with OASIS is the contract path methodology. There are great

incentives in the system to underestimate for the people who are off the contract path. They get some of the problems and none of the money, and people who are on the contract path get all of the money and few of the problems. This is why we have security coordinators. Security coordinators were created instantly and told they had to cover all of each of the interconnected grids. They had to be comprehensive.

I interpret the rules being used in the line loading relief procedures as the rules that developed from a set of assumptions. These assumptions are that we have to have OASIS; we have to have contract paths; we have to have a system which has no commercial components to it and is just dealing with reliability; and it has got to be somehow rough-justice fair. There is no underlying theory to explain any of this stuff. It is just a compromise set of hodgepodge rules that have been put together. I don't know what else they could have done under the circumstances, however, and it is certainly good they did something because we would have had a much more difficult problem.

ISOs are the alternative approach in many places. If we had a single ISO for the whole grid, we would know what to do and we could go home. But we don't have that. We have multiple ISOs on the same interconnected grid.

The capacity reservation tariff proposal was put together by FERC. It tries to think about the problem as point-to-point property rights that are going to be traded and I think that is a very powerful simplification which is going to help markets a lot. It does raise the problem of the distinction between physical and financial rights. The financial rights interpretation solves a lot of these problems. It does require some coordinated method for trading of those rights, which is a role for the ISOs or security coordinators. This method has been implemented in PJM.

One problem we have is all the curtailment complaints. If you want to read more about these, there is a paper by Gillian Wright that she did for Citizen's Power looking at some of the commercial implications of curtailment. We have poorly defined transmission rights that are difficult to trade, as well as poorly estimated power transfer distribution factors and flow gate limits. There are limited opportunities to pay to avoid curtailment, which would be the usual market response. Also when we now curtail a transaction we really curtail half of it, that is the generation. Mostly the load doesn't go away, and somebody else has got to then get the generation to satisfy the load. This just moves the problem around under a different walnut shell.

An alternative way to think about the problem might be to have purchases and sales to the security coordinators. Rather than doing all this curtailment of individual transactions, they would say they need more generation over here and reduced load over there and buy and sell through to do that. That is effectively buying counterflow in the system. The problem is where the money would come from if everybody has to pay to use the system when they cause congestion, and then the flow of money reverses but with the same incentives at the margin.

Lastly, there are the problems of coordinating multiple control areas, and decomposition rules for grid oversight. The best paper that has been written on the subject was by this group about the European market. The Europeans have this problem in spades as well. The problem is what is required in terms of information flows between security coordinators and/or

ISOs or multiple control areas. They were trying to find the minimum information transfer and the minimum turns out to be a lot when you start looking at the contingency constraints.

You have to have somebody there that is somehow getting information about the whole state of the system and all the flows that are happening. Perhaps where we need to go is towards some kind of tiered system and virtual ISO. I think it is an avenue that we definitely ought to pursue in conjunction with the CRTs so that people can do business in a world that defines transmission property rights that are workable and tradable.

General Discussion

Question: In the Eastern interconnection, we still don't have a comprehensive protocol for dealing with loopflows. In our area of the country, other than an ISO who can be the security coordinator, do you see any other reasonable, short-term solution to maintaining security?

Response: Frankly, what we are trying to do is mimic the ISO by giving the regional council dispatch authority. Of course we have to establish the proper tariff to make sure that the compensation follows. We still have the difficulty of the regional council not necessarily having as much as authority as is required to operate the system.

Question: If price is used to ration scarce resources, why can't FERC solve the reliability problem simply by finding all wholesale prices that aren't at least equal to the locational marginal price to be unjust and unreasonable? Also, why can't it rule that all power is wholesale power?

Response: We have not yet gotten to the stage where the FERC staff implementing these things really understands how all these pieces fit together. They have a lot of internal incentives to have this very simple contract path model, because that is what they are familiar with. The problem is to get them to the view that using prices to get people to do the things that support reliability is a solution to the problem rather than something to be avoided.

Response: Wholesale is defined in law. The FERC has very little discretion on that; wholesale means a purchase for resale. The other issue is the bias built into the organization. It wants to regulate subsections of the legal entity one at a time. Regulating the industry is not a legal concept. True, their power to regulate discrimination is enormous. It is conceivable that they could find that the lack of uniform standards between two regions of the country creates discriminatory conditions against one or the other of those regions. It would be a stretch.

Question: When states site lines for local utilities, they are assuming for their rate payers the residual revenue responsibility of that line. We still have not gotten away from the fundamental disequilibrium in the economics of the system. The monopoly retail customers pay for everything and anything else is incremental. The question is when will folks get transmission out of bundled retail rates and start making transmission pricing mean something?

Response: In Wisconsin, part of the new law that was passed last month is the unbundling of transmission rates within two or three years. The proposal on the Midwest ISO calls for transmission tariffs at the ISO level. We see ISO tariffs as a mechanism by

which we can resolve the concern of local regulators.

Response: As a former state regulator, it struck me intuitively that if I were making a siting decision, I was forced to make a parochial decision because I was imposing costs on my ratepayers. If the utility goes to FERC to get its transmission rates, that frees the state regulator from having to be parochial in siting decisions.

Response: The pricing systems as exist now in PJM or as proposed in New York make a distinction between the existing transmission system and incremental investments in the transmission system. New York explicitly says the utilities are not going to do incremental investments as rate-based investments. People from the market have to make the initial application and agree to pay for it. It doesn't deal with the existing configuration, but at least it would solve the problem for the incremental investment.

Question: What do we do if we don't get federal legislation sooner? Maybe you could have reliability going forward on a fast track, but again it is going to attract a lot of amendments and a lot of additional issues.

Response: Part of our strategy is to push on ahead and create this need for legislation in hopes that it is a demonstration to the governments of the United States and Canada. We know that there are several organizations in Washington that are dedicated to making a case for reliability so they can get comprehensive legislation.

Response: The odds are that somebody will disagree enough to refuse to play at some point along the line. You are grasping at straws, but maybe there are ways to deal with what's already on the books. Is there a way we could use reciprocity provisions to basically deny the outlier the use of the transmission lines from his neighboring utilities? Could you use rate recovery for compliance?

Response: I don't think you could use reciprocity. Putting something in the tariff has been one of the proposed solutions.

Response: If we have firm load that is denied in the next six or eight weeks, you can change the political dynamics very quickly on this issue. I am not recommending that, but there will be a political response to the marketplace, whether it is a good one or not.

Response: I think the reality is that the system has to operate. We assume that the pressures would grow on FERC to take some kind of action wherever and whenever it could.

Question: Assuming that you've got at least a year before anything legislative takes place, can NERC create the institutional relationships of oversight between FERC and NAERO that you are looking for in the legislation?

Response: The Western States Coordinating Committee is proposing a system of contracts. The MAIN regional council is preparing a procedure that calls for identifying redispatch opportunities to avoid line loading relief. The council staff will simply identify which generation can help and basically tell the buyer where to buy from. It happens to violate 888, I believe. We intend to file with FERC and say this is what we intend to do and send anybody who has a complaint to FERC.

Question: At some point in time you pay people to get off an airplane; you can pay people to get off the system.

Response: If you are able to start making the customer raise the price, then that is fine. However, until you get that passed through at the state level and you can start charging the customer $10,000 a kilowatt or whatever it gets up to, they are not going to react because they don't have that price signal. Without the price signal you get into involuntary bumping, and when you kick someone off against their will and don't compensate them there is a big price to be paid.

Comment: There is more and more real time pricing where we send the information out to the industrial customers ahead of time and they can make a decision to cut back or pay whatever the real time pricing is. However, I feel that there is a limit to that. There ought to be a way to make pricing signals help us through this, but I don't feel that we are going to be able to solve the problem completely that way. You have got to have a way to keep the system up, with some way to control the load involuntarily.

Question: What would NAERO do if they find that there's not enough reserves out there? I see that whole notion of firm and non-firm is just going to have to disappear. It may be replaced by some kind of financial trading rights.

Response: This system is always going to be secure, so if there's not enough reserve or there's not enough generation to serve the demand, then the demand gets curtailed in some orderly way.

Response: The whole notion of these categories and administrative curtailments is a hangover from the regulated world of average cost pricing where people didn't have market opportunities to respond to things. Now we've got markets, and if we give people the pricing signals, they'll go for distributed generation if it makes sense and they'll go for paying to buy through the pool if it makes sense. We're seeing it even in the first month in PJM; these prices shock everybody when they see what the real costs are. They'll need a new system and what it essentially boils down to is they'll be able to re-dispatch.

Response: If we go to a completely price-sensitive system, you pay whatever it is or you get off the system. When you get beyond the load that is easily price-sensitive and get down to the native residential and commercial load, think about who gets held responsible for that. I think the regulators are going to have to define rules to play by and somebody's going to be held responsible.

Comment: We've never really tested price elasticity for electricity. If there were a time of use price signal, we would probably have huge industries arise in a matter of months to put controllers on all kinds of electric loads. There will be a lot more automatic regulation of our energy consumption.

Comment: I think you cannot run away from the fact that the system will not run under certain circumstances unless somebody gets off and very quickly. You can let the market do its job in preparation for it, but on the operating point you still need the rules with a clear hierarchy of who gets dropped.

Comment: It makes a huge difference whether or not you're pricing things right even if you're pricing them after the fact. You've got to get people to comply. If they're in an environment where they say, “if I don't comply, I get the power for the cheap average cost price that everybody else is paying and I don't have to pay $2 a

kilowatt hour," the incentive not to comply and not follow the rules is going to be much more serious. If you have pricing rules out there where everyone has to pay for the congestion they contribute to, then they are much more likely to comply even though it's a command and control kind of environment.

Comment: It's a lot easier to get economic behavior out of large industrial and commercial customers than it is trying to get the general public to adopt economic principles. The concentration needs to be on those industrial customers who have 30%, 35% of the load nationally.

Question: What's going to happen to reform the regions along a similar time line to the NERC/NAERO reforms, or do you think that that's a more than three year process?

Response: Obviously, if the legislation comes in it will take care of that problem. In the meantime some of the regions are reforming and I think I can give you about a 30% assurance that the regions will reform during this interim period. The pressure is going to be so great for the regions to follow NAERO's reforms that I don't think you're going to see a huge reluctance to move, generally, the same way the overall organization is.

Question: You still have to have consistent operating standards, especially between operating regions and interconnections. I'm also a big believer in flexibility for local communities. Where do you draw the line between national standards and local flexibility?

Response: The current thinking is that you would have overall standards and then you would have more specific standards developed at the local level as long as the local standards were not in violation of the more general international standards.

Question: What would be the problem with having more distributed current (DC) inter-ties that could provide some insulation between smaller blocks of regions?

Response: This quickly becomes a technical issue. Trying to decide what the cost-benefit would be of isolating an area with DC lines or DC inverters is a tremendous scientific guess.

Response: Losing the synchronous response that you get from a large interconnection would be a cost that would far outweigh any benefit.

Response: It's interconnecting everything that makes the system so reliable, if you do not violate the constraints.

Question: We know that there are substantial differences of opinion on the desirability of the standards being created. What makes us think that we are not going to end up with a lawsuit?

Response: The opponents are not challenging the rules per se as much as they once were. But they are challenging the process and the fact that FERC hasn't anointed us to make these rules. We're taking all the steps that we possibly can to do things in a fair and open way. Over time everything will go through due process and be dropped at the door of FERC.

Response: Above all, they are objecting to who applies the rule. When the person applying the rule happens to work for the competitor, an integrated corporation, then it doesn't matter what the rule is.

Session III: Market Structure/Retail Competition

What should Congress do about the structure of a competitive electricity market? Should it mandate, or delegate authority to regulators to mandate, unbundling or divestiture of bottleneck facilities (e.g., transmission)? Should it mandate retail access on a national basis? If so, how should Federal requirements interface with retail access regimes that have already been, or are about to be, implemented at the state level? Is there a need for federal guidelines, standards, or requirements in defining retail access? Will the market be unduly distorted if some states permit retail access and others do not? Will the ability of regulators to protect consumers in "low cost" states by keeping prices low in those states be impaired as utilities are tempted to sell into higher-priced retail markets in other states? Should a state with retail access be able to impose reciprocity requirements on out-of-state utilities seeking to sell power into the open retail market in that state? What, if anything, should Congress do about market power issues? Should regulators be given authority to order asset divestiture where it is deemed to be in the public interest? How should such authority be apportioned between state and federal regulatory agencies? What criteria should Congress establish before divestiture can be required?

Speaker One

In Washington State, we have retail wheeling. Not because the legislature has passed a bill. Not because the public utility commission has decided to open the transmission system. We negotiated with Bonneville to get retail access on the Bonneville transmission system, and that is the dominant transmission system in the Northwest.

We do not have a corporate purchasing program. I know a lot of discussion has occurred about the possibility of corporations having one, massive energy department like we had in the '70s. We've not found that to be a feasible approach yet because our plants are so diverse and in such different areas.

We've decided we don't want one big supplier. We want a mixed portfolio of suppliers. Basically, we want multiple suppliers, and we want variable terms. Some contracts are a year; some are five years. We're trying to make sure that we're able to protect ourselves as well as get the best price.

We're tracking the fundamentals of the energy market on the West coast. That's gas prices, primarily. We also track what happens to hydro dams because if you take some dams out, that could change the economics on the West coast dramatically. We track weather because weather relates to the water conditions in the hydro system and to consumption. We track generation unit closures because they can have a significant impact on us. We are tracking transmission because that's critical to us. We want to know what the capacity and use of lines are, and we want to know which way the electricity's flowing. Sometimes it's to our advantage when electricity's flowing into the Northwest; sometimes it's to our advantage when it's not. It all depends on these overall economics of the system, and we want to be able to take advantage of that.

We're also using some unbundled services, primarily through Washington Water Power, to help us do some of the tracking and monitoring that we have to have as a customer. We are doing risk management. For instance, we set price caps and floors, link prices to certain energy indices, do

some hedging, and do both financial and physical electricity swaps and options.

Another big thing we do is track the financial health of the smaller independent companies because some companies out there already promise things that we don't think they can deliver. We want to look at their basic economics when we sign the longer term contract. Quality of service is also critically important to us. We can't afford to have our big plants down.

We don't think federal legislation is needed to establish retail wheeling in the United States. Federal legislation is necessary to make sure that the competitive system is truly competitive, to remove barriers to competition. We are worried about state restrictions, particularly if states preserve their intra-state sanctuary markets.

There has to be regulation of the monopoly transmission, and we think there ought to be separation, either through divestiture or administrative separation, of the transmission system from the generation system and the distribution system. Our position on administrative separation is biased somewhat by our dealing with Bonneville. We think if they keep Bonneville as a federal agency, they might be able to do it administratively.

Transmission has to be cost of service-based. It ought not to include some of the cross-subsidies. For example, at Bonneville, you shouldn't pay for fish programs on the transmission system. It ought to be on the power side.

There are some issues that are simply not essential to deregulation. We don't think you have to have environmental regulations as part of a deregulation bill. If there are issues on the environment to be addressed, we have a whole series of environmental laws that apply across the board to industries.

We don't tend to think you ought to try and get renewable resources subsidies as part of a bill that's trying to improve the economic efficiency and competitiveness of an industry. We'd hate to overlay competition with a new set of subsidies.

As a company that's worried about reliability, we're also very concerned about how the subsidies work. If a utility or an independent power producer has to supply 5% or 10% of its power as renewable and something happens to the supplier of renewable power, we don't want to be cut off because suddenly that's going to drop down to 8% or 4%, nor do we want to have an extra surcharge to deal with that problem.

We don't think you can have ultimate competition until you address privatization of the federal assets. Although we're a big customer of Bonneville, we're prepared to say that ultimately Bonneville, TVA, and the other federal power marketing authorities ought to be privatized and operated as independent power companies. We think it would improve their efficiency, and it’s the only way you can have true competition in some parts of the region.

Speaker Two

What we're primarily concerned with is the entry strategy. Where do we go from here, and how do we make money in this new business?

We need to clear away the PURPA and PUHCA underbrush. I don't believe that reform of PURPA is possible. I think you have to repeal it outright. I would also say that we need to repeal PUHCA. The integration requirements of PUHCA are now diametrically opposed to the best public

policy, which favors desegregating utilities to separate out merchant and monopoly functions.

PUHCA is constraining horizontal consolidation of the grid. Lots of mergers that would be in the public interest are stymied at this point because you have to become a registered company or you simply can't get it approved because of the integration requirements. I suspect that PUHCA is encouraging investments in foreign companies that have marginal synergies. I think there are companies that are feeling hemmed in here, and simply have to go abroad. PUHCA is also a pinch point for regulatory delay.

I would ask that Congress substitute for these two statutes a declaration of national policy that we are to favor competition in those segments of the industry that are no longer a natural monopoly, specifically generation and retailing of electricity.

Congress needs to mandate and authorize FERC to assume jurisdiction over the entire grid in this country. Primarily, I'm concerned that all portions of the Western and Eastern interconnections be brought under one common regulator. To that end I would include munis and co-ops, TVA, and the power marketing agencies. I would bring every part of transmission in the country under federal authority.

I would remove transmission siting from the states and give FERC a mandate much like they have for pipelines, where they're able to do the environmental reviews and site transmission.

I would also replace the wholesale/retail standard that FERC has used to decide where its jurisdiction stops and the state's starts. I would replace it with an asset-based determination of what is transmission, to be regulated by FERC, and what is distribution, to be regulated by the states. There are certain basic indicators to distinguish distribution assets from transmission assets. Those elements that are looped and that have complex network interactions should be transmission, and those elements that are radial and look like a gas pipeline in their physical characteristics should be distribution.

We need to consolidate the control centers. I think reliability and breaking down barriers to competition are at stake. I would have FERC determine what the regions ought to be, and to increasingly lay down prescriptive requirements for how an ISO should function.

I would replace the amorphous just and reasonable standard that FERC uses for deciding how to price transmission. Comparable, non-discriminatory, open transmission access ought to be part of its pricing structure of the future. I think we now know how to get on with pricing of transmission, and FERC ought to pay a lot of attention to pricing designed to support efficient and effective competition.

I would ask that Congress enhance the level of authority that FERC has to coordinate with Canada and Mexico. That's key to getting the Eastern and Western inter-connections completely under one set of rules.

I believe we need Congress to mandate that generation be disaggregated from transmission and distribution, either through outright divestiture or transfers to affiliate generation companies. However, I would not want to tolerate any form of foreclosure. I believe the parent company ought to be able to compete in all segments of the business, both regulated and unregulated,

but it ought to be done through separate companies subject to fairly strict affiliate rules to regulate their conduct.

I would mandate that the divestiture or disaggregation occur by a date certain. I would leave it up to the states how to manage this process. I believe public power has to go through the same ordeal as private power. I would leave it to the state and local regulator to value these assets, although I would personally prefer that there be a federal recognition of recovery of stranded investment.

There are some federal interests that remain in distribution assets. There are generators that are connected to the distribution system, and there's a federal interest in them getting up to the transmission system in interstate commerce. Also, in some cases wholesale customers are interconnected at the distribution level. In California we have what's called a wholesale distribution tariff, which I think is ultimately unworkable. FERC ought to be able to declare these federal interests and set basic standards, basically open access to the distribution grid.

There would be full customer choice because consumers would have open access through the distribution grid to suppliers. Also, any generators or wholesale load interconnected at the distribution level would be able to get non-discriminatory, comparable treatment on distribution services.

I believe that horizontal consolidation of transmission and distribution is in the national interest. Even as we desegregate vertically, we need to promote horizontal consolidation. My suggestion is to make FERC the one-stop shop at the federal level for mergers. DOJ and FTC have duplicative responsibilities that are overlapping with FERC. I also favor partial pre-emption at the state level for duplicative review of mergers. Those things that FERC does not review, states ought to be free to regulate.

Question: Are you suggesting that mergers among generators should be reviewed only by FERC, not by DOJ or anybody else, and not by the states?

Response: I don't know that mergers by generators ought to be reviewed by FERC at all. If DOJ, under Hart-Scott-Rodino, has jurisdiction today, it would have it in the future over generation.

Speaker Three

The central question members of Congress, both Republicans and Democrats, are struggling with right now is that we don't get any constituent mail from residential consumers about electricity. We get a lot of telecommunications mail. That has tended to make even the most ardent deregulation or competition members shrink turtle-like back into their shells for the duration of this electoral cycle.

Another central question that's haunting members is that doing a pre-emptive federal bill has come to stand for the proposition that the feds know better than the states. The irony is a lot of Democrats are saying, “We really respect the states, they really are closer to the people, they know what they're doing.” A lot of Republicans find themselves in the awkward position of saying, “Economic models and stronger values cause us in this one instance to have to pre-empt states but we don't really mean it. Once we preempt them on the threshold question, we'll give them lots of latitude.”

We have a very dynamic situation, in terms of constitutional law and state and federal

rights. The Commerce Clause is a wonderful thing. Certainly, you can discuss electricity as a commodity. Certainly, it's interstate commerce, legally since 1961 if I remember. However, there is also a countervailing set of interests which came to the fore in a couple of cases last year. One was the Brady gun bill case, also called the *Prince* case. The decision there was essentially that the federal government can't tell states what to do and make them pay for it. There may be very strict limits in future cases as to what we can get states to do or even think about because it costs money.

In the *GM. v. Tracy* case last year, a taxation case, the Supreme Court upheld a state tax law that discriminated between in-state and out-of-state gas supplies. From that case, you can only conclude that this Supreme Court thinks that there are some state rights which can duly burden interstate commerce.

Let me turn to four bills: Mr. Markey's bill, the Paxon-Largent draft which is sort of a son of Mr. Schaefer's bill, the Nickles bill in the Senate, and a piece from the Administration's draft plan. To characterize these, I've come up with four competing philosophies. First is persuasion, second compulsion. The third I can only call deconstruction, and the fourth I'm going to call fusion.

I would call Mr. Markey's bill persuasion. It takes a carrot-and-stick approach to luring people into wanting to do competition. It offers PURPA and PUHCA repeal in exchange for competition. Bearing the constitutional tension in mind, it is interesting that this bill calls for voluntary state certification. Specifically, a state regulatory agency may elect to go to competition. Nothing in this title prohibits states from doing what they want. This is probably not going to run afoul of the arguments on telling states what to do. This sort of approach might make it in the long run because you offer people very tangible benefits to get to competition.

The Paxon and Largent draft is the compulsion model. It tells the states they can choose competition or else FERC will do it for them. It says every state-regulated local distribution company will provide open access by 2001. Later it says FERC will take over the authority of the state if the state doesn't elect to take up competition on its own.

Constitutionally, this is trying very hard to fit within a framework where it's constitutionally OK as long as Congress gives states a choice. This previously was and may still be a valid framework. The complication here is, is this a real choice? Also, if a state "chooses" to follow the federal competition mandate and put it in place, it also gets the honor of paying for this and the joy of implementing it.

Paxon-Largent also has a grandfather clause which appears to grandfather straight out all existing state laws where the state retail plan has been enacted before this federal law is enacted. If you've already enacted legislation, you get to decide when you go to competition because your date is grandfathered. If you have not yet enacted legislation you've got an immediate date of 2001 and you also have to include munis and co-ops. You end up with a two-tiered system. The reason for a bill to grandfather states who have gone is to get the votes. On the other hand, it destroys the uniformity argument as a reason for doing federal legislation.

Senator Nickles' bill brings us to the deconstruction argument. It takes the Commerce Clause argument to an extreme.

An amendment to the Federal Power Act, it says that nothing in the Federal Power Act or any other federal law shall authorize a state to maintain a monopoly, a franchise system or unduly discriminate against any other customer. This leaves to the side the Tenth Amendment, the Brady gun bill and dual sovereignty issues I discussed earlier. I think this is an attempt to do a very elegant job of declaring electricity to be an article in interstate commerce, as if that were the only question, and try to let everything else fall out. The problem is that this leaves aside the fundamental question of whether the Commerce Clause is really the only value to be weighed or whether other issues matter.

I would call the Administration draft bill the fusion approach. It says that by January 1, 2003 basically every distribution utility—and that's a defined term in here—has to offer open access and will do so in a way that's not discriminatory. However, the Administration's principles are that you don't force states to do this, but that they can opt out. A state regulatory authority could decide not to implement retail competition if it finds and proves that implementation of retail competition requirement by the distribution utility will have a negative impact on a class of customers of that utility that cannot be mitigated reasonably well.

The underlying question here is, if you don't opt out, what do you as a state regulatory authority have to do? Surely, you've got to change your way of regulating. Surely, you've got to have proceedings; that's costly. Isn't this really, between the lines, telling states what they have to do? Does that stand up under the Brady gun bill precedent?

There are also reciprocity provisions granted, so this is a little bit compulsory, a little bit voluntary. As one of the speakers said yesterday, we may have too many good ideas. Maybe we have too many ideas, period.

Speaker Four

Once upon a time, in a great nation, there was a state called Euphoria where electric power rates were relatively low and customers, when they paid their bills, were sullen but not openly mutinous. But this was not to last.

The threat of change was coming from other states in the nation, such as High Cost, Dissatisfaction, Rate Shock, Poor Management, Bad Investments. The customers in those states were not happy with their high electric rates and were convinced that rates could be lowered. So, they began to put extreme amounts of pressure on their state and national policymakers to make changes. Some of those states made changes in their laws to require that customers have a choice of electric suppliers. This was not enough, however. Some people believed that there must be a change in the national laws, too.

Many meetings were held. In fact, a whole industry grew up around these meetings to discuss whether, when, or how the nation's lawmakers, known as the federal meddlers, or the Fed Meds for short, should do with respect to this situation.

In Euphoria, utility regulators were very concerned, for they had searched high and low for benefits in the various restructuring proposals and had not found enough in any of them to make it worthwhile to implement dramatic changes in their regulatory structure. But the debate did not subside and change seemed to be inevitable.

One of the utility regulators in Euphoria was a beautiful and intelligent woman, but she did have bad hair days. Her name was

Donna Quixote, perhaps you have heard of her forefather, Don Quixote de La Mancha. Quixote had served as a regulator for a long time and had seen many changes in other regulated industries. She believed that the march of electric restructuring could not and would not be stopped.

She studied the issues at length and went to many of the meetings. She reviewed the proposals, always using as a touchstone for assessment her favorite part of the national constitution, the Tenth Amendment. The idea behind the Tenth Amendment was that the real power of the nation belongs to the states, which for purposes of convenience and the public good have delegated some of their powers to the federal government.

Quixote listened to the concerns of citizens of Euphoria. She carefully studied many proposals including one put out by the nation's chief executive which outlined a plan for national restructuring. The following are Quixote's conclusions and recommendations as she set off to tilt at the windmill known as the nation's capital and to enlighten the Fed Meds.

One of the hotly debated issues was whether individual customers ought to be able to choose their electric provider. Some advocated that the Fed Meds ought to require the states to implement that choice by a certain point in time. Some states had already gone that direction after reviewing the situation themselves. Some advocated that unless all states did the same thing with regard to retail choice, chaos would remain and the full benefits of restructuring could not be realized.

Quixote advocated that the Fed Meds ought to affirm that states have exclusive jurisdiction over retail services, including their ability to implement or not implement retail competition. In her opinion, the crazy-quilt criticism of state-by-state consideration and determination of retail access had become a shibboleth. But it had never been shown that different policies for access to the local distribution networks couldn't co-exist for a significant period of time. There is a need for a clearly defined division between what is local distribution and what is transmission, but so long as FERC is capable of implementing wholesale open access for transmission services, one state's individual policy on retail access should not unduly distort retail markets in other states. And of course, existing and soon-to-be-implemented state programs should not be interfered with by the Fed Meds.

When asked whether a state with retail access should be able to impose reciprocity requirements on out-of-state entities seeking to sell power into the open retail market in that state, Quixote expressed her belief that this was a problem that will resolve itself over time. She opposed federal legislation that prohibited sales by a utility with a closed retail market to retail customers of a utility with open access. The Fed Meds could authorize states with open retail markets to restrict sales by utilities with closed markets and states that felt the need to do so could. States that found no need or benefit in such a restriction would not adopt such a policy.

Quixote appreciated the Administration's idea of a flexible mandate. To that idea, she added the requirement that states should define a level of service at which a customer is entitled to a choice of supplier. This refinement grew out of her experience reviewing a contract between Euphoria Power and its largest industrial customer, We Pollute, or WEP.

In that context, the parties had agreed that while half of WEP's load would be provided at a commission-approved contract rate, the other half would be purchased on the open market by Euphoria Power for WEP through a Euphoria Power employee whose office would be on the premises of WEP and who would buy and sell according to the instructions given by WEP.

That sounded like the functional equivalent of retail choice to Quixote, and it got her to thinking that there are some customers who should have choice and who probably can't be denied choice regardless of state law. But how to set the criteria? Quixote believed that states should be required to make that assessment, just as they had been required to do other assessments under other federal laws.

Quixote realized that state decisions on retail access of new service providers must pass scrutiny under the Commerce Clause and not be discriminatory or unduly burdensome in a constitutional sense. However, she was not in favor of federal guidelines, standards or requirements that would define retail access because of the experience that she was living through in implementing the Telecommunications Act of 1996. It is understandable that some parties desire national uniformity for the regulation of entry into retail markets, but there are substantial practical problems in assessing needs of local markets and protection of consumers from abusive practices that can only be addressed by those with firsthand experience and knowledge of those local markets.

Quixote also believed that the reaffirmation of state authority over retail electric services should extend to the determination of retail stranded costs and their potential recovery. The Fed Meds could require that the states address this issue. The states would decide whether such costs exist and whether and how to recover them.

Quixote did not object to the Fed Meds setting a date by which states should have considered electric restructuring issues, so long as it was at least three years out. That would give enough time for the differing state legislative and regulatory processes to operate.

Quixote also believed that the process of restructuring might not yield the results touted by so many if effective competition failed to develop and some entities had sufficient market power to prevent full and open competition. She therefore advocated that regulatory processes should continue where effective competition is absent. The Fed Meds should ensure that both state and federal regulators have the necessary authority to address market power abuses effectively and that there be no impediments in federal law to state actions to address market power abuses.

It is not necessary or desirable that the Fed Meds prescribe the conditions under which either federal or state regulators take remedial action, including divestiture, but rather the Fed Meds should provide flexible tools for regulators to use as the public interest requires. Quixote recognized the difficulty here of the overlap in federal and state jurisdiction. The possibility of conflict in actions taken in particular instances by both federal and state regulators with jurisdiction may call for some kind of joint federal-state decision making process.

It became clear to Quixote that some existing federal laws needed to be changed to accommodate the choices that states were making. For example, PURPA’s mandatory purchase requirement had outlived its

usefulness in an environment where generation was competitive. If the acquisition of generating capacity is subject to competition or other acquisition procedures such that the public interest is adequately protected with respect to price, service, reliability and diversity of resources, then mandatory purchase requirements should be eliminated. Additionally, PUHCA requirements could be reduced or eliminated as competition becomes effective at preventing monopoly abuses, so long as the consumer protection provisions incorporated in the Energy Policy Act and the Telecommunications Act of 1996 are retained.

Reliability of the transmission grids in the nation is of such importance that Quixote advocated that the Fed Meds should explicitly affirm the public interest in transmission grid reliability and the need for mandatory compliance with reliability standards. In addition, they should clearly provide authority to the states and to FERC to act in co-operation to enforce the necessary standards. Quixote did not concur with the Administration's proposal to give FERC the authority to review the reliability standards. Transmission grids have been expertly operated with the system of regional co-operation. Quixote believed that the regional level is the optimal point at which mandatory compliance would be overseen and where standards should be adopted. Quixote was confident that the regional process would ultimately result in an efficient and appropriate set of operating standards.

She acknowledged that there are two areas that have substantial federal interest: national security and the appropriate commercial interest accommodation. It was also clear that the Fed Meds were the only group that could adequately deal with changes needed for the federal power marketing entity that marketed and transported power in the region. Her hope was that the region itself would be able to agree on and recommend the role and function of the PMA in the future and that the Fed Meds would then legislate that agreement. Barring such regional consensus, the issue would be fought out at the federal level and the Fed Meds would make the final determination.

Quixote's confidence in the regional groups and processes that existed extended to the creation of an independent system operator or operators for the region. Above all, she was opposed to the threat of FERC having the power to mandate membership in an ISO and require region-wide average pricing. Such a mandate would have devastating consequences to customers in Euphoria.

Existing Western grid management institutions have successfully performed the functions of promoting system reliability, co-ordinating operation, transmission planning and promoting open transmission access. They can be expected to also effectively promote efficient markets, monitor market behavior to look for the exercise of market power and develop an efficient transmission pricing system to replace the current one.

Is there a happy ending to this fairy tale? No one knows yet. The debate continues to rage on.

General Discussion

Question: I wonder if you can elaborate a little more on just how you go about purchasing your own electricity. Are you actually doing daily and weekly purchases and doing your own swaps and options, and how big of an organization does it take to do that?

Response: We've had to expand the size of our organization. We used to have one person who dealt with energy matters and some other matters. We now have an office of three people, two of them virtually full-time on the electricity side. We don't tend to do a lot of spot market buying on a daily basis. We tend to use hedging and other factors to take care of that. We like to have a contract that is a minimum of a year, and during the transition period it's about five years. We have found that we are relying on utilities for major portions of our work because we decided it was not worth duplicating inside our company the kind of unbundled services that we could purchase from a utility.

Question: Why didn't anybody draw the line between state and federal based on size? Is there something in law which would deny the feds the right to say that all large users should have open access and the state shall then have unlimited discretion to determine the rate for smaller users?

Response: The division point needs to be set at the state level because they're the ones with knowledge of how the individual systems and customers operate, in order to put it at a point that makes sense.

Response: There's a political dimension to this that played out in California. Will Joe Sixpack benefit from competition, and why should only the big dogs eat? That's part of the answer, that pushes you toward universal customer choice or allowing the customer to decide whether or not they want to be in the competitive market.

However, as a vertically-integrated utility, one of the concerns is that other people are going to define the rules such that the people that go to the market get preferential treatment. Costs are going to be shielded from them and someone has to be left there to hold the bag. So we would then want a choice for everybody.

Question: People in low-cost states are concerned that the utilities in those states will shift all their high-cost assets to the less-competitive market and move their low-cost assets to the (high-cost) competitive market, where profit margins are biggest, so that immediately, the low-cost state's rate-payers get a big hit. Will the authors of the pre-emption bills view state regulators' actions to stop this phenomenon as being pre-empted, or some sort of constraint on interstate commerce?

Response: I think that's become a real sticking point, particularly because a lot of representatives from low-cost Western states are Republican and so they struggle with the question of whether federal pre-emption is in the interests of their constituents.

Comment: If these are all rate-based assets, and they go through a divestiture or a valuation process, then I think state regulators can appropriate that value for consumers. Even if they stay in rate base, at least in regulation I'm familiar with, generally if you have "off-system sales" with rate-based assets, then all or most of that is captured to offset cost to your own customers. So if the value that low-cost states have is related to their generation, I don't see why they cannot continue to enjoy that historic value.

Comment: I think you're using historic to refer to the assets, not the time that they're going to collect the money, so if you had a low-cost imbedded-cost asset and you sold it for market, you'd capitalize all the future benefits. Then that would flow through to the customer. The fear is that the clout of some utilities is such that they will go to the

legislature and make sure that the Commission does not have the ability to do this.

Question: I'm hearing an awful lot of prescription and re-designing of the market and I'm trying to figure out where functional unbundling at the wholesale level has shown itself not to be operating reasonably well.

Response: A lot of the arguments about getting rid of PUHCA are not that it is an outdated type of structure, but that we don't need to be structuring markets, so it is per se inappropriate regardless of the content. However, very often the same people who want to get rid of PUHCA turn around and say, “But we're going to really need some other structures.”

Response: What we are talking about is the regulated part of the business that has to support competition, and that's why it just can't be left to the marketplace. Once you go to retail competition, I think functional unbundling on the electric side will be unsustainable. Also, DOJ seems to be moving much more toward structural remedies. They don't want to hear about conditions and affiliate rules.

Question: If you were going to advise NERC on how to get the rifle shot approach to reliability legislation to hit the target, what suggestions would you have?

Response: I can't wish for a big problem this summer. Since it looks like we are going to get some of those anyway, however, a problem should be noted and characterized because that will catch people's attention. I would just make the case that way and try to wait the rest of it out.

Question: Are there any other practical cases where, when you roll up the generation assets altogether, they really are stranded benefits?

Response: It's my understanding that every utility that has put its assets on the block has gotten above-book for everything.

Question (follow-up): I don't think the nuclear assets have been sold through. You would expect fossil units to get above-book.

Response: Some of these are hydro units. I've heard some people buy them just for the site. Having a site where you could generate power is valuable.

Comment: In Pennsylvania, nobody has challenged the regulators’ ability to net the benefits against the costs as long as there were net stranded costs. So if symmetry holds, it would seem that regulatory authorities could take the net stranded benefit and pay off their citizens so that they wouldn't be so unhappy about selling their low-cost energy to California.

Question: Is it likely that we could get legislation through that would create two or three standard-setting organizations for reliability--one for ERCOT, one for the Western systems, one for the Eastern systems?

Response: I think you could if you had a relatively homogenous framework for each of them. If they were wildly divergent, you would probably see it collapse.

Response: It's my understanding that from an engineering standpoint, the Eastern and Western interconnections are very different. What the West is afraid of is a national organization that mainly looks to the East and develops rules that are not appropriate or at least causes it to operate not at optimum efficiency. The proposal is that the standards ought to be created at the

lowest level where there is no impact on another region. I did concur with the idea that there ought to be deference given, and in fact a rebuttable presumption, that the region could do its own thing.

Response: I think the rebuttable presumption argument probably is not going to fly. I do think there's an argument in NAERO for every region to have the right to petition for a variance, but NAERO would remain the ultimate decisionmaker. It would be accountable to FERC, which would in turn empower the imposition of fines.

Question: I am concerned that horizontal mergers among generators will lead to conditions of unregulated monopoly in some time periods and unregulated oligopoly in other time periods. Affiliate ownership of the wires by the people who are in a position to extract those high HHIs at various times gives me pause as well.

Is this just a trust issue? Or do we have a real economic problem? Second, if we have a problem, should we deal with it through structural preconditions or should we rely on ad hoc after-the-fact interventions? And third, who should be in charge of making these decisions--FERC, DOJ, Congress, or the states, or some combination?

Response: I think there is a real economic problem here. Part of the solution is structural. I think there should be disaggregation up to a point. However, you can use codes of conduct and so forth to separate those businesses appropriately and allow one parent company to be in both pipes and wires and in the merchant business. FERC needs to be empowered by Congress to handle the bulk power market, the transmission part. State and local regulators ought to have a lot of authority over how retail competition plays out and how it's policed. There is a big consumer protection issue when you bring in retail competition.

Response: It is a lot easier to prevent problems, whether you do it through affiliate distinctions or behavioral restrictions as opposed to combination restrictions. Anti-trust remedies don't help you if you went broke in the intervening years.

Response: We are more concerned that there will be overregulation than we are that a few big companies will dominate the field. Go a little slow in terms of how much regulatory protection you're going to have on the anti-trust side. Let this thing evolve a little bit. Maybe come back and correct the problems afterwards. Certainly if you see an obvious clear problem that is going to come up, address it now.

Response: For those of who you don't work in telecommunications, it's helpful to look at some of the experience we've had over the past decade. When we heard about the merger of NYNEX and Bell Atlantic, for example, we were told that it was pro-competitive for these two dominant firms in the East Coast to merge even though they had 98% of the access lines in their regions. I asked the witness, "If you also brought in Bell South, would that be pro-competitive?" And they said, "oh, yes." With each increment of my questioning, the answer was always yes. The argument was that all of the baby bells should be put back together because that would be pro-competitive.

We have seen such consolidation in the telecommunications arenas, and nobody has been shy about asserting each time that these are pro-competitive mergers. That gives us all great pause about where we think the electric business might also head.

Question: All the bills are pushing for retail direct access. Has there been any discussion at all about any kind of market structure or market institution that would go along with that, that would realize a transparent spot price for a commodity that changes price hourly, let's say?

Response: I don't think so in legislation. You certainly see in FERC's orders their efforts to make things transparent. Hopefully, next year we will get to some of those questions, which we really shouldn't act on without having considered.

Response: In Texas we're probably not going to get a deal done if we force structural unbundling. If the co-op and muni community have the type of clout at the federal level that they have at least in our states, the same thing would apply.

Question: Would it make a difference if campaign finance reform were enacted before Congress took up restructuring legislation?

Response: I suspect that whatever campaign finance reform got through would not prevent private money from reaching public pockets. People do a lot of prophylactic contributing in the sense that they know that that is gaining access if not absolutely affecting congressmen's views and votes. In a sense, at some point, it simply cancels.

There is a huge industry in Washington where people are just billing huge amounts of time on this. I've never seen such an investment in not resolving this too quickly. It does pervert the process itself even if it doesn't pervert the ultimate votes.

Response: At the state level, I think that the finance issue becomes important when you get into the details. Many times, the legislature has no idea about what the fine details are in the legislation, and that can be a problem when the legislation is very prescriptive. We have seen throughout New England that it is quite difficult, if you don't have a very large presence at the legislature, to present some other sides.

Comment: A case in point is that not more than two or three weeks after the Illinois bill was signed and passed into law, the Illinois Retail Manufacturing Association got a fifteen percent rate cut for all its customers under the rubric of an experiment that was allowed to be done under the bill, and a lot of legislators asked how can they do that. They literally didn't realize that there was enough flexibility in the bill to do something like that. Newspaper people started calling me asking, What did we miss? I said, Well, we wrote a report that listed fifteen problems. This was number three. Nobody was paying attention to the details.