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NATIONAL ELECTRICITY POLICY: BARRIERS TO COMPETITIVE GENERATION

HEARING

BEFORE THE

SUBCOMMITTEE ON ENERGY AND AIR QUALITY

OF THE

COMMITTEE ON ENERGY AND COMMERCE

HOUSE OF REPRESENTATIVES

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NATIONAL ELECTRICITY POLICY: BARRIERS TO COMPETITIVE GENERATION

FRIDAY, JULY 27, 2001

HOUSE OF REPRESENTATIVES,
COMMITTEE ON ENERGY AND COMMERCE,
SUBCOMMITTEE ON ENERGY AND AIR QUALITY,
Washington, DC.

The subcommittee met, pursuant to notice, at 9:30 a.m., in room 2123, Rayburn House Office Building, Hon. Joe Barton (chairman) presiding.

Members present: Representatives Barton, Largent, Burr, Whitfield, Ganske, Wilson, Blunt, Bryant, Bono, Walden, Tauzin (ex officio), Boucher, Sawyer, Wynn, John, McCarthy, Strickland, and Luther.

Also present: Representatives Stearns, Terry, and Pallone.

Staff present: Jason Bentley, majority counsel; Sean Cunningham, majority counsel; Andy Black, policy coordinator; Peter Kielty, legislative clerk; Sue Sheridan, minority counsel; and Rick Kessler, minority professional staff.

Mr. BARTON. The subcommittee will come to order. The House is in session and we do expect a number of votes within the next hour or so. So we want to go ahead and get started. The Chair recognizes himself for an opening statement. Today the Energy and Air Quality Subcommittee holds one of a series of hearings dealing with our national electricity policy. While we await floor action on the energy package next week, it is time to get started discussing and hearing the issues of our next major bill.

In September, members of this subcommittee can expect further hearings on electricity as well as a piece of draft legislation which will be circulated and reviewed for turning into a vehicle to be introduced as a markup vehicle sometime in early October. I am hopeful that our process, in fact, I should say I am certain that our process will be bipartisan, and I guarantee that it is going to be an open process. The future of our Nation's electricity system deserves this subcommittee's attention. Our hearings and meeting in this Congress and the last Congress have underscored a number of the following points: One, our Nation needs more participants in wholesale generation competition so that wholesale prices can, at a minimum, be stable and hopefully, perhaps, even decrease somewhat when supply is equal to the demand.

No. 2, our Nation needs more transmission capacity so that that generated power can go where it needs.

No. 3, this generation network needs to operate more effectively so that power can move better within and among regions and that

all generators have an opportunity to actually have access in a free and fair fashion to the transmission system.

Fourth, and finally, our States need a better functioning electricity system if more are to give consumers options in their generation provider. These are just some of the goals I hope to pursue as we move toward a legislative vehicle in the early fall.

Today's hearing deals with the first goal, increasing the amount of power generated. We are going to hear from witnesses about barriers to generation competition. Our first panel will focus on the Public Utility Holding Company Act, which we refer to as PUHCA. Many believe this Act is no longer necessary and is in need of reform. I do understand that there are concerns about generation market power. We are going to try to address those in this hearing. My personal opinion is that if you get the transmission rules right, you have enough generation competitors, the entities with market power will be the purchasers, not the sellers.

Our second panel today is going to discuss another important issue dealing with getting more power on the grid. Varying interconnection rules and standards bedevil independent power producers as they move from State to State and utility to utility. I am a very strong supporter of States rights. But I believe that in the 21st century, it is appropriate to have a uniform interconnection standard. Distributed generators put smaller facilities on the grid a lot closer to the load than a power plant does, thus reducing the need for new transmission lines, and generate more cleanly than a lot of existing plants.

We should encourage distributed generation and make sure that there are no unreasonable hurdles in its way. PURPA, the Public Utility Regulatory Policy Act, also deserves careful review. We want qualifying facilities contributing their excess power to the grid and we want them to still have rights to back up power and all the protection that they have today. I am not sure however, that the mandatory purchase obligation should continue in its current form.

Finally, we are going to look at net metering. This issue is of interest not only to myself, but to numerous other subcommittee members on both sides of the aisle. More States allow net metering than they do retail competition. Individuals with residential renewable generation onsite certainly should be allowed to have their electric meter run backward when they are contributing power and not consuming it.

I guess the technical term that I am going to be looking for as we look at this issue is something really high tech, like, no brainer. I understand that there are a lot of issues to address, including the interconnection costs, who is responsible for buying the meter, who is responsible for maintaining the meter, which electric service costs get rebated and what happens when a consumer gives back more power within a billing period than he or she takes. Those are important issues. But the concept of net metering really is a no brainer.

I am very confident that that particular concept is going to be in the bill. Later hearings are going to deal with transmission and recommendations of the Department of Energy the Federal Energy Regulatory Commission. Today is the time for members to begin to

focus about today's electricity industry. It is not the same industry that it was even 2 years ago when this subcommittee moved a similar piece of legislation. The electricity industry will not be the same in the future as it is now. Our job is to see where we want to be and what changes we need in order to get there.

If this subcommittee does its work successfully, we will provide an opportunity for our children to have an electric system that encourages new technology, investment in new capacity makes reliability problems workable and high prices a thing of the past.

Chairman Tauzin, Ranking Member Boucher, Mr. Dingell and I look forward to working with members on both sides of the aisle to make this goal a reality, legislatively in the next several months. With that I would recognize my ranking member, Mr. Boucher for an opening statement.

[The prepared statement of Hon. Joe Barton follows:]

PREPARED STATEMENT OF HON. JOE BARTON, CHAIRMAN, SUBCOMMITTEE ON ENERGY AND AIR QUALITY

Today, the Energy & Air Quality Subcommittee holds one of a series of hearings dealing with our national *electricity* policy. While we await floor action on the energy package, it is time we get started discussing our next major bill. In September, Members of this Subcommittee should expect further hearings on electricity, as well as draft legislation to review and discuss. I am hopeful that our process will be bipartisan, and I promise you it will be open.

The future of our Nation's electric system deserves our attention. Our hearings and meetings in this Congress and last Congress have underscored the following:

- Our Nation needs more participants in wholesale generation competition, so that wholesale prices can continue to decrease, and supply always equals demand.
- Our Nation needs more transmission capacity, so that the generated power can get where it needs to go.
- Our Nation needs its transmission networks to operate more effectively, so that power can flow better within and among regions, and that all competitors selling power can actually compete .
- Finally, our States need a better-functioning electric system if more are to give consumers options in their generation provider.These will be my goals as I work with Subcommittee Members to put together legislation to reform the electricity industry.

Today's hearing deals with my first goal—increasing the amount of power generated. We will hear from our witnesses about barriers to generation competition. Our first panel will focus on the Public Utility Holding Company Act (PUHCA), which many believe is no longer necessary and in need of reform. I understand concerns about generation market power, and I want to make sure we address them. My personal opinion is that if you get transmission rules set right and let enough people participate in generation, the entities with market power will be the purchasers, not the sellers.

Our second panel today will discuss other important issues dealing with getting more power on the grid. Varying interconnection rules and standards bedevil independent power producers as they move from State to State and utility to utility. I am a strong supporter of States' rights, but I believe that in the 21st century it is ok to have a uniform interconnection standard. Distributed generators put smaller facilities on the grid a lot closer to the load than a power plant, reduce the need for new transmission lines, and generate more cleanly than a lot of new plants. We should encourage distributed generation and make sure that no unreasonable hurdle is in its way.

PURPA, the Public Utility Regulatory Policies Act, also deserves a careful review. We want qualifying facilities contributing their excess power to the grid, and we want them to still have rights to backup power and all the protections they have today. I am not sure, though, that the mandatory purchase obligation should continue in its current form.

Finally, we will look at net metering, which interests me and other Subcommittee Members greatly. More States allow net metering than do retail competition. Individuals with residential renewable generation on-site should certainly be allowed to have their electric meter run backward when they are contributing power and not

consuming it. The technical term I am looking for is a "no-brainer." I understand there are issues to address, including interconnection costs, who is responsible for buying the new meter, what electric service costs get rebated, and what happens when a consumer gives back more power within a billing period than he or she takes. I am confident that we can work these issues out.

Later hearings will deal with transmission and the recommendations of the Department of Energy and the Federal Energy Regulatory Commission (FERC). Now is the time for Members to learn what they can about today's electricity industry. It is not the same industry it was two years ago when we passed legislation the first time. The electric industry also will not be the same in the future as it is now. Our job is to see where we want to be, and what changes we need to make in order to get there. If our work is successful, we will have provided for our children an electric system that encourages new technologies, investment in capacity increases, and makes reliability problems and high prices a thing of the past. Chairman Tauzin and I look forward to working with Members and stakeholders on this over the next few months.

Mr. BOUCHER. Well, thank you very much, Mr. Chairman. I want to commend you for conducting the hearing this morning as we begin our examination this year of issues related to electricity industry restructuring. After the expenditure of a substantial amount of time earlier this year on the California electricity situation, I think it is now appropriate that we return to the larger issue of electricity restructuring. During the last Congress this subcommittee reported an electricity measure that focused on a range of complex matters including State and Federal jurisdiction, transmission concerns, environmental issues and competition in general. It was an ambitious effort and Chairman Barton worked with considerable diligence to have the subcommittee's bill considered at full committee.

While not every member of the subcommittee supported the bill, it clearly helped to frame the issues that are fundamental to a refashioning of Federal policy for the electricity industry. The exercise of the last Congress was a constructive contribution to our work this year. And I very much look forward to working with Chairman Barton during this Congress to determine the level of support which exists for reporting an electricity bill, and if sufficient support exists, determining where consensus for that measure might lie.

As the discussion proceeds we may find that some issues that were very controversial during the course of the last Congress are generally not before us this year. The concept, for example, of retail competition and the mandate for a date certain for access to the national transmission grid for retail sales, a topic that I know Chairman Barton approached with caution during the course of the last Congress, seems now to have little credence as an element of Federal legislation. Transmission issues, however, will be at the core of our consideration. In this area, the FERC has been highly active in recent weeks in ordering the formation of regional transmission organizations for broad sections of the Nation.

I know the chairman plans to ask the FERC members to appear before the subcommittee in the very near future in order to discuss these orders. That discussion will help members determine what, if any, additional transmission authority the Congress should be addressing in legislation.

I am particularly pleased to note the presence among our witnesses this morning of Kathleen Magruder, with the New Power Company. Her company offers an opportunity to realize broad new

efficiencies and the utilization of electricity-generating facilities by bringing the benefits of real time metering to residential and small business consumers. I look forward to hearing from her about what changes in the law may be necessary to assure that electricity consumers have the ability to realize financial savings by diverting more electricity consumption to off-peak times.

Of course, there are a multitude of other matters relating to electricity industry restructuring that this subcommittee will be considering, including the repeal of PUHCA, the reform of PURPA, transmission reliability and interconnection standards as the chairman mentioned, just to name a few. I look forward to the conversation on these measures to the testimony of the witnesses who are before us today and witnesses who will appear on our future panels as we address these and other matters.

And I will conclude my opening remarks with the observation that as we consider Federal legislation for electricity industry restructuring, I think we must keep our eye primarily on the interests of electricity consumers. Their interests should be our guiding principle. And in particular, the interests of small consumers should be kept at the forefront.

I want to extend a welcome to all of our witnesses this morning and thank the chairman for scheduling this hearing which begins us on a very positive track as we consider the possible need for Federal electricity restructuring legislation.

Thank you, Mr. Chairman.

Mr. BARTON. I thank the gentleman. We would recognize the full committee chairman, Mr. Tauzin of Louisiana, for an opening statement.

Chairman TAUZIN. I thank my friend, the chairman. I want to begin by acknowledging with thanks and appreciation the work of this subcommittee, and particularly Chairman Barton and Mr. Boucher over the last several months. If there is any doubt about it, let me clear it up.

Mr. Barton, working together with Mr. Boucher in this subcommittee, have the full support and confidence of the full committee chair. They have done remarkable work already and I want to highlight that. Just today, I signed and filed H.R. 4, the combination energy bill which we entitled the Securing Americans Future Energy Act, a SAFE Act, that is a product of five committees, but principally, the work of our Energy and Commerce Committee and most importantly, this subcommittee. It represents an incredible bipartisan effort.

The fact that this bill passed our full committee by a vote of 50 to 5, unlike any other committee dealing with these controversial matters, is a strong indication of the way in which our two sides have worked on these very difficult energy issues. But that bill, which is now filed in the House, contains a number of provisions that will improve hydro, nuclear, clean coal and renewables, and in addition, more than half the bill is devoted to improving the Nation's energy efficiency and conservation.

And when we pass this bill next week on the House floor, as we expect we will, we will have moved the central piece of the President's national energy policy in a fashion that builds upon consensus in this area. But our work is not done, and Chairman Bar-

ton is now charged with completing some of the work that he so valiantly began in the last session of Congress under the former chairman. And that is providing for reliable supply and transmission of electricity as a center piece of our Nations energy policy. The fact that we need one is underscored by the crisis in California.

And again, I want to commend Chairman Barton for earlier this year laying forth some of the solutions that the California executive and our own executive took seriously and adopted by executive order, and helped ease the problems of consumers in California quite dramatically over the last several months. While we didn't end up passing that bill, so much of it was adopted by either Presidential or gubernatorial executive order that this committee deserves a great deal of credit for helping to relieve that serious problem in California.

But now we turn to the Nation's electric problems, and particularly to the disunity that exists in today's electric power industry. Consider this: There are four types of utilities in this country, investor-owned, cooperatively owned, federally owned, and the municipal utilities, all of which generate, transmit, sell power to each other and to their customers. There are also independent power producers, the so-called qualifying facilities, the QFs under PURPA, and countless sources of distributed generation which also generate and sell power. The various producers are governed by numerous laws and regulations at the Federal, State and local levels. And to make matters even more complex, approximately half of the States have already passed electricity restructuring legislation, in essence, opening up the retail electric markets to competition.

Such competition requires of course a functioning wholesale market, and yet States that have not restructured do not have the same incentive to insure that wholesale markets are open to all competitors. The result is a patchwork of competing laws, regulations and interests that stifle the development of power markets and abundant competitively priced electricity. As a Nation, our disjointed energy policy seems to be caught between competing visions, which the chairman has begun to try to sort out, the competing vision of free markets versus central planning.

What unifies us, however,is the inescapable fact that affordable reliable electricity is the lifeblood of this American society. And we want to encourage the cleanest, most efficient sources of power. That is where markets win, always, hands down. Central planning we know doesn't foster the one thing Americans do best, innovate, good old American ingenuity. You can't plan for innovation, but you can create a marketplace that rewards those who do things faster, smarter, cheaper, cleaner, more efficiently and more reliably. In recent years we've seen tremendous innovation in telecommunications, the whole digital revolution. And our Nation's economy operates more efficiently than at any time in our history.

But on the other hand, a recent article in Forbes Magazine, Mr. Chairman, pointed out that if you take the four boxes of the Internet community, the new economy: PCs; systems that transmit the Internet, the routers and the translators, et cetera; the companies that do business, E-Bays, et cetera, that power up the systems to

do business, and the manufacturers who put it altogether and the kinds of equipment that runs the Internet and provides the PC power at home for us and our businesses, those four boxes now consume as much electricity as the entire country of Italy.

They consume more electricity, 8 percent of our Nation's total, than all of the metals manufacturing in our country now. They consume more electricity than oil and gas production, forestry and paper products combined. The Internet has become a huge part of the electric demands of our country. And if we want to see a revival of the Nation's economy on Wall Street and in the pocketbooks of Americans who are tired of being laid off in this new economy, we have got to power up the systems well.

This committee is going to lead the way to insuring that this economy takes off again with some good electric power policy. We can't rely upon the electric system that was designed for our grandfathers and grandmothers simply to light light bulbs and run electric motors. Mr. Chairman, I don't know if I ever told you this. My grandfather had a light plant behind his house. It was called a light plant.

Mr. BARTON. He had a what?

Chairman TAUZIN. It was called a light plant. It was an electric generation facility.

Mr. BARTON. L-I-G-H-T.

Chairman TAUZIN. L-I-G-H-T. That's the Cajun pronunciation of light. The bottom line is that he was the first in our community to have electric lights because he built his own power plant. He had the first television. He built that thing to keep his family, you know, comfortable with lights, and pretty soon he was sharing electricity with his neighbors from his own light plant. I remember he powered up an electric wire fence that I once fell upon and when I was a kid, and every time I touched my hand or my feet, I would get shocked.

Mr. BARTON. He told me he kept trying to get you near that fence, but you just wouldn't go.

Chairman TAUZIN. I was out slopping hogs one night and he moved the fence. And I fell over it, and every time I would touch my hands on the ground it would hit me, and I would touch my little feet on the ground I would get hit. I was thinking of that as sort of an analogy. I hope we don't end up on that electric fence before we finish with this bill. But the bottom line is, we can't depend upon systems that were built in that age for those purposes. And Mr. Chairman, I want to thank you for beginning this series of hearings because we have now charged you and Mr. Boucher and your subcommittee with an enormous responsibility, and that is to build the electric power system for this century, not the ones our grandfathers used. Good luck to you.

[The prepared statement of Hon. W.J. "Billy" Tauzin follows:]

PREPARED STATEMENT OF HON. W.J. "BILLY" TAUZIN, CHAIRMAN, COMMITTEE ON ENERGY AND COMMERCE

I want to thank Chairman Barton this morning for beginning a series of hearings that will help us determine how to set the proper course for the future of our Nation's electricity system, which is so vital to the success of our economy and our quality of life.

Last week, the Energy and Commerce Committee passed the most comprehensive energy bill in a decade, on a 50 to 5 vote. That bill, which came out of this Subcommittee, contains a number of provisions that will improve the availability of various energy sources: hydro, nuclear, clean-coal, and renewables. In addition, more than half the bill is devoted to improving our Nation's energy efficiency and conservation. The legislation, which we hope to pass on the House floor next week with bipartisan support, will form the central piece of the President's comprehensive National energy policy.

Our work is not done, however. The reliable supply and transmission of electricity is another essential element of this energy policy. This fact is underscored by the crisis in California and the West over the past year, as well as looming electricity problems elsewhere. The underlying causes of these problems will not just go away.

To assure, as our economy grows, that the nation's electricity customers—businesses and consumers a like—will receive the most reliable power at the lowest possible prices, we must first address a fundamental disunity that exists in today's electric power industry.

Consider this: There are four types of utilities in this country—investor-owned, cooperatively-owned, Federally-owned, and municipal utilities—all of which generate, transmit, and sell power to each other and to their customers. There are also independent power producers, so-called qualifying facilities (QFs) under PURPA, and countless sources of distributed generation, which also generate and sell power. These various producers are governed by numerous laws and regulations at the Federal, State, and local levels.

To make matters more complex, approximately half of the States have passed electricity restructuring legislation, in essence opening up their retail electricity markets to competition. Such competition requires a functioning wholesale market. Yet states that have not restructured do not have the same incentive to ensure that wholesale markets are open to all competitors. The result is a patchwork of competing laws, regulations, and interests that stifle the development of power markets, and abundant, competitively priced electricity.

As a Nation, our disjointed electricity policy seems to be caught between competing visions: free markets versus central planning. What unifies us, however, is the inescapable fact that affordable, reliable electricity is the life-blood of our society. We all also want to encourage the cleanest, most efficient sources of power. This is where markets win, hands down. Planning doesn't foster the one thing American's do best: innovation—good old American ingenuity. You can't plan for innovation, but you can create a marketplace that rewards those who do things faster, smarter, cheaper, cleaner, more efficiently, and more reliably.

In recent years we've seen tremendous innovation in telecommunications, computers, the whole digital revolution. Our Nation's economy operates more efficiently than at any time in history. Why, then, are we relying on the same electricity system our grandparents used?

I look forward to learning our witnesses' views about what can be done to modernize our Nation's electric power industry. What, specifically, are the barriers to competitive markets? What prevents innovative suppliers from selling their power to consumers?

I also look forward to subsequent hearings, which will examine such topics as the role of the Federal government in ensuring efficient operation of electricity markets, and ways to improve the regional organization of the interstate power grid. I believe it will become clear that federal guidance and legislation are needed to ensure the continued availability of clean, affordable, and reliable electricity.

I thank Chairman Barton for holding these important hearings, and I look forward to working with him and my distinguished colleagues, Mr. Dingell and Mr. Boucher, in the weeks to come as we craft legislation to provide for our Nation's electricity future.

Mr. BARTON. Thank you, Mr. Chairman.

The gentleman from Ohio, Mr. Sawyer, is recognized for an opening statement.

Mr. SAWYER. Thank you Mr. Chairman. I will make a very brief opening statement, but if I might, with your permission, yield to our colleague from New Jersey for a point of personal privilege.

Mr. PALLONE. Thank you, my colleague from Ohio. And I also want to thank the chairman for allowing me, if I could, because I have to run to the floor on an amendment. I just wanted to take this opportunity to introduce Bruce Levy, who is senior vice presi-

dent and chief financial officer of GPU, Inc., which is an electric utility holding company headquartered in Morristown, New Jersey, which serves many of my constituents. He is on the first panel.

Mr. Levy serves as president of GPU Capital Inc., which is the company's financial subsidiary. And he is also past president of the Electric Power Supply Association, which of course a lot of you know as the National Trade Association. GPU is involved not only in New Jersey, but in other parts of the country and in other parts of the world as well, and I am very happy that he is joining this first panel today. And thank you, Mr. Chairman. And yield back to Mr. Sawyer.

Mr. SAWYER. Mr. Chairman, I'm pleased to join my friend from New Jersey in welcoming the entire panel and to thank you for this hearing. The task that we are undertaking is not new, as you have been leading this effort for some time. It is long, it is complex, it is difficult, and it is important. We are in the middle of a fascinating transition from a century of vertically integrated utilities serving local customers with rates set by State commissions based on a responsibility to serve and a rate of return regulation, to an enormously complex market for which our infrastructure is not well prepared. You understand that. You know that. And this whole subcommittee, over the course of the last couple of years, has gained a vastly more sophisticated appreciation for that.

Acting on that is going to be difficult. California is an example of the failings that can occur when restructuring an electrical system in a State gets caught in the position of the chairman, halfway across that fence and you can't set down on either side and you're stuck in between. The opportunity that California has to go back and achieve a measure of stability and start again is important for them and something we want to learn from, not replicate on a national level as we build a framework for the 26 or 27 States that are already into their processes of deregulation. And to build that broad Federal framework within which they can act and form regional markets.

The topics that we are going to talk about today, PUHCA and PURPA, and some more esoteric topics like net metering and highly efficient new generation technology, are all important. They will contribute to the solution. And with that I would yield back the balance of my time, and thank you again for this hearing.

Mr. BARTON. Thank you, Mr.—Congressman Sawyer and the Chair wants to commend you on the fine work you did in the last Congress on the bill and in the working group that helped prepare the bill and look forward to working with you in this issue.

Let's see. The gentleman from Iowa, Mr. Ganske, is recognized for an opening statement.

Mr. GANSKE. Mr. Chairman, our country depends on a reliable supply of energy to sustain its economy and to provide opportunities for that economy to prosper. But the source of energy isn't enough to power the economy. You have to have a reliable and a stable system to generate and transmit electricity from the energy source. The electrical generation and transmission systems in America are the subject of the next several hearings of this committee. And I believe they are very important matters for our attention.

I too am very interested, Mr. Chairman, in the topic of distributive power generation and the steps this country—this committee can take to expand and encourage the concept of net metering. I believe it can provide an opportunity to expand the use of solar and wind power generation on homes and in farms around the country. We see a lot of this already developing in Iowa. And finally, Mr. Chairman, I want to take this opportunity to welcome all the witnesses for today's hearing, but in particular, I recognize David Sokol, the chairman and CEO of Mid-American Energy Holdings Company, which is in my neck of the woods. Mr. Sokol is quite knowledgeable and will provide us with important information and perspectives. And I yield to my colleague from Nebraska, Mr. Terry.

Mr. TERRY. Thank you, Mr. Ganske. I appreciate the opportunity to join in the introduction of my friend David Sokol as his company, Mid-American Energy, is technically located in your district, David Sokol is every bit located in mine. In fact, I welcome my hometown's—one of my home town's greatest citizens, kind of our local boy made good, a graduate of Omaha North High, University of Nebraska at Omaha, went on to run a small company named California Energy, now called Mid-American Energy. And for this panel, I don't think we could have a better witness.

I have spent a lot of time with David Sokol over the years, whether it was that we were working together to get ice at the civic auditorium so UNO could start a hockey program, which by the way, is one of the top 15 programs in the Nation now, but now get to work with him in solving this country's energy problems.

Mr. BARTON. What does that have to do with energy?

Mr. TERRY. I will tell you. You should see those kids play. That is a high energy. And I will tell you what, Chairman, you and I—you are invited to come see UNO hockey any time. But I appreciate that you invited Mr. Sokol here as the chairman, of course, of the company that deals or builds power plants. This man is so passionate about having the right policy for this Nation, whether—especially passionate about the role of private capital and solving the needs and solutions and finding the solutions for this country.

So thank you, Greg, for yielding to me. Thank you, Mr. Chairman, for allowing me to be a part of the introduction. I yield back.

Mr. BARTON. Mr. Ganske yields back his time.

Mr. GANSKE. I do.

Mr. BARTON. Just on Mr. Sokol, he also has one the sweetest wives on the high plains. Very gentle lady and——

Mr. TERRY. Probably his greatest asset.

Mr. BARTON. So we need to put that—in addition to the hockey team and all of that, we ought to put that into the record. The gentlelady from Missouri is recognized for an opening statement.

Mrs. MCCARTHY. I am going to be brief, Mr. Chairman, and just submit my entire remarks for the record because I want to get to the important panel that we have here today. I want to thank you for holding this hearing. I think it's very appropriate. I note that the transmission issues are not being covered in today's discussion, but I hope a future hearing will indeed address them because I think they are an important component to any restructuring plan. And I look forward to hearing from the witnesses today regarding

the effect that the Public Utility Holding Company Act and the Public Utility Regulatory Policies Act will have on consumer protection and reliability standards.

Repealing these two laws absent a comprehensive approach will remove certain consumer protections which could have adverse consequences on the market and ultimately the consumer prices and reliability of electricity. I also think greater access to information about energy purchases can have many benefits, consumers can choose to purchase cleaner renewable energy through green pricing programs and the recent agreement in bond to adopt the terms of the Kyoto protocol has intensified our need to the use of alternative sources of energy to reduce emissions of greenhouse gases.

Real time pricing is also an essential piece of consumer information that can provide wiser choices about energy consumption to reduce peak demand and energy costs. We have heard testimony in this subcommittee earlier this year that real time pricing could save $14.8 billion annually by giving consumers proper price signals to their energy consumption. So if Congress is going to lay the foundation for a competitive market, we must be diligent in providing certainty to market participants. Earlier this month when I was home in Kansas City I toured the trading floor of Aquila, one of the top five gas power marketers in the country. And I was told that it can take 2 months to 2 years for a utility to get connection rights to the transmission grid.

To compound the situation there are over 400 utilities all with different interconnection rules. Adding a power plant to the power grid has become extremely difficult because incumbents create barriers of entry to competition. This creates economic uncertainty, resulting in reduced generation and higher prices for consumers. I support interconnection rules to provide certainty to potential new investors and reliability and affordable prices to consumers.

Again, Mr. Chairman I will put the entire statement in the record. I thank you for this hearing. I look forward to working with you on these important issues and I welcome the witnesses today who will enlighten us.

[The prepared statement of Hon. Karen McCarthy follows:]

PREPARED STATEMENT OF HON. KAREN MCCARTHY, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF MISSOURI

Mr. Chairman, thank you for holding this important hearing today on barriers to competitive generation. I look forward to the testimony of our witnesses on the legislative and regulatory actions that should be considered to promote additional generation that will benefit consumers and provide greater certainty for the electric industry. It is helpful to have this update on electricity restructuring issues, and I am pleased that transmission issues will be covered in a separate hearing because it is one of the most critical components of any restructuring plan.

We have learned valuable lessons from the dysfunctional electricity market in California and the West. Recent events have taught us that the benefits of deregulation will only be reaped if regulatory and legislative policies ensure sufficient competition and reliability. Competitive generation will benefit consumers if true competition exists among suppliers. In my state of Missouri, electricity prices this year have averaged 5.3 cents per kilowatt-hour, 23% below the national average of 6.9 cents per kilowatt-hour. I fear that enacting restructuring legislation without carefully considering the effect on low cost states may harm customers who have benefited from policies that have promoted affordable energy.

I look forward to hearing from our witnesses today regarding the effect that the Public Utility Holding Company Act (PUHCA) and the Public Utility Regulatory Policies Act (PURPA) have on consumer protection and reliability standards. Re-

pealing these two laws, absent a comprehensive approach, will remove certain consumer protections which could have adverse consequences on the market and ultimately the consumer prices and reliable electricity.

To that end, I support the establishment of provisions that will give authority to the North American Electric Reliability Council (NERC) to enforce adequate reliability standards. Lower costs are not beneficial to consumers if they are accompanied by rolling blackouts and ineffective service. Retail competition should also be accompanied by consumer protections to prevent slamming and cramming, while improving consumer access to information about the energy they are buying.

Greater access to information about energy purchases can have many benefits. Consumers can choose to purchase cleaner renewable energy through green pricing programs. The recent agreement in Bonn to adopt the terms of the Kyoto Protocol has intensified our need to promote the use of alternative sources of energy that will reduce emissions of greenhouse gases. Real time pricing is also an essential piece of consumer information that can provide wiser choices about energy consumption to reduce peak demand and energy costs. We have heard testimony in this subcommittee earlier this year that real time pricing could save $14.8 billion annually by giving consumers proper price signals to their energy consumption.

If we are to have competitive electric market, we need to ensure that barriers are removed so that the market can function properly. As I have stated before, our actions at the Federal level should compliment the successes of the market which have evolved under natural gas deregulation and capture the technological advances which have occurred to make energy more affordable, accessible, and cleaner for our environment.

If Congress is to lay the foundation for a competitive market we must be diligent in providing certainty to market participants. Earlier this month (July 7th) when I was home in Kansas City, I toured the trading floor of Aquila Inc., one of the top five gas/power marketers in the country. I was told that it can take two months to two *years* for a utility to get connection rights to the transmission grid. To compound the situation, there are over 400 utilities, all with different interconnection rules. Adding new power plants to the power grid has become extremely difficult because incumbents create barriers of entry to competition. This creates economic uncertainly resulting in reduced generation and higher prices for consumers. I support uniform interconnection rules that provide certainty to potential new investors and reliability and affordable prices to consumers.

Many of the witness here today will testify about the need to clarify and expand the Federal Energy Regulatory Commission's (FERC) jurisdiction. FERC must properly enforce the laws and regulations that ensure the prevention of market abuses for deregulation to be successful. However, given its lackluster record at preventing market abuses in California, I am hesitant to go forward with a deregulation plan that expands FERC's authority. The progress achieved by Congress in developing a competitive market will be nullified if the agencies in charge of ensuring competition do not do fulfill their obligations.

Mr. Chairman, I welcome today's dialogue as another step toward a measured approach for addressing electricity deregulation. I yield back my time.

Mr. BARTON. I thank the gentlelady from Missouri.

The gentleman from Tennessee, Mr. Bryant, is recognized.

Mr. BRYANT. Thank you, Mr. Chairman. And I too will be very brief and thank you for holding these hearings. And thank you for your help and graciousness over the last couple of years as we have worked on this issue of electricity deregulation and the kindness you have showed to us, particularly in the Tennessee valley as we have worked through some and continue to work through some very difficult issues. Mr. Herman Morris is here today and I will say more about him later, but he is a friend and certainly an acknowledged and proven expert in this field, and we always look forward to his testimony and having him here.

And as I said, I will introduce him at the appropriate time. I also want to add my welcome to Mr. Sokol also. I am a friend of a friend, Mr. Christiansen, who you may or may not know has now moved to my State and may be moving to my district, may become a constituent of mine, for the rest of you, a former member. And I know a lot about your background, and I certainly can we go with

everything that has been said about you. And again, I am just pleased to have such a qualified panel of witnesses, both on the first panel and the second panel. And with that I look forward to hearing from all of you. And I would yield back the balance of my time.

Mr. BARTON. I just hope Mr. Sokol doesn't decide to run for President of the United States. It looks like he has got support all over the country on both sides of the aisle. The gentleman from Louisiana, Mr. John, is recognized for an opening statement.

Mr. JOHN. Thank you Mr. Chairman. I will pass.

Mr. BARTON. The gentleman from Kentucky, Mr. Whitfield is recognized for an opening statement.

Mr. WHITFIELD. Mr. Chairman, I have been trying to figure out a way that I could say something about Mr. Sokol also, but since I couldn't, I look forward to the testimony. I really appreciate these witnesses coming in. I notice they are all the way from New York to Washington State. We appreciate their effort and I look forward to their testimony.

Mr. BARTON. I am sure his plants use Kentucky coal in some cases. Seeing no other member seeking recognition to make an opening statement, all members not present shall have the requisite number days to put their opening statement in the record. Without objection, so ordered.

[Additional statement submitted for the record follows:]

PREPARED STATEMENT OF HON. JOHN D. DINGELL, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF MICHIGAN

Today's witnesses will address a number of issues of importance to electricity consumers, and I commend the Chairman for holding this hearing. Recent events in California serve as reminders that tampering with the electric industry should only be done for good reason, and only with caution. Just as we hope that California's bad experience with "bad deregulation" proves to be the exception, we must take care not to induce similar problems in other parts of the country.

As the subcommittee returns to the restructuring debate, it is worth noting that some of the most prominent issues from last year's debate have faded. Today there is little interest in enacting a federal mandate for retail competition, and that is appropriate. I have always felt this was properly a decision best left to the states. Perhaps the lessons from California's faulty deregulation plan will benefit others. With respect to transmission issues, the U.S. Supreme Court will soon consider a case raising core questions about state and federal jurisdiction. I sense that this may dampen the enthusiasm of at least the litigating parties for addressing these difficult issues legislatively in the near term.

The electric restructuring debate affects the fortunes of many industry participants and, indeed, the economic well-being of the country. As the familiar "It brings good things to life" commercial reminds us, electricity reliability and affordability have a profound impact on the quality of life of every American citizen. For decades, the U.S. model has been the envy of many other nations and, on balance, this still holds true. It behooves us to also remember the small consumer's interests as we proceed and to ensure the reliability of service at "just and reasonable" prices. That focus can get lost in the shuffle in the rush to "update" the law, which is exactly what happened in California.

Which brings me to the subject of PUHCA repeal. The Public Utility Holding Company Act of 1935 was enacted, as companion legislation to the Federal Power Act, in order to address problems that afflicted consumers and investors alike. At the time, securities regulation was in its infancy and state utility regulation was not well established. The regulatory system was no match for the huge holding companies operating across state borders, which concentrated about 92 percent of investor-owned electrical capacity in the hands of sixteen holding companies. Shareholders were deprived of a fair return on their investment, or suffered outright losses when the collapse of the stock markets toppled the heavily indebted holding

company system. Utility ratepayers, as captive customers of monopoly utilities, had no alternative but to pay whatever they were charged.

In the years after enactment, the Securities and Exchange Commission's administration of PUHCA and the Federal Power Commission's administration of the Power Act curbed the worst of these abuses. Among these were the issuance of securities based on paper profits from inter-company transactions, and the use of the holding company to evade state regulation. Today, many states have strong utility commissions which are better able to track the flow of money between utility affiliates and limit cross-subsidization. Clearly the electric industry is undergoing massive changes and, while I have often differed with the SEC regarding its lax administration of PUHCA, novel questions are being brought before the Commission. As a result, it is fair to ask whether or not the statute requires modification.

Mr. Chairman, while I do not know the answer to that question, I am glad that you have raised it. I commend you for holding this hearing to address PUHCA repeal, and look forward to working with you on this and other interesting matters that will be discussed today.

I know you would be disappointed, however, if I did not sound my usual alarm against hasty action in this area. My father, who had a hand in crafting PUHCA, observed the problems which uncontrolled market power visited upon shareholders and consumers alike—and which required enactment of strong federal laws. While I hope that will never recur in this country, it is up to us to fully consider all the possible ramifications of repealing PUHCA before we act. It would be an unmitigated disaster if we were to modify or repeal PUHCA without ensuring adequate protections for ratepayers and investors. Consumers throughout the west would be better off today if California lawmakers had acted with greater deliberation in 1996. That is a lesson we should bear in mind as we consider changes to this important Federal law.

Mr. BARTON. We now want to recognize our first panel. If you gentlemen would come forward. Several of you have already been formally introduced to the subcommittee. We have Mr. David Svanda. Is that right?

Mr. SVANDA. Perfect. Yes.

Mr. BARTON. Mr. David Svanda. That shows my staff knows how to spell things phonetically for me. He is here from the National Association of Regulatory Utility Commissioners. We have Mr. David Sokol, who needs no introduction. We have Mr. Bruce Levy, Senior Vice President and Chief Financial Officer who Mr. Pallone introduced to the committee, of the GPU Company. We have Mr. Robert priest who is Manager of the Yazoo City Public Service Commission. Did I miss someone? I missed Mr. Morris. Mr. Morris is the President and Chief Executive Officer of Memphis Light, Gas and Water that Mr. Bryant alluded to I think. We have Mr. Kanner, who is Coordinator for Consumers for Fair Competition. And we have Mr. Thomas lane, who is the Managing Director of a struggling investment company called Goldman Sachs in a place called New York which is obviously a village in far northeast Texas, I guess. So gentlemen, welcome. Your statements are in the record in their entirety. We are going to start with Mr. Svanda and go right down the line.

We are going to recognize each of you for, let us say, 6 minutes and then we will have some questions. Welcome to the subcommittee.

STATEMENTS OF HON. DAVID A. SVANDA, COMMISSIONER, MICHIGAN PUBLIC SERVICE COMMISSION, ON BEHALF OF NATIONAL ASSOCIATION OF REGULATORY UTILITY COMMISSIONERS; DAVID L. SOKOL, CHAIRMAN AND CEO, MID-AMERICAN ENERGY HOLDINGS COMPANY; BRUCE LEVY, SENIOR VICE PRESIDENT AND CHIEF FINANCIAL OFFICER, GPU, INC.; HERMAN MORRIS, JR., PRESIDENT AND CHIEF EXECUTIVE OFFICER, MEMPHIS LIGHT, GAS & WATER; ROBERT D. PRIEST, MANAGER, YAZOO CITY PUBLIC SERVICE COMMISSION; MARTY KANNER, COORDINATOR, CONSUMERS FOR FAIR COMPETITION; AND THOMAS K. LANE, MANAGING DIRECTOR, GOLDMAN SACHS

Mr. SVANDA. Good morning, Mr. Chairman, and members of the subcommittee. I am Commissioner Dave Svanda. I am a member of the Michigan Public Service Commission and also second vice president of the National Association of Regulatory Utility Commissioners, commonly known to you as NARUC. And I respectfully request that my full written statement be included in today's hearing record.

Mr. BARTON. Without objection. Two of your former commissioners are now in the high cotton over at FERC, so y'all are two short, I guess, in your national organization.

Mr. SVANDA. Our loss and certainly your gain. They are great additions to that organization. I am grateful, truly, to be here in front of you to speak to some of your issues and concerns. I will speak to them briefly and also reserve just a minute of time for some personal comment after my NARUC comments. High on our list is that of interconnection and net metering that many of you commented on in your opening comments. NARUC supports legislation to establish uniform technical standards for interconnecting new generation to the grid. Further, we believe that implementation of interconnection rules, particularly at the distribution level, should be by State commissions. NARUC also believes that individual States should not be allowed to implement rules that would block the good faith effort of neighboring States to move to a competitive structure.

NARUC supports the deployment of distributive generation and combined heat and power technologies through State level decision-making on such issues as removal of regulatory obstacles and the provision of backup power at reasonable rates. NARUC further supports legislation removing Federal barriers to State implementation of net metering. With regard to PUHCA and PURPA, as a general matter, it is a well-stated and known NARUC policy that neither PUHCA nor PURPA should be repealed on a stand-alone basis or in a vacuum. NARUC believes that relief from these statutes should be contingent upon the development of truly competitive markets as determined through State commission and supervised restructuring programs.

Next on market power, many regional electric markets throughout the country have experienced price spikes of unusual and unexpected proportions. These price spikes have led to a curtailment to a shutdown of operations of small large industrial customers and to increase prices for smaller commercial and residential customers. This high market price volatility has raised concerns about

the integrity of the markets leading to calls from numerous participants, consumers and policymakers for heightened monitoring of these markets by regulatory bodies.

In order to identify corrective policy, regulatory bodies need access to data such as production for generation plants, transmission pass schedules and actual flows. FERC is making great use of today's technology and data in their brand new market monitoring room, which I was fortunate enough to visit just yesterday. The market monitoring effort could be greatly enhanced if FERC were to make the information that they are now able to gather on a real-time basis available to entities such as State commissions and others that would be able to use the information effectively.

The electric industry restructuring efforts of the Federal Government and the various States are based on assumptions that wholesale markets are workably competitive to that end. Policy makers must have the ability to instill confidence in an already skeptical public that the market is not being gamed. We can only instill this confidence if we work with and disseminate actual information. NARUC supports legislation introduced this week by Senator Wyden and cosponsored by Senator Burns as an effective way to insure both Federal and State regulators have the information necessary to adequately monitor wholesale electricity markets.

NARUC believes this legislation would provide great benefits to the market and its customers and should be included in any comprehensive energy bill. Congress should not preempt legislation in the States to address market power concerns, including the authority to require behavioral and structural remedies is to address successive market power. NARUC advocates a continuum of options, such as accounting conventions and codes of conduct for the mitigation of market power, and urges Congress to preserve State flexibility to use these options as needed.

And now, in conclusion, or as I conclude, I would like to take off my NARUC hat and to make just a few personal observations based on my Michigan experience. I'd like to publicly compliment your entity, the FERC, for earlier this month, beginning to aggressively pursue the rationalization of RTO formation. We look forward to many more such aggressive actions on your part. I would like to encourage a policy that allocates the full cost of interconnection to the transmission side of the equation, so that all interconnecting facilities are treated on an equitable basis.

I would like to indicate to you that wholesale decisions that are made at the national level can, in fact, kill overnight retail restructuring efforts at the States if those decisions that get made nationally send price signals in the opposite direction from that intended by the State. I have a very specific Michigan example that I would be happy to share on questioning if you are interested.

Finally, I would like to emphasize that there are interstate transmission issues that States simply cannot get fixed by ourselves. And I would posit to you that if we could get them fixed by ourselves, then why haven't we up to this point?

I thank you for this opportunity to appear before you, happy to answer your questions regarding either my comments on behalf of NARUC or my personal observations.

[The prepared statement of David A. Svanda follows:]

PREPARED STATEMENT OF HON. DAVID A. SVANDA, COMMISSIONER, MICHIGAN PUBLIC SERVICE COMMISSION ON BEHALF OF NATIONAL ASSOCIATION OF REGULATORY UTILITY COMMISSIONERS,

Mr. Chairman and Members of the Subcommittee: Good morning. My name is David A. Svanda. I am a Commissioner on the Michigan Public Service Commission and First Vice President of the National Association of Regulatory Utility Commissioners, commonly known as NARUC. I respectfully request that NARUC's written statement be included in today's hearing record as if fully read.

NARUC is a quasi-governmental nonprofit organization founded in 1889. Its membership includes the state public utility commissions for all states and territories. NARUC's mission is to serve the public interest by improving the quality and effectiveness of public utility regulation. NARUC's members regulate the retail rates and services of electric, gas, water and telephone utilities. We have the obligation under State law to assure the establishment and maintenance of such energy utility services as may be required by the public convenience and necessity, and to ensure that such services are provided at rates and conditions that are just, reasonable and nondiscriminatory for all consumers.

I greatly appreciate the opportunity to appear on behalf of NARUC before the House Subcommittee on Energy and Air Quality.

INTERCONNECTION AND NET METERING

NARUC supports congressional legislation to establish uniform technical standards for interconnecting new generators to the grid. However, we believe that implementation of interconnection rules—particularly at the distribution level—should be by State commissions. NARUC further believes that States should not implement rules that would block the good faith efforts of their neighbors to move to a competitive structure.

Congressional legislation should ensure that States have flexibility to implement interconnection rules to meet local market conditions. As an organization, NARUC supports the development of distributed generation and combined heat and power through state-level decisionmaking on such issues as removal of regulatory obstacles and the provision of backup power at reasonable rates.

NARUC further supports legislation removing federal barriers to State implementation of net metering. The most critical barrier involves the current lack of jurisdictional clarity over net metering. The Federal Power Act has been alleged to preempt State net metering programs, slowing development of this promising new approach to promoting competition and resource divesting.

PUHCA AND PURPA

NARUC has adopted resolutions that support Congressional action to address the Public Utility Holding Company Act (PUHCA) and the Public Utility Regulatory Policies Act (PURPA) provided certain conditions are met. In the case of PUHCA, we believe that repeal is appropriate, but only as part of broader legislative aimed at developing workably competitive wholesale markets and only if States and FERC are provided guaranteed access to holding company books and records. Additionally, any repeal must include provisions deemed necessary to assist FERC in addressing the problem of abuse of market power in generation and transmission services.

With respect to PURPA, we would support prospectively repealing the utility mandatory purchase requirements, conditioned upon the development of competitive electric markets and as part of broader restructuring legislation, not as a stand alone initiative.

As a general matter, it is NARUC policy that neither PUHCA nor PURPA should be repealed on a stand-alone basis or in a vacuum. NARUC believes that relief from these statutes should be contingent upon the development of competitive markets as determined through a State commission supervised restructuring program.

A particular concern we have with PURPA repeal is preemption of State ratemaking authority. Specifically, our concerns focus on repeal provisions that restrict the ability of State commissions to require utilities to take steps to mitigate stranded costs that may result from above-market contracts. These types of provisions would leave little incentive for utility companies to minimize costs passed through to customers, thus holding harmless utilities and qualifying facilities.

MARKET POWER

Many regional electric markets throughout the country have experienced price spikes of unusual and unexpected proportions. These price spikes have led to cur-

tailment or shutdown of operations of some large industrial customers and to increased prices for smaller commercial and residential customers.

The high market price volatility has raised concerns about the integrity of the markets, leading to calls from numerous participants, consumers and policy makers for heightened monitoring of these markets by regulatory bodies. In order to identify corrective policy options to assure the public of the competitiveness and efficiency of the developing wholesale electricity market and its prices, regulatory bodies need access to data such as production for generating plants, transmission path schedules and actual flows. FERC is making great use of today's technology and data in their new "Market Monitoring Room." The market monitoring effort could be greatly enhanced if FERC made this information more widely available and had access to additional data.

The electric industry restructuring efforts of the Federal government and the various States are based upon an assumption that wholesale markets are workably competitive. To that end, policy makers must have the ability to provide confidence to an already skeptical and uneasy public that the market is not being "gamed." This confidence can only be provided if regulators are able to access the data necessary to ensure that the market is functioning in a truly competitive fashion. To the extent data is currently shared among market participants for purposes of reliability, it should also be available to regulators and the public.

NARUC supports legislation introduced this week by Senator Wyden and co-sponsored by Senator Burns (S. 1231) as an effective way to ensure both Federal and State regulators have the information necessary to adequately monitor wholesale electricity markets and to assure proper access to such information. NARUC believes this legislation would provide great benefits to the market and its customers and should be included in any comprehensive energy bill.

Congress should not preempt jurisdiction in the States to address market power concerns, including the authority to require behavioral and structural remedies to address excessive market power. NARUC advocates a continuum of options, such as accounting conventions and codes of conduct, for the mitigation of market power, and urges Congress to preserve State flexibility to use these options as needed.

Legislation should clarify: 1) the authority of the States to require and police the separation of utility and nonutility, and monopoly and competitive businesses, and to impose affiliate transaction and other rules to assure that electric customers do not subsidize nonutility ventures; 2) that States have authority to require the formation of appropriate State, territory, and regional institutions where necessary to ensure a competitive electricity market; 3) as market power abuse may require the application of well tailored structural solutions, legislation should clarify the States are authorized to require divestiture where appropriate and necessary; and 4) that State regulators have authority to ensure effective retail markets and should eliminate any barriers to the exercise of that authority by the States.

This concludes my remarks. Thank you for giving me this opportunity to appear before you today. I look forward to answering any questions you may have.

Mr. BARTON. We thank you.

We would now like to welcome Mr. Sokol. Your statement is in the record in its entirety and you are recognized for 6 minutes to elaborate on it.

STATEMENT OF DAVID L. SOKOL

Mr. SOKOL. Thank you Mr. Chairman, members of the committee. As has been stated, my name is Dave Sokol, chairman, CEO of Mid-American Energy Company, a diversified international energy company headquartered in Des Moines, Iowa with approximately $11 billion in assets. We appreciate very much this opportunity to testify this morning. This is an extremely important and timely hearing because if Congress does not address electricity issues this year, we will not have a truly comprehensive national energy policy. The quality and reliability of our electric supply system is critical to our economy, and Congress cannot wait to act until political consensus is reached on every issue. That merely works to the advantage of those who take extreme positions in the policy arena or who prosper as a result of market failures.

The time has come for Federal action on electricity. Mid-American has been a leader in building consensus on electricity, and there are several important issues where substantive consensus now exists. These include prospective repeal of the PURPA mandatory purchase obligations, standardization of interconnection procedures, the establishment of a mandatory reliability regime and some form of Federal backstop authority for transmission siting, as well as support for FERC's ongoing efforts to promote open transmission access.

Today, however, I would like to focus my remarks in support of H.R. 1101, which would replace the outdated Public Utility Holding Company Act of 1935 with a modern workable framework and broad investigative powers for Federal and State regulators. PUHCA, as you know, was passed in 1935 to cure abuses at a time when energy regulation was in its infancy. Today, all it does is limit investment in energy infrastructure and distort markets, thus reducing supply options for consumers just when the industry needs new investments most.

Sixteen months ago, when our largest investor, Warren Buffet, and I discussed PUHCA repeal with Congressional leaders, we warned that the electricity sector was headed for a train wreck, either in California or in the upper midwest. We don't take any pleasure in being correct in that prediction. But I hope you fully understand why we believe so strongly that Congress must act. From my first hand experience in California, I believe that this electricity crisis can be tied to two core problems: The lack of adequate investment in infrastructure and regulatory policies that distorted the energy markets.

PUHCA contributes to both problems. It did not stop the problems in California from occurring and in certain respects, it has exacerbated them. Let me give you two examples of how PUHCA is limiting investment in California. Last year, when we saw signs of the severe problems in California's electricity markets, we attempted to invest in existing and new utility infrastructure. But through PUHCA, we cannot acquire or control more than 4.9 percent equity in any of the California utilities or those assets regulated under PUHCA.

Moreover, the integration requirement of the Act would have required us to demonstrate that we could physically intersect our Iowa utility system with those in California. This is an impossible requirement for us, or the other two thirds of American utilities operating east of the Rockies to meet. Another PUHCA roadblock would have forced mid America to become a registered holding company under the Act, which probably would have required us to separate ourselves from Berkshire Hathaway, or have Berkshire divest all of their non energy assets.

Obviously, neither option is acceptable. Let me give you a second example. We own and operate geothermal power plants in the Imperial Valley of California, which provides California with 340 megawatts of baseload emission-free renewable electricity. We want to double the size of these facilities, but PUHCA stands in the way because a new transmission line is needed to get this electricity to market. The States utilities are in no financial condition

to do this and we cannot because building the line would trigger PUHCA registration.

This is completely absurd. A 66-year-old law prevents Berkshire Hathaway, one of the world's most financially stable companies, from investing in California's market, when the State's own utilities can't pay their bills. Moreover, without PUHCA repeal, foreign companies looking for a foothold in the U.S. will continue to have a significant advantage over U.S. utilities. Foreign companies are not restricted by the physical integration requirements of PUHCA on their first entry into the U.S. This gives them a substantial advantage over U.S. companies. And we are not arguing against international investment. We strongly support it. But an outdated law should not hamstring American companies and have the perverse effect of pushing Americans' investment overseas.

PUHCA made sense 66 years ago when there was no other statutory framework to control the misuse of the holding company structure. That has changed. Today, the FERC and State agencies closely regulate utilities. The SEC retains full authority over securities functions. The FTC and the Justice Department have well-established, antitrust authority. Are there any good reasons not to repeal PUHCA? No.

First, the SEC, which enforces PUHCA, has consistently supported its repeal on a bipartisan basis for nearly 20 years, calling it the agency's most intrusive and burdensome regulation. Second, FERC commissioners of both parties have supported repeal and FERC reaffirmed that position earlier this year in Senate hearings because PUHCA repeal will enable it to better promote efficient and competitive wholesale markets.

For example, while PUHCA is premised on geographically limiting utility companies, FERC is working to reduce market concentration. PUHCA also inhibits FERC's efforts to implement order 2000, to establish independent regional transmission organizations, a goal which is supported by virtually every market participant.

Third, PUHCA repeal is pro-consumer. H.R. 1101 has strong new consumer protections that guarantee State and Federal regulators full access to the books and records of all utility companies, not just PUHCA-registered ones. Those elements of our business that are regulated should be, and must be available to regulators to insure that our customers are protected.

We support these essential provisions. Moreover, repealing PUHCA will encourage new investment, new ideas and new efficiencies in this industry. I provided committee members with a study we commissioned by a highly respected econometrics firm that used very conservative estimates in showing that PUHCA directly costs our economy hundreds of millions of dollars annually, and other studies have put these costs in the billions.

Last there is strong bipartisan support for PUHCA repeal as has been demonstrated by the Senate Banking Committee's recent 19-to-1 vote for their PUHCA repeal bill. Why then has PUHCA not been repealed yet? Because it is being held hostage to other issues in the larger electricity debate. We believe it is time to end this stalemate because the losers in this hard-played game over PUHCA repeal have been America's energy consumers.

If Congress fails to act this year, when the need for new investment in the industry has never been more apparent, a very strong negative signal will be sent to the financial community. At the close of the Senate Banking Committee markup of the PUHCA bill, Delaware Senator Tom Carper said, and I quote, I have only one question, why hasn't this been done before? It's a no-brainer.

Mr. Chairman, PUHCA repeal is a no-brainer. I would be happy to answer any questions that you may have.

[The prepared statement of David L. Sokol follows:]

PREPARED STATEMENT OF DAVID L. SOKOL, CHAIRMAN AND CEO, MIDAMERICAN ENERGY HOLDINGS COMPANY

Mr. Chairman and members of the Committee, my name is David Sokol, Chairman and CEO of MidAmerican Energy Holdings Company, a diversified, international energy company headquartered in Des Moines, Iowa, with approximately $11 billion in assets. I am here today representing MidAmerican and other companies that support H.R. 1101 and the modernization of the electricity industry.

Thank you for the opportunity to testify this morning on an issue of great importance both to our industry and to American energy consumers. I would also like to thank Representatives Ganske and Terry for their very kind introductions.

MidAmerican Energy Holdings Company consists of four major subsidiaries: CE Generation (CalEnergy), a global energy company that specializes in renewable energy development in California, New York, Texas, and the West, as well as the Philippines; MidAmerican Energy Company, an electric and gas utility serving the states of Iowa, South Dakota, Illinois and a small part of Nebraska; Northern Electric, a competitive electric and gas utility in the United Kingdom, and Home Services.com, a residential real estate company operating throughout the country. CalEnergy owns and operates geothermal power plants in the Imperial Valley of Southern California. The company is the largest employer and taxpayer in Imperial County, one of the most economically disadvantaged counties in California.

I would like to commend Chairman Barton and the members of the Committee for holding this important and timely hearing. I believe this hearing is so important because, at the end of the day, if Congress does not address electricity issues, the country cannot have a truly comprehensive National Energy Policy. No other issue impacts Americans and our economy as pervasively as the quality and reliability of our electric supply system. Congress cannot afford to wait to act until some undefined future time when consensus is reached on every conceivable issue related to electricity. Taking that stance merely works to the advantage of those who take extreme positions in the policy arena or who prosper as a result of failures in the markets. The time for federal action on electricity has come—and maybe gone by a little; but if Congress moves quickly it can catch up before the type of damage we have seen in California and the West spreads to other parts of the country.

MidAmerican has been a leader in efforts to build consensus on electricity, and there are a number of important issues on which substantive consensus exists. These include prospective repeal of the PURPA mandatory purchase obligation, standardization of interconnection procedures, the establishment of a mandatory reliability regime and some form of federal backstop authority for transmission siting, as well as support of FERC's ongoing efforts to promote open access transmission. I would like to focus my remarks today, however, in support of MidAmerican's number one legislative priority: replacing the outdated and counterproductive Public Utility Holding Company Act of 1935 (PUHCA) with a modern framework and broad investigative powers for federal and state regulators.

PUHCA, a Depression-era law passed to cure abuses at a time when the SEC and state regulatory bodies were in their infancy, is today limiting investment in energy infrastructure, thereby reducing the supply options for consumers at the very time when this industry needs new investment most.

In his recent testimony before the Senate Banking Committee, Securities and Exchange Commission Chairman-Designate Harvey L. Pitt stated that he saw his primary mission as the need to "nurture a climate that is conducive to, and encourages, the creation of capital—the lifeblood of innovation." He went on to say that "our securities laws are, in the main, nearly seventy years old, and reflect a time, and a state of technology, light years away from what we now confront daily." Given that previous SEC Commissioners have noted that PUHCA is the most intrusive and burdensome regulation administered by the agency, and that the SEC has been

recommending its repeal for almost twenty years, I think we can safely apply those sentiments to this Act.

From my first-hand experience in California, I believe that its complex problems can be tied to two root causes: 1) lack of adequate investment and infrastructure in the energy sector, and 2) regulatory policies that distort energy markets.

As to the first issue, FERC last year found that "there is little doubt that the most crucial task ahead is to ensure that a robust supply enters this market, both now and in response to any future price signals." Nationwide, data from the North American Electric Reliability Council (NERC) project electric reserves of only 11.48 percent in 2001, with electric demands increasing by more than two percent per year. Typically, a 15 percent reserve is considered to be the minimum to ensure reliable service. Moreover, conservative estimates show that more than $76 billion will need to be invested in the sector by the end of the decade to assure reliable service.

With regard to the second problem—regulatory policies that distort energy markets—California's actions proved disastrous. In the name of reducing concerns about utility market power, the state either compelled or encouraged large-scale generation divestitures by the incumbent utilities and required them to purchase power in the volatile day-ahead spot market. The state restructuring legislation also mandated significant rate reductions that discouraged new entrants from competing for retail customers. Combined with PUHCA's limitations on selling electricity generated by exempt wholesale generators (EWGs) at retail and the inadequacy of available transmission and generation, these measures helped smother competition at the retail level in its infancy. The state also failed to address preemptively the excessive bureaucracy in its plant siting and environmental review procedures.

As you consider the actions you can take to ease the energy crisis in California and the West, I believe you will see that PUHCA contributes to both of these problems. The law can and should be repealed, and *only* Congress can do so. To do otherwise would leave a federal statute on the books that will continue to inhibit investment and distort markets throughout the country. The results of California's failure to address these issues in advance of the onset of full retail competition should be a warning to Congress about the need to move quickly on removing barriers to investment and market entry.

Let me provide the committee with two concrete examples of how the Act prevents actions that could help alleviate the California electricity crisis. Last summer, we at MidAmerican began to see signs foreshadowing the severe problems that have afflicted the California electricity market. The investor-owned utilities in the state had already begun to suffer financially from the impacts of soaring wholesale electricity costs and capped retail rates, and we gave serious consideration to a number of options that would have involved MidAmerican taking an equity position in the California utilities while working with the state to return the market to long-term viability.

Every scenario we reviewed ran into the same roadblock—the Public Utility Holding Company Act. MidAmerican is exempt from the most intrusive regulatory restrictions of the Act because its regulated utility business is primarily in one state, Iowa. However, MidAmerican could not acquire more than 4.99 percent of the equity in any of the California utilities without running afoul of PUHCA on several fronts.

First, the physical integration requirements of PUHCA would have required MidAmerican to demonstrate that it could physically interconnect its utility systems in the Midwest with those of the California utilities. This is an impossible standard for MidAmerican to meet. Any public utility, registered or exempt, operating within the eastern two-thirds of the United States would run into the same barrier.

Second, even if we could have solved the problem of the physical integration requirement, MidAmerican would have been forced to become a registered holding company under the Act. This probably would have required the company to separate itself from Berkshire Hathaway or have Berkshire divest itself of all non-energy related assets. For obvious reasons, neither of those options was acceptable.

Another example pertains to our interest in expanding our Imperial Valley geothermal operations. These plants currently provide the California electricity market with approximately 340 megawatts of baseload, emissions-free, renewable electricity. We would like to double the size and output of these facilities, providing desperately needed electricity to the California market. This project will require the construction of additional transmission lines. As you are well aware, the state's investor-owned utilities are in no financial condition to undertake this type of project. The obvious answer would be for CalEnergy to make the investment in the transmission lines necessary to connect these plants to electricity consumers. Unfortunately, PUHCA may stand in our way.

Being an owner of a transmission facility in California creates similar PUHCA problems to investing in a California utility. Once again, the company would be

faced with maneuvering around the physical integration standard and dealing with Berkshire Hathaway's diversified portfolio. There may be some way around these problems, and we will explore every option to find a way to complete this expansion. Nonetheless, the existence of this unnecessary, outdated law makes it far more difficult to invest in this critical industry.

I hope you will take a moment to reflect on the absurdity of this. Berkshire Hathaway is one of the most financially stable private entities in the world, with a AAA bond rating. A federal law enacted more than 65 years ago with the intent of protecting investors keeps MidAmerican and Berkshire out of California's utility market and almost prevented Berkshire from investing in MidAmerican. At the same time, one California utility has declared bankruptcy and the other was recently unable to complete a bond issue offering junk bond premiums to refinance its debts because of lack of investor interest.

California's utility companies face a long climb back to fiscal health and will have a difficult time raising capital for new infrastructure. Yet, PUHCA will prevent most, if not all, domestic utilities, and discourage non-utility companies, from making equity investments in this market. Where will needed capital come from? I anticipate one of three sources. First, non-utility companies could make these investments, but these companies will not have the benefit of prior experience in the industry and will be impeded by PUHCA just as Berkshire Hathaway is. Federal or state governments are a second possible source of capital, but the political issues would seem to make that unlikely. The most likely scenario, I believe, is that foreign utility companies looking for a foothold in the U.S. market will take long looks at these companies. Since foreign companies are not restricted by the physical integration requirement on their "first bite" entry into the American market, they will enjoy a substantial advantage over U.S. companies in the mergers and acquisitions market. I'm not making a case against international investment. In fact, I strongly support it. But outdated, unnecessary laws should not hamstring American companies in this competition.

PUHCA made sense 66 years ago, when there was no other statutory framework to control the misuse of the holding company structure. All that has changed. Today, the FERC and state agencies closely regulate utilities. The SEC retains full authority over securities functions. The FTC and the Justice Department have well-established antitrust authority. And more information is available in the markets, with bond rating agencies, accounting standards, and financial disclosure requirements quickly punishing companies that engage in excessive speculative activity.

Are there any good reasons not to repeal PUHCA? I don't believe so.

1) The SEC has consistently supported PUHCA repeal for almost twenty years.

Speaking on behalf of the SEC before the Senate Banking Committee's Subcommittee on Securities and Investment, Commissioner Isaac C. Hunt, Jr. testified: "By the early 1980's, many aspects of 1935 Act regulation had become redundant: state regulation had expanded and strengthened since 1935, and the SEC had enhanced its regulation of all issuers of securities, including public utility holding companies. Changes in the accounting profession and the investment banking industry also had provided investors and consumers with a range of protections unforeseen in the 1935. The SEC therefore concluded that the 1935 Act had accomplished its basic purposes, and its remaining provisions were either duplicative or were no longer necessary to prevent the recurrence of the abuses that had led to the Act's enactment. The SEC thus unanimously recommended that Congress repeal the Act." Based on a comprehensive staff report in 1995, the SEC again recommended repeal of PUHCA, accompanied by the creation of additional authority to exercise jurisdiction over transactions among holding company affiliates. That is exactly the approach embodied in H.R. 1101.

2) Federal Energy Regulatory Commissioners have consistently supported repeal.

On March 20, 1997 then-FERC Chair Elizabeth Moler, a Democratic appointee, testified that PUHCA "inhibits competition. Congress should eliminate these impediments. Utilities need the freedom to pursue structural changes without facing antiquated rules that do not easily accommodate current policies favoring competition." Independent Commissioner Donald Santa, Jr. added that "this anachronistic federal statute no longer serves any useful purpose and, in fact, is an impediment to greater competition in electricity markets." The current FERC Chairman, Curt Hebert, a Republican, is also a strong proponent of PUHCA repeal.

PUHCA repeal will enable FERC to continue policies to promote efficient, competitive wholesale markets. PUHCA is premised on geographically limiting utility companies while at the same time FERC is working to reduce market concentration.

The limits PUHCA places on FERC's ability to promote competitive wholesale electricity markets are even more apparent today. For example, PUHCA inhibits utilities' efforts to comply with FERC Order 2000 to establish independent regional transmission organizations (RTOs), yet every consumer group, industrial user group, public power entities and rural coops favor the establishment of RTOs to ensure the most efficient use of the electric transmission system and to guarantee that utilities do not use control of the transmission system to distort wholesale electricity markets.

Many utilities, including MidAmerican Energy, are working to establish independent transmission companies, or "transcos," that would provide for efficient management of transmission networks in large regional markets. As FERC strongly prefers that these organizations be large, multi-state companies, they will be subject to PUHCA's restrictions. PUHCA is discouraging potential investors in these new businesses and delaying the day we will see operational control of transmission fully separated from competitive market functions.

3) PUHCA repeal is pro-consumer.

PUHCA was passed at the height of the Depression to remedy abuses of holding companies that were taking advantage of lax or non-existent utility regulation at the state and federal level. Its purpose then was to preserve and reinforce the model of a regionally vertically integrated utility monopoly. PUHCA did its job then. The paradigm in the industry has shifted, but PUHCA has not. As a result, the Act today narrows the range of market entrants and thereby stifles competition, which is turn hurts consumers.

H.R. 1101 has strong new consumer protections applicable to more utilities than are currently subject to the restrictions of PUHCA. It guarantees state and federal regulators full access to the books and records of utility holding companies. We strongly support those provisions. Those elements of our business that are regulated should be available to the regulators to insure that our customers are protected. That is absolutely essential.

At the same time, repealing PUHCA will allow new investment, new ideas and new efficiencies in the electric and gas industries at a time when these are needed most. Last year, MidAmerican commissioned an independent study by the highly respected econometrics firm Analysis Group/Economics. Using the most conservative possible estimates, the study demonstrated directs costs to the economy of hundreds of millions of dollars annually from PUHCA. Other surveys that have attempted to quantify lost opportunity costs in the industry have estimated a multi-billion dollar annual drag on the economy from PUHCA. I am pleased to provide our study to members of the committee for your review.

Any claim that Congress should not repeal PUHCA because of events in California is misleading and specious. All three of California's utilities are exempt from PUHCA's restrictions under the intrastate exemption, and the overwhelming majority of generators selling electricity in California's electric markets are also PUHCA exempt. California officials made a huge policy mistake in allowing their utilities to distribute proceeds of their stranded cost settlements without either requiring that revenues be set aside in some form of hedge against rising wholesale costs or that these funds not be distributed until after the rate freeze transition period was complete.

That decision was one of many flawed aspects of the California restructuring plan, but it has absolutely nothing to do with PUHCA. If any of these utilities violated California law in their handling of these matters, they can and should be subject to damages and remedies under existing state law. Failure to regulate these utilities properly was may have been poor state policy, but PUHCA has nothing to do with those issues.

4) There is strong bipartisan support for PUHCA repeal in the other body.

On April 24th, the Senate Banking Committee voted 19-1 in support of PUHCA repeal. Having testified at the hearing on the bill the previous month, I can assure you that this was no pro forma vote. The hearing was well attended, particularly by senators new to the Committee hearing the case for PUHCA repeal for the first time.

Why then has PUHCA not been repealed yet?

Because PUHCA repeal is a hostage to other aspects of the larger electricity debate. Some stakeholders in the industry have sought to use PUHCA as leverage to achieve their goals in energy policy. I don't say that in an accusatory sense. That's the way the game is often played, and as I said earlier, MidAmerican has taken a leadership role in trying to resolve policy differences on the full range of these issues.

Those efforts can and should continue, but I believe both Congress and the stakeholder community need to step forward and focus on what they support and are willing to help get passed. We need to end the politics of stalemate where interest groups have focused more on blocking progress on one another's priorities than on moving forward with good policy. Unfortunately, the losers in this hard-played game have been America's energy consumers.

While there has been some new interest in the utility sector in the last two years, partly as a result of the entry of non-traditional investors, far more capital is sitting on the sidelines waiting to see if Congress will move forward with PUHCA repeal and other needed modernizations. I am concerned that if Congress fails to act this year when the need for new investment in the industry has never been more apparent, a strong negative signal will be sent to the financial community. In view of our undeniable capital needs, that would have far-reaching negative impacts.

Last year, I joined Mr. Warren Buffet in discussing PUHCA repeal with House and Senate leaders. In those meetings, we warned that the energy sector was headed for a train wreck in either California or the Midwest. I don't take any pleasure in being right in that prediction, but I hope you will understand why I believe so strongly Congress must act now.

The political game that has held PUHCA repeal hostage has left the American consumer the loser. It is time to change the way the game is played. I thank you for the opportunity to testify this morning and ask you to support H.R. 1101 and other needed industry modernizations.

Mr. BARTON. Thank you.

Mr. Levy, we would now like to have your statement. It is in the record in its entirety, and you are recognized for 6 minutes to elaborate on it.

STATEMENT OF BRUCE LEVY

Mr. LEVY. Thank you.

Mr. BARTON. You need to put that microphone really close to you, sir. And push that little—there you go.

Mr. LEVY. That works. Thank you, Mr. Chairman, members of the committee. I am Bruce Levy, senior vice president and chief financial officer of GPU. GPU, based in Morristown, New Jersey, is a registered electric holding company. We operate utility companies in New Jersey and Pennsylvania, two States that have completed their deregulation process, and we offer our 2 million customers the choice to select their electric supplier.

In addition, GPU owns international utilities in the U.K., Argentina and Australia, serving another 2 million customers. I appreciate the opportunity to appear before you today, and appreciate Mr. Pallone's kind introduction, and want to acknowledge, for the record, the hard work he has done with us in both local reliability issues and in PURPA repeal issues. I think that the points of today to discuss who to make a better competitive wholesale electric generation market are important ones that will determine whether we continue to enjoy adequate supplies of reliable electric power at fair prices.

The potential upside of this is this new more competitive market is enormous. But so will be the cost if we fail. I will focus my remarks today on two Federal statutes, both which have outlived their usefulness and now serve as impediments to proper functions of competitive wholesale markets. These States are the Public Utility Regulatory Policies Act of 1978, PURPA, and the Public Utility Holding Company Act of 1935, PUHCA. As someone who is active in the development of PURPA-qualifying facilities for GPU in the past and now has the responsibility of over the finances of GPU a PURPA-burdened utility, who has long-term power contracts with

over 1,600 megawatts of QF projects, I can argue both sides of whether PURPA was a good thing or a bad thing when Congress enacted it in 1978.

But quite frankly, whether PURPA was a good or bad thing in 1978 is not important at this time. What is important is that in today's power market, PURPA no longer makes sense. It is not needed, and in fact creates an impediment to free operation of the wholesale generation market. Today, electric generators QFs and non-QFs have access to wholesale customers under the same terms and conditions applicable to the utilities owning the transmission wires. This open access has sharply increased competition for wholesale sales of electricity. But it has also resulted in a competitive disadvantage for utilities mandated to purchase wholesale power from QFs at long-term rates, which are generally above currently prevailing market price.

PURPA also disadvantages non-QF generators who are not eligible for the privilege of a guaranteed market for their power. PURPA was premised on utilities continuing to be the exclusive suppliers of electricity to all consumers within their franchise territory. It was never imagined that PURPA would apply to a world of opening transmission access for wholesale and retail customers.

If a utility exits the generation business, whether by choice as my company has, or through regulatory order as some other utilities have, it is unreasonable, unfair and uncompetitive to require those utilities to continue to make new commitments to purchase QF generation, as required by PURPA.

Things get even worse in some States. For example, under a restructuring plan adopted in New Jersey, all utilities are required to bid out their provider of last resort obligation, and thus will have no further supply obligation to customers. A similar case will exist in Texas when that States plant program starts. Requiring those utilities to make new—to make any new QF purchases makes no sense. In these cases, as in any other State where deregulation has been implemented, continuing PURPA impedes the transition to a competitive market. PURPA should be prospectively repealed, that is, existing contract rights expectations including the expectation of PURPA costs recovered by utilities, provided by current laws should be honored.

Mr. Stearns has introduced bipartisan legislation, H.R. 381, that would accomplish this. And I urge its inclusion in any comprehensive legislation you may consider.

Another statute which needs attention is PUHCA. PUHCA has long outlived its usefulness and its rules are designed for industry that no longer exists, and may severely limit the ability of companies to compete in today's fast evolving energy marketplace. PUHCA restricts the flow of capital into new generation and transmission facilities and is a significant factor impeding the development of independent transmission facilities. There are many new investors anxious to participate in the funding and expansion of our Nation's transmission system.

PUHCA has kept these investors away. PUHCA should be repealed. While PUHCA and PURPA repeal are key elements in removing impediments to a fully competitive market, there are other areas where changes are needed. These include extension of FERC-

ordered, nondiscriminatory open access rules to munis, coops, and federally owned transmission facilities, as well as provisions to upgrade necessary incentives to expand the transmission system.

In conclusion, there is much this Congress can and should do to make the competitive wholesale market function better. I urge the PURPA prospective repeal preservation of existing contracts and recovery of costs and PUHCA repeal be high on your agenda, and that such actions be included in any national energy policy. Without addressing these issues, we cannot have a national energy policy. Thank you very much.

[The prepared statement of Bruce Levy follows:]

PREPARED STATEMENT OF BRUCE LEVY, SENIOR VICE PRESIDENT AND CHIEF FINANCIAL OFFICER, GPU, INC.

INTRODUCTION

Mr. Chairman and Members of the Subcommittee, I am Bruce Levy, Senior Vice President and Chief Financial Officer of GPU, Inc. GPU, Inc., headquartered in Morristown, NJ, is a registered public utility holding company providing utility and utility-related services to customers throughout the world. GPU serves 4.6 million customers directly through its electric companies—GPU Energy in the US, GPU Power UK in England, and Emdersa in Argentina. GPU has domestic utility operations serving approximately 2 million customers in Pennsylvania and New Jersey. The company's independent power project business units own interests in and operate eight projects in five countries. I am testifying today on behalf of myself and GPU, Inc., but my views are consistent with the positions taken by EEI, the Alliance for Competitive Electricity, the PURPA Reform Group, and Repeal PUHCA Now!, industry organizations of which GPU is a member.

I am particularly pleased to be here today to talk about how to make competitive wholesale electric generation markets work better. This is an important issue in determining whether we continue to enjoy adequate supplies of reliable electric power at fair prices to the consumer.

We are currently about mid-way through the transition of the electric power industry from a system of defined franchise service territories, cost-based regulation of generation, and pervasive regulation of all aspects of the business, to a wholesale market premised on open, non-discriminatory access, market-determined generation prices, and independent operation of the transmission grid. While this transition has not been easy, it is clear that if we successfully navigate this transition, the industry will be forced to be more efficient and consumer prices will be less than they otherwise would have been under the old system. The upside potential of this new, more competitive electric industry is enormous, but so will be the costs if we fail.

It is becoming clearer each day that much remains to be done by regulators, and most importantly, by the Congress, to ensure that this transition to a more market-oriented electric industry is successful. The problems that plague the wholesale electric power sector today can be ignored, but they will not go away and they cannot be entirely solved by the FERC or state regulators. Congress has an important role to play and I encourage you to exert the leadership necessary to help ensure viable, robust, competitive wholesale generation markets. The following highlights some of the issues that are important to properly functioning wholesale power markets, and are issues that only the Congress can address satisfactorily.

Repeal Federal Legislation that Hinders Competition

Legislation enacted in an era of vertically integrated utilities with defined retail franchise territories makes no sense in today's world. Legislation is necessary to prospectively repeal section 210 of the Public Utility Regulatory Policies Act of 1978 ("PURPA") and to repeal the Public Utility Holding Company Act of 1935 ("PUHCA"), two impediments to a more competitive electric industry.

PURPA

The Public Utility Regulatory Policies Act of 1978 ("PURPA") was enacted as part of the Carter Energy Plan to help alleviate the oil and natural gas shortages of the late 1970s. It failed to achieve these objectives, and today, it stands as an impediment to more competitive and efficient wholesale power markets.

PURPA was intended to encourage conservation and promote the development of renewable fuels in the electric generation sector. It did this by establishing a special

class of power generators, known as qualifying facilities ("QFs"). In general, a QF must be of a certain size, burn certain renewable or waste fuels, or produce steam for commercial or industrial use as well as electricity. PURPA requires utilities to buy all the electricity these qualifying facilities wish to sell at the utility's "avoided cost," which is determined by state regulators under guidelines issued by the FERC.

In drafting PURPA, Congress aimed to ensure that consumers would pay no more for PURPA power than for other power. Unfortunately, due to a confluence of factors not foreseen by the authors of PURPA, this has not been the case. Instead, long-term PURPA contracts continue at above market prices throughout the United States. And some 65 percent of PURPA contracts will not expire until after the year 2010.

PURPA is an anachronism in today's power markets. Competition in electricity generation has been unleashed by the enactment of the Energy Policy Act of 1992 and the issuance of FERC Order Nos. 888 and 889, providing for open, non-discriminatory access to utility transmission systems for wholesale transactions. Consequently, electricity generators and wholesale customers have access to each other under the same terms and conditions applicable to the utility owning the transmission wires. This open access has sharply increased competition for wholesale sales of electricity. But it also has resulted in a substantial competitive disadvantage for utilities mandated to purchase wholesale power at rates above currently prevailing market prices. PURPA also disadvantages non-utility generators not eligible for the special privileges of a guaranteed market for their power.

PURPA was premised on utilities continuing to be the exclusive suppliers of electricity to all consumers within their franchise territories. It was never imagined that PURPA would apply to a world of open transmission access for wholesale and retail customers. Continuation of PURPA's purchased power mandate in this new open access world distorts competition and denies consumers the benefit of the lowest cost power. If a utility goes out of the generation business, as my company and many other utilities have decided to do, requiring those utilities to continue to make new commitments to purchase QF generation makes no sense. For example, under the restructuring plan adopted in New Jersey, all utilities are required to bid out the provider of last resort obligation and thus will have no further supply obligation to its customers. Requiring those utilities to make new purchases of QF power makes no sense. Similarly, if a utility is precluded from marketing energy, as utilities in Texas have been under that State's restructuring law, it has no use for energy delivered under a PURPA contract. Thus, continuing PURPA merely impedes the transition to a competitive market.

PURPA also has failed to achieve one of its primary goals, to encourage the development of renewable energy resources. According to the Department of Energy's Energy Information Administration, as of December 31, 1998, wind turbines, solar and geothermal units together comprised only 3.7 percent of all installed non-utility generation capacity. Biomass and waste comprised another 16.1 percent. On the other hand, natural gas, coal and oil make up over 75 percent of the installed non-utility generating capacity. Thus, non-renewable sources of energy have been the primary beneficiaries of the PURPA mandatory purchase requirement, not renewables.

PURPA should be prospectively repealed. However, existing contracts, rights and expectations, including the expectation of PURPA cost recovery by utilities currently provided by law, should be honored. Mr. Stearns has introduced bi-partisan legislation (H.R. 381) that would accomplish this. I urge its inclusion in any comprehensive legislation you might consider.

PUHCA

The Public Utility Holding Company Act of 1935 ("PUHCA") was enacted during the Great Depression with two primary objectives: the integration and simplification of complex natural gas and electric utility holding company systems, which then dominated the utility industry, and protection of investors and consumers through effective regulation of multi-state utilities operating through subsidiaries.

PUHCA long ago achieved its first objective of restructuring the electric and natural gas industries. Consumer and investor protection is now the purview of other regulatory and statutory authorities, which did not exist 65 years ago.

PUHCA met its first objective by dismantling and simplifying the organizational structure of the more than 200 complex electric and gas utility holding company systems in existence in the mid-1930s. These geographically scattered and diverse businesses were limited to the operation of a single integrated utility system, plus such other businesses as were closely related to an integrated utility system. By the early 1950s, according to the Securities and Exchange Commission ("SEC"), the agency responsible for administering PUHCA, the reorganization of the electric and gas utility industries was complete.

The second objective of PUHCA—to protect investors and consumers—was met by authorizing the SEC to regulate certain holding companies that remained the owner of utility subsidiaries in more than one state. This regulation requires advance SEC approval for many business and financial transactions, including the issuance of debt or equity, acquiring utility or non-utility assets and entering into service arrangements with affiliated companies.

Even the SEC has recommended PUHCA's repeal because it is no longer needed and is largely duplicative of other investor and consumer protection authority administered by the SEC and the states. As an SEC report has noted, "[a]cting under authority in the Securities Act of 1933 and the Securities Exchange Act of 1934, the SEC has, over the past six decades, created a comprehensive system of investor protection that obviates the need for many of the specialized provisions of the Holding Company Act."

Not only has PUHCA outlived its usefulness, but it also is a barrier to competition. It requires fewer than 20 out of the nation's more than 200 electric and natural gas utilities to register and be subject to pervasive SEC regulations. By significantly limiting geographic and product diversification, and imposing numerous burdensome filing requirements, PUHCA severely limits the ability of companies to compete in today's fast evolving energy marketplace and deprives consumers of the full range of energy provider services and choices they would have if the Act were repealed. PUHCA restricts the flow of capital into new generation and transmission facilities and limits the number of new suppliers in electricity markets by prohibiting exempt wholesale generators from selling directly to retail consumers.

PUHCA also acts as a perverse impediment to the formation of RTOs. Shareholder-owned utilities and FERC are working quickly to meet FERC's goal, established in Order No. 2000, of having RTOs operational by the end of 2001. However, PUHCA is an impediment to utility efforts to establish independent transmission companies with the scope and size desired by FERC. Any such company could be required to become a registered holding company and subject to the many restrictions and additional regulation under PUHCA. As our companies attempt to raise financing for these newly formed RTOs, they are discovering that PUHCA's restrictions are a significant concern to Wall Street firms and a barrier to investment by the very non-utility businesses that are "independent" of market participants. Mr. Pickering has introduced bi-partisan legislation (H.R. 1101) that would repeal PUHCA. I urge its inclusion in any comprehensive electricity legislation that the Subcommittee might consider.

Extend Non-Discriminatory Open Access Requirements to Municipal, Cooperatively-Owned and Federally-Owned Transmission Facilities

In 1992, Congress passed the Energy Policy Act ("EPAct"). One of its most significant provisions is a requirement that, upon request, utilities must transmit or "wheel" wholesale power generated by others. If a utility fails to wheel when requested to do so on mutually satisfactory terms, the requesting party can petition the FERC for an order requiring the wheeling.

In 1996, the FERC issued its landmark decision in Order No. 888, directing utilities to provide other users with access to their transmission facilities on the same terms and conditions that they themselves have. The purpose was to promote wholesale competition by providing ways for competitive generators to move their power to wholesale customers through open, non-discriminatory transmission services.

Order No. 888, however, only applies directly to utilities subject to FERC's jurisdiction under the Federal Power Act—mostly investor-owned companies. Almost one-third of transmission facilities in the U.S. are not subject to FERC jurisdiction, and thus, are beyond the open access requirements of Order No. 888. Thus, the Order No. 888 open access requirements are not directly applicable to federally-owned, municipal, or cooperatively-owned utilities, although the FERC has imposed a reciprocity requirement on non-jurisdictional utilities that seek to use the transmission facilities of jurisdictional entities. In order to promote greater market efficiency, competition and reliability, FERC's open transmission access requirements should be extended to all transmission-owning entities. In today's market, it makes no sense for there to be different rules for different transmission-owning entities.

Upgrade and Provide Necessary Incentives to Expand the Transmission System

Generation is of little use if the power that is generated cannot be moved to where it is needed, and when it is needed, instantaneously. "Busy" signals are not acceptable in our business. Our increasingly interconnected and overloaded transmission system is what makes the entire electric system work (or not).

All segments of the electricity industry are imposing tremendous demands on the transmission system to carry more and more transactions across greater distances. As a result, the transmission system is facing significant increases in congestion.

On an interstate highway system overloaded with traffic, gridlock often results. On a transmission system with congestion, transactions are curtailed to ensure that the system does not become overloaded, limiting delivery of low-cost power and potentially resulting in a loss of reliability.

Annual investment in transmission has been declining by almost $120 million a year for the past 25 years. Transmission investment in 1999 was less than half of what it had been 20 years earlier. Maintaining transmission adequacy at current levels would require about $56 billion in investment during the present decade. EPRI estimates it will cost up to $30 billion to bring the western regional transmission system back to a stable condition and $1 billion to $3 billion a year after that to maintain this condition in the face of continued growth.

Without adequate transmission capacity to meet growing demand, reliability will be compromised, prices will increase, overall system efficiency will decline and the benefits of wholesale generation competition will not be realized. A regulatory regime that fosters an economic climate to encourage investment in transmission is necessary. It is time for innovative, non-cost based forms of regulation to reward transmission investments and operations that enhance reliability and greater system efficiency. A bipartisan bill introduced or cosponsored by six members of this Committee in the last Congress (H.R. 2786) provides a satisfactory framework for addressing the need for new investment in transmission. I urge the Subcommittee's careful consideration of this bill.

Establish Regional RTOs

The biggest gap in FERC's RTO authority remains its inability to impose the same requirements on federal electric utilities, municipal utilities and electric cooperatives. These utilities operate important transmission facilities that are integral to RTOs throughout the nation. FERC has invited these entities to participate in mediation talks. However, because FERC lacks jurisdiction over these entities' transmission systems, it cannot put the same pressure on them to join RTOs that it has clearly demonstrated it intends to put on shareholder-owned utilities. FERC's Federal Power Act authority must extend to all transmitting utilities, regardless of their ownership form.

Tax Code Provisions that Impede the Efficient Restructuring of the Industry Should be Eliminated

While I realize that tax issues are not jurisdictional to the Energy and Commerce Committee, I want to encourage your support for a number of tax law changes that are critical to assuring adequate investment in transmission infrastructure. With regard to RTOs, these organizations will succeed only if all transmission owners in a region join. In some areas of the country, such as the Pacific Northwest, the participation of all publicly owned transmission entities will be needed to form an effective RTO. Municipal owners of transmission argue they cannot join RTOs because tax code provisions preclude the "private use" of tax-exempt financed utility property. These provisions should be modified to allow municipal transmission assets to be placed into an RTO without violating "private use" rules.

We commend the House Ways and Means Committee for reporting legislation last week that largely reflects the compromise agreement reached between EEI, LPPC and APPA last year that would address many of these problems. This agreement would (1) grant "private use" relief for government-owned utilities that provide open access to their transmission systems, (2) grant tax relief for the sale or spin-off of transmission facilities to form FERC-approved RTOs or

independent transmission companies that are part of a FERC-approved RTO, (3) allow continued contributions to nuclear decommissioning trust funds in a restructured electricity market, and (4) remove the tax on contributions in aid of construction.

Conclusion

Our country needs a comprehensive national energy policy that ensures the adequate supply of affordable and reliable electricity. The removal of barriers to the wholesale generation market will go a long way to ensuring the supply that is essential to our modern economy that increasingly depends on adequate supplies of highly reliable, and reasonably priced electricity. Modern technologies powered by electricity have been responsible for as much as half of the nation's economic growth since the 1930s. Electric technologies have improved our productivity, reduced our overall energy use and enhanced Americans' quality of life.

Action is needed now to ensure our country has affordable and reliable electricity for years to come. I look forward to working with this Subcommittee to achieve these objectives.

Mr. BARTON. Thank you, Mr. Levy.

We now want to hear from Mr. Morris. And I believe you testified for the subcommittee in the last Congress. Is that correct or not correct?

STATEMENT OF HERMAN MORRIS, JR.

Mr. MORRIS. Yes.

Mr. BARTON. That is correct. I thought I recognized you. Welcome again to the subcommittee, and your statement is in the record in its entirety, and we would ask you to elaborate on it for about 6 minutes.

Mr. MORRIS. Thank you, Chairman Barton, and Ranking Member Boucher. On behalf of the Large Public Power Council, I am happy to appear today to discuss electric restructuring issues. As you know, my name is Herman Morris, and I am president and chief executive officer of Memphis Light, Gas & Water Division. I am testifying today, however, on behalf of the Large Public Power Council, an association of the 22 largest public power systems in the United States.

LPPC members are companies that are publicly owned, not-for-profit entities and are service-focused and committed to the local residence and communities that we serve. We provide reliable power and cost-effective affordable power generation transmission and distribution services that the benefit of which flows directly to the public power customers and communities.

Mr. Chairman and members of the committee, LPPC appreciates your efforts to develop comprehensive electric industry restructuring legislation. I would also like to thank our Congressman, Ed Bryant, whose congressional district includes parts of Memphis and the customers that we serve and who has been a longtime friend of MLGW, and who has been kind enough to address the Large Public Power Council CEOs at their most recent meeting in May of this year in Memphis, Tennessee. We thank him for his interest in these issues. The LPPC supports the enactment of comprehensive legislation that promotes a competitive efficient wholesale power market that results in low cost reliable services to all consumers.

I would like to comment on several issues of particular import to our members. We believe the reform of private use tax rules is essential; FERC transmission jurisdiction should be carefully reviewed to adapt to the unique structure and responsibilities of public power systems; that any legislation should ensure market power and merger protection for consumers; and that TVA's role in our region in the Southeast has to be addressed; market power to ensure fully competitive wholesale markets; Federal legislation should protect against anticompetitive concentration of generation ownership and against abuse of market power. This is particularly true if consumer protection laws such as the Public Utility Holding Company Act is to be repealed. We believe eliminating this law without updating the Federal Power Act would harm consumers.

We oppose stand-alone repeal of PUHCA, unless other critical restructuring issues are addressed and FERC is provided with adequate tools to address the issues associated with measures, market power and RTO integration.

Mergers. LPP supports legislation that would clarify FERC's authority over holding-company-to-holding-company and generation-only mergers and believes that FERC should exercise the authority necessary to ensure competitive and robust markets.

Private use. Private use rules which made sense in regulated noncompetitive worlds are problematic in the new environment in which electric utilities must now work. The rules make it more difficult for public power to build much-needed generation and transmission and are a barrier to enhancing public power's ability to deliver electricity at a time when our Nation faces power shortages. The Tax Code should be updated now so that it will help, not hinder, development of needed electric infrastructure and delivery of power.

FERC transmission jurisdiction in RTOs. We support open access transmission—FERC-lite, as it has been labeled—as included in the subcommittee's bill in the last Congress. It would permit public power entities to provide transmission service and rates that are not unduly discriminatory and require the companies of the nonrate terms and conditions to be comparable to those required of investor-owned utilities. Our members do not support current proposals to extend FERC jurisdiction to transmission components of bundled retail rates.

With respect to RTOs, we support a flexible framework for the creation of RTOs as established under FERC Order 2000 and believe this committee should adopt this approach. We do not believe public power systems, however, should be compelled to join RTOs. We will hear more of this on the transmission issues a little bit later in hearings by this body.

As noted above, MLGW and LPPC also strongly urge this committee to remove statutory impediments to a competitive wholesale power market for TVA distributors like MLGW. But TVA Fence, much like the fence that Chairman Tauzin recounted from his youth, has a pretty dramatic impact. Likewise, the anti-cherry-picking provision of the Energy Policy Act prevents MLGW and other TVA customers from buying power from other suppliers and prevents a mature wholesale market from developing in the valley. We believe as part of a comprehensive energy legislation package, these provisions need to be repealed together.

In addition, we believe that FERC jurisdiction standards should be extended to include regulation and transmission and wholesale power rates. In addition, we have worked with other members in the valley to come up with consensus language which includes much of this, although perhaps not going quite as far as we would on our own. That is the nature of compromise and consensus.

We support distributed generation. We support conservation and renewable energy resources as they have proven necessary for national energy supply to help maintain a diverse and robust supply and source for energy, renewable energy and the like.

In conclusion, we appreciate the efforts of this committee. We appreciate the strides that have been made to advance the debate in

the competitive market and benefits that will result to all consumers. The LPPC stands ready to assist, to aid and to offer input to this body and facilitate in a workable, competitive market.

That concludes my comments to you today. I appreciate your attention, and I will be happy to answer questions.

[The prepared statement of Herman Morris, Jr. follows:]

PREPARED STATEMENT OF HERMAN MORRIS, JR. ON BEHALF OF THE LARGE PUBLIC POWER COUNCIL

My name is Herman Morris, Jr. and I am the President and Chief Executive Officer of Memphis Light, Gas and Water Division (MLGW). I am testifying today on behalf of the Large Public Power Council (LPPC). The LPPC is an association of 22 of the largest public power systems in the United States. LPPC members directly or indirectly provide reliable, affordably-priced electricity to approximately 18 million customers, produce over 11,610,000,000 megawatt hours of generation, and own and operate approximately 26,000 circuit miles of transmission lines. LPPC members are located in states and territories representing every region of the country, including several states represented by members of this Committee—such as Tennessee, Texas, California, New York, and Arizona—and include several state public power agencies as well.

The majority of LPPC companies perform the same functions as traditional vertically-integrated utilities, however, LPPC members are publicly-owned, not investor-owned. As a result, LPPC member companies are not-for-profit entities that are service-focused and committed to the local residents and communities we serve. Therefore, the benefits resulting from the reliable and cost-effective provision of generation, transmission, and distribution service flow directly to public power customers and communities.

Mr. Chairman and members of the Committee, the LPPC appreciates your efforts to develop comprehensive electric industry restructuring legislation. I would also like to thank Congressman Ed Bryant, whose congressional district includes Memphis and who has been a long-time friend of MLGW and public power and who was kind enough to address the LPPC CEOs at their last meeting this past May in Memphis. We thank him for his interest in these issues. The LPPC supports the enactment of comprehensive legislation that promotes a competitive, efficient wholesale power market of benefit to all consumers. We believe that there is a need for a comprehensive energy strategy, which addresses market concerns, promotes fuel diversity, promotes energy efficiency and conservation, and encourages environmentally responsible behavior. The LPPC supports efforts to increase competition so long as low-cost, reliable service is ensured for consumers and believes that a robust wholesale market must be encouraged. We further believe that there should be environmentally responsible development of all our fuel sources and that unnecessary constraints on the use of any energy source should be removed. There is a need for hydro licensing reform, streamlining of environmental permits and siting decisions, and incentives for renewable energy, conservation and efficiency. In addition, my utility, MLGW and another of LPPC's members, the Knoxville Utilities Board (KUB), are among the largest customers of TVA and we, and LPPC, believe that any restructuring legislation must include a TVA title that would remove the many statutory impediments to a competitive wholesale power market in the Tennessee Valley and bring that part of the country in step with the rest of America.

We appreciate the efforts this Committee has made to advance the debate on how to achieve a competitive market that benefits consumers and we would like to offer the Large Public Power Council's assistance in crafting legislation to facilitate competitive markets. During the debate on these issues in the last Congress, the LPPC provided our input to the Committee and contributed our views to the debate. We appreciate this opportunity to continue our involvement.

In light of these overarching objectives, I would like to comment on several issues of particular importance to our members.

FEDERAL LEGISLATION SHOULD ADDRESS RESTRUCTURING AND MARKET FORMATION ISSUES

Wholesale power markets can deliver reliable, clean and low-cost power, but only if the FERC, the Congress, and the states do their jobs. The LPPC believes that competitive regional wholesale electricity markets can benefit consumers. However, federal protections are necessary to ensure a level playing field for electric consumers and producers and to promote effective and sustainable competition. The

benefits are eliminated if one competitor uses its dominant ownership of generation and/or transmission to stifle competition. Federal legislation should ensure that a mechanism is in place to protect against anti-competitive concentration of generation ownership and against abuse of market power. This is particularly true if consumer protection laws such the Public Utility Holding Company Act (PUHCA) are repealed. We believe eliminating this law without updating the Federal Power Act (FPA) would harm consumers. As such, we oppose stand-alone repeal of PUHCA if other critical restructuring issues are not also address and if FERC is not provided with adequate tools to address the issues associated with market power and holding company mergers. Specifically, the LPPC supports legislation that would clarify FERC's authority over holding company-to-holding company and generation-only mergers. We oppose limiting FERC's current authority to review such mergers and believe that such authority is necessary to ensure competitive and robust markets.

In order to effectively bring benefit to the consumer and prevent market power abuses, the LPPC believes that Congress should take two additional steps. First, the Congress should confirm the authority FERC asserted in Order No. 2000 to order jurisdictional public utilities to participate in RTOs as a remedy for undue discrimination or anticompetitive effects, where supported by the record in a particular case. Second, in addition to authority FERC currently has under the FPA, it should be authorized to require a jurisdictional public utility having market power in FERC-regulated wholesale markets to submit a market power mitigation plan that FERC can approve, disapprove or modify.

The LPPC supports the enactment of legislation that ensures competitive markets and provides benefit to the consumer. Such legislation must resolve the "private use" tax issue and should recognize the distinct nature of public power and its contribution to the electricity industry. Without resolution of current tax restrictions relating to private use, restrictions on tax-exempt bonds could (1) prevent public power from fully opening up its transmission and distribution systems for use by investor-owned utilities, (2) could prevent our participation in Regional Transmission Organizations (RTOs), and (3) will constrain our ability to make long-term sales of surplus power. Absent reform of private use, one of the key problems—how to move electric power from generation to load—will continue to plague the system, and the objectives of comprehensive legislation, the development of a robust, competitive, and fair market, will not be achieved.

The LPPC supports proposals to ensure that all market participants have access to the transmission system on a fair and open basis. "FERC-lite," as included in the subcommittee's bill in the last Congress, is part of such open access. It would require public power entities to provide transmission services at rates that are not unduly discriminatory and require the company's non-rate terms and conditions to be comparable to those required of the investor-owned utilities. We believe that open transmission access, including the FERC-lite provision, will encourage a robust and competitive market.

The LPPC does not support unnecessary expansion of FERC transmission jurisdiction. The LPPC strongly opposes extending full FERC ratemaking jurisdiction to our public power systems. In addition, we do not believe that FERC jurisdiction needs to be expanded to cover the transmission component of our bundled retail sales, as some members of the Committee have proposed. Because of "private use" tax restrictions, our transmission-owning members have sized their transmission systems to supply their own wholesale or retail native loads. We have limited transmission capacity available for other entities. To the extent we have such capacity, we are willing to make it available to all comers on a non-discrimination basis, as FERC-lite would require. But, a rule that required us to make available to others transmission capacity we need to serve our native load will result in power curtailments or higher prices to our own customers. Any expansion of FERC transmission jurisdiction must respect the interests of the customers for whom the transmission facilities were built. The LPPC will spell out its approach on these issues in greater detail in its subsequent testimony on transmission policy before this subcommittee.

The LPPC believes that regional transmission organizations (RTOs) should have a broad geographic scope, preferably be not-for-profit, and, in all cases, be fully independent of market participants. This type of organization will operate more cost-effectively and will more likely result in the open transmission necessary for a fully functioning market. The LPPC opposes granting FERC broad new authority to compel transmitting utilities to join RTOs. However, we support confirming FERC's authority to order jurisdictional utilities into an RTO on a case-by-case basis in order to remedy undue discrimination or anticompetitive conduct. We believe that RTOs should be created to foster competition and, as a result, the LPPC believes that RTOs must be independent and must be separate from all market participants.

As noted above, MLGW and LPPC also strongly urge this Committee to remove the statutory impediments to a competitive wholesale power market for TVA distributors. The two primary statutory barriers to wholesale power competition in the Tennessee Valley are popularly known as the TVA Fence and the anti-cherry picking provisions of the Energy Policy Act. These provisions prevent MLGW and other TVA customers from buying power from other suppliers and prevent a mature wholesale market from developing in the Valley. We believe that, as part of comprehensive energy legislation, these provisions should be repealed. In addition, we believe that FERC jurisdiction standards should be extended to include regulation of TVA's transmission system and of TVA's wholesale power rates, as well as subjecting TVA's stranded cost determinations to FERC oversight. To this end, MLGW, TVA, the distributors and customers of the Valley have agreed to consensus language which we would urge the Committee to adopt in any legislation proposed.

FEDERAL LEGISLATION SHOULD ENCOURAGE EXPANSION OF THE MARKET AND SUPPLY OF ELECTRICITY

The LPPC strongly supports an energy policy that encourages environmentally responsible use and development of the nation's diverse energy supply, including coal, wind, solar, hydropower, natural gas, biomass, landfill methane and nuclear energy. We believe that sound energy and environmental policy should flow from this "fuel diversity" strategy. Fuel diversity means better consumer options, lower power prices, and a more stable economy.

Plans to encourage fuel diversity include classifying hydro electric generation as renewable energy, removing regulatory impediments to power plant or transmission upgrades, providing advanced coal generation funding, streamlining nuclear plant relicensing, resolving the issue of nuclear waste, and increased R & D for renewable energy and advanced coal technologies. Fuel diversity prevents dependence on one source of fuel and provides supply options from multiple sources during disruptions or times of price volatility on any one given source.

For example, coal, is an essential part of this country's fuel mix. Coal accounts for over 50% of electric generation and approximately 23% of all the energy consumed. The continued and expanded use of coal contributes to fuel diversity, dampens prices, decreases reliance on natural gas and helps stabilize market prices. The LPPC supports the use of increased incentives and federal funding for more efficient, clean coal technologies that will lessen the impact of health-based pollutants and will improve efficiencies in generation.

Hydro-electric generation is another important component in our fuel mix. It is emission free, has no fuel cost, and because of its virtually instantaneous start-up capability, provides an invaluable operating reserve. However, the current federal licensing/relicensing process for non-federal hydro projects is time-consuming, expensive, and extremely complex, creating an unworkable framework that imposes significant costs in terms of time, resources, and capital. The administrative costs of relicensing proceedings and licensing conditions imposed in these proceedings threaten to eat up much of the national economic benefit derived from continued operation of existing hydro projects. The LPPC believes reform of the current system is desperately needed and supports the efforts to do so.

Renewable energy resources have proven to be a necessary element of the national energy supply and help maintain fuel diversity. Renewable energy resources have a less significant impact on the environment than other fuels. Renewable energy is becoming increasingly cost competitive and is a potentially important future resource. The LPPC believes that the need for federal incentives for renewable energy production is crucial. We support continued use of such incentives, which will encourage the quick installation of renewable energy resources and help additional technologies reach the market. However, it is crucial that there is parity among incentives such that they can be enjoyed by public power and investor owned utilities alike. To this end, we support efforts to develop a tradable or transferable tax credit to encourage development of renewable energy resources.

The inclusion of nuclear energy is essential to a fuel diversity strategy. Existing plants must continue to operate safely and efficiently. The licenses on these facilities should be extended and the process for doing so should be streamlined. There have been significant advances in new technologies and the commercialization of these new options should be encouraged, as should continued R&D. However, for public health, safety, and economic reasons, the issues of nuclear waste and its long-term disposal must be addressed. Safe, publicly acceptable interim and long-term storage and disposal facilities must be developed.

The increased use of distributed generation (DG) technologies by users during the West Coast crisis has been a crucial tool to shave peaks and to mitigate shortages,

extending the time that more power is available between emergencies. The inclusion of distributed generation resources allows our energy policy to provide energy to the consumer while contributing to a diverse energy supply. The LPPC recommends that federal legislation support the use of emerging technologies and the increased use of established technologies such as DG. A number of LPPC members have been proactive in the use of this technology. For example, the New York Power Authority recently installed eleven combustion turbines (440 MW) in New York City. The purpose was to avoid 308 MW summer shortfall projected by the New York ISO. In addition, another LPPC member, the City of Tacoma responded to the energy crisis in the West by siting 30 diesel micro turbines. This allowed them to better manage their demand and continue to serve their customers without interruption. My own company, MLGW has proposed to TVA building new gas-fired generation to meet its growing demand.

CONCLUSION

As the House Energy and Commerce Committee prepares to act on comprehensive restructuring legislation, the LPPC stands ready to offer our assistance. We would be happy to share proposals to properly tailor FERC transmission jurisdiction to the unique structures and responsibilities of public power systems, ensure market power and merger protections for consumers, and retain the appropriate level of flexibility for FERC as it approves new RTOs.

In conclusion, the LPPC believes that comprehensive legislation addressing the deficiencies in the energy sector is necessary. We look forward to working with the Committee to develop comprehensive electric restructuring legislation that addresses our concerns, garners wide support and can ultimately be enacted. I will be happy to answer any questions you have.

Mr. BARTON. Thank you, Mr. Morris. It is a pleasure to have you before us again. We thank you for that statement.

We would like to hear from Mr. Robert Priest. Your statement is in the record, and we would ask you to elaborate on it for about 6 minutes.

STATEMENT OF ROBERT D. PRIEST

Mr. PRIEST. Mr. Chairman and members of the subcommittee, I am Bob Priest, manager of the Yazoo City Public Service Commission in Yazoo, Mississippi. I am testifying this morning on behalf of the American Public Power Association. I am a member of the APPA board of directors.

Public power systems' first and only purpose is to provide reliable, efficient service to their local customers at the lowest possible cost. Though changes are occurring rapidly in our industry, publicly owned utilities have retained the obligation to serve the electric needs of their customers. In California, for example, municipal utilities retained their power plants dedicated to serve their native-load customers, and they engaged in long-term planning to satisfy demands that exceeded their own generation resources. This gave public power utilities the ability to mitigate market risk for their customer-owners.

Of the over 2,000 publicly owned utilities in the United States, less than 400 own any generation. Of these 400, the vast majority must still purchase power on the wholesale market in order to meet their customers' demand. Only a handful of public power systems own enough generation to meet load in their service territory.

Obviously, public power systems rely heavily on the wholesale markets. Unfortunately, wholesale markets are not effectively competitive, and in some cases are clearly dysfunctional. APPA has been a consistent supporter of efforts to make the wholesale electric markets more competitive.

Mr. Chairman, I would like to make four central recommendations in my statement this morning. To remove barriers to generation competition, we believe Congress should enact legislation that, one, addresses market power by clearly articulating FERC's role in monitoring the market; establishing clear criteria to guide FERC decisions regarding market-based rate authority for utilities and power marketers; directing FERC to investigate and mitigate market power; and strengthening and expanding FERC's merger review process to allow consideration of the mergers' impact on competition.

Two, considers changes to the Public Utility Holding Act only in the context of providing reasonable substitutes to protect consumers and promote competition that include, but are not limited to, the market power provisions just mentioned.

Three, promotes the use of distributed generation by establishing transmission and distribution interconnection policies that streamline and standardize the interconnection process by balancing Federal, State and local authority.

And four, resolves the dilemma posed by the private use restrictions on generation and transmission facilities financed with tax-exempt bonds.

As I said earlier, the wholesale markets are not competitive, and legislation is needed to require FERC to promote competitive markets. From our perspective, the paramount role of the regulatory agency must be to protect the public interest and the interest of consumers. Competition is a means to this end, not the end itself.

In California and throughout the West last year, we believe FERC lost sight of its obligation to permit only just and reasonable wholesale rates and its responsibility to ensure consumers were protected from abuses of market power. More recently, FERC has taken some strong steps to improve market conditions. At the same time, much more can be done. Legislation should make clear that if markets are allowed to set rates, FERC must ensure markets are workably competitive. This in turn requires clarification of the methodology and criteria used to make a determination that markets are competitive and the procedure used to establish rates in markets that are not competitive.

With regard to the repeal of the Public Utility Holding Company Act, this should only occur in the context of a comprehensive energy bill and should include the consumer and market power protections that I have mentioned, as well as other preconditions discussed in our statement. We strongly disagree with the advocates that PUHCA be repealed. That statute is an impediment to competition. The continued relevancy and importance of PUHCA was demonstrated recently by the California attorney general's petition to the Securities and Exchange Commission to review and revoke PG&E Corporation's exemption from PUHCA. In its petition, the attorney general states, PG&E Corporation has now filed for bankruptcy after upstreaming billions of dollars from the utility to the utility holding company, the precise type of behavior identified in PUHCA as a primary basis for the law.

My third recommendation, Mr. Chairman, is to establish interconnection policies that facilitate the greater use of the distributed generation. Distributed generation has multiple benefits, and pub-

lic power is committed to accelerating its acceptance and use. We also want to ensure that in developing interconnection policies, an appropriate level of local authorities is preserved in order to accommodate local concerns and distribution systems' characteristics.

Finally, we believe legislation should address the private use exemption on tax-exempt bonds. These restrictions limit the use of existing generation and transmission facilities in competitive markets. Moreover, resolving the private use issue will clarify how tax-exempt bonds may be used in the future and thereby give publicly owned facilities greater certainty and confidence in financing new generation. As you know, provisions to address this issue were included in the legislation passed last week by the Ways and Means Committee.

On behalf of APPA, I want to thank you, Mr. Chairman, and the other members of the subcommittee who supported us in that effort. Thank you for inviting me to testify. I look forward to any of your questions.

[The prepared statement of Robert D. Priest follows:]

PREPARED STATEMENT OF ROBERT D. PRIEST, MANAGER, YAZOO CITY (MS) PUBLIC SERVICE COMMISSION ON BEHALF OF THE AMERICAN PUBLIC POWER ASSOCIATION

Thank you, Chairman Barton and Ranking Member Boucher. On behalf of the American Public Power Association, I am pleased to appear today to discuss important electricity issues facing the subcommittee.

My name is Bob Priest. I am the Manager of the Yazoo City Public Service Commission, the local electric utility serving Yazoo City, Mississippi; I am also a member of the APPA Board of Directors. APPA represents the interests of more than 2,000 publicly owned electric utility systems across the country, serving about 40 million customers. Yazoo City is one of 24 such systems in Mississippi. APPA member utilities include state public power agencies and municipal electric utilities that serve some of the nation's largest cities. However, the vast majority of these publicly owned electric utilities serve small and medium-sized communities in 49 states, all but Hawaii. In fact, 75 percent of our members are located in cities with populations of 10,000 people or less.

Public power systems' first and only purpose is to provide reliable, efficient service to their local customers at the lowest possible cost. Public power exists for a purpose, not a profit. Like hospitals, public schools, police and fire departments, and publicly owned water and waste water utilities, public power systems are locally created governmental institutions that address a basic community need: they operate to provide an essential public service, reliably and efficiently at a reasonable, not-for-profit price. Publicly owned utilities also have an obligation to serve the electricity needs of their customers. And, because they are governed democratically through their state and local government structures, public power systems operate in the sunshine, subject to open meeting laws, public record laws and conflict of interest rules. Most, especially the smaller systems, are governed by an elected city council, while an elected or appointed board independently governs others. Democratically governed, not-for-profit, obligation to serve—the importance of these unique characteristics has been highlighted by the recent events in the West. Under California's restructuring law, public power was able to retain its obligation to plan for and serve the electricity needs of our consumer-owners. As a consequence, municipal utilities retained their power plants dedicated to serve native load customers, and they engaged in long-range planning to satisfy demands that exceeded their own generation resources. This gave public power utilities the ability to mitigate market risk for their customer-owners.

Understanding the underlying structure and mission of public power is essential in crafting balanced electricity legislation that will maintain industry diversity. This diversity has helped many public power communities in the West endure the electricity crisis with bumps and bruises rather than broken bones. We believe the entire nation has been well served by this diverse mix of publicly, privately, and cooperatively owned utilities, combined with federal institutions including the Tennessee Valley Authority and the federal power marketing administrations. In restructuring our industry, every effort should be made to ensure the preservation of this diversity.

WHOLESALE COMPETITION FIRST—THE ROLE OF THE FEDERAL GOVERNMENT

The rush to restructure the electric utility industry in several states has truly put the cart before the horse. Retail choice programs adopted by states and localities cannot succeed without truly competitive wholesale markets. This is certainly one of many lessons learned in California. The fundamental characteristics of a competitive market include, among other things: access of buyers to numerous sellers; mitigation of market power; ease of entry into the market for new participants; a sufficient number of participants to impose discipline on all; and transparency of information.

APPA has supported legislative efforts to make the wholesale electric market more competitive for decades. APPA was one of the major supporters of the transmission access provisions of the Energy Policy Act of 1992. On numerous occasions over the past few years, we have testified in support of additional legislation to ensure that the promises of wholesale competition become reality. In our view, comprehensive federal restructuring legislation must, at a minimum, achieve the following objectives:

- Promote more effective wholesale competition by providing sufficient federal authority to ensure non-discriminatory access to regional transmission facilities at fair and comparable rates.
- Promote the maintenance and expansion of the nation's transmission facilities including, where necessary and subject to appropriate limitations, the exercise of federal siting authority.
- Establish policies to maintain the reliability of the nation's electricity industry through competitively neutral means.
- Eliminate market power in generation and transmission by: 1) providing for truly neutral management of the nation's transmission system, including allowing for federal oversight to ensure Regional Transmission Organization (RTO) development, independence and effectiveness; 2) clearly articulating Federal Energy Regulatory Commission's (FERC) role in monitoring the wholesale market, directing FERC to investigate and mitigate market power, and enhancing its power to accomplish this difficult task; and 3) strengthening FERC's merger review process to allow for consideration of a proposed merger's impact on the development of competition.
- Eliminate the tax-related impediments to competition for municipal utilities imposed by the private use restrictions on tax-exempt bonds while retaining local control over municipal decisions.
- Consider changes to Public Utility Holding Company Act (PUHCA) only in the context of providing reasonable substitutes to protect consumers and promote competition.

APPA COMMENTS ON ISSUES CRITICAL TO EFFECTIVE WHOLESALE COMPETITION

We commend the subcommittee for its focus on barriers to competitive generation in the wholesale market and look forward to working with the panel in developing comprehensive legislation.

Market Power, Market Transparency Rules and PUHCA

APPA believes these three critical issues are interrelated and must be addressed simultaneously to achieve the goal of a workable competitive wholesale market. These issues highlight the important lessons learned from the California experience, including:

- Market structure is critical to market performance.
- Market power is a very real problem that must be addressed.
- Markets need rules and market monitors to enforce them.
- Market monitors need data.

The paramount role of a regulatory agency must be to protect the public interest and the interests of consumers. Competition is a means to this end, not the end itself. In California and throughout the West over the last year, APPA believes FERC was so focused on promoting competition that it completely lost sight of its obligation to permit just and reasonable wholesale rates only after considering its responsibility to ensure consumers were protected from abuses of market power. We hope that, in clarifying FERC's mission, Congress will provide that, first and foremost, FERC must protect the public interest and the interests of all consumers.

If markets are allowed to set rates, FERC must ensure that such markets are workably competitive. This begs the question, however, with respect to the methodology used to make such a determination, and also doesn't specify how rates should be established in markets that are not competitive. APPA believes market based rates for jurisdictional utilities should only be approved on a finding that the appli-

cant will not possess market power and that effective and sustainable competition will exist in that market. The analysis must include an examination not only of the resources available to individual applicants and whether such assets could be used to set the market clearing price, but also of the effect of transmission constraints and how those assets fit into the broader market structure. Location-specific constraints must be taken into account, as should requirements for grid reliability. Further, and frequently ignored in traditional market analysis, is the time-sensitive nature of electricity. In some markets, an entity controlling a very small amount of generation can exercise market power.

FERC should be given other "tools" in addition to those it already has to address market power problems. It should, for example, require jurisdictional utilities to submit market power mitigation plans for approval or modification. Its merger review process should be revised to require that merger approval be granted on an affirmative finding that the proposed merger is in the public interest as opposed to the current standard which only requires that the merger be consistent with the public interest. In reviewing mergers, FERC should be required to consider whether they will promote effective wholesale competition, or undermine it. FERC should also have the authority to require shared access to essential assets, including reserve/risk sharing mechanisms, on a non-discriminatory basis and with just and reasonable rates. Further, FERC should be able to preserve the integrity of the market through preliminary relief in order to prevent irreparable harm pending issuance of a final order.

As consumer-owned utilities, APPA's members certainly believe that no market participant should be able to abuse market power to the detriment of end users. Until the debacle in the West, application of this principle to public power systems in wholesale markets has not been an issue, and therefore this specific issue has not been addressed by APPA. However, publicly owned utilities in California and elsewhere in the West have stated that they would voluntarily abide by market rules applicable to jurisdictional utilities. The exclusion for "normal" transactions is clearly appropriate, but the extent to which sales by public power systems into market institutions would be subject to FERC oversight is unclear and could be problematic. APPA is confident that, if FERC clearly defines in advance the rules applicable to jurisdictional utilities who are responsible for the vast majority of all such transactions, public power systems will live within that framework without the need for any expansion of FERC jurisdiction.

Market Transparency

APPA believes that legislation should ensure transparent information on market transactions and should grant clear authority to the Energy Information Administration (EIA) and the FERC to collect and publish appropriate data while protecting proprietary information. While "proprietary information" warranting protection must be narrowly circumscribed, APPA would encourage that congressional direction be absolutely clear that data must be collected and made public. Claims of confidentiality of data based on commercial sensitivity are already being made to limit data collection or dissemination. There is a danger that commercial sensitivity arguments will completely undermine the legitimate right of the public to this data. Transparency of market information is a fundamental prerequisite of competitive markets and necessary to protect consumers. (We would note that disclosure is required under the security laws, and such disclosure has had a salutary effect on the markets. If the SEC's rules did not exist today, almost every company that is subject to SEC regulation would claim that much of the information they are required to disclose today is in fact proprietary.) Congress should be very clear in telling EIA and FERC that close calls should be resolved in favor of transparency, not secrecy.

PUHCA

APPA believes PUHCA repeal should logically be undertaken within the broader context of addressing market power concerns. PUHCA established a structure for the electric utility industry in ways that were intended to limit if not eliminate the abuse of market power. Unfortunately, debates over PUHCA repeal today suggest that consumers can be adequately protected if FERC and the states are given greater access to books and records for the limited purpose of reviewing electric utility rates. While such expanded authority is appropriate, it is by no means an adequate substitute for the protections afforded by PUHCA. Before PUHCA is repealed, there must be strong market power protections in place, regulatory gaps must be filled, and opportunities must be provided to ensure that transactions across the entire utility holding company and all of its subsidiaries can be carefully examined.

APPA recommends giving specific authority to FERC to review mergers of utility holding companies as well as the disposition of generation assets by jurisdictional

utilities and acquisition of natural gas companies. The FERC lacks the clear authority to review the former. While we believe it has the authority and responsibility to review the latter, it has recently declined to do so. This action has come at precisely the same time that utilities and utility holding companies are swapping assets like trading cards. A utility with a significant presence in generation in one region sells those assets, then buys similar assets in another region. Such transactions can clearly lead to the concentration of significant amounts of generation in specific geographic markets, yet no one is examining what consequences these asset trades will have on competition.

FERC and state commission access to books and records of holding companies to prevent affiliate abuses is an inadequate substitute for the protections provided consumers, state commissions and others under PUHCA. As a practical matter, many state commissions don't have the resources to examine the books and records of today's extremely complex utility holding companies and all of their subsidiary companies. And even if they do, it isn't clear what remedies they can impose when the keeper of the funds—the parent holding company—may exist outside the jurisdiction of a specific state utility commission.

Advocates of PUHCA repeal have argued that the statute is no longer necessary, that it is redundant with other statutes, and, incredibly, that it is an impediment to competition. H.R. 1101, the Public Utility Holding Company Act of 2001, introduced earlier this year, provides, in the statement of findings and purposes, the following:

- Developments since 1935, including changes in other regulation and in the electric and gas industries, have called into question the continued relevance of the model of regulation established by that Act.
- Limited Federal regulation is necessary to supplement the work of State commissions for the continued rate protection of electric and gas utility customers.

The Attorney General of California strongly disagrees with these two statements. On July 5 he filed a petition with the Securities and Exchange Commission (the agency with responsibility to enforce PUHCA) for review and revocation of PG&E Corporation's exemption from PUHCA. As stated in the petition, "PG&E Co. [the electric operating utility] has now filed for bankruptcy after upstreaming billions of dollars from the utility to the utility holding company—the precise type of behavior identified in PUHCA as a primary basis for the law." He concludes his petition as follows: "All of the primary evils addressed by PUHCA are relevant to PG&E Corp. [the utility holding company], including movement of capital and assets from its utilities to the holding company and affiliated, wholly-owned subsidiaries as well as massive investments in out-of-state non-utility activities and properties. The Commission has the chance, indeed the obligation, to address potential holding company abuses by PG&E Corp. before additional damage is done. The current crisis in California has been a catalyst for closer scrutiny of federal and state regulation of the utility industry. This crisis highlights the fact that Commission enforcement of PUHCA is still needed."

Clearly times have changed since PUHCA was enacted in 1935. Utilities have changed. But human nature hasn't. The abusive practices that gave rise to PUHCA more than 65 years ago have been more difficult to accomplish, because of the existence of PUHCA's restraint on corporate structure and behavior, but have not disappeared entirely. It may be that some elements of PUHCA need to be revised. But the opportunity for the California Attorney General, and perhaps others similarly situated in the future, to have a forum at FERC or the SEC in which they can examine the financial transactions within a monstrously complex interstate holding company structure to determine whether electric consumers have been abused, must not be eliminated.

Interconnection Policy

Distributed resources, typically small generation units located close to the load they serve, offer a variety of benefits for consumers, communities, the environment, and utilities. Efforts are currently underway to develop new distributed generation technologies, enhance existing technologies, and address various technical and policy issues that may be hindering the deployment of distributed resources. Congress has taken an active interest in this issue and several industry restructuring proposals have included provisions to give the Federal Energy Regulatory Commission additional authority to order interconnection of distributed resources to transmission and distribution facilities using a uniform technical standard. Public power supports efforts to promote greater use of distributed resources so long as those efforts respect local authority and recognize the diverse characteristics of local electric systems.

APPA believes distributed resources not only increases overall production and generation, but decreases constraints placed on transmission facilities, and tends to reduce problems encountered by vertical market power situations. While APPA supports bringing distributed generation facilities on line as quickly as possible, we remain concerned about the myths of the "plug and play" attitude so prevalent today. We support a more streamlined, simplistic approach to distributed generation, but not at the expense of public health and safety, cost-shifting, and potential reliability problems.

APPA believes Congress should adopt transmission and distribution interconnection policies that provide FERC the authority to order the use of standardized technical interconnections. At the same time, Congress must preserve local authority to require any additional measures necessary for system reliability, safety, or other factors deemed to be in the public interest. That is, interconnection standards for distributed resources, while removing barriers to competition, should remain flexible. APPA has already agreed to accept additional FERC jurisdiction for a standardized interconnection policy; we believe in the appropriate amount of jurisdiction for public power distributed generation facilities, but, again, not at the expense of the system's reliability. A positive step has been taken with the introduction of H.R. 1945 by Representative Quinn, which, for the first time, addresses the concern of local utilities. (Attached is APPA's policy resolution supporting interconnection standards for distributed generation, approved by our membership June 19, 2001.)

Aggregation

The concept of aggregation is generally more relevant to retail competition programs, but should be encouraged by federal legislation. Aggregation, however, offers an opportunity for smaller consumers in particular to shield themselves from wholesale market abuses and to promote generation competition by increasing these customers' clout in the marketplace.

The early results of state retail electricity deregulation experiments across the country present a mixed bag for consumers, but one thing is already clear—consumers demand that the lower electricity prices and other promised benefits of competition benefit all customers, not just the large users. One demonstrated means of ensuring residential customers' participation in a competitive market is by establishing their right to be represented by their local government through community or municipal aggregation. By themselves, small-load or residential customers lack the power and resources to negotiate better deals; banding together through aggregation programs, local governments can wield purchasing clout on behalf of their residents for lower prices.

APPA believes aggregation increases participation in restructuring efforts at the state level for smaller customers, creating a more robust market and therefore lowering electricity costs for all consumers. Further, APPA believes that aggregation of small-load customers is essential, and that municipalities and local governments—the ones in the best position to look after the social and economic welfare of the community—are well suited for the job and should not be restricted from performing this service. APPA realizes there are still several obstacles to aggregation efforts in the details of the legislative process, including restrictions on local government authority, "slamming" or other fraudulent issues, and whether consumers should opt-in to a program rather than opt-out, but supports a strong aggregation provision in any federal legislation aimed at improving wholesale electricity competition. Finally, APPA believes that federal legislation should ensure that states do not impose any barriers to the formation of municipal aggregation programs.

Net metering

APPA has no formal policy on net metering at this time, but realizes its potential to increase the use of renewable resources and provide generation alternatives, thus promoting competition. Several general principles should be followed when developing legislation. For example, APPA believes net metering is best applied to residential and small customers; larger and industrial customers can have more significant impacts on a utility's distribution system reliability. In addition, a qualified generating facility should utilize only renewable energy resources, such as solar, wind, geothermal or biomass, and should be considered a small facility. In addition, when applied, APPA believes net metering customers still retain their full obligations on transmission and distribution charges, and the necessary backup or standby charges.

Since more than 30 states have already adopted net metering programs, states should have the authority to establish a different program, including further incentives and limitations, and states and local communities should be provided flexibility to allow additional control and testing requirements.

Public Utility Regulatory Policies Act (PURPA)

APPA does not oppose PURPA's mandatory purchase provisions, as long as this is considered under a comprehensive energy bill. In addition, we believe stranded cost recovery under PURPA should only be addressed by using FERC's current process.

Private use tax restrictions

One issue directly related to public power utilities that, if resolved, would improve and facilitate electricity competition is "private use" tax restrictions imposed on municipal electric systems. Rapid changes in wholesale electricity markets have created a need to update private use restrictions on tax-exempt bonds used by public power systems to finance their electric facilities. These restrictions hamper public power's ability to provide access to their transmission lines, adjust to evolving energy policies and adapt to a volatile energy market, just as the nation faces power shortages, transmission constraints and increased reliance on electricity to fuel the nation's economy. These rules form a barrier to open and efficient electricity markets at both the wholesale and retail level, making it impossible for community-owned utilities to open up their transmission and distribution facilities to third parties.

Bipartisan legislation (H.R. 1459), which offers a fair and balanced approach to several critical energy-related tax issues, has been introduced in the House to correct this situation. A version of H.R. 1459 was recently included in the Ways and Means Committee's own energy bill. The electricity industry understands that removing the private use restrictions will provide the necessary flexibility for those generation facilities financed with tax-exempt bonds. In addition, legislation is needed to clarify the rules for public power on the use of tax-exempt bonds for new generation facilities or upgrades without running afoul of the private use test. APPA appreciates this subcommittee's understanding of this complex issue, and knows this panel has always been supportive of viable solutions.

Incentives for renewable resources

In preparing its recently-published report on public power's renewable profile, entitled "Shades of Green" (copies of which were previously sent to all members of this subcommittee), APPA discovered that public power systems have a higher proportion of renewable, non-hydropower generation than other segments of the industry—but we still have more work to do. APPA applauds the idea of creating market-based incentives for all segments of the industry. The goal is not simply more generation, but a diversity of generation resources. Today, renewable resources remain at above-market prices; appropriate incentives are necessary so that all consumers benefit.

While it is clear that additional generation is needed in this country, it is also clear that such generation should come from non-traditional renewable energy sources as well as from better and cleaner utilization of our nation's most abundant resource, coal. Traditionally, Congress has turned to tax credits to provide incentives to industry to achieve socially desirable goals. If the goal is to promote renewable energy and clean coal technology development and utilization by the electric utility industry, then incentives must be provided that work for all elements of the industry.

Tax credits can be utilized by for-profit, investor owned utilities, which serve about 75 percent of the nation's electric consumers, but cannot be used by not-for-profit publicly and cooperatively owned utilities that serve the balance. As a policy matter, it seems to make little sense to refuse to provide comparable incentives to ensure that 100 percent of the nation's utilities are encouraged to develop these resources. We have recommended "tradable tax credits" for publicly and cooperatively owned utilities. These tradable credits could be sold to tax paying entities at a discount to help them reduce their own tax liability. This concept has been developed by public power systems and the rural electric cooperatives and is supported by the entire electric utility industry; we hope this proposal receives favorable action in the House.

Reliability

APPA urges the subcommittee to require mandatory involvement by all industry participants in a national compliance program to ensure continued reliability of the high voltage electric transmission grid. The Administration's National Energy Policy report also calls for enactment of mandatory reliability standards by an independent body and overseen by FERC to "address the problems created by increased demands on the transmission system that have resulted from changes within the industry brought on by wholesale competition." Even though the United States has the most reliable electric system in the world, the crisis in the West has demonstrated the

delicate balance between reliability and the markets within which the electric grid must operate. Consequently, great care needs to be taken to ensure that the current level of reliability is not sacrificed in any restructuring of the industry.

As the industry has become more competitive, more participants have been executing an increasingly larger number of transactions every day. The focus of most of these transactions is on short-term costs rather than system stability. While the current voluntary system of compliance with reliability standards worked reasonably well in the regulated environment in which the industry previously operated, it will not continue to provide the necessary safeguards in a competitive market.

Currently, reliability standards are established and monitored by the North American Electric Reliability Council (NERC), which is a non-profit organization that monitors the electric utility industry's voluntary compliance with policies, standards, principles, and guides, and assesses the future reliability of the bulk electric systems. The NERC Board of Trustees has approved and begun the transformation of NERC to the North American Electric Reliability Organization (NAERO), in which participation and adherence to standards and practices would be mandatory. Federal legislation is required to give NAERO the enforcement tools necessary to ensure compliance and achieve a system that properly balances reliability with market pressures and decisions.

APPA has worked actively on the NERC consensus proposal, and we continue to support it. However, we could also support simplifying that proposal so long as the basic tenets are adhered to. We do have concerns about reliability being delegated exclusively to RTOs, some of which may be for-profit entities, that would not only set the rules, but must comply with them.

An item of particular importance to APPA in the consensus reliability legislation is a sentence developed during negotiations in late 2000. The sentence would clarify that FERC is granted oversight authority over public power systems in the regulatory title only for the purposes of enforcement of reliability standards. Public power systems support oversight with regard to reliability standards but this provision should not be used by FERC to impose additional regulation at a later date. Through an oversight, this sentence was not included in reliability legislation currently pending in Congress; APPA supports inclusion of the sentence in any House subcommittee draft legislation.

Mr. BARTON. Thank you, sir.

We now would like to hear from Mr. Kanner.

Your statement is in the record, and you are recognized for 6 minutes. Well, I know you worked with our working groups, and I think you probably testified before the subcommittee before.

STATEMENT OF MARTY KANNER

Mr. KANNER. That is right, I have.

Thank you very much, Mr. Chairman. I want to commend you for focusing the first electricity hearing on barriers to competition, because that really is the proper focus of electricity legislation, ensuring that we have a wholesale competitive market. Using that as the screen, I would submit that PUHCA itself is not a barrier to competitive generation markets.

As you know, in 1992, as part of the Energy Policy Act, Congress amended PUHCA to allow any company, any utility, to build, operate and invest in generation facilities anywhere in the country. In terms of competitive generation markets, again, I would submit, PUHCA is not the impediment.

But using that focus, the question of barriers to competition and the relation to PUHCA is, I think, very instructive. If we look back to what precipitated PUHCA, one of the main factors was the 1929 stock market crash. Utilities had engaged in corporate pyramid structures, watered transactions, interaffiliate deals that were one of the contributing factors to the 1929 stock market crash. In response to that, Congress adopted PUHCA, in essence saying this is a regulated monopoly. We need to create a market structure that

will facilitate effective competition. And at the same time, Congress passed the Federal Power Act setting up that regulatory structure.

At the same time, virtually the same time, and in response to the same event, Congress also adopted the securities laws, taking a different approach. Rather than saying, we need to create a structure to facilitate a regulated market, Congress said we have to make sure we create a structure that supports a competitive market, but a competitive market that is free and fair. A free market is not the same thing as a free-for-all.

So when Congress adopted the securities laws, they included a number of provisions. As you all know, the stock, bond and commodity exchanges essentially are among the best examples of free enterprise anywhere in the world, but they are not immune from regulation. Rather, there are rules designed to prevent hoarding and manipulation and systems to provide market monitoring; in fact, the sort of information disclosure that the gentlemen from Michigan suggested. There are also circuit-breakers to prevent unexplainable, unreasonable and uncontrolled price fluctuations. And then there are enforcement actions designed to ensure that all parts uphold those rules. Without that sort of system, I would suggest that none of us as individual investors would have the confidence in the system that all of us do today.

Today there is not consumer confidence in the electricity market, and that is, in part, what we need to address. We need to establish the same sort of structural protections that are needed to facilitate a competitive market structure in the electric utility industry.

So we had one precipitating event, the stock market crash; two different structural paths, regulated market for the utility industry, competitive market for the securities industry. And it is my view that if we are going to change from a regulated market structure for the utility industry to a competitive market structure, then we need to put in place those same sort of rules, those same structural protections and institutions that are needed to support and sustain effective competition.

Contrary to the assertion of Mr. Sokol, this isn't holding PUHCA hostage. This is making sure that we achieve the intent that this hearing is set to achieve, competitive markets.

Let me outline for you briefly the changes that Consumers for Fair Competition would suggest.

First of all, FERC needs to establish clear rules and procedures for deciding when a market is competitive and under what conditions market-based rates can be granted. What are the rules of the road?

Second, FERC needs to perform the needed market monitoring to ensure just and reasonable wholesale rates by identifying market design flaws, market manipulation or market power abuses. I suggest this is comparable to the sort of daily transactional review and long-term review that the exchanges themselves and the SEC perform.

Third, we need to give FERC clear authority and direction to take appropriate actions to mitigate and remedy market abuses. Again, the rare case when an Ivan Boesky or a Mike Milken is hauled off to jail gives us, all of us, as investors confidence that the system works.

Fourth, Congress needs to preserve—to make sure that generation markets are competitive, needs to preserve the role of the States in the spin-off of rate-based generation unregulated subsidiaries; needs to clarify FERC's authority to review disposition of generation assets; needs to strengthen and clarify FERC's merger roles, as others have suggested.

Fifth, Congress needs to support development of effective RTOs that provide true independence, proper scope and configuration. RTOs must possess a strong planning and system expansion responsibility role as well.

Sixth, Congress must ensure that transactions between regulated and unregulated utility affiliates do not result in consumer abuse and unfair competition.

Mr. Chairman, members of the subcommittee, I would suggest that if Congress takes these steps, then we will have the confidence of both the public and market participants that the system is, in fact, fair and workably competitive, and have the same confidence in electric markets as we have today in financial markets.

Look forward to working with all of you in drafting and advancing legislation that achieves these objectives and ensures that we have eliminated the barriers to competitive generation markets and provides the type of structure that consumers, market participants and investors all need and deserve. Thank you.

[The prepared statement of Marty Kanner follows:]

PREPARED STATEMENT OF MARTY KANNER ON BEHALF OF CONSUMERS FOR FAIR COMPETITION

Mr. Chairman, members of the Subcommittee, I am Marty Kanner. I am testifying today on behalf of the Consumers for Fair Competition (CFC), an ad hoc coalition of consumer and investor owned utilities, small and large electric consumer representatives, small business interests, and others. While the interests of these organizations are diverse, we are unified in the belief that effective competition in wholesale electric markets, and its associated consumer benefits, will not emerge and be sustainable if market power issues are not adequately addressed.

Consumers for Fair Competition was formed to advance policies necessary to promote effective wholesale competition and has been active in the restructuring debate and efforts to block stand-alone repeal of the Public Utility Holding Company Act (PUHCA). CFC strongly believes that effective competition can provide lower rates, increases in efficiencies and innovation, and diversity of supply options. The coalition believes that these benefits will not reach consumers, however, if steps are not taken to properly structure wholesale power markets, actively monitor these markets, prevent and remedy market manipulation and abuse, and provide public confidence in the system.

Electricity markets, like other competitive markets, have experienced price fluctuations and supply shortages. Electricity, however, is different. Electricity is an essential service imbued with a public interest. As consumers and businesses, we cannot simply decide to defer purchase—like we would a new car—if prices go up. Nor can we simply do without if there is insufficient supply. The fact that electricity cannot be economically stored—yet requires instantaneous availability—is another important distinction.

There is another key difference between electricity and other "markets": the electricity industry has a more than 100 year history of monopoly service. The structure, vertical integration, concentration of ownership—and continued monopoly status of transmission and distribution service (in most locales)—is a significant challenge to formation of a competitive wholesale power market.

In 1935, Congress passed PUHCA to create the structural framework needed to support effective state and federal rate regulation. As we move away from wholesale rate regulation, Congress must again enact legislation to foster the structural framework needed for effectively functioning competitive wholesale power markets.

FOSTERING EFFECTIVE COMPETITION

California has shown us the cost of getting it wrong. But unless we learn from the California experience, we are bound to repeat it. The California energy crisis has many contributing factors and responsible parties. Rather than pointing fingers, however, I want to point out the clear lessons that can be learned—and must be acted upon:

- **Market-based rate authority cannot be granted in instances where competitive markets do not exist.** Sales under market-based rates can only be "just and reasonable" when competitive market conditions exist. As recognized by a majority of the sitting FERC Commissioners, the current rules for defining markets and determining whether market-based rates can be allowed is outdated and ineffective. While FERC appears to be on the verge of revising its rules, this is too important to be left to happenstance. Commissioners—and Commission majorities—can change, and legal challenges can delay implementation. *Congress must direct FERC to establish clear rules and procedures for defining competitive markets and determining when, and under what conditions, market-based rates can be authorized.*
- **Competitive markets require active market monitoring.** There were numerous warning signs that California's market was dysfunctional. Regrettably, FERC ignored these signs and protestations. Moreover, FERC failed to collect and analyze market data and behavior in order to identify and correct market design flaws. For instance, a June, 2001 report by the General Accounting Office (GAO) concluded that FERC's study of alleged physical withholding of electricity from the California market "was not thorough enough to support the overall conclusion" that withholding had not occurred. *FERC must perform the needed market monitoring to ensure just and reasonable wholesale rates by identifying any market design flaws, market manipulation or market power abuses.*
- **Market power abuses must be fully mitigated and remedied in a timely manner.** Allegations of market power abuse were raised throughout the last two years. Had FERC acted in a timely fashion, the current debate over refunds would be moot—with FERC having taken remedial action to correct market design flaws and mitigate market power long before the current crisis. *FERC must be given clear authority and direction to take appropriate actions to mitigate and remedy market abuses.*
- **Generation concentration effects competition.** California's "tight" market showcases the ways in which concentration in ownership of generation can be manipulated to reduce supplies and increase prices. Economic and physical withholding of generation and selective dispatch was cited by many parties as a significant contributing factor to the run-up in prices. The growth of the independent power producer (IPP) market has provided an important infusion of competition and "new players" into the market. However, many regions of the country still have dominant utility generators, the IPP market is consolidating, and utility generating assets are being sold with little attention paid to the impact on concentration in generation markets. Moreover, pending bills to repeal PUHCA would compound this problem by eliminating the current requirement, adopted by Congress in 1992, that state commissions approve proposed sales or spin-offs of utility rate-based generation assets. In addition to the steps outlined above, *Congress should (1) preserve the state role in approving the sale or spin-off of rate-based generation assets, (2) clarify FERC's authority to review the sale of generation assets, (3) close gaps in FERC's merger review authority, and (4) strengthen the FERC merger standard to ensure the proposed merger will produce competitive benefits in the wholesale power market.*
- **Transmission constraints impede competition.** By now, Path 15 and its market and operational effects are legendary. Regrettably, Path 15 is not the only transmission constraint in the country, and transmission owners have little incentive to relieve these constraints. Transmission siting and construction is laborious—and frequently impossible. But even if those problems are resolved (and they should be), transmission constraints will not magically disappear. Transmission constraints create smaller markets where the generation in that market can extract a higher price. Relieving the constraint produces more participants, more competition and lower prices. *Congress must support development of effective RTOs that provide true independence and proper scope and configuration. RTOs must possess a strong planning and system expansion responsibility to ensure that constraints are expeditiously relieved at the lowest possible cost.*
- **The straddling of regulated and unregulated businesses—and the resulting potential for abusive inter-affiliate transactions—remains problem-**

atic. According to the California Attorney General, the transfer of billions of dollars by Pacific Gas & Electric to the corporate parent contributed to the utility's current bankruptcy. The California Attorney General has petitioned the Securities and Exchange Commission to investigate the matter and revoke PG&E's PUHCA exemption. PUHCA is the only federal statute addressing utility inter-affiliate transactions—not only transactions between energy affiliates, but also utility affiliates engaged in "unrelated activities" such as heating and cooling, construction trades, alarm systems, telecommunications, etc. *Congress must ensure that transactions between regulated and unregulated utility affiliates do not result in consumer abuse and unfair competition.*

- **The system must be properly structured, monitored and "policed" if participants—and more importantly, the public—are to have confidence in the system.** The stock, bond and commodity exchanges are among the best examples of free enterprise in the world. But they are not immune from regulation. There are structured to facilitate free and fair competition. There are rules to prevent hording, systems to provide market monitoring, "circuit breakers" to prevent uncontrolled and extreme price fluctuations and enforcement actions against those parties that break the rules. It is the combination of these factors that provide public confidence in the system. *We must establish similar public confidence in the wholesale electricity market.*

CALIFORNIA IS NOT AN ISOLATED PROBLEM

Some might feel that California is an isolated problem, that if used as the basis for congressional action will merely hinder what is "right" elsewhere. Unfortunately, California is not unique.

It must be remembered that the California "crisis" is not limited to California, having spread throughout the Western United States. Wholesale prices in the Pacific Northwest, the Desert Southwest and elsewhere have closely tracked prices in California—and consumers have suffered rate increases as a result.

But it's not just the West, either. In New York, New England, and PJM either the market institution—the ISO/RTO—or market participants have raised concerns about market abuse and proposed market monitoring and mitigation rules to remedy these problems.

REFUTING THE MYTHS

A number of popular myths have arisen challenging the need for congressional action to adopt the positions outlined above. I would like to briefly respond to some of those assertions.

1. Federal action isn't needed; the states can prevent market power abuses.

Some have argued that states—through their legislature and commission—can take adequate steps to protect consumers and prevent abuse. However, the wholesale power market is subject to the jurisdiction of FERC—not the states—and power markets are regional in nature, exceeding the reach of any one state.

2. The anti-trust laws are sufficient to prevent market power abuses.

Some have questioned the need for FERC authority on market power, believing that the anti-trust laws are adequate to correct abuses. However, the anti-trust laws alone are inadequate to foster a competitive wholesale market. First, the anti-trust laws are not designed to address market power lawfully acquired through state-sanctioned monopolies nor to address "transitioning", but uncompetitive market structures. Moreover, it appears that the "filed rate doctrine" could immunize private utilities with FERC—approved market based rates from anti-trust judgments—a protection that no other player in a competitive market receives.

3. FERC's actions in responding to the California crisis suggest that some other agency—rather than FERC—should be given the authority and responsibility to oversee electricity markets.

FERC's handling of the California crisis is certainly ripe for criticism. However, rather than suggesting that the agency is ill-equipped, FERC's response highlights the importance of providing additional guidance—and political affirmation—to the agency. FERC has the needed experience to oversee wholesale markets and ensure that they function competitively.

4. FERC is already on the right path, and Congress need not do any more.

We have seen a refocusing of the agency in the past few weeks, but that action should not lead Congress to conclude that legislation is unnecessary. First, FERC membership can change—and these issues are too important to be left to a whim.

Second, FERC's actions are certain to face legal challenge. Congress can avoid this lengthy entanglement by providing clear guidance and authority. Third, FERC's recent proposals—such as reforming market definitions—are positive, but those proposals can be significantly weakened as the effort proceeds.

5. Congress should repeal regulations—like PUHCA—rather than create new regulations.

First, with the possible exception of the impact of PUHCA on RTO formation, no clear and compelling case has been made for the impediment to competitive markets caused by PUHCA. Under PUHCA, any utility and any company can build, own and operate a merchant power plant anywhere in the country. All PUHCA restricts is further industry consolidation through limits on acquisition of utility distribution companies and anti-competitive cross-subsidization. I fail to see the competitive benefits of repealing these restrictions without simultaneously taking steps to promote the market structure necessary to support effective competition. I have attached to my statement a CFC document that outlines the specific conditions that we would seek to accompany PUHCA repeal.

I want to emphasize that CFC's legislative suggestions, seek to refocus FERC. In general, we are not creating "new" regulatory authority. The majority of these actions can be done by FERC today. The legislative prescriptions supported by CFC are intended to eliminate legal uncertainty and provide a new course for FERC to meet the evolving shape of the industry and to restore public confidence in the market.

CONCLUSION

Consumers for Fair Competition believes that modest legislative steps will translate into giant leaps forward for the development of effective wholesale competition. We stand ready to work with you, Mr. Chairman, and the members of the Subcommittee in crafting legislation that advances the interests of consumers and the proper functioning of the wholesale electricity market.

RECOMMENDED CONDITIONS FOR REPEAL OF THE PUBLIC UTILITY HOLDING COMPANY ACT

Consumers for Fair Competition (CFC) believes that PUHCA can be repealed only if accompanied by appropriate structural and regulatory safeguards designed to promote a competitive market structure for the utility industry and satisfy the underlying purposes of the Holding Company Act: *consumer protection, effective oversight and accountability, prevention of undue market concentration and fair competition.*

CFC welcomes the opportunity to engage in a thoughtful discussion of PUHCA repeal and any effort to determine if repeal can be accomplished in a manner that advances the needs of electric consumers and utility competitors.

Following is an outline of the amendments that CFC recommends. These amendments are directly tied to the underlying purposes of PUHCA and the market implications that PUHCA repeal portends.

MERGERS—THRESHOLD FOR APPROVAL

PUHCA has a higher statutory threshold for merger approval than exists under the Federal Power Act. Under the Act, the SEC "shall not approve [a merger] unless the Commission finds that such acquisition will serve the public interest by tending towards the economical and efficient development of an integrated public-utility system." In contrast to PUHCA's requirement that a proposed merger benefit the public interest, under the Federal Power Act, FERC must approve a proposed merger unless it finds that the proposal is inconsistent with the public interest.

While the SEC has been less than rigorous in enforcing this higher standard, we believe that, in light of the increasing consolidation occurring in the utility industry, it is appropriate to (1) require that proposed mergers result in demonstrable consumer benefit, and (2) place the burden on the applicants to demonstrate that benefit.

CFC proposal: Amend the Federal Power Act to condition merger approval on an affirmative finding that the proposed merger will benefit the public interest.

MERGERS—STANDARD FOR APPROVAL

As noted above, PUHCA provides guidance to the SEC in determining whether a proposed merger is in the public interest. Specifically, the Act requires that it foster "economical and efficient development of an integrated public-utility system."

While the Federal Power Act's broad "public interest" test provides the FERC with considerable latitude, we believe that the merger review process would benefit from specific guidance. This is particularly important because PUHCA currently includes a geographic interconnection requirement that currently prevents a number of potential merger combinations. We can expect to see many new, large mergers proposed if PUHCA is repealed. The impact of this added consolidation in the industry must be reconciled with Congress' broader goals of increased competitiveness in the electricity industry.

Given this evolution of the industry, with an increasing reliance on market forces, as well as the anticompetitive impacts that broad interstate mergers could have on the emergence of competition in regional markets, we believe it is appropriate for that guidance to focus on the needs of an effectively competitive market. Such guidance will prompt FERC to consider conditioning mergers, as necessary, to promote effective competition (such actions could include participation in RTOs, conditions on use of generation in wholesale markets, or other measures).

CFC proposal: Amend the Federal Power Act to expressly consider the effect of proposed mergers on the promotion of effective wholesale competition in electric markets.

MERGERS—CONVERGENCE MERGERS

PUHCA restricts consolidations between electric and gas utilities operating in the same market (again, the SEC has been lax in enforcing this restriction). These "convergence" mergers are increasingly common and pose a new risk to consumers and other market participants: the merged utility may have an ability to influence the availability of fuel—natural gas—for competing generators.

In contrast to the SEC under PUHCA, FERC's ability to review such convergence mergers is limited.

CFC proposal: Amend the Federal Power Act to grant FERC clear authority to review convergence mergers.

MERGERS—HOLDING COMPANY MERGERS

In the 1980s, in a case involving a proposed merger between two Iowa holding companies, FERC determined that it only had jurisdiction over the proposed merger of operating utilities—not mergers between holding companies. While the FERC later reversed its position in establishing its merger policy, that revision has not been tested in the courts.

If PUHCA is repealed, and if FERC's original policy is upheld by the courts, a significant regulatory gap would ensue—with significant utility mergers able to escape review by any federal utility regulatory body.

CFC proposal: Amend the Federal Power Act to provide clear FERC jurisdiction over mergers between holding companies.

MARKET POWER PROTECTIONS

The Holding Company Act addresses market power—the ability of a market participant to set and sustain prices above competitive levels—by placing limits on industry consolidation. As the industry transitions away from cost-of-service rate regulation, it becomes critical that effective competition exists. Without such competition, we will have "unregulated monopolies" with consumers exposed to market manipulation and price gouging.

While FERC has a variety of tools as its disposal, it does not have specific statutory directives to provide the guidance and legal certainty that is needed to ensure timely and effective action. Moreover, some of the regulatory standards adopted by FERC—such as the methodology for defining relevant markets—are outdated and ineffective.

CFC proposal: Amend the Federal Power Act to (1) direct FERC to establish standards and methods for assessing competitive markets (and allowing market based rates), (2) provide for market transparency and effective market monitoring, and (3) direct FERC to take action to mitigate and remedy market power.

DEREGULATION OF RATE-BASED GENERATION PLANTS

Private utilities traditionally built electric generation plants to serve retail customers within their "state-sanction exclusive service territory. Power from these plants is sold at cost-based rates determined by the relevant state utility commission. As the wholesale electricity market is deregulated, some traditional utilities are interested in converting these existing, rate-based generation plants into unregulated, merchant plants that can sell power at market rates. Under the 1992 Energy Policy Act, utilities can convert existing generation plants into "exempt whole-

sale generators"—but only if approved by the relevant state commission. The state review is intended to ensure that retail electric consumers—who paid for the plant—are appropriately protected in any asset transfer.

Current proposals to repeal or "reform" PUHCA do not retain this requirement for state approval for deregulating existing rate-based generation.

CFC Proposal: Retain the 1992 requirements for state approval for deregulation of existing, rate-based generation plants.

CROSS-SUBSIDIZATION

Under PUHCA, diversification into unrelated business lines may be limited for large, multi-state utilities. PUHCA repeal will result in an expansion of utility diversification, which poses problems for both utility consumers and unaffiliated businesses competing against utility affiliates. Utilities frequently seek to diversify into businesses which utilize utility assets, including labor, paid for by ratepayers without obtaining compensation from the unregulated affiliate for such use. This shifts the true costs of the unregulated operation to the ratepayers and subsidizes the non-utility business thereby harming competition. Without proper safeguards such abuses can go undetected and both consumers and unaffiliated competitors will be harmed. State utility commissions are ill-equipped to police utility affiliates and prevent cross-subsidization, since the affiliate can operate in a different state and most state commissions lack authority to review non-utility business practices. Further, repealing PUHCA will eliminate the only federal statute that requires the true costs of affiliate transactions to be paid. This would leave enforcement to the states that may not be able to effectively police interstate operations of utilities and their unregulated affiliates and, at best, result in unequal treatment for even the utilities themselves.

CFC Proposal: Create an effective, uniform federal standard and remedy to prevent utility affiliate cross-subsidization.

REGIONAL TRANSMISSION ORGANIZATIONS

Ownership and operational control of interstate transmission facilities by multi-state, vertically integrated utilities creates opportunities for market manipulation and competitive and consumer abuses. Utilities have effectively denied access, provided inferior service, interrupted sales for alleged reliability concerns, and otherwise provided themselves preferential use of the highways of commerce.

FERC Order 2000 has advanced discussions and development of RTOs. However, given its "voluntary" approach and potentially challengeable legal basis, we believe it is necessary to both affirm and strengthen the action taken by FERC in Order 2000.

CFC Proposal: Require registered holding companies to join a FERC-approved RTO as a condition of PUHCA repeal and amend the Federal Power Act to (1) affirm FERC's legal authority to issue and enforce Order 2000, (2) strengthen provisions in Order 2000 with regard to independent governance and "scope and configuration"; of RTOs, (3) direct FERC to require private utility RTO participation to remedy undue discrimination or as a condition for approval of a merger or market based rate request, 4) enable FERC to require public power systems to participate in RTOs based on a finding that the utility has engaged in undue discrimination to disadvantage competitors, and open access transmission tariffs are not likely to remedy the problem, and 5) enable FERC to mandate federal utilities to participate in an RTO to remedy undue discrimination.

EFFECTIVE DATE

As currently drafted, the effective date for the legislation would be 18 months after the date of enactment. As you know, advocates of PUHCA repeal argue that the legislation will promote competition. In contrast, CFC believes that PUHCA repeal will thwart, rather than hasten, effective competition. We have outlined a number of amendments intended to promote effective competition. However, we believe the efficient implementation and use of these additional provisions will be greatly aided by the addition of a "carrot"—tying repeal to a FERC finding that effective and sustainable competition exists in the wholesale electricity markets.

CFC Proposal: Amend the effective date in the legislation to "trigger" repeal upon an affirmative FERC finding that effective and sustainable competition exists in the wholesale electricity markets.

Mr. BARTON. Thank you, Mr. Kanner.

We now would like to hear Mr. Lane.

Your statement is in the record in its entirety, and ask that you elaborate on it for about 6 minutes.

STATEMENT OF THOMAS K. LANE

Mr. LANE. Thank you, Mr. Chairman and members of the subcommittee for allowing me to address you today. My name is Tom Lane. I am a managing director at Goldman Sachs, and I work in the Energy and Power Group there. And I have been involved working with the power industry and advising the power industry for over 10 years now. Needless to say, the industry has gone through some very dramatic change over that period of time, and it is in the midst of its most dynamic environment currently.

The change and restructuring, we believe, will continue, and the evolving trend toward deregulation of the wholesale energy market, we believe, has many benefits for all classes of customers. It will enhance competition. It will lead over time to lower energy prices and allow participants in the industry to continue to attract investor capital, which is critical to further building out our energy infrastructure as a country.

Elements that will continue to enhance competition over time are the further deregulation of generation and enhanced supply of generation, which is well underway; price transparency in wholesale and retail markets; adequate transmission capacity; and a regulatory environment that promotes growth and consolidation.

There continue to be impediments to achieving these enhanced levels of competition in the nearer term; the State by State nature of our regulation; the California crisis has stalled a lot of deregulation initiatives around the country; and PUHCA, which has been talked about a great deal here this morning, continues to put a damper on activity that will lead to the building of stronger enterprises that will be needed in a more active wholesale market that will be a more challenging market as the electric industry becomes more commoditized over time.

Referring to the deregulation trends to date, as you know, about half of the States around the country have accomplished some form of deregulation. There is increased customer choice. There has been a shifting of generation, both in terms of its unregulated status and in the ownership of those assets. There has been an entire new sector of participant in this industry over the past number of years that we refer to as the power growth sector, companies such as Calpine, AES, Mirant and Dynegy, which have been able to attract capital and build significant unrelated businesses that are providing an enhanced level of services to the wholesale market and helping to create a more open and liquid regional trading market. They have captured the interest of the financial markets. They have allowed new capital to come into this sector, which is providing the necessary capital to enhance the supply of our generation, which, as you all know, has been desperately needed.

There are also a number of unregulated subsidiaries of electric utilities that are building unregulated businesses as well. Between these two categories of participants, they have raised approximately $18 billion of equity capital just in the past 18 months, $7 of that through IPOs.

We believe that the shifting of generation, particularly in the Mid-Atlantic region has been very helpful and constructive as well in allowing a number of participants such as Allegheny, Constellation, PPL, PSEG in providing a base to further build a more competitive business in the future.

With respect to M&A activity, there continues to be industry consolidation. We think it is inevitable going forward. We think it is a positive for the industry in creating enhanced levels of competition. Investors prefer larger market cap companies that offer greater financial scope and liquidity.

The current regulatory approvals, however, do take a lot of time, are costly or distracting to management teams. And PUHCA prohibits many transactions from occurring because of its integration requirements. These constraints are impacting the pace of competition in this industry and create an uneven playing field. The unregulated power growth companies, for example, do not have a lot of these restrictions, and a number of them avoid transactions that would put them underneath and subject to these restrictions. Investors often punish companies that announce transactions because of these lengthy approval processes and the new PUHCA restrictions that sometimes come with certain transactions that have taken place. We believe to create a truly competitive, vibrant energy industry, these constraints should be removed.

A couple of quick thoughts on transmission. As has been said, our country lacks sufficient capacity today. Electricity, as we know, can't be stored. There are a number of bottlenecks around the country. We believe this prohibits generation development in certain areas, and certainly results in the less than efficient use of our current and existing generation base. Expanding the system, we think, is critical. And a comment that I would make as it relates to the formation of these regional transmission entities, that the framework should ensure adequate returns so that they will have the ability to raise capital to build out and address these essential growth initiatives.

In summary, the electric industry, as we all know, has gone through significant transformation already. The wholesale market is moving toward a more competitive market-oriented industry. The pace of progress, however, has been incremental because of the State by State nature of regulation and the overlay of PUHCA. We believe allowing industry participants to have these artificial restrictions removed will allow them to grow, combine and create actually enhanced competition in the wholesale market. And we think it is critically important in allowing these companies to attract the necessary capital to further build out our energy infrastructure that our country desperately needs. Thank you.

[The prepared statement of Thomas K. Lane follows:]

PREPARED STATEMENT OF THOMAS K. LANE, MANAGING DIRECTOR, GOLDMAN SACHS

INTRODUCTION:

The electric utility industry is in the midst of its most dynamic time in recent history. It is going through significant change and restructuring. The evolving trend toward deregulation of the wholesale energy market will have many benefits for all classes of customers. It will enhance competition, lead to lower energy prices and allow participants to continue to attract investor capital. The key elements that will enhance competition are the deregulation of generation, enhanced supply of genera-

tion, price transparency in the wholesale and retail markets, adequate transmission capacity and a regulatory environment that promotes growth and consolidation. There continue to be impediments to achieving enhanced levels of competition in the nearer term. The state by state nature of regulation, the California crisis which has stalled momentum at the state level in many places, and PUHCA which has continued to put a damper on M&A activity conducive to building larger stronger enterprises that will be positive for more active, competitive wholesale markets.

CURRENT INDUSTRY DYNAMICS:

The electric utility industry is going through rapid transformation. About half of the states have accomplished some level of deregulation, providing many customers with the ability to chose their energy provider. The status of generation is shifting both in terms of its now unregulated status in many jurisdictions and in the ownership of the assets. Unregulated Power Growth companies, such as Calpine, AES, Mirant and Dynegy, are building substantial unregulated businesses that are providing an enhanced level of services to the wholesale market and helping to create more liquid regional trading markets. These companies have captured the interest of the financial markets. They are positioned in the market as "old economy" growth companies characterized by high growth (25% EPS growth on average), broad geographic reach (many have a national or global footprint), no dividend, and entrepreneurial management teams. These companies have been accessing significant capital to build out additional generation and expand unregulated operations. Many are as large as the largest electric utility companies. They are helping to create enhanced supply of generation, greater industry competition and have been successful in drawing new equity and debt capital to the industry. There are also a number of unregulated subsidiaries of electric utilities that are rapidly growing their businesses as well. Many have shifted their formerly regulated generation into unregulated status (Allegheny, Constellation, PPL, and PSEG are examples), serving as a substantial base to build a larger, more competitive business in the future. Many investors who previously had not participated in the sector have put capital to work to help these higher growth entities fund needed incremental generation and other energy infrastructure. As a result of this renewed expansion of generation, most forecasts indicate that the country will be in balance in most regions of the country within a two to three year timeframe, with some regions sooner.

IMPACT OF M&A ACTIVITY:

This industry has been and will continue to go through significant consolidation. Merger activity began in earnest in the early 1990's and has been consistently steady in the late 1990's and the early years of this decade. Further deregulation and consolidation are inevitable. The industry would benefit by a smaller number of larger, financially stronger companies. Business conditions will become more challenging in the years to come and having a strong financial base and financial capacity will be critical. Investors in particular prefer larger market cap companies that offer financial scope and liquidity. Current regulatory approvals take a lot of time and are costly and distracting to management teams. Further, PUHCA prohibits many transactions from occurring because of its integration requirements. These constraints are impacting the pace of competition in the industry, and create an uneven playing field. The unregulated Power Growth companies for example do not have the same restrictions that the regulated utilities have under PUHCA. A number of Power Growth and exempt utilities will not consider certain transactions to avoid becoming subject to PUHCA restrictions. Investors often punish companies on announcement of a transaction because of the lengthy approval process, which prohibits other strategic initiatives while waiting for necessary approvals to close a deal. To create a truly competitive, vibrant energy industry, these constraints should be removed.

PERSPECTIVES ON TRANSMISSION:

The current transmission infrastructure lacks sufficient capacity and has numerous bottlenecks. This can prohibit generation development in certain areas, and can result in less than efficient use of currently existing generation. Expanding the system and resolving a number of the bottlenecking issues will enhance competition and use existing generation more efficiently. It will also create more competitive dynamics in all regions of the country. It is important therefore that as regional transmission entities are formed, that they earn adequate returns sufficient to raise capital to address these essential growth initiatives. Expanding generation without coincident expansion of transmission would prohibit the full benefits of a more robust wholesale market.

CONCLUSION:

The electric industry has come a long way in its transformation to a competitive, market-oriented wholesale industry. The progress has been incremental given the state by state nature of the industry structure. The pace of progress has been hindered by the overlay of PUHCA, which has prevented in certain cases a nimbleness managements need in a competitive, commodity-oriented industry. It has also prohibited merger activity, which will promote larger, stronger entities, and in turn promote greater competition. This is a dynamic time in the industry and an opportunity for industry participants to strengthen their financial positions and competitive skills. This will in turn help to enhance the overall competitiveness of the wholesale energy and power industry, and ensure the ability to continue to attract the required capital to further build out our country's infrastructure.

Mr. BARTON. Thank you.

The Chair would recognize himself for 5 minutes for questions.

Mr. Svanda, if I heard your testimony correctly, you said the States should set the interconnection standard. How could we do that without having the Federal Government set at least some general minimum standards? I thought the whole point of an interconnection standard was to have it kind of uniform on a national basis.

Mr. SVANDA. Absolutely. And NARUC, and in my personal comments as well, support the concept of national standards. What I had hoped to say with regard to the States was to let us implement them, because at the standards level, we also intersect with building codes and other pieces that would be important for overall implementation.

Mr. BARTON. Mr. Levy, you talked in your statement at some length about the need for PURPA repeal, but you did say that existing contracts should be honored. What if the existing contract has an automatic rollover clause? How would you honor that contract?

Mr. LEVY. Well, I think if the contract has an existing automatic rollover, then it is truly an automatic rollover as opposed to an option. It would need to be honored simply because that rollover was probably considered in the financing of the original——

Mr. BARTON. So you envision a situation where there are some PURPA contracts that conceivably could be honored in perpetuity? Hopefully not many.

Mr. LEVY. I guess my reaction was more related to a contract—and you have seen some with 10-year terms with an extension for 5 more or 10 more. I imagine ones——

Mr. BARTON. So an option contract, you would say you don't have to honor the option?

Mr. LEVY. Again, it depends on the contract.

Mr. BARTON. I guarantee you when we get around to writing the bill, I am going to be beseiged by representatives of PURPA contractors who claim they have this need to have these contracts extended for long, long time periods, so I just need to know, a finality. How many years is enough before we put those folks into the open market?

Mr. LEVY. Well, having seen hundreds of PURPA contracts, some are not very clearly written. And I think there would need to be some measure to address contracts that have no term.

Mr. BARTON. So we would need a transition rule or something?

Chairman TAUZIN. Mr. Chairman. Would the chairman yield? I wanted to point out Mr. Blunt said that this is a problem of PURPA-tuity.

Mr. BARTON. We appreciate—first we appreciate Mr. Blunt's attendance. It shows that the negotiations on next week's energy bill are going well.

Mr. BLUNT. They are going well, Mr. Chairman, and it just shows how you can get recognized as a poor attender by just showing up.

Mr. BARTON. You have not missed a roll call vote when it counted. I want to go to—I want to go to Mr. Sokol since you talked about PUHCA repeal, but you also talked about the California market. We have had several of our panelists today talk about the need for market power protection. It is my understanding that the California bill, the State restructuring bill, one of its principal goals was to prevent market power, and as a consequence of that, there was forced divestiture requirements that the incumbent utilities in California had to sell their generating plants in order to get certain tax treatments. So given the fact that the California restructuring bill was designed to prevent market power, and, in fact, when the incumbent utilities sold to numerous companies around the country, in your mind is market power an issue that we need to worry about if we get the rules of the road right so that there are numerous suppliers in any given market?

Mr. SOKOL. Mr. Chairman, let me answer that in several ways because I think it gets to the crux of a number of these issues as it relates to PUHCA as well.

Market power is an important issue. And let me be clear. We nor, I think, any of our associated companies have any interest in taking away any consumer protections. Those portions of the electric and gas industry that remain regulated because they are a monopoly must have market power considerations, and they must protect consumers. Access to books and records, the ability of State regulators to properly and fully enforce the rules and regulations against us or any of our competitors are absolutely essential. We have no interest in removing them. And, in fact, H.R. 1101 enhances them.

As you stated, in California PUHCA neither stopped that problem from happening nor encouraged it. It is a State piece of regulation, bill AB 1890—it was enacted in 1996—that we as a company opposed because it made two fundamental mistakes. One of them is it locked in retail rates while leaving the wholesale rates open, and it did that for a very real purpose. The State and the utilities of that State made a decision that they believed that wholesale rates were going to stay very low. The retail rates were already among the highest in the country. And therefore, there was an opportunity for them to arbitrage between low spot market prices and the high retail prices to hopefully, in their mind, pay down some of their stranded cost. That was a State decision made in complete cooperation with the three utilities and State government and, in fact, a unanimous vote of the assembly of the senate in the State of California.

PUHCA could do nothing to stop them for doing that. PUHCA in a way has exacerbated the problem, because those utilities, Pacific

Gas and Electric is an example, are intrastate-exempt utilities. They are exempt in the State of California under PUHCA by Federal law. This claim by the Attorney General, which is nothing more than a political game to have the SEC look at that exemption——

Mr. BARTON. They play political games in California?

Mr. SOKOL. Sometimes in Iowa as well.

Mr. BARTON. Sometimes in Texas a lot.

Mr. SOKOL. It is nothing but a game, because that exemption is a Federal exemption. Their utility assets are intrastate; therefore, they are exempt from PUHCA.

But the issue that was raised about them dividending dollars out again was a State regulatory issue. In fact, when PG&E and Edison under 1890 were established, and their exemptions established under PUHCA, the State required that they maintain their capital structure. Now, this is an important issue because when they then passed AB 1890 requiring them to divest their generation, the utilities had a huge inflow of capital. Had that capital been kept in the company, it could have been used as an offset against this very risky position they were taking between spot market and retail rates.

Mr. BARTON. I think that is Mr. Priest's basic point, that the money went upstream. It didn't stay to build more power plants.

Mr. SOKOL. But the State required it to go upstream. The State utility board did not allow that money to stay in those companies because it would have increased the amount of equity in the company under which they were allowed to recover 11½ percent return on equity. They wanted the equity level kept lower because it would be better for consumers. PUHCA did not allow or inhibit that transfer of capital. It was the State utility board that established them doing that.

So this whole notion that PUHCA either would have protected them or done something to stop it is just absolutely not correct. What is important is the recognition——

Mr. BARTON. Finish up. My time expired about 4 minutes ago.

Mr. SOKOL. What is important is the Federal overlay setting the rules fairly, then the States have to enforce them appropriately and be responsible for the actions within their State. Then you will have a healthy market both between the States and intrastate.

Mr. BARTON. My time has expired, and the Chair recognizes Mr. Boucher.

Mr. PRIEST. Mr. Chairman, may I make a comment? That was not my comment. That was the politician's comment from California. I never question any comments from politicians.

Mr. BARTON. I understand that. I did not imply that. I thought that your statement talked about—you weren't really all that excited about PUHCA repeal. And isn't there something in your statement?

Mr. PRIEST. Not totally excited about it.

Mr. BARTON. We got plenty of people who are willing to make political statements. We do not need anybody at the panel to do that. In Texas, former Senator Lloyd Bentsen said politics is a contact sport, so we are understanding of that.

Mr. Boucher is recognized for 5 minutes.

Mr. BOUCHER. Well, thank you very much, Mr. Chairman. I am going to pick up with questions to Mr. Sokol also.

I acknowledge that under the proper circumstances, it is appropriate for the registered companies to engage in businesses that are not related to the core utility business. As a matter of fact, I proposed the last change to PUHCA, which was to enable the registered companies to offer commercial telecommunication services, and that change was made by the Congress during the last decade.

I think as we examine the question of PUHCA repeal prospectively, it is very important that we keep the interest of electricity consumers in the forefront, and I think that their interests should guide our decisions.

And so let me ask you a question. I will ask it in two ways, and you can answer this question either way you choose. The first question is is PUHCA, as currently being interpreted by the FERC and by the SEC, in some way adverse to the interests of electricity consumers? Are the interests of electricity consumers being injured in some way by current PUHCA interpretation and its application in accordance with those interpretations? And the other side of that question if you choose to answer it this way is would the interests of electricity consumers in some way be advanced if PUHCA were to be repealed?

So address the question of PUHCA appeal, if you would, from the vantage point of electricity consumers, and after you provide an answer, I am going to ask Mr. Kanner and perhaps others to comment as well.

Mr. SOKOL. Thank you, Commissioner.

Mr. BOUCHER. Did you say "Commissioner"? I will take the promotion.

Mr. SOKOL. I think PUHCA, in fact, does harm the consumer, and that is why we are specifically interested in it in addition to our ability to invest.

No. 1, I will give you a simple example. PUHCA wants to concentrate market power, not distribute it. FERC has attempted to repeal portions of PUHCA on that very basis, that they are trying to distribute market power. And I will give you a perfect example.

We are an intrastate utility holding company in the State of Iowa. The only acquisition that we can make today that is exempt from PUHCA—we represent 60 percent of the consumers in the State of Iowa—is to acquire the company that represents the other 30. We do not think forcing market concentration is in any way in the consumers' interest. And PUHCA absolutely does do that.

PUHCA, second, absolutely restricts investment in this sector, which we think is clearly not in the consumers' interest, because as California has demonstrated, when a utility that was a AA-rated utility now has to go out and raise capital at 14 percent interest rates because people like us can't make the investment we would like to make to help that utility get through its issues, that clearly will get passed on to the consumer.

The other—this last point I would make is PUHCA repeal is probably the wrong term. We are not in favor of removing any of the consumer protections under PUHCA. We are merely asking that the investment limitations with all of the appropriate oversight of the FERC, the SEC, FTC and the Justice Department stay

in place, but there not be an arbitrary limitation, as an example in our case, where we can make investments that are clearly in the consumers' interest. Even if the SEC, which has told us they would be happy to let us do it, PUHCA, by law, won't allow us to do it.

Mr. BOUCHER. Thank you, Mr. Sokol.

Mr. Kanner, let me get your response, please.

Mr. KANNER. Thank you very much, Mr. Congressman. I would like to answer it in a couple of ways. The first is to note that there is no legitimate consumer group, not Consumer Federation of America, Consumers Union, AARP, National Consumer League, et cetera, that supports stand-alone PUHCA repeal. So I think your answer is in part answered in that way.

But let me address some of what Mr. Sokol raised. What PUHCA restricts in terms of the integration requirement is the acquisition of another vertically integrated or, frankly, distribution utility. In my view, the growth of the distribution utility does not inherently lead to greater competition. We are talking about competitive generation markets, and simply acquiring another vertically integrated or distribution utility in the case in California isn't going to result in greater competitive wholesale markets. It may lead to economies of scale and scope, and that is something that is worth looking at.

However, what we are talking about—our coalition is saying, we can look at PUHCA repeal. We can look at eliminating the integration requirement as long as we put in place other substitute provisions that protect the interests of consumers.

Let us take mergers as an example—to have an affirmative screen that proposed mergers result in net benefits and that they enhance competition to make sure that disposition of generation assets are reviewable and reviewed by FERC. Mr. Barton asked before about California's actions with divestiture of generation assets. In fact, it is my understanding that California's divestiture effort was not designed to address market power. Rather, it was designed to value those assets for stranded cost recovery. Had market power been the screen, we could have resulted in a different outcome. Had FERC had jurisdiction to review asset distribution, maybe that would have occurred.

Mr. BOUCHER. Thank you very much.

Mr. Chairman, my time has expired.

Mr. WHITFIELD [presiding]. At this time, I recognize the chairman of the full committee Mr. Tauzin.

Chairman TAUZIN. Mr. Sokol, I am well acquainted with your views on PUHCA, and you and I had some long conversations about them. And I want to be specific. I enjoy this give and take on it with Mr. Kanner, but in your case your testimony basically tells a story. You were prepared, in effect, to consider making equity investments in California in the middle of this crisis and helping restore long-term viability to the California electric markets, but you basically didn't do it. You basically looked at PUHCA as the biggest stumbling block; was that not correct?

Mr. SOKOL. In three separate instances, the transmission line to get new generation that was requested by the State of California and in a personal meeting with Governor Gray Davis where he asked me, couldn't you possibly set up a revolving credit facility to help our utilities and help the State weather this crisis? And Mr.

Buffet responded through me, we will be glad to do that if we can get some way around PUHCA, because we can't do it and have any security that would secure our $3 or $5 billion loan by the assets or the stock of the company.

Chairman TAUZIN. So you couldn't be of help when you wanted to be. In fact, don't you have a geothermal plant in California?

Mr. SOKOL. Yes.

Chairman TAUZIN. PUHCA stands in the way of your investing in the transmission lines that would bring that electricity to consumers in California around that geothermal plant; does it not?

Mr. SOKOL. Correct.

Chairman TAUZIN. Could you explain that; how it prevents you?

Mr. SOKOL. None of the utilities in the State can afford to put in the transmission line. We have actually requested the extension for going on 5 years. We can't build the transmission line ourselves, because we can only own 4.9 percent of it because we can't demonstrate either interconnection with the State of Iowa or any of the other exemptions, if you will, under the statute—under PUHCA, so that a transmission line that we were prepared to build, turn over full authority to the ISO, accept the FERC level rate of return so we can deliver another 340 megawatts of renewable energy——

Chairman TAUZIN. So we have got a case where a law that contains some good consumer protections, which you concede shouldn't be repealed, but also is designed in a fashion that prevents those who are willing to make investments to deliver more power, more reliable power with better transmission facilities, prevents you from making those investments when you are not only requested to sometimes, but you are eager to do it on other occasions; is that right?

Mr. SOKOL. Correct. There are numerous examples around the country.

Chairman TAUZIN. I want to do something with all of you who might want to participate with the time I have remaining. You have all made a case for this Congress acting to change some of the laws and rules on the electric markets. You all support different elements, obviously. But what I would like any of you to do for me today is make the case on the basis of what happens if we do nothing. If this committee fails to address some of the concerns you have raised here today, what does America face?

One of the problems we have got, Americans do not really believe there is a problem until the prices are going crazy, until the lines are forming at the gas station, until there are blackouts. And they do not see those right now, so they don't think really we have a crisis.

Make the case for me. What happens if this Congress, this committee, fails to deliver on some of your recommendations? What are some of the consequences to American consumers? Anyone who wants to take that?

Mr. LEVY. Well, I would like to just start with an example of other markets that have deregulated. We participate in several international markets, and the United States so far is the only market that, when it went to a deregulated State, saw prices go up. Every other single market, whether it is South America, Europe, Australia, some were long on power, some were short on power, but

every single one of those markets saw prices drop immediately upon deregulation because many of those markets do not have the types of barriers to entry that we have.

So I think the experience we have had over the last year with energy prices spiking, lots of volatility, are basically a measure of the inefficiencies and blockades built into our market. I think we will see a terrible cyclical experience in prices. There will be spikes. There will be drops.

Chairman TAUZIN. So your prediction is that the experiment to move to more competitive retail markets is going to fail if we do not get these barriers out of the way. We will get higher prices and spikes and dislocations as a result? Is that your answer?

Mr. LEVY. That will discourage investment.

Chairman TAUZIN. Anyone else—give me a prediction. Yes, Mr. Sokol.

Mr. SOKOL. If Congress doesn't act—it, quite honestly, should have acted—and you have heard me say this 8, 10 years ago. We are in an industry right now where public power and best-run utilities, State jurisdictional levels and Federal jurisdictional levels are all combating each other. That is silliness. We have no issue that the municipal co-ops and large power producers, public power producers and investor-run utilities, we all have to solve this problem, and we have to work together. If we do not, what happened in California is going to happen elsewhere, because we have this fragmented quilt-like set of Federal and State rules that are not being——

Chairman TAUZIN. Tell me where it starts happening.

Mr. SOKOL. It could happen in the New York area next, part of the Northeast. It will happen in the upper Midwest, and it will continue to happen in parts of the West. And I would ask you to think about who has lost in California. The consumer has lost. Two companies have serious financial problems, but the consumer has lost. That is who is not being protected by doing nothing.

Chairman TAUZIN. My time is up, but if anybody wants to add anything, you are certainly welcome.

Mr. PRIEST. I think probably the second most important bill that Congress ever passed was the Energy Policy Act of 1992. But unfortunately, it was that act that probably made California's problems possible. Now, it didn't cause them, but made it possible because it started the process. But the act was not fleshed out enough to really describe what was needed to happen in terms of several elements.

Now, the things we are talking about today are extremely important, but the critical item in making the system work and protecting consumers and protecting investors and protecting everybody is the transmission side. The 1992 Act made it possible for little Yazoo City to go out in the market and buy power from wherever they wanted to buy it, and we buy a lot on the spot market. We have saved a tremendous amount of money because of it. But it also creates problems when transmission gets constrained and you can't go out and buy when you need to buy. We paid over $2,000 a megawatt hour. We do not average anywhere close to that, though. Recent months, we have averaged about $30 of megawatt hour buying on the spot market.

That act needs to be looked, at and the job started in 1992 needs to be completed on it.

Mr. SVANDA. If I could, from the perspective of a State commissioner, what you would cause by not getting legislation enacted is a continuation of lack of direction across the spectrum on energy policy, and that lack of direction affects us dramatically at the State level.

For example, the Telecommunications Act of 1996 set direction that we could all understand, and we all had some agreements or disagreements about where we are today in response to that. But nonetheless, we knew what the national goals were, and we could begin to march forward in tandem. And we lack that in energy policy today. At least bifurcation of directions that are taken across the country by various States with differing objectives just adds confusion to a whole number of issues, from investments to diversity of our national portfolios. And so it just all becomes very confusing without that very specific national direction that would guide all of us.

Mr. WHITFIELD. Is there anyone else on the panel that would like to respond to Mr. Tauzin's comment?

Mr. MORRIS. The LPPC has taken a position that it is really the consumer protections and safeguards that are critical. And the discussion this morning seems to reflect that PUHCA, while doing some things that others may take issue with, that there is a profound respect for those consumer safeguards. We believe that if those tools can remain in place, that it will go a long way toward alleviating some of our concerns about an ultimate repeal of PUHCA. We look forward to a fully competitive market. And there are some other details that would need to be addressed. But primarily, it would seem that if we can ensure that the consumer is protected—the customers that we serve at the end of the line, that we can make progress on this issue.

But I would caution that our perspective is that first we ought to ensure that whatever we do does not inflict more harm. And I think that is part of the lesson from California, that whatever we do does not inflict more harm than the—that the medicine doesn't inflict more harm than the disease.

Mr. WHITFIELD. We have gone over about 4 minutes, so at this time I would recognize Mr. Sawyer for 5 minutes.

Mr. SAWYER. Thank you, Mr. Chairman.

Let me make a quick observation. We demonize PUHCA and PURPA and I think perhaps by overstatement rather than intent. From what I hear, I hear thoughtful people talking about the importance of carving out elements of PUHCA that today stand in the way of a transition that is going on across the country. Many of the protections that we have in law and policy and precedent and practice have evolved over the last 85 or 100 years to create a system that worked well at the time that it was working. It was not perfect by any means, but it got us to where we are today. And today we are on the threshold of a major national shift because for the first time, we have reached a point where it can happen, and presumably we have the technology to make it happen.

So what we are looking for as much as anything is to find the places to do the kind of surgical carve-outs rather than trying to

repeal lots of things and then trying to reenact the protections that might have gone with it. I may be wrong about that, but it seems to me there is an enormous amount of what has evolved over the last many decades that we want to leave in place.

Having said that, I just think this has been one of the most extraordinary panels, Mr. Chairman, that we have had in the several years that we have been considering this topic.

I would like to return to a topic that many of you have touched on and many of my colleagues know that I have worked with for several years, and that is to try to elevate and focus attention on the pivotal role that transmission systems will play in making possible the development of regional markets the way we all envision and hope to achieve.

Mr. Kanner, you mentioned in your testimony that the FERC should ensure that RTOs have true independence from other market participants. I would like you to comment on the job that FERC has done to date in achieving that goal. Are they falling short of achieving the independence principle that they laid out in Order 2000, or are they making progress toward getting there?

Mr. Lane, you testified that in order to resolve the bottlenecks in the transmission system, it is important for RTOs to earn returns sufficient to attract the capital necessary for new transmission projects. In a disaggregated set of electricity suppliers and market participants, I worry that transmission may itself be the most fragile element in attracting the kind of investment, in competing for money that it will require to build that interstate highway system that working regional markets will require so that Mr. Priest doesn't get isolated in Yazoo City, or any of the other cases of isolation that I think are likely across the country in a vital market.

Those two questions for you two gentlemen. And then if others would care to add to it, I would appreciate it.

Mr. KANNER. Thank you, Congressman Sawyer, and it is an important question. As I am sure as you and other members of the subcommittee are aware, in recent weeks the FERC has sent some RTO folks back to the drawing board in some cases to look at the scope of the RTO and other cases to address the level of independence of the governing board. We are certainly heartened by that. I think that the new set of Commissioners take seriously the functions and characteristics laid out in RTO 2000 and are taking the steps to ensure that those are upheld.

Our view is Congress is appropriate in reenforcing that role in showing, in essence, the political support, but also the legal clarity so that the good efforts of the Commission aren't undone by legal challenges. And if I could take a second to preempt Mr. Lane.

Mr. SAWYER. I am going to run out of time.

Mr. KANNER. We need to have sufficient returns to attract capital for investment and transmission, but no more.

Mr. SAWYER. Mr. Lane?

Mr. LANE. Well, I do agree with your comments. If you think about how this industry is being restructured from an investor perspective is kind of the least sexy part of the industry that is out there.

Mr. SAWYER. Least sexy and perhaps most pivotal.

Mr. LANE. Yes. And I do not disagree with that as well. And so the characteristics of transmission by definition will be a lower-growth type of business. And if you think of the return that investors have kind of gotten used to in the last 5 years in particular, the last 9 months notwithstanding, this kind of slow growth business is difficult to attract capital. We do think, however, there is a security that can attract capital. It is going to be yield-orientation to it. It has to have the ability to have a formulaic element to it so as you build out necessary additional transmission capacity, that gets incorporated into that return so that people are comfortable—these organizations are comfortable that as they spend capital, they can earn that incremental return on that incremental capital spent.

Mr. SOKOL. I would like to make a quick comment. You focused on the right area. Generation, given that it is unregulated at this point, will solve itself. It is a supply demand issue. Transmission cannot solve itself, and it is one of the most critical issues out there. And again, it is limited by a whole number of inconsistent Federal regulatory regimes and State implementation.

Mr. SVANDA. If I may, I would certainly support that theme and just reemphasize the point that I made earlier. There are certain issues in interstate transmission that the States simply cannot get fixed by ourselves. We work carefully. We in Michigan work carefully with your home State in Ohio and view this issue in much the same terms and have made those comments very publicly in the past.

Mr. SAWYER. Thank you for your flexibility, Mr. Chairman.

Mr. WHITFIELD. At this time, we will recognize Mr. Burr for 5 minutes.

Mr. BURR. Mr. Lane, you talked about adequate returns earlier. What is an adequate return?

Mr. LANE. With respect to transmission I am assuming that you are referring to, or more broadly based?

Mr. BURR. I would say more broadly based. If you want to address it with transmissions specifically, I will be happy to have that one.

Mr. LANE. All of us in this room are investors of some sort or another. And obviously, there is a risk-reward, risk-return element to any investment that you make.

So as an example, if you look at the higher growth—higher growth entities that I referred to earlier in my comments that have been created, the returns that investors are anticipating and investing in those types of entities are far higher than a distribution and transmission company or in some of these other transmission entities that are going to be formed. In the D and T world, investor returns have been kind of in the low double-digit range, and on the power growth companies, they have been high teens to mid-20's have been the investor expectations.

Mr. BURR. When expectations were of 30 percent return, if you invested in technology companies, did that alter what people would look at the industry sector, transmission or any sector of it, and change their expectations of what it would require for them to make a decision to pump capital into that market?

Mr. LANE. No doubt about it. Last year there was a very significant shift of investor dollars into the generation players of this industry. Telecom kind of fell out of bed last year.

Mr. BURR. So the perception was there was not a capitated return on the generation side; therefore, Wall Street began to respond to it?

Mr. LANE. I agree with your comment, yeah.

Mr. BURR. Would it be safe to then say that Wall Street is driven by an unlimited opportunity versus a predetermined fixed rate?

Mr. LANE. I am not sure I understood your question exactly. Why don't you phrase it one more time.

Mr. BURR. If we said that we guaranteed 11 percent return for an investment in the transmission, does that attract the capital that we are going to need to upgrade our transmission system?

Mr. LANE. It is somewhere in that neighborhood.

Mr. BURR. What if we return to the 1990's of anything with dot com almost guaranteeing 30 percent. Would we see the capital flow to the upgrade of our transmission grid?

Mr. LANE. If you guaranteed the 30 percent?

Mr. BURR. No. If they were competing with the 1990 craze.

Mr. LANE. The answer is yes. There is definitely a role in the markets for a lower-risk, lower-return investment, which is what transmission represents.

Mr. BURR. Some estimates——

Mr. LANE. Whether it is 11 percent, 12 percent, somewhere in that neighborhood is what we still need to ferret out with the investor base.

Mr. BURR. It is driven by what investors are looking for. If we haven't met their threshold, the capital won't flow?

Mr. LANE. Correct.

Mr. BURR. Mr. Priest, let me ask you a question. Tell me your definition of market power, would you?

Mr. PRIEST. Market power is, I guess in the simplest terms, the ability to increase the price above what it would otherwise be if people could freely go out and buy when and what they wanted.

Mr. BURR. So State of California, are they a market power problem?

Mr. PRIEST. Well, State of California created a number of problems. They shot themselves in the foot, as we would say in the South. But forcing everybody to sell their generation, No. 1, and then buy all the energy they needed either in the hourly or daily market was destined to disaster. The first time you had major equipment outages or a pipeline explode going into southern California, and as soon as those events happened, there was such a critical shortage that anybody who had some capacity available could charge anything on the market.

Mr. BURR. California has an unbelievable regulatory scheme for their deregulation or reregulation or controlled competition model depending upon what ultimately they ended up with. They have a tremendous regulatory scheme for it, but yet people believed that market powers were at play; am I correct?

Mr. PRIEST. Market powers appeared to have been in play.

Mr. BURR. Could one assume from that that since California took the consumer out of it, that, in fact, the consumer is the key to holding any market powers in check—consumers and choice?

Mr. PRIEST. There is probably several legs on the stool, and obviously consumers is one of them. Choice is probably one of them. But having the rules designed for all the participants to play by is probably another one.

And you know, if the three major IOUs in California had been able to manage their risks—they were prohibited by law from managing their risks. They were prohibited by law from managing their risks, and when they were unable to manage that risk, that is when it made it possible for people to take advantage of the conditions in the State.

Mr. BURR. Is it safe to say that in California, the market was not allowed to be a market?

Mr. PRIEST. That is probably true. There is probably a lot of things you could write in a book about what was wrong in California.

Mr. BURR. Well, the one thing we can rest assured, California is usually the first. We learn a lot from it, and we never want to replicate it.

I would yield back, Mr. Chairman.

Mr. BARTON. The gentleman's time has expired.

The gentlemen from Maryland Mr. Wynn is recognized for questions for 5 minutes.

Mr. WYNN. Thank you, Mr. Chairman.

Mr. Kanner raised a couple of interesting propositions, and I wanted comments from the other panel members to that. He observed that Congress should preserve the State role in approving the sale or spin-off of rate-based generation assets. Is there anyone on the panel that has substantial disagreement with that proposition?

Mr. SOKOL. The proposition that the States should retain——

Mr. WYNN. Retain the role of approving the sale or spin-off of rate-based generation assets.

Mr. SOKOL. I think that is appropriate. One of the comments I heard Mr. Kanner say was that he thought that FERC should also have a role in determining this spin-off of State-regulated assets. I do not——

Mr. WYNN. You are correct. He goes on to say that we should clarify FERC's authority to review the sale of generation assets, and I am not sure if those two concepts are in opposition.

Mr. SOKOL. I would agree that the State should retain that right.

Mr. WYNN. There is a statement that we should close the gaps in FERC's merger review authority and strengthen FERC's merger standard to ensure the market will produce competitive benefits in a wholesale power market. I would like to get the reaction of the panel members to that proposition.

Mr. Sokol.

Mr. SOKOL. I would agree. We do not, in any way, recommend that mergers that concentrate market power, and they could inflict negative confidence on consumers, we do not agree that they should be approved. I would point out that the SEC today, by the rules under PUHCA, actually in a way forces that problem to hap-

pen where FERC, in fact, would like to cause it not to happen, and the two bodies are at odds, and changing parts of PUHCA would, in fact, put them on both the same page.

Mr. WYNN. I take it, then, there is pretty good consensus that we ought to do that in terms of strengthening FERC's merger authority?

Mr. LEVY. Yes. Being in the middle of a merger, I think FERC already has that authority. When we were negotiating our merger, we went through the various regulatory hurdles we were going to have to address, And one of them was having FERC approve the transaction for market power and those related issues. And they have done it, and they have been fairly thorough in their review.

Mr. WYNN. I ask these questions because we are in an interesting environment where we are going toward Big Government and strengthening then FERC's role and the Federal role. If this is a consensus, that is great, but I would hate in a few years for people to come back and say, the Federal Government's role is far too intrusive.

Clear rules and procedures for defining competitive markets and determining when and under what conditions market-based rates can be authorized. Now, we have debated this quite a bit up here. Again, is there a consensus that that is a proper role for FERC, and that FERC ought to have clearer and stronger rules for when they move in with market-based rates?

Mr. LEVY. You know, I think FERC has the rules. And I think what FERC is learning, as we are all learning as this industry deregulates, is how a generator that has only one generator and a short market could operate that generator in a way that creates market power. So I think that FERC needs to evolve its rules as we all learn how the markets work. I believe they have all the powers they need.

Mr. WYNN. But no objection to market-based rate setting? Okay. Good.

Mr. KANNER. Congressman, if I could just amplify momentarily, I think Mr. Levy and I agree on this. FERC has that authority and in fact as we speak is in the process of redefining market rules. What we are suggesting is that Congress, in essence, affirm that so that it is not subject to whim, so that the current effort isn't altered or shuttled aside with a change in commission personnel or a legal challenge.

Mr. WYNN. I think that is a very good point. I mean, we wrangle quite a bit in the kind of public domain about this issue. We finally kind of got there with some sort of soft rates regulation, but—or price regulation. But it is good to see this consensus.

Finally Mr. Kanner, you said that FERC must perform the needed market monitoring to assure just and reasonable wholesale rights by identifying any market design flaws, market manipulation or market power abuse.

When we begin the debate over price caps, FERC came in and all they would say is, it is a dysfunctional market. Many of us, on this side of the aisle particularly, were saying, and what are you going to do about it? And we advocated, you know, market-based rates; and that did not happen. So my question is, if we, you know, give them this authority or mandate that they have this authority

to do the monitoring and they in fact find a dysfunctional market or market manipulation, what would you have them do? I guess my question is, and then what?

Mr. KANNER. I guess, Congressman, I would resist the effort to prescribe in statute what steps to take because it is a dynamic market and you want FERC to be able to respond to the actual circumstances. In some cases, it might be changing rules or—for instance, a number of years ago the SEC put in place price circuit breakers, where they would halt trade in a given stock if there was a sudden run-up. That might be an appropriate step. An equivalent step could be taken in electricity markets. In other cases, it might be defining different rules in terms of the scope configuration or authority of an RTO.

But you are exactly right, that we first need to insure that FERC is gathering and analyzing market data to determine whether a problem exists.

It was disturbing that the GAO reviewed FERC's analysis of whether there had been economic withholding in California and GAO determined that FERC hadn't done a rigorous enough analysis to make that determination. I am not suggesting that there was, in fact, mischief or misdeeds in California. It is that we don't know, and that takes away the consumer and the participant confidence in the system.

Mr. WYNN. Thank you. And to kind of bring it to a——

Mr. BARTON. Yes. The gentleman's time has expired.

Mr. WYNN. If I could have 15 seconds, Mr. Chairman.

Mr. BARTON. You can have 15 seconds.

Mr. WYNN. Thank you.

I just want to know, are you then saying that you believe FERC has adequate authority to address this market manipulation or market power abuses once they find them? Or do we need to provide some tools that are optional for them to utilize in these situations?

Mr. KANNER. I think that FERC probably has the tools within its statute, but if we say—if Congress says, FERC, take the steps necessary to remedy market power, then we have affirmed that authority and we have given the direction, the confidence and the—frankly, the political backing to take the steps necessary.

Mr. WYNN. Thank you very much.

Thank you, Mr. Chairman.

Mr. BARTON. Thank you. We are always impressed by the gentleman from Maryland. He actually seems to understand the questions that he is asking, which is——

Mr. WYNN. You are very kind, Mr. Chairman. That is not necessarily accurate, but you are very kind.

Mr. BARTON. The gentleman from Kentucky, Mr. Whitfield, is recognized for 5 minutes.

Mr. WHITFIELD. Thank you, Mr. Chairman.

Mr. Sokol, you had mentioned just a few minutes ago when I think Mr. Sawyer was talking about transmission being one of the key problem areas as we try to deal with our energy problems; and you said there were several contradictory laws that provide obstacles on transmission, solving transmission problems. Could you just

specifically talk a little bit about which particular laws you are talking about?

Mr. SOKOL. Again, I will focus—I think the one that certainly causes us and many others the greatest issue is the Public Utility Holding Company Act.

And actually, in response to also Congressman Wynn, I will give you an example where two utilities were merging. I don't think any consumer, consumers had any serious issues with them, nor did industry participants like ourselves, until, because of PUHCA, they had to demonstrate their interconnection capability, which FERC did not require but the SEC must require because of the statute on the books by those two utilities creating a transmission corridor by contract, by buying up transmission capacity between each other.

It then created for several of us serious transmission issues and indirectly enhanced that merger's market power control because, by having that control of that transmission system when power is needed in a market, which means by definition prices are higher because it is short, they get to transmit power before other market participants do. And this is a function that both of the primary State regulatory bodies were opposed to that interconnection but to get the transaction done because of PURPA's existence had to be in place and ultimately got approved and went forward.

Second, dollars need to flow into transmission. As I said before, generation is a commodity. It will happen if the market signals are there. But if the generation can't get to where it is needed because of transmission, that is where the real bottlenecks happen. That is what caused some of the upper Midwest problems 2 years ago.

Mr. Buffet has made it clear he would intend to invest $10 to $15 billion in rectifying those problems. But we cannot own more than 4.9 percent of any single asset under PUHCA. So, again, States that have asked us to come in and invest the dollars, we are prohibited by Federal law from doing that.

I think the other issue is, without FERC having the clear authority and open transmission access rights in place, the State regulatory bodies are conflicted because they don't know what their neighboring States are necessarily going to do and how they are going to allow recovery for interconnections in their State that actually benefit consumers in another State.

So I think there are a number of ways where the consumer is not benefited by today's inconsistent regulation.

Mr. WHITFIELD. Thank you.

The times we have discussed the problems in California, someone always brings up, I think, this pathway 15, which is a problem. Could some of you elaborate? I mean, is that a capacity problem or is that a maintenance problem or is it both?

Mr. SOKOL. It is capacity. It is the ability to transmit the power.

An important note I would make, and it is true in our own system and I know in many other systems, probably GPU has some as well. You know, we built out the transmission and grid system in this country pretty much through the early 1970's. We have been living on that capacity ever since. We now have power flowing on transmission systems in the opposite direction the system was designed to have the power flow on. And because of the 1992 act,

which I think made a very important step toward wholesale open transmission access, very little investment has taken place since then, though, because none of us really know what the rules are.

Mr. WHITFIELD. All right. So we have this capacity problem. So, obviously, we are going to need to build some new transmission lines, I am assuming. Now, on natural gas pipelines there is Federal eminent domain authority, but we don't have that in the transmission area for electricity. How many of you feel like there should be Federal eminent domain authority? Or do all of you feel that way?

Mr. PRIEST. Well, I think, obviously, there is going to be some sort of problems. Just for an example, one line that keeps popping up in the news from time to time is Wisconsin has been trying to build a line into eastern Minnesota for years, and they can't get it built because they are dealing with two different States' regulations on how it is done. So it is going to have to be some of that. But still the States are going to have to be involved with that in some way, I think.

One of the biggest problems on getting the transmission built is having the system where it can be managed once it is built. There is more than ample reason not to build a lot of generation. If you have got a lot of generation that you own and your generation is expensive, then weak transmission links protect you from the outside world. So there is a strong economic incentive not to jeopardize your generation investments. And good, functioning RTOs, properly structured with the rights to either build or force the construction of transmission, would solve most of those problems.

Mr. WHITFIELD. Mr. Chairman, my time has expired.

Mr. BARTON. Thank the gentleman.

The gentleman from Oklahoma, Mr. Largent, the vice chairman of the subcommittee, is recognized for questions for 5 minutes.

Mr. LARGENT. Thank you, Mr. Chairman.

Once again, we are at another electricity restructuring hearing, and we hear from our entire panel that we really need to do something. The Federal Government needs to act on electricity. The consequences, if we don't, are dire. We hear voices saying that we can do this. It can be done.

Yet, in expressing a little of my own frustration, I also understand that those of you at the table and in the room and around Washington are saying, we need to act. It is bad if we don't. We can do it.

I am here to make sure that my constituency gets everything they want, and essentially killing any possibility that we really can get this done because not everybody can get everything they want and us to pass electricity restriction bill.

Mr. Lane, I wanted to ask you, first of all, has the fact that the Federal Government not acted and yet held the specter that we are going to do something eventually frozen any investment in transmission or generation?

Mr. LANE. Well, it certainly has not frozen investment in generation. In fact, I mentioned this whole new sector of companies that have developed and have become, frankly, quite large in terms of size that are very active in the development of generation that don't have these PUHCA restrictions. So, in many respects,

PUHCA does create kind of an uneven playing field, because some have the restrictions, some don't.

With respect to transmission, though, there has been a host of issues, not just the return element but also just environmental issues and the kind of State-by-State approval processes that have caused a lack of investment in transmission. But certainly there has been just overall uncertainty with respect to how that is going to get resolved. That has created a lack of investor enthusiasm in what we refer to as D&T companies, the distribution and transmission companies. You have seen their stock struggle in the last several years and their PE ratios, the evaluation metrics that investors use to value stocks at the very low end of the industry comparables.

Mr. LARGENT. Thank you, Mr. Lane. That is a good segue into my next question and what I consider—you know, everybody here is also in agreement that the real issue is transmission and what do we do on transmission. And I view transmission in this battle to find an answer, a solution, from the Federal Government as kind of the Little Ram Top or Normandy or Pork Chop Hill or Tripoli of the entire electric restructuring bill that we are dealing with. And, to me, we all agree that we need more transmission.

The other problem that we have currently, particularly in the wholesale sale area of transmission, is we have to define and clear up the rules of the road because that is really creating a lot of the complications, especially in light of the Northern State Power decision by the courts.

So, my question and, really, the frustration and issue that I would like to put out there—I mean, how do we clearly define the rules of the road as it relates to bundled and unbundled sales? Because electricity doesn't discriminate whether it is a bundled or unbundled sale. Once it is—you know, the physics of it just don't—you can't discriminate what is bundled and unbundled. How do we do that, define, have clear rules of the road of bundled and unbundled sales without giving FERC additional authority? How do we do that?

I would ask that question to any of the panelists.

Mr. SOKOL. Congressman, first of all, I agree with many of your comments; and transmission is where the dollars are going to be needed most and are lacking most. I think there is consensus on the bulk of these issues. I don't mean to in any way unfairly burden the committee, but I think what the committee needs to do is move industry restructuring forward, first of all, in a real fashion and force all the participants at the table to say what they have been saying. Because we don't actually have substantive disagreement with 90 percent of what is being said at this table from my standpoint and I think our industry's standpoint. But somebody needs to force us into the mode because we do have divergent, if you will, clients, and we need to be forced to actually put our real issues on the table. So I think that is one.

The second issue is I think FERC largely does have that authority if it has the full direction to enforce it, implement it, monitor it and police it. But today that enforcement is largely shared with the SEC in a, frankly, very I think inconsistent way; and it needs to be more clarified. I think FERC needs more clarification than

they do guidelines to a large extent because they have got the powers under the Federal Power Act.

Mr. LARGENT. Okay.

Mr. LEVY. I agree that FERC has sufficient powers to control their jurisdictional areas, but there are many areas that fall outside of FERC control, mostly the federally owned municipal and cooperatively owned transmission companies; and I think there will need to be, if we want to make this a seamless blanket across the country, an expansion of FERC authority or at least, I guess, a parallel level of rules that would apply to Federal muni and co-op transmission companies to make sure that the rules are the same for all players.

Mr. LARGENT. Okay. Well, let me just say I want to go to Mr. Svanda because I want to get your response to this issue. But also say that I don't think FERC's authority is sufficient, and I think the Northern States Power decision definitely complicated the issue of FERC authority. It didn't define it or clear it up. It made it more complicated and less sure.

Mr. Svanda, I want to ask you about FERC authority over transmission but also see if you would respond to Mr. Whitfield's question about FERC citing authority and where you come down on that.

Mr. SVANDA. Sure. On the last issue first, I—and I may not be joined by a lot of my NARUC brethren, but I would support the concept of eminent domain at the national level. And I say that just not to beat the dead horse that I have said a few times in the course of this hearing, but there are issues that simply, in interstate transmission, that the State simply cannot get solved by ourselves. And that is a way to get to the solution. It has worked well in pipeline siting; and we would ask from the State level—I would ask, again, because this is not a NARUC position but it comes with me with my commissioner hat on, that we have a role in that process, that deference be paid to what the States have accumulated by way of knowledge on siting issues, that any eminent domain powers be used in a way that is sensitive to the issues that I think only the States can identify.

But, with that said, we need ways to also get the job done and just get on with it.

On the issue of transmission, well, if you could give me the first question again, please.

Mr. LARGENT. Well, I see my time has expired. If he just would respond to the question. It is, basically, how do we clear up the rules of the road without giving FERC more authority than it currently has?

Mr. SVANDA. Okay. When you initially asked the question I was not even going to respond, because I am not certain that it can be done without giving some additional authority to FERC. When the other respondents started to add on in the direction of maybe we do need some additional authority there, then I got comfortable and raised my hand.

I did indicate in my earlier comments again that there are decisions that get made, however, at the national level that can kill some State efforts in moving to a restructured marketplace.

And you are out of time, so I am out of time. I do have a real specific Michigan example in that regard that I would be happy to share at a later time.

Mr. LARGENT. Yield back, Mr. Chairman.

Mr. BARTON. The gentleman yields back the balance of his time. The Chair would—Mr. Luther, wish to ask questions?

Mr. LUTHER. No.

Mr. BARTON. Mr. Stearns, a member of the full committee and a distinguished subcommittee chairman who has a number of bills on this issue, is not a member of the subcommittee but is recognized for 5 minutes for questions.

Mr. STEARNS. Thank you, Mr. Chairman. I appreciate your courtesy. Although I am not a member in the 107th Congress of this subcommittee, I was in the 106th; and I wanted to encourage you, too, on these hearings. I think you are doing a terrific job. I think you have been told that.

But my point in coming down here is to talk a little bit about PURPA. As you know, Mr. Chairman, I have a bill which is H.R. 381. I have offered this same bill in the 104th, 5th, 6th and 7th Congress. You had my entire language made a part of your bill in the 106th Congress, and I think that was excellent. So I am down here to perhaps ask a question to Mr. Levy.

It indicates, some of the information we have, that the cost of PURPA is costing electricity consumers about $8 billion a year in excess power costs; and the Resources Data International, RDI, places the above-market cost of purchase power contracts, most of which are PURPA obligations, at about $50 billion since PURPA has passed legislatively. So the argument is that, if it has cost electricity consumers $8 billion a year in excess power costs and, in fact, the Utility Data Institute found that PURPA was the single largest factor in explaining the regional disparity in electric prices, thus the facts are clear that PURPA has harmed and continues to harm consumers with excess costs. So, Mr. Levy, we have heard arguments that PURPA should not occur in the absence of a competitive market.

I believe Mr. Morris earlier mentioned that a competitive market is not yet realized and during the consideration of the California emergency bill QF supported a proposal to not only sell into the market for nonpayment but also to sell any excess power they may produce. In your opinion, does this indicate a sufficient wholesale market for QFs to sell their power?

Mr. LEVY. There is no doubt that in every market that is currently competitive QFs could sell their power into the market without limit. California was an example where we actually saw QFs trying to get out of their existing contracts so they can sell into the free market. But I know of no market where a—because of the 1992 Energy Policy Act, which created the opportunity for generators to sell to the market, I know of no market where a QF needs the protections of PURPA anymore to sell into the market.

Mr. STEARNS. So, in fact, it is an impediment to the competitive market. And does it make sense to condition repeal of a Federal mandate which impedes a competitive market only upon the realization of this competitive market at a later date?

Mr. LEVY. Well, I believe the—again, there is the line you draw between previous obligations that were entered into prior to the market developing and new obligations. There is no reason to have PURPA around anymore, probably hasn't been for many years. So we certainly believe it is appropriate to repeal the mandatory purchase obligations of PURPA prospectively.

Mr. STEARNS. Mr. Morris, I mentioned your name. You are welcome to provide any comments that you like.

Mr. MORRIS. On that particular item I don't have any specific comments at this time, Congressman.

Mr. STEARNS. Okay. Now, Mr. Chairman, I think my point in being offered the opportunity to speak is just to indicate, which I am sure you will agree with, is the idea of the immediate repeal of PURPA is necessary, and I hope that the subcommittee will continue.

Thank you very much, Mr. Chairman; and I yield back the balance of my time.

Mr. BARTON. Thank you. The ranking member says we are not—he hopes I don't agree too quickly to that. There may be some constraints, but, in general, I am very much where the gentleman from Florida is.

Okay, does Mr. Walden wish to ask questions of this panel?

Mr. WALDEN. No, Mr. Chairman. Not at this time.

Mr. BARTON. Seeing no other member present, we want to thank you, gentlemen. We may have written questions for the record. If we do, we hope you reply quickly.

We are going to be drafting a bill in the next 2 to 3 weeks, and we are going to circulate that bill for discussion in early September. We hope to finish our other hearings and begin to mark the bill up in late September or early October. So thank you for your commentary, and we look forward to working with you.

We would like to have our next panel come forward as soon as the first panel vacates the table.

Mr. Luther, I was correct that you did not want to ask questions, is that correct? My staff thought I skipped you.

We want to welcome our second panel. We have Mr. Mark Hall, who is the Vice President of External Affairs for Trigen Energy Corporation. We have Mr. Richard Brent, the Director of Government Affairs for Solar Turbines, who is here on behalf of the Distributed Power Coalition of America. We have Mr. Marc Yacker, who is Director of Government and Public Affairs for Electricity Consumers Resource Council. We have Ms. Kathleen Magruder, who is the Vice President of Law and Government Affairs for New Power Company. And we have Mr. Thomas Starrs, who is with Kelso Starrs and Associates.

Welcome, gentlemen and lady. Your statements are in the record.

We are going to start with Mr. Hall. We recognize you for 6 minutes to elaborate on it.

STATEMENTS OF MARK HALL, VICE PRESIDENT OF EXTERNAL AFFAIRS, TRIGEN ENERGY CORPORATION; RICHARD BRENT, DIRECTOR OF GOVERNMENT AFFAIRS, SOLAR TURBINES INCORPORATED; MARC YACKER, DIRECTOR OF GOVERNMENT AND PUBLIC AFFAIRS, ELECTRICITY CONSUMER RESOURCE COUNCIL; KATHLEEN E. MAGRUDER, VICE PRESIDENT OF LAW AND GOVERNMENT AFFAIRS, NEW POWER COMPANY; AND THOMAS J. STARRS, KELSO STARRS AND ASSOCIATES, L.L.C.

Mr. HALL. Thank you, Mr. Chairman. It is a pleasure to be here.

My name is Mark Hall with Trigen Energy Corporation based in White Plains, New York. If New York City is a small village north of here, then White Plains is a remote outpost. Certainly appreciate your comments and your opening statement in support of the notion that uniform interconnection standards will be included in a markup to be coming forward.

Trigen is an owner, operator and developer of combined heat, power and distribute generation projects across the country. We have operations in 22 States.

And to the point that Chairman Tauzin raised in his remarks, I think our company is emblematic, as is many of the others at this table today, of this notion that we have moved away from a time when we had the new light plant of the chairman's grandfather to a time where we need to be moving forward with innovative technology, where we need to be pushing new technologies into the market place. And this hearing and its focus on the need to address barriers that exist to competitive supply of energy very much and rightly so focuses on the issues of moving and the problems of moving modern innovative technology into the marketplace.

It is for that reason that we are pleased to support H.R. 1945, which establishes uniform interconnection standards at both the distribution and the transmission levels. This bill, I think, very much represents a consensus position that you heard reflected on the first panel this morning that it strikes a balance between the need for uniform technical standards but that rightly allows the States to implement those standards, that allows them to determine the most appropriate way to insure that those standards are implemented.

Also, the bill, H.R. 1945, includes the provision of back-up power at just and reasonable rates for all facilities, not just facilities that may be QFs or small power production facilities under PURPA currently, but all facilities that might participate in a market, to allow that marketplace to be more competitive and to allow everyone to participate, and to the extent that the back-up power provisions in H.R. 1945, along with the interconnection provisions were adopted.

One of the very important elements that people are trying to protect in PURPA would be addressed in another fashion, thus taking a lot of the pressure off the concerns over the prospective repeal of the must-sell provision of PURPA, which many of us are concerned with in the smaller power development community is the current obligation for utilities to sell back-up power in some cases, back-up power that they don't even control.

So as we move into these emerging and changing markets it is a bit complicated, and we need to think about modernizing our en-

ergy regulations to fit and work in concert with more modern energy technologies that can move into that marketplace.

I would also just like to note in my testimony, address a number of other barriers that exist to competitive supply. There have been several bills that include, and I believe that H.R. 4 that was mentioned this morning also includes the sort of the full characterization of those barriers and insuring that agencies on an ongoing basis look at those barriers to the deployment of technologies such as the technologies that we use in our projects. We strongly encourage that kind of ongoing assessment of barriers and systematic addressment of those barriers.

Thank you for having me here this morning.

[The prepared statement of Mark Hall follows:]

PREPARED STATEMENT OF MARK HALL, VP, EXTERNAL AFFAIRS, TRIGEN ENERGY CORPORATION

Mr. Chairman and members of the Committee, thank you for allowing me to testify before you today on barriers to competitive generation and in particular in support of this committees desire to address legislative proposals to remove barriers to combined heat and power (CHP) and other forms of distributed generation (DG). My name is Mark Hall, and I am the Vice President of External Affairs for Trigen Energy Corporation, based in White Plains, NY. Trigen owns and operates some of the most efficient power plants in the world. We accomplish this by deploying CHP, DG and leveraging other modern technologies in innovative ways.

Trigen currently owns, operates or otherwise manages fifty-one plants located in twenty-two states, and the District of Columbia. Trigen is the proud recipient of many prestigious awards recognizing our innovation, leadership in the energy industry and commitment to environmental protection. This includes two awards from U.S agencies: the *Energy Star Award* from the U.S. EPA in recognition of our leadership in CHP projects and the *Climate Protection Award* from the U.S. EPA for corporate leadership in reducing greenhouse gas emissions. But more important than awards recognizing our environmental stewardship is the fact that we would not be selected to design, build own or operate on-site CHP projects for our customers if we were not able to provide substantial economic and reliability benefits in addition to outstanding environmental performance.

The nearby University of Maryland College Park is an excellent example. Trigen and a partner were selected by the University to build and operate a new state-of-the-art CHP facility for the campus as well as to manage the on-site utilities while working with the campus staff to improve overall efficiency. The project is expected to save the University of Maryland system $6 million dollars per year while reducing regional nitrogen-oxide emissions by 9,800 tons per year and carbon dioxide emissions by 3.5 million tons over the 20 year life of the contract. We were the recipient of the 1999 Project Award from the National Council for Public-Private Partnerships because of our ability leverage technology in ways that were both economically and environmentally beneficial to all parties.

Despite these economic and environmental benefits, there are a variety of institutional and regulatory barriers that prevent CHP from achieving its full competitive potential. These barriers inappropriately reduce the economic viability of CHP projects, slow their development and implementation and in some cases simply make them impossible to complete. H.R. 1945 is an attempt to remove the interconnection and backup power barriers and allow Trigen and other companies to increase the beneficial application of CHP. Although H.R. 1945, introduced by Rep. Jack Quinn and with an additional 13 cosponsors covers some of the issues, there are additional factors that must be addressed to fully remove the barriers.

Mr. Chairman, Trigen's plants and employees are at work every day showing how efficient energy production is both good for business and good for the environment. By removing the barriers to utilizing CHP and other highly efficient DG, Congress can reward investors, benefit consumers, strengthen our economy and clean up our air.

The issues you have asked this panel to address are of critical importance to all of us. Energy sector competition is already upon us, with the States leading the way. The Federal government must rise to the task of addressing the barriers to competition that inherently lend themselves to national legislation, matters that cannot be responsibly dealt with in a piecemeal, State-by-State manner.

H.R. 1945 is the result of many months of thoughtful work that reflects the benefit of numerous parties working together to arrive at consensus language that addresses the need for a uniform nationwide interconnect standard. H.R. 1945 marks a critical step in efforts to improve the environment and electricity markets by encouraging the deployment of CHP and other DG. I would like to point out that S. 933 is the Senate companion bill to H.R. 1945. The only difference between the two is that H.R. 1945 includes a provision addressing tax depreciation that does not exist in S. 933. Trigen offers its full support of both.

In addition to addressing why there is a critical need for uniform nationwide interconnection standards, I would also like to highlight four other issues that must be addressed if we want to remove the most formidable barriers to deploying CHP and other highly efficient DG technologies. They are: Backup power as related to PURPA repeal, clarifying tax depreciation schedules, rethinking new source review and establishing output-based standards. First, I will address interconnect standards and the immediate need for H.R. 1945.

INTERCONNECTION

The National Energy Policy proposal recently released by the White House, like similar proposals of the last Administration, recognizes the economic and environmental benefits of CHP and other highly efficient DG systems. One formidable barrier to taking advantage of those benefits is the lack of uniform nationwide interconnection standards.

The current process for determining the appropriate technical requirements for the interconnection of new energy projects with the distribution or transmission system is often unnecessarily lengthy and expensive and the specific requirements can vary arbitrarily from state to state, utility to utility, site to site. Incumbent utilities that may not want to face competition may attempt to cloak anticompetitive behavior in the guise of technical disagreement over interconnection. We recognize that it is essential for interconnections to be safe and reliable, but interconnection standards can be both safe and reliable, and uniform. Bringing uniformity to interconnection through a uniform nationwide technical standard will reduce uncertainty, lower costs, and facilitate deployment of modern CHP technology, across the country. Interconnection language must be sufficiently broad to help all generators connect to the distribution and/or transmission grids. H.R. 1945 provides for interconnections at both levels. The language does not pick winners and losers, but maximizes flexibility for determining whether the facility is connected to the transmission grid or the distribution grid. In addition, it is important that the language does not unnecessarily infringe upon States' rights to manage their respective distribution grids. The benefits of uniformity require that the standards apply to all states.

I think it is important to give you an example of the interconnection problem. Trigen has a great deal of experience interconnecting various sized generators with the distribution and transmission grid. We have done it literally dozens of times. Technically, it is a pretty straightforward task but in practice it can be a slow painful process that raises costs and delays projects that otherwise could be delivering important economic and environmental benefits. In 1998, Trigen approached a utility to request interconnection for a 703 kW generator to be installed in a downtown office building. The small system would supply the building's electric load and air conditioning. Yet, two years later, we were still negotiating with the utility over so-called "technical" issues. Months after receiving our initial request for interconnection, the utility asked that Trigen design a different, specialized interconnection. Trigen completed the new design at a significant additional cost. The utility rejected the design. In response, Trigen offered to use guidelines developed by Consolidated Edison in New York City, even though the ConEd guidelines were disproportionately burdensome and expensive given the very small size of the installation. The utility agreed, but after Trigen complied with these requirements, the utility imposed further "technical" restrictions on Trigen's ability to operate the facility. It took over two years to resolve this issue. The barrier related costs of completion were over $ 88,000.

One would strongly suspect that this was anti-competitive behavior masquerading as technical disagreement which successfully prevented the unit from operating for two years. This is but one of countless examples. In fact, DOE published a report in May of 2000 entitled Making Connections that memorialized this example and numerous others from across the country. H.R. 1945 will address many of the interconnection barriers highlighted in that report. Passage of H.R. 1945 will help manufacturers of CHP and DG technology achieve a plug and play economy of scale, lower costs and encourage investment in CHP and DG technology.

THE SHORTCOMINGS OF H.R. 1045 REGARDING INTERCONNECT

Like H.R. 1945 and S. 933, H.R. 1045 recognizes the need for a uniform interconnect standard. However, H.R. 1045 falls short of addressing the entire scope of that need. H.R. 1045 calls only for a standard for interconnect to the distribution grid. Failure to address transmission interconnect would result in an enormous lost opportunity to ensure all the same benefits H.R. 1045 seeks to achieve at the distribution level. Addressing only distribution would create winners and losers by giving utilities the ability to game the system by reclassifying distribution as transmission, thereby avoiding the uniform standards requirement. Providing standards for distribution only would also result in inefficient choices in that generators may opt for distribution interconnection only because uniform standards are available. Stream-lining interconnect at the transmission level will be one more encouragement to investing in larger scale DG like on-site CHP plants whose efficiencies can bring immediate large scale reductions in fuel consumption and emissions.

In addition, H.R. 1045 does not include a provision addressing the right to back-up power at just and reasonable rates. Most CHP and DG assets require back-up power as insurance to the DG/CHP customer that they will have electricity in the event the DG/CHP asset has scheduled or unscheduled down time. Without a guaranty of affordable back-up power many DG/CHP projects will never get off the ground. I will address this issue in more detail below.

Finally, H.R. 1045 includes limiting language that the DG asset must be designed to serve "retail electric customers at or near the point of consumption". H.R. 1945 does not include any such limitation. If we want to encourage the deployment of highly efficient CHP and DG assets we should not place any limitation on what customers are served or where it can be located in order to take advantage of uniformity. This provision would limit competition to a small range of DG assets to the exclusion of many others. This is the very problem Congress should be seeking to eliminate.

CONCERNS REGARDING H.R. 2460, THE "COMPREHENSIVE ENERGY RESEARCH AND TECHNOLOGY ACT"

In H.R. 2460, a bill passed by the House Science Committee last week, a provision on interconnection standards for distribution was added during the mark up. This language raises concerns in that it has not been studied or analyzed by most in the distributed power and CHP community. In addition, the amendment does not address transmission interconnection.

BACKUP POWER AND THE PROSPECTIVE REPEAL OF PURPA'S "MUST-SELL" PROVISION

Hand-in-glove with the issue of interconnection standards is the availability of reasonably-priced back-up power. Historically, back-up power was guaranteed at just and reasonable rates to facilities that met either the Qualifying Facility or Small Power Production Facility definitions under PURPA. However, as technology and markets have evolved, the need for back-up power at rates that are just, reasonable and not unduly discriminatory is important to a wide-range of projects that might not meet these historic definitions, regardless of whether the project is interconnected to the transmission or distribution grid. H.R. 1945 remains respectful of state authority by allowing States to determine the just and reasonable rate for back-up power at the distribution level. The Bill also ensures that until there are open markets where a facility can competitively purchase backup power, the local utility must provide such backup power at nondiscriminatory rates.

CHP and other DG systems rely on the ability to purchase backup power from the grid in the event that they temporarily fail to operate or must shut down for maintenance. Under current PURPA laws the local utility "must sell" backup power to qualified stand alone CHP facilities. Many proposed restructuring bills would repeal both the "must buy" and the "must sell" requirements of Section 210 of PURPA. The "Right to Back-up Power" provision of H.R. 1945 is a safety measure that will ensure back-up power at just and reasonable rates if the "must sell" provision of PURPA is repealed and there is no open access to purchase of electricity in a given state. Elimination of PURPA's "must sell" requirement without the protection of the right to back-up power will leave new entrants and existing DG at the mercy of the local utility, subject to discriminatory pricing or outright denial of back-up power.

TAX DEPRECIATION SCHEDULES

The current tax code, based on a somewhat obsolete view of the energy industry, currently does not allow depreciation of CHP and DG technologies in ways that re-

flect those assets' physical and economic lives. This inappropriate treatment can discourage investments in CHP and DG technology. For example, the IRS allows a gas turbine located inside a building for on-site generation use to be depreciated over a 39-year period while the same gas turbine used for transportation (e.g., on an airplane) depreciates in one quarter of the time. The moving parts of the turbine used for electricity and heating may be replaced as many as five times while the owner continues to depreciate the original investment. Shortening the time over which this equipment depreciates would remove an impediment to investment in what is otherwise an efficient and environmentally beneficial technology.

New and small turbines have different physical properties and will generally operate under quite different conditions than large turbine units employed by traditional electric utilities and, consequently, will have different service lives. Further, the competitive marketplace will force energy suppliers to replace or "upgrade" standing equipment before it fails, since installation of more efficient technology offers lower costs to customers and the opportunity to hold or capture market share for competitive energy suppliers. We expect that energy generation equipment will come and go in the marketplace in a manner that strongly resembles that of modern computers assets which outlive their economic lives long before they cease to work properly.

Congress should direct the Internal Revenue Service (IRS) to set a depreciation schedule of seven (7) years for industrial and utility facilities and ten (10) years on Building CHP (BCHP) assets, which reflects the true technical and economic life of most systems. I have attached to this testimony recommended modifications to the Internal Revenue Code from the US Combined Heat and Power Association (Attachment A). Trigen is a member of the USCHPA and supports all of its recommendations.

NEW SOURCE REVIEW

The new source permitting program known as New Source Review (NSR) was developed over 20 years ago to reduce air pollutant emissions. At the time the focus was on reducing smokestack emissions and NSR focuses primarily on requirements for end-of-pipe, add-on control technologies. Add-on controls reduce emissions but add cost and reduce efficiency.

Over the last 20 years, we have learned that a much better approach to pollution control is to avoid entirely the generation of pollution through lower emitting processes and reduce their impact through increased efficiency. Pollution prevention (P2) and increased efficiency reduce emissions while also reducing capital and operating costs. They result in processes that are cleaner and cheaper with lower demand on all natural resources. This is clearly the direction that we need to move in order to achieve a vital economy and a healthy environment and CHP is perhaps the best example of this opportunity.

Unfortunately, NSR does not give any credit for efficiency and gives little or no credit for pollution prevention. It is constantly driving projects away from these positive approaches and back to the old sidetrack of add-on controls. It discourages the application of existing P2 technologies and the development of new technologies. U.S. companies have learned that they should not invest in the development of cleaner and higher efficiency technologies because they will not be able to permit them. This is a multidimensional loss to the U.S. economy. In contrast, our foreign competitors have made great strides in these areas, which are reflected in their high efficiency use of energy.

As an example, several of our recent projects have been based on a particular small gas turbine generator. As an electric generator only, the turbine is less than 30 percent efficient. However, our CHP applications using that same piece of equipment are anywhere from 80 to over 90 percent efficient. Put another way, we provide more than three times as much energy to the customer from the system for the same amount of emissions and energy input.

It is only common sense that our regulatory system should recognize this energy and environmental benefit. But it doesn't. In the eyes of NSR, there is no difference between the two systems. Since NSR is a cost-based system, it is requiring us to duplicate capital investment to use add-on controls where we have already provided a reduction through efficiency. In many cases, the project "won't pencil" if we have to pay twice, and a beneficial project is cancelled.

This fundamental flaw of NSR is only one of several ways in which the regulation has outlived its usefulness. The program relies on a variety of highly technical standards to determine which new or existing units will be required to apply emission controls. Over the years, these standards have become more and more arcane and contentious. The very high cost and uncertainty involved in the application of

NSR to both new and existing units has created a huge disincentive for operators to maintain and improve the performance of these units. By holding out for the maximum possible improvement at all times, the program has discouraged even the normal improvement that should happen without regulation. By excluding the effects of pollution prevention and efficiency, it has excluded the best possible solutions from consideration and left us with proliferating lawsuits as the only result.

Because CHP, by definition, produces two types of energy output (steam & electricity) from one fuel input, its treatment under NSR is especially difficult. The system sometimes tries to force us to combine our facilities with those of our clients in ways that are commercially impossible. In other cases it deprives us of credit for emission reductions that are legally verifiable and creditable.

Output-based regulation, which relates the emissions to the useful energy produced is another regulatory concept that would help to address these problems. There has been growing acceptance of this approach as a way to send the proper signals through environmental regulation. Unfortunately, it seems to be difficult to integrate this approach into the structure of NSR.

We have been working with the EPA for more than three years to find appropriate ways to achieve the universally recognized benefits of CHP within the NSR structure. I am sorry to report that our progress to date has been limited. In large part this is due to the fundamental structure of the program. In the end, we are forced to conclude that, at least for the generation of heat and power, the NSR program is a grandfathered regulation that has outlived its usefulness and needs to be replaced with a more modern and efficient regulatory structure. We believe that a properly designed cap and trade program that provides guaranteed emission reductions over the entire sector would provide better environmental results and encourage new, more efficient technology. I have attached a copy of a multi-pollutant strategy (Attachment B) that Trigen and four other energy companies have developed as a substitute for NSR as it applies to heat and power generation.

OUTPUT-BASED STANDARDS

Currently, efficiency is measured by an input-based standard that measures fuel consumption as opposed to energy output. Under this approach, the efficiency of CHP is not recognized. By way of example, for every one unit of fuel consumed by a CHP plant two units of energy are produced steam and electricity. CHP is twice to three times more efficient than a typical central generation plant that only produces one unit of energy for every one unit of fuel consumed because it is not capturing the heat off the combustion process.

The establishment of output-based standards would allow facilities to count their fuel to end use energy efficiency toward their environmental compliance requirements. Output-based standards encourage efficient and inherently cleaner plants. Trigen has been an active participant in numerous venues established to develop output-based standards. Trigen seeks establishment of progressive regulations that replace BACT and LAER with a cap and trade program coupled with a universal allowance allocation of pounds of pollution per megawatt hour of electricity produced and pounds per megawatt hour of thermal energy produced.

ENCOURAGING COMPETITIVE GENERATION THROUGH INVESTMENT TAX CREDITS

Tax credits are typically offered by the Federal government to obtain public benefits by prompting private parties to make capital investments that they would not so readily make otherwise or to overcome other short-term barriers to otherwise feasible activities. As such, an investment tax credit (ITC) is a good short-term mechanism to promote CHP systems, which offer very significant public and private economic and environmental benefits, but can often be more difficult for the private sector to deploy than electric-only projects because of the complexity inherent in assembling a "thermal load" or set of heating/cooling customers.

H.R. 2511-Section 113 proposes to amend the IRC to provide a tax credit for CHP property. While the general proposition is laudable, the language of Section 113 has two significant shortcomings and one that defeats the purpose of offering a tax credit from the outset. The first is it limits the eligible equipment to those with an electrical capacity of more than 50 kW. We applaud requirements for output efficiency but see no reasonable explanation for limiting the size of eligible equipment. Second, it fails to offer any credit for the equipment used to deliver energy output of CHP systems. In the case of district energy systems, the steam distribution pipes are one of the most capital intensive parts of the overall investment. Third, and most importantly, Section 113 extends the tax credit only to companies that use a "normalized method of accounting". This requirement would mean that Trigen would not be eligible to use these tax credits in fifty of our fifty-two plants. A "normalized method

of accounting" is the method of accounting used by regulated power plants, very few of which utilize CHP and DG. This accounting limitation defeats the purpose for offering the tax credit in the first place. The very companies who will deploy CHP and DG assets are precluded from taking advantage of this benefit.

Congress should direct the IRS to provide a ten (10) percent ITC for new thermal energy distribution systems at district energy CHP facilities. I have attached to this testimony recommended modifications to the Internal Revenue Code from the US Combined Heat and Power Association (Attachment A). Trigen supports all of its recommendations.

CONCLUSION

Given the inevitability of competition in the electricity market, and both national and global trends that will guide the future of energy production in this country, I believe that emerging technologies are serving and will serve an indispensable purpose in meeting goals of energy efficiency and environmental demands. I urge this committee to pass H.R. 1945 and to take a proactive stance on addressing the other concerns I have raised here today. I thank the subcommittee for the opportunity to appear before you. Thank you, Mr. Chairman.

ATTACHMENT A

US COMBINED HEAT AND POWER ASSOCIATION

Memo Committee on Ways & Means—Dated July 5, 2001

U.S. COMBINED HEAT AND POWER ASSOCIATION
July 5, 2001

The Honorable WILLIAM M. THOMAS
Chairman
Committee on Ways & Means
U.S. House of Representatives
Washington, DC 20515

DEAR MR. CHAIRMAN: I am writing on behalf of the U.S. Combined Heat and Power Association (USCHPA) to express support for the inclusion of tax credits and shortened depreciation for combined heat and power (CHP) systems in the energy tax incentive legislation now under development by the Ways and Means Committee.

A wide range of interests has identified CHP as an important component in the United States energy future. By using an integrated system to meet heating, cooling and power needs, CHP can achieve much greater efficiencies and lower pollution than can be achieved with conventional, separate systems. The Bush administration has singled out CHP as an important efficiency technology in the *National Energy Policy Report.* The American Chemistry Council provided comments to the Committee on June 19, 2001 supporting CHP. The American Council for an Energy-Efficient Economy, working in concert with other public interest groups, has identified CHP as an important energy efficiency strategy.

The members of USCHPA have worked for many years on programs and policies to promote CHP in industrial facilities, commercial and residential buildings and district energy systems. We view CHP in these three market segments as key to achieving the *CHP Challenge* of doubling installed capacity by 2010, committed to by both the Department of Energy and the Environmental Protection Agency, and recently reaffirmed in the Bush Administration's *National Climate Change Technology Initiative.* We have also worked with Congressional offices on the development of tax proposals for highly efficient CHP, including H.R. 1045 (Wilson), H.R. 1945 (Quinn), and H.R. 2108 (Matsui). These bills all seek the same goal of encouraging clean and efficient CHP, but each takes different approaches. We have received requests for our association to address these differences. We hope that this response will be helpful as the Committee prepares to take up an energy tax incentive bill.

We recommend that tax policies for new CHP include the following features:

1. Allow a seven (7) year tax depreciation schedule for industrial and utility CHP assets. The current depreciation schedules of between ten and twenty-years for energy assets do not fairly reflect the useful life of most modern CHP technologies. A seven-year schedule is more realistic. We expect that CHP generating assets will come and go in the marketplace in a manner that strongly resembles that of modern computers—assets which outlive their economic lives long before they cease to work properly. This is an entirely different situation from the regu-

lated monopoly environment in which economically non-competitive, but physically sound plants remain in service for decades with no improved efficiency.

2. Allow a ten (10) year depreciation on Building CHP (BCHP) assets. These assets are currently depreciated at 27½ years for residential property and 39 years for commercial buildings. The energy needs in buildings are rapidly changing as the market and technology evolves. Modern BCHP systems integrate power, heating and cooling using equipment for greater efficiency and reduced costs. These technologies are rapidly evolving, and advances are likely to make equipment obsolete before it is depreciated under current schedules, discouraging its replacement with cleaner and more efficient, advanced systems.
3. Provide a ten (10) percent investment tax credit (ITC) for CHP thermal energy distribution property, which we recommend be excluded from the shortened depreciation treatment above. This thermal energy distribution infrastructure is an important element in district energy systems, which supply heating and cooling for buildings and industry. District energy systems, with an estimated year 2010 potential of 19 Giga-Watts of CHP, are critical to achieving the goal of doubling CHP by 2010. The proposed thermal energy distribution investment tax credit, combined with adjustment of depreciation lives for CHP production equipment in #1 and #2 above, encourage the implementation and expansion of CHP in district energy systems.
4. Provide that the ITC noted in #3 above be assignable. Governments or non-profit entities such as universities, schools and hospitals that would not benefit from the revised tax treatment own many district energy systems. By making the credit assignable, the credit could be transferred to an entity that could make use of the benefit, thus allowing the project to receive the incentive.
5. That the Federal income tax laws be amended to require that only "Qualified CHP Assets" are eligible to take advantage of the depreciation schedules noted in #1 and #2 above, and ITCs noted in #3 above. For tax purposes the term "Qualified CHP Assets" (QCHPA) should include equipment and related facilities used to produce usable energy products through CHP, excluding assets used to transport fuel to the generating facility. QCHPA should include all equipment necessary to generate and deliver usable energy products through CHP, including, but not limited to, prime movers such as engines and turbines, boilers, air and water filtration, pollution- and noise-control, pumps, steam delivery pipes and electrical switchgear. To further define criteria to be a QCHPA, the association proposes the following restrictions:

The term "qualified CHP asset" refers to applications of technologies that achieve an average annual fuel-conversion efficiency meeting or exceeding the following levels:

- For systems with a total usable energy output of less than 1 MW per hour of power output, an efficiency of 60%,
- For systems with a total used power output of 1 MW, but less than 50 MW, an efficiency of 63%, and
- For systems with a total used power output of 50 MW or greater, an efficiency of 66%.

In addition, "qualified CHP asset" must meet the following performance criteria:

- Sum of all used thermal energy products must constitute at least 20 percent of the technology's total usable energy output, and
- Sum of all used power must constitute at least 20 percent of the technology's total usable energy output,

Where:

- The term "used power" refers to electric or mechanical energy generated by a technology that is used to do work. These energy forms include, but are not limited to, electricity, shaft power, and compressed air.
- The term used thermal products refers to any media generated by a technology that transports energy in the form of a difference between its temperature and that of the surrounds in a useful manner. Thermal energy media include, but are not limited to, hot gases, steam, hot water, chilled water, and refrigerant.

However, in the following special cases, systems do not need to meet the minimum, fuel-conversion efficiency requirement above:

- **Retroflt technologies that generate electricity using back-pressure steam turbines in place of existing pressure-reducing valves, and**
- **Technologies that recover waste heat from industrial process.**

In the event that the cost to the Treasury of these proposed measures exceeds acceptable levels, we recommend restricting the maximum size of the CHP systems that would qualify for this tax treatment rather than modifying other provisions.

Thank you for your attention to these views.

Sincerely,

R. NEAL ELLIOTT, PH.D., P.E.
Chair, USCHPA Policy Committee

cc: The Hon. Charles B. Rangel
The Hon. Jim McCrery
The Hon. Michael McNulty

ATTACHMENT B

CLEAN POWER GROUP MULTI-EMISSION CONTROL STRATEGY MATERIALS

Clean Power Group's Multi-Pollutant Emission Control Strategy

The power generation sector is a major contributor to U.S. air pollution. This situation has persisted for many years despite regulatory efforts to address it. Although older plants contribute most of the emissions, attempts to remedy the problem by regulating them have created increasing legal problems and contention between industry and regulators with relatively little environmental benefit. The uncertainty created by this situation has made it difficult for power generators to make rational business decisions about future investments in both old and new power equipment. The existing regulatory program encourages traditional add-on controls rather than new plants, efficiency and pollution prevention approaches that are more desirable. Neither does it encourage renewables or conservation.

The combination of the shortcomings of current regulatory programs, the need for certainty, and knowledge of upcoming requirements for mercury and CO_2 reductions have resulted in agreement between industry, regulators, and environmental groups that an alternative multipollutant regulatory approach is needed. The broad parameters of such a program are generally agreed to be:

- Commitment to future emission caps on multiple pollutants.
- Implementation through a cap and trade program.
- Relief from NSR requirements.

The Bush campaign platform included these and added support for renewables and other new, clean technologies.

A number of multi-pollutant proposals have been put forward by entities including the EPA, industry and Congress. None to date however meet all of the requirements. Most focus on cleaning up and providing regulatory relief to the old plants while giving little economic or regulatory support to new cleaner plants or renewables. Many also have little focus on NSR reform. Focusing only on the old plants will result in some emission reductions but will further extend the life of old inefficient plants and slow the needed capital turnover to new technologies. The long term solution to air pollution problems requires a transition to cleaner and more efficient technologies, which may actually be delayed by the focus on old plants. What is needed is a program that provides both regulatory and economic change.

The Clean Power Group has developed a comprehensive multipollutant approach for power generation that addresses all of these issues. It uses a cap and trade regulatory approach that includes old and new sources, renewables and conservation and replaces existing command and control structures with flexible market-based approaches that provide the same environmental benefits with greater economic and regulatory efficiency.

Structure of the Proposal:

We propose continuous declining caps for SO_2, NO_X, mercury and possibly CO_2 with the "glide slope" of the decline known well in advance. The caps for each pollutant become tighter each year. With the continuous declining cap we propose a cost "circuit breaker" that stops the tightening for each pollutant if the average cost of allowances exceeds a predetermined cost threshold. This approach provides real, measurable emission reductions that continue to promote new generation and emission control technologies. The economy is protected from unreasonable costs of control while environmental performance improvement will continue indefinitely as long as costs of reductions (allowances) are reasonable. BACT and LAER are replaced for all covered sources because the declining caps provide a better form of progressive emission reduction. Review of local impacts will be maintained to prevent hot spots. New Source Performance Standards (NSPS) will be maintained to ensure that there is some emission rate "backstop".

Allocation of allowances will be made on a consistent output basis to *all* generators and for end use efficiency measures. Allocation in this manner equally rewards

highly controlled and highly efficient generators as well as renewables and conservation, which encourages modernization of our nation's energy infrastructure.

Key Messages:

- The replacement of disjointed and conflicting emission control policies and initiatives with a coordinated multi-pollutant emission control strategy provides better environmental performance at a lower cost.
- A viable multi-pollutant approach must address and encourage the development of modern, cleaner, and more efficient energy generation using all fuels as well as the control of emissions from existing power generation sources.
- Higher efficiency and lower emitting generators using all available energy sources are key to meeting long-term emissions goals economically.
- A cap and trade, multi-pollutant approach can be better for the environment than command and control regulations as well as economically more efficient.
- Appropriately designed cap and trade programs can provide the same or better environmental protection and technology-forcing function as traditional New Source Review (NSR) while reducing regulatory overhead, reducing total control costs and promoting investment in modern, efficient energy systems.
- The gradual approach spurs the development of new technologies.
- The declining cap with a cost circuit breaker could provide an alternative approach to carbon mitigation that provides real reductions, without a link to Kyoto and without economic risk to the U.S.
- The Clean Power Group is: Calpine, El Paso, Enron, NiSource, and Trigen

For more information contact: Joel Bluestein, (703) 528-1900, jbluestein@eea-inc.com

THE CLEAN POWER GROUP'S DECLINING CAP/CIRCUIT BREAKER APPROACH

The Clean Power Group approach builds on many of the concepts of current cap and trade programs while replacing some outmoded aspects of existing environmental regulation and incorporating components to encourage new technologies, efficiency and pollution prevention. The proposed approach is a multipollutant cap and trade approach. A cap is set for each pollutant and each cap declines continuously at a preset rate, say 10 percent per year. The approach could be applied to three for four pollutants.

Figure 1 shows a hypothetical example for SO_2 emissions. The solid blocks show the commonly proposed multipollutant approach in which reductions take place in large cuts. These "over the cliff' reductions are very disruptive to mechanical and economic systems. It is difficult for many sources to comply at the same time and the result is labor and equipment constraints, which then cause problems in energy markets as well as compliance problems. At these discontinuities, the emission trading markets that are supposed to help the sources weather the change also become disrupted and are of little value.

The glideslope approach allows compliance to take place gradually. The lowest cost reductions are made first and "shared" around the sector through emission trading. Compliance installations can be made gradually and the vendors can gear up for the demand. Emissions markets are established early and can provide accurate price signals to all involved. Not least of all, emission reductions are made earlier than under the "cliff' approach.

Perhaps the most important effect, however is the effect on technology development. The U.S. experience in every pollution control program ever instituted has been that the cost of control has been less than estimated in advance. This has been due to the decreasing cost of technology, the development of better technology, and other market factors (such as railroad industry changes affecting the cost of low sulfur coal) that were not even considered in the pre-regulation analysis.

The continuously declining cap approach takes advantage of this effect. By instituting a known glideslope, it provides an economic driver for new technology to be developed and brought to market and it allows time for the technology to be implemented. The expectation therefore is that the cost of control will continue to decline. For this reason, there is no predetermined limit to the level of emission reductions. The cap continues to decline as long as reductions can be made within a preset cost criterion (discussed below). If history is any guide, we will be able to ride this technology curve to emission levels well below those we would dare to predict today.

The other critical advantage is that the source of potential improvement is broadened by including all sources of generation. Unlike current emission trading programs, which include and provide allowance allocations only to old fossil generators, this program would allocate allowances on an output basis to all electric generators including new clean generators and renewables. Equal allocation to new generators is critical to support the development and commercialization of new technologies of

all fuel types. The system would also provide allocations to end-use efficiency projects on an equal basis to generation projects. A project that reduced consumption by 10,000 MWh would get the same allowance allocation as a project that generated 10,000 MWh. Allocations would also be included for the full thermal plus electric output of CHP facilities. Thus the market forces would encourage technology improvements on all technology fronts and on all pollutants at once.

For sources in the program the declining cap would replace the existing command and control new source permitting requirements (BACT/LAER). In the first place, these requirements do not provide environmental value for sources that are under a cap. Incremental emission reductions under an emission cap simply get shifted to be emitted somewhere else under a cap. Moreover, the continuously declining cap provides the driver for continuing reductions in the sector overall without prescriptive technology requirements. It does so more effectively and cost effectively than the existing new source review system, which is not doing a good job. One of the first things that the proposed approach does is reduce emissions from "grandfathered" plants since they are typically the lowest cost reductions available and will be "squeezed" out of the cap first.

Some control requirements (new source performance standards) will be maintained as a safeguard. Review of local impacts and maintenance of the National Ambient Air Quality Standards will also be required to prevent local "hot spots".

As described above, each pollutant cap will be reduced by a preset percentage each year. The expectation is that improving technology will allow this to continue at a reasonable cost. However, the program includes a cost "circuit breaker" for each pollutant. The circuit breaker operation is illustrated in Figure 2. The circuit breaker is expressed as a $/ton cost. As the cap tightens, we expect allowance prices eventually to increase. When the allowance price (averaged over a year) increases to exceed the circuit breaker level, the cap stops tightening. The cap does not increase but stays fixed. Over time, we expect that technology will improve and the allowance price will drop below the circuit breaker level. At that time, the cap starts to tighten again. In this way, the system continues to push technology and reduce emissions within a preset cost. At the same time it gives the regulated community certainty over the cost of required reductions, since the cost of allowances will be close to the circuit breaker level over time.

The declining cap/circuit breaker approach provides a simpler approach to regulating emissions from the power generation sector. It is also an approach that encourages the use of cleaner, more efficient technology. Most important, it provides better environmental performance better than existing regulatory programs. The end result is a diverse, stable power sector with lower emissions and lower cost than achievable under other approaches.

The Clean power Group is: Calpine, Enron, Trigen, El Paso, and Nisource.

For more information contact: Joel Bluestein, 703-528-1900, jbluestein@eea-inc.com, www.eea-inc.com/cleanpower/index.htm]

Figure 1

Example of Declining Cap for SO_2

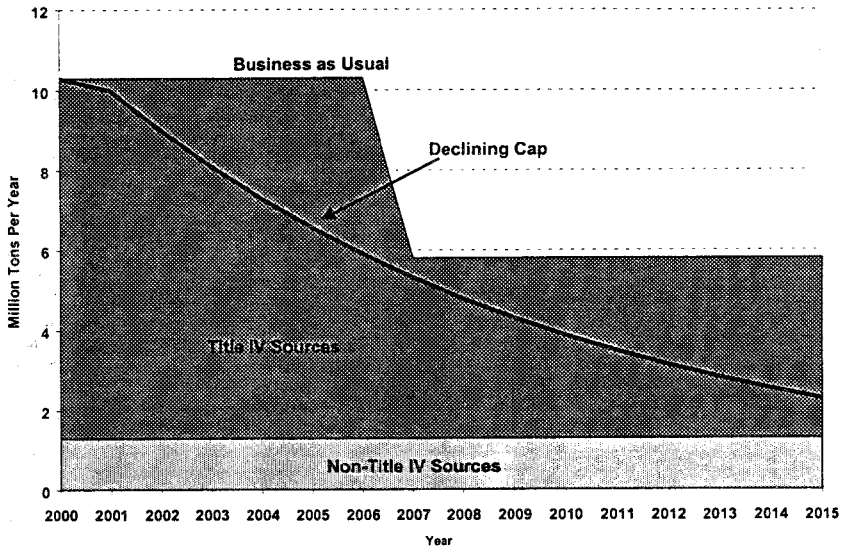
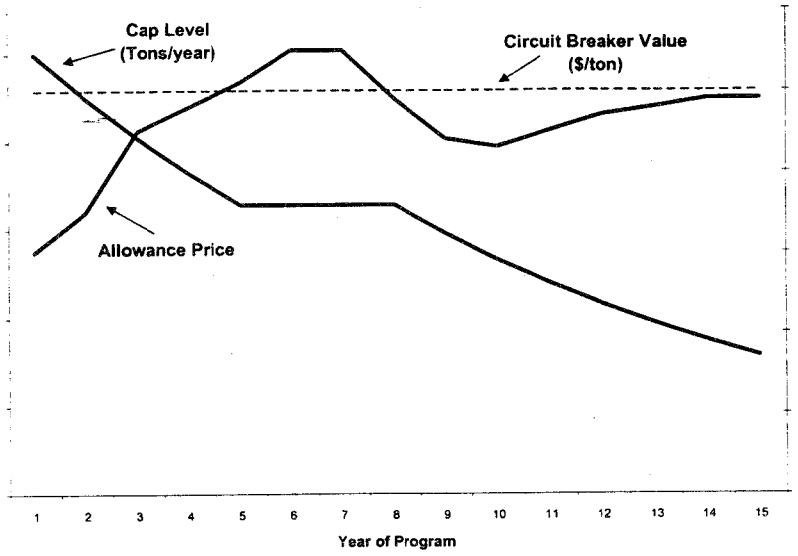


Figure 2

Illustration of Circuit Breaker Mechanism



Mr. BARTON. Thank you, Mr. Hall.

We would now like to hear from Mr. Brent for 6 minutes.

STATEMENT OF RICHARD BRENT

Mr. BRENT. Good afternoon, Mr. Chairman, distinguished members of the committee. Thank you for inviting me to speak to you today.

My name is Richard Brent, and I am the Director of Government Affairs for Solar Turbines, a manufacturer headquartered in California, the once great and now humbled State. We are a wholly owned subsidiary of Caterpillar and consider ourselves one of the leading manufacturers of distributed general technology.

In my testimony today I am also representing the Distributed Power Coalition of America as a member of its executive committee.

I would like to thank you for the opportunity again to be here to speak on the topic of barriers to competitive generation which is very important to both Solar Turbines, to the Distributed Power Coalition and a number of panelists that are here today.

Distributed generation is a highly competitive technology that can efficiently contribute to increasing the Nation's energy supply, reduce the demand on a constrained system and add substantial benefits to the power grid. However, distributed generation must overcome numerous legal, regulatory and institutional barriers that currently interfere with the realization of its true economic potential for consumers across the United States.

Distributed generation is the name given to small electricity generation facilities, including micro-turbines, fuel cells, internal combustion engines and small gas turbines located generally on the distribution system close to the point of consumption. Distributed generation can help reduce the cost and enhance the efficiency of our electrical system. It can lower the demand for the construction of large central station generation facilities, reduce the need for the siting of the difficult transmission facilities and substitute and/or supplement distribution facilities and reduce overall emissions. However, today barriers stand in the way of the development of this technology.

Many of the barriers facing distributed generation are State-level barriers, such as discriminatory rate structures for standby power and exit fees designed to recover so-called "stranded costs" to which the subcommittee cannot necessarily address directly. However, the U.S. Congress does possess the power to overturn some of the more important barriers facing distributed generation. It is in regards to those barriers that I have come to speak to you today.

A number of positive legislation pieces have been introduced in this session of Congress, which if enacted would eliminate some of the barriers facing distributed generation. House Resolution 1045, introduced by Congresswoman Heather Wilson of your committee, co-authored by Mr. Issa and Mr. Hunter, would, amongst other things, require the Federal Energy Regulatory Commission to determine standards governing the costs, terms and conditions of interconnections between distributed generation and the local utility distribution facility. Today, development of distributed generation is thwarted, in part, because the potential developers do not

have the resources to navigate the crazy quilt of varying standards found across jurisdictions and across utilities. Nationally uniform interconnection standards would go a long way toward helping distributed generation reach its potential.

The method developed and adopted under the Public Utility Regulatory Policies Act of 1978 to establish standards for the regulation of rates charged by qualifying facilities should also be used to establish interconnection standards for distributed generation. That is, under PURPA, FERC promulgated guidelines that each State was required to follow, but State-by-State implementation of those guidelines was left up to the individual States. This delegation makes sense.

Interconnection standards should follow a similar path. Distributed generation offers the very real prospect of "plug and play" technology. Many distributed generation resource technologies have become modular and standardized as well as relatively easy to transport. It would be—and today is—an enormous waste of resources for prospective generation developers and end users to go from State to State to persuade legislators and regulators one at a time of the benefits and appropriate designs of standardized interconnection procedures.

As a first step, FERC should be required to work with industry experts to design fair interconnection standards. The Institute of Electrical and Electronic Engineers has already begun the process of designing those uniform interconnection standards. Members of the Distributed Power Coalition of America are active participants in that collaborative process, which has been extremely productive. We recommend that, upon the enactment of some of these legislations on interconnection such as H.R. 1045, FERC piggyback on IEEE's efforts and appoint the existing IEEE working group to lead the effort to complete their effort and produce nationally uniform interconnection standards. Subject to strict time limits, FERC should then be required to promulgate interconnection guidelines which States must then be required to implement, subject to FERC's oversight.

The technical aspects of interconnection are critically important. No less important are the standardized procedures and cost allocation rules that all parties involved should be required to follow when determining what resources will be required to interconnect distributed generation to the distribution network and how the cost of those facilities should be shared between the distributed generation developer, the end user and the utility.

DPCA suggests two simple rules. First, when a distributed generation facility requests interconnection to a utility's facilities, the utility should not be allowed to study the request to death, as is often the case today. Utilities must be placed under strictly enforced timelines. We recommend that each utility be required to complete all required studies within 30 days of receiving an appropriately filled out interconnection request. Each utility must have in place transparent interconnection guidelines requiring the distributed generation developer to submit only that information that is necessary for the utility to determine the resource requirements necessary for the interconnection.

Second, the distributed generation developer should only be required to pay for the interconnection facilities necessary to interconnect it to the grid.

Mr. BARTON. We didn't start your clock till after you had been talking for 2 minutes, and the other panelists to your left have already pointed that out. So if you could—could you wrap it up in the next 30 seconds? You know, even though your light still shows green, if you could summarize.

Mr. BRENT. I kept looking, sir. I apologize.

Mr. BARTON. I understand.

Mr. BRENT. If I may, sir, I am just about done. I lost my place. Okay, let me pick up——

These facilities would include the facilities running between the DG facility and the point of interconnection. Bloated interconnection cost estimates erode the economic benefits DG could otherwise offer. In the exceedingly rare circumstances when upgrades were required to the utility's network beyond the point of interconnection, the distributed generation developer should only be required to pay his fair share of that cost of such network upgrades. Other users of those network facilities should also be required to pay their fair share of those costs.

I commend to the subcommittee's attention an Arthur D. Little White Paper entitled Distributed Generation: Policy Framework For Regulators and suggest that that be considered part of the record.

The subcommittee invited comments on net metering. While DPCA believes net metering is an important topic, we have not taken a position on any legislation on this issue; and so I will not address that today.

Thank you for the opportunity to testify. I look forward to any questions.

[The prepared statement of Richard Brent follows:]

PREPARED STATEMENT OF RICHARD BRENT, DIRECTOR, GOVERNMENT AFFAIRS, SOLAR TURBINES INCORPORATED

Good morning, Mr. Chairman and distinguished members of the Subcommittee, my name is Richard Brent. I am Director of Government Affairs for Solar Turbines, a manufacturer of Distributed Generation technology. In my testimony today I am also representing the Distributed Power Coalition of America (DPCA) as a member of the Executive Committee. I would like to thank you for the opportunity to be here today, to speak on this topic, which is very important to Solar Turbines and to the DPCA. Distributed Generation is a highly competitive technology that can efficiently increase the nation's energy supply, reduce the demand on a constrained system, and add substantial benefits to the power grid. However, Distributed Generation must overcome numerous legal, regulatory and institutional barriers that currently interfere with the realization of its true economic potential.

Distributed Generation is the name given to small (up to 50 MW) electricity generation facilities, including micro-turbines, fuel cells and small gas turbines, located on the distribution system, close to the point of consumption. Distributed Generation can help reduce the cost and enhance the efficiency of our electrical system. It can lower the demand for the construction of large central station generation facilities, reduce the need for difficult to site transmission facilities, substitute and/or supplement distribution facilities, and reduce overall emissions. However, today barriers stand in the way of the development of Distributed Generation.

Many of the barriers facing Distributed Generation are state-level barriers, such as discriminatory rate structures for standby power and exit fees designed to recover so-called "stranded costs," which this Subcommittee can not directly address. However, the U.S. Congress does possess the power to overturn some of the most

important barriers facing Distributed Generation today. It is regarding those barriers that I have come to speak to you.

Legislation has been introduced in this session of Congress which, if enacted, would help eliminate some of the barriers facing Distributed Generation. H.R. 1045, introduced by Congresswoman Heather Wilson would, among other things, require the Federal Energy Regulatory Commission to determine standards governing the costs, terms and conditions of interconnections between Distributed Generation and local utility companies' distribution facilities. Today, development of Distributed Generation is thwarted, in part, because potential developers do not have the resources to navigate the crazy quilt of varying standards found across jurisdictions and across utilities. Uniform interconnection standards would go a long way toward helping Distributed Generation reach its potential.

The method used by the Public Utility Regulatory Policies Act of 1978 (PURPA) to establish standards for the regulation of the rates charged by Qualifying Facilities should also be used to establish interconnection standards for Distributed Generation. Under PURPA, FERC promulgated guidelines that each state was required to follow, but state-by-state implementation of those guidelines was left to each individual state. This delegation makes sense.

Interconnection standards should follow a similar path. Distributed Generation offers the very real prospect of "plug and play" technology. Many Distributed Generation resource technologies have become modular and standardized as well as relatively easy to transport. It would be—and today is—an enormous waste of resources for prospective Distributed Generation developers to go from state to state to persuade legislatures, one at a time, of the benefits and appropriate designs of standardized interconnection procedures. As a first step, FERC should be required to work with industry experts to design fair interconnection standards. The Institute of Electrical and Electronics Engineers (IEEE) has already begun the process of designing uniform interconnection standards. Members of DPCA are active participant in that collaborative process, which has been extremely productive. We recommend that, upon enactment of H.R. 1045, FERC piggyback on IEEE's efforts and appoint the existing IEEE working group to lead the effort to produce uniform interconnection standards. Subject to strict time limits, FERC should then be required to promulgate interconnection guidelines, which states must then be required to implement, subject to FERC's oversight.

The technical aspects of interconnection are critically important. No less important are the standardized procedural and cost allocation rules that all parties involved should be required to follow when determining what resources will be required to interconnect Distributed Generation to the distribution network, and how the costs of those facilities should be shared between the Distributed Generation developer and the utility. DPCA suggests two simple rules. First, when a Distributed Generation facility requests interconnection to a utility's facilities, the utility should not be allowed to study the request to death, as is often the case today. Utilities must be placed under strictly enforced timelines. We recommend that each utility be required to complete all required studies within 30 days of receiving an interconnection request. Each utility must have in place transparent interconnection guidelines, requiring the Distributed Generation developer to submit only that information that is necessary for the utility to determine the resource requirements necessary for the interconnection. Second, the Distributed Generation developer should only be required to pay for the interconnection facilities necessary to interconnect it to the grid. These facilities generally will include the facilities running between the Distributed Generation facility and the point of interconnection with the utility. Bloated interconnection cost estimates erode any economic benefits that Distributed Generation could otherwise offer. In the exceedingly rare circumstances when upgrades are required to the utility's network beyond that point of interconnection, the Distributed Generation developer should only be required to pay his fair share of the cost of such network upgrades. Other users of those network facilities should also be required to pay their fair share of those costs.

Besides interconnection, there is another important advancement that can be instituted at a federal level. The DPCA believes that the owner of a Distributed Generation facility should be able to sell the energy from that facility to any willing buyer. The owner ought to be allowed to buy, sell and consume electricity as necessary, free from artificial limitations. We recommend that legislation include provisions that ensure that right to Distributed Generation facilities.

I commend to the Subcommittee's attention an Arthur D. Little White Paper entitled "Distributed Generation: Policy Framework for Regulators". The Paper clearly, effectively and concisely discusses the primary policy questions that are raised by Distributed Generation, and provides a useful framework for resolving those questions.

The Subcommittee invited comment on net metering. While we believe net metering is an important topic, the DPCA has not taken any position on legislation on this issue; so I will not address it today.

Thank you again for the opportunity to testify before your Subcommittee. I would be pleased to answer any questions you may have.

Mr. BARTON. Thank you.

We now want to hear from Mr. Yacker. Since the gentleman before you took 8 minutes, we are going to give you 3 minutes.

Mr. YACKER. As always, Mr. Chairman——

Mr. BARTON. No, actually——

Mr. YACKER. [continuing] you are prescient in your analysis.

Mr. BARTON. No. You are allowed 6 minutes to elaborate on your written statement.

STATEMENT OF MARC YACKER

Mr. YACKER. Okay. Thank you, Mr. Chairman.

I am Marc Yacker, Director of Government and Public Affairs for the Electricity Consumers Resource Council, or ELCON. ELCON was established in 1976 and is the national association representing large industrial users of electricity. ELCON members come from virtually every segment of the manufacturing community.

Simply put, ELCON and its member companies favor competition over regulation. Along those lines, industrial electricity users have recently experienced some good news and some less than good news. The good news is that competition in electricity is coming. It is inevitable. Well over 60 percent of the population live in States that have already decided to create competitive markets. The less than good news is that many people view the recent California crisis as an experiment in competition that has failed. In fact, it has failed. But the California experiment was an experiment in reregulation, not an experiment in competition. It was doomed to failure from the start.

Today's hearing is on PUHCA, PURPA, interconnection and net metering, which I think is a no brainer. Many industry stakeholders attempt to portray these issues as relatively noncontroversial. I disagree, at least in part.

For the past several Congresses, there has been legislation such as H.R. 381 introduced by Mr. Stearns, discussed earlier, to repeal the mandatory purchase and sale requirements in section 210 of the Public Utility Regulatory Policies Act, or PURPA. Many ELCON members cogenerate and sell electricity as qualifying facilities, or QFs, pursuant to PURPA. All ELCON members, by definition, are large electricity consumers and seek a varied and reliable generation base. PURPA contributes to that broader generation base. Accordingly, ELCON members do not seek legislation to repeal those PURPA Section 210 requirements at this time.

PURPA has succeeded in demonstrating that electricity can be generated by nonutility sources in an energy-efficient, reliable and an environmentally favorable manner. Just 23 years ago, utilities vehemently disputed what is now fact.

Though PURPA has gotten some bad press, I would like to emphasize that PURPA's much-maligned avoided cost concept is not to blame. If properly implemented by State utility commissions, the avoided cost concept cannot cost consumers anything. The problem

with PURPA was that utilities in the 1980's, believing that fuel prices would increase, entered into long-term contracts, many for 30 years, locking them into fixed-price purchase agreements with cogenerators. Many shorter contracts were also signed. Nothing in PURPA required such long-term contracts. All PURPA contracts were approved by the appropriate State utility commissions.

When fuel prices went down, utilities found they had guessed wrong and that they had above-markets contracts. This was not the fault of PURPA.

I might add Mr. Stearns cited the RDI survey. Utilities have more above-market contracts with our utilities than they do with cogenerators. Until we have competitive wholesale markets, including fully open access to the transmission grid, the mandatory purchase requirements are necessary if we are to fully realize the potential for cogenerated power.

It is important to note that PURPA and Section 210 are much more than just mandatory purchases. I cannot overemphasize the importance of the PURPA guarantee for back-up power during periods of scheduled maintenance or repair at just and reasonable rates, especially in States that remain noncompetitive. Without such a guarantee, cogenerators would be captive to monopolies that could charge what they wish, and the cogenerators would have no alternative. In States without customer choice, retaining the Federal guarantee for back-up power now in PURPA is essential if there is to be any investment in cogeneration capacity. Once there is a truly competitive retail market and cogenerators have the opportunity to buy back-up power in an unregulated environment, the back-up guarantee will no longer be necessary.

Before I leave PURPA, I would like to make one more point. When Congress enacted PURPA in 1978, cogenerators and other qualifying facilities took Congress at its word. Significant investments were made based on existing Federal guarantees. Repealing parts of PURPA puts those who made such investments in good faith at a disadvantage.

Related to PURPA is the issue of interconnection. Under PURPA, qualifying facilities were guaranteed the right to interconnect at the transmission level. But through the years, QFs and other nonutility generators have found that transmission owners often engaged in lengthy and expensive delaying tactics. If Congress truly wants to diversify the generation base to bring on new efficient, technologically advanced equipment and processes, for example, distributed generation, uniform interconnection standards at the transmission and distribution levels such as those in 1945 are not just desirable, they are essential.

Now let me turn to the issue of PUHCA. PUHCA is the only Federal consumer protection statute for electricity customers and that is why—Marty Kanner stole my line—no bona fide consumer group supports repeal of PUHCA on a stand-alone basis.

We believe that, if PUHCA is repealed, we need clear authority vested in the Federal Energy Regulatory Commission to prohibit potential anti-competitive practices involving regulated utilities and unregulated affiliates. Rules are needed to address the operational unbundling of generation, transmission, system control, marketing and local distribution functions. State and Federal regu-

lators must have complete access to all books and records of all regulated entities and entities owned or controlled by regulated entities.

In conclusion, ELCON and its member companies favor a broad Federal bill so that all electricity consumers can enjoy the benefits of competition under similar rulings. Interconnection rights and net metering must be part of that bill. Modification to PURPA and PUHCA are also essential, but they should be considered at the end of the process when we have a competitive and functioning wholesale and retail market, so we have a better idea of how to protect consumers from potentially anti-competitive practices.

ELCON appreciates the opportunity to testify, and we look forward to continued constructive dialog with the subcommittee.

[The prepared statement of Marc Yacker follows:]

PREPARED STATEMENT OF MARC YACKER, DIRECTOR OF GOVERNMENT AND PUBLIC AFFAIRS, ELECTRICITY CONSUMERS RESOURCE COUNCIL

Mr. Chairman, I am Marc Yacker, Director of Government and Public Affairs for the Electricity Consumers Resource Council, or ELCON. ELCON, established in 1976, is the national association representing large industrial users of electricity. ELCON's member companies come from virtually every segment of the manufacturing community.

ELCON's members operate in competitive, international markets. They require an adequate and reliable supply of electricity at competitive prices in a vibrant interstate marketplace. Large users of electricity know very well that the decisions made in this Subcommittee and by Congress will have a direct impact on their businesses' well being as well as their business decisions. ELCON greatly appreciates the opportunity to testify.

ELCON and its member companies favor competition over regulation. They have long advocated truly open and fully competitive electricity markets, including retail access guaranteeing that all consumers have the right to choose their supplier of electricity and electricity services. We also believe that, just as is true for other energy products, a large national or even international market with consistent rules and standards is optimal for the sale and purchase of electricity. Market rules for goods produced by any manufacturer do not change as we move from state to state. The same should be true for electricity.

Recently, industrial electricity users have experienced some good news and some less than good news. The good news is that competition in electricity is coming. It is inevitable. Well over sixty percent of the population live in states that have already decided to create competitive markets to the extent that they can absent federal legislation. We at ELCON believe that these competitive markets should come as soon as possible. The less than good news is that many people view California as an experiment in competition and that it has failed. In fact it has failed—but the California experiment was an experiment in reregulation, not competition. It was doomed to failure from the start.

Today's hearing is on PUHCA, PURPA, interconnection and net metering. Many industry stakeholders view these issues as relatively non-controversial. I disagree, at least in part.

For the past several Congresses, there has been legislation introduced by Congressman Stearns and others to repeal the mandatory purchase and sale requirements in Section 210 of the Public Utility Regulatory Policies Act (or PURPA) of 1978. Many ELCON members cogenerate and sell electricity to utilities as Qualifying Facilities (or QFs) pursuant to PURPA. All ELCON members, by definition, are large consumers of electricity and seek a varied generation base. ELCON members, therefore, do not seek legislation to repeal those PURPA Section 210 requirements at this time.

PURPA has succeeded in demonstrating that electricity can be generated by non-utility sources in an energy-efficient, reliable, and environmentally favorable manner. Just 23 years ago utilities vehemently disputed what is now fact.

Despite PURPA's bad press, as long as consumers are held captive to monopoly utilities, it is an essential law. It has produced a broader, more efficient, more environmentally favorable base of electricity generation. Due to PURPA, electricity capacity was added in smaller increments, thus not burdening users with paying for

generators that proved to be much larger than necessary. And generation was funded by entrepreneurs with private non-regulated capital.

I would like to emphasize that the much-maligned avoided cost concept is not to blame. If properly implemented by state utility commissions, the avoided cost concept cannot cost consumers anything. The problem with PURPA was that utilities in the 1980s, believing that fuel prices would increase, entered into long-term contracts, many for 30 years, locking them into fixed-price purchase agreements with cogenerators. Nothing in PURPA required such long-term contracts. It should be noted that all PURPA contracts were approved by the appropriate state utility commission. This is another failure of regulation, not of competition.1When fuel prices went down, utilities found they had guessed wrong, and they then had above-market contracts. Interestingly, had PURPA not been enacted, consumers would not have saved any money, because utilities would have entered into similar, long-term contracts with other utility generators. In fact, a study released a few years ago showed the utilities had more above market contracts with other utilities than with cogenerators pursuant to PURPA. I have no reason to believe that data is any different today.

That having been said, the "mandatory purchase" provisions of PURPA will be an anachronism when we finally achieve a truly competitive wholesale market. With regard to existing PURPA contracts, be they at market or above today's market, no one is suggesting that such contracts be rescinded. Existing PURPA contracts are and should be a non-issue. Similarly, those above-market contracts utilities have with other utilities should be protected as well. That simply reflects the sanctity of contracts.

The impact of repealing the mandatory purchase provisions of PURPA on a prospective basis, as proposed in legislation, is virtually non-existent. The number of new, uneconomic PURPA-based contracts being signed today is close to nil. The mandatory purchase provisions of PURPA clearly will not be needed in a truly competitive wholesale electricity market. But we do not yet have that.

In discussing competitive wholesale markets, an objective Congress set forth in the Energy Policy Act (or EPAct) of 1992, it is important to note what is theory and what is fact. FERC, in Order 888, again in Order 2000, and once again in its RTO order earlier in July, clearly recognized that an open, non-discriminatory transmission system is the lynchpin of a competitive wholesale market. Unfortunately we are not there yet. Transmission owners still attempt to utilize the grid to the benefit of their own generation and to the detriment of others.

In a monopoly market, or in a market in transition from monopoly to competition as is true for the wholesale electricity market today, mandatory purchase requirements are necessary if there is to be a market for cogenerated power. I know that this hearing is not on transmission issues, but I need to state, until the transmission system is truly open, we will not have a competitive wholesale market.

However it is important to note that PURPA and Section 210 are much more than mandatory purchase. I cannot overemphasize the importance of a federal guarantee for back-up power—during periods of scheduled maintenance or repair—at just and reasonable rates in states that remain non-competitive. Without such a guarantee, cogenerators would be captive to unregulated monopolies that could charge what they wish, and the cogenerators would have no alternative. In states without customer choice, retaining the federal guarantee for back-up power now in PURPA is essential if there is to be any investment in cogeneration capacity. Once there is a truly competitive retail market, cogenerators can buy back-up power in the open market and the back-up power guarantee will not longer be essential.

Before I leave PURPA, I would like to make one more point. When Congress enacted PURPA in 1978, cogenerators and other Qualifying Facilities took Congress at its word. Significant investments were made based on existing federal statute. Repealing parts of PURPA puts those who made such investments at a disadvantage.

Related to PURPA is the issue of interconnection. Under PURPA, Qualifying Facilities were guaranteed the right to interconnect at the transmission level. But through the years, QFs and Exempt Wholesale Generators established pursuant to EPAct have found that transmission owners often engaged in lengthy and expensive delaying tactics. If Congress truly wants to diversify the generation base to bring on new efficient, technologically advanced equipment and processes, uniform interconnection standards at the transmission and distribution levels, with a guaranteed timetable, are not just desirable, they are essential.

With regard to net metering, the practice of net metering is not new. Many industrials with cogeneration capacity have had net metering at their facilities for years. Objection comes from those who want to keep the generation base narrow and who utilize their monopoly power in any way possible to perpetuate their profit-

able monopoly status. I do not fault them. Given their responsibility to shareholders to maximize profits, it is an understandable course of action. But such exclusionary tactics are not in the best interest of consumers. And they are not in the best interest of our nation if we do indeed want a more modern electricity system.

Regarding the repeal of PUHCA, we emphasize that PUHCA is the only federal consumer protection statute for electric utility customers. That is why no bona fide consumer group supports repeal of PUHCA either on a stand-alone basis or until we have truly competitive markets.

We believe that, if PUHCA is repealed, we need clear authority vested in the Federal Energy Regulatory Commission to prohibit potential anti-competitive practices involving regulated utilities and unregulated affiliates. Rules are needed to address the operational unbundling of generation, transmission, system control, marketing and local distribution functions. State and Federal regulators must have complete access to all books and records of all regulated entities and entities owned or controlled by regulated entities. In addition, PUHCA repeal should not be effective until all states have retail access or until competition on a nation-wide basis is otherwise achieved. The need for federal regulatory authority—in FERC, the Department of Justice, or the Federal Trade Commission—to address market power and anti-competitive activities is recognized by virtually every stakeholder involved in electricity policy issues. Events in California have clearly demonstrated that short-term market power abuse can cause markets to quickly become dysfunctional.

We need strong, but not excessive, federal regulatory authority to guarantee that electricity is available throughout the nation on a non-discriminatory basis. It is up to this Committee and other oversight bodies to ensure that such regulation is not over-reaching, that it is encouraging and not hindering true competition.

In conclusion, ELCON and its member companies favor a strong federal bill so that all electricity consumers can enjoy the benefits of competition. Interconnection rights and net metering must be part of that bill. Modification to PURPA and PUHCA are also essential, but they should be considered at the end of the process, when we have competitive and functioning wholesale and retail markets, so we have a better idea of how to protect consumers from potentially anti-competitive practices.

ELCON appreciates the opportunity to testify and we look forward to continued constructive dialog with this Subcommittee.

Mr. BARTON. Thank you, Mr. Yacker.

We now want to hear from Ms. Magruder. Your statement is in the record. You are recognized for 6 minutes to elaborate. Welcome to the subcommittee.

STATEMENT OF KATHLEEN E. MAGRUDER

Ms. MAGRUDER. Thank you Mr. Chairman, members.

My name is Kathleen Magruder. I am Vice President of Law and Government Affairs for the New Power Company.

The New Power Company is an entity of the likes of which you have not heard from before. We are a retail supplier of natural gas and electricity to residential and small commercial customers only. We do not serve large customers. We are headquartered in Purchase, New York, which is a suburb of White Plains, but we have offices in Texas, where we have our trading floor; and our customer care center is located in North Carolina. We currently serve more than 700,000 residential and small commercial customers in 10 different States, and we look forward to growing our customer base with your help.

I think, as Mr. Hall observed, that Chairman Tauzin started us off on the right foot today when he talked about building an electric system for this century, as opposed to the one that we built for the last century. There are tools that are available today that will modernize this electric system and let the benefits of competition flow through all the way to residential consumers, homeowners, renters or folks that y'all call voters.

It is time of use metering. Time of use metering is something that is available today. It could be installed today, except for a patchwork of legislation and regulation across the country that makes it, A, exceedingly difficult to install; B, exceedingly difficult to create a product to use around; and, C, just basically prevents the benefits of competition flowing fully through to the customer.

What can you do to help? Congress can assure that customers can have these meters installed at their homes if they so desire. Equally important, you can assure that customers have the right to be billed on the data that are produced by those meters and that the utilities be required to settle on the data that come from those meters. And equally important, too, is the requirement that the utilities must strip out of their costs or unbundle from those costs metering costs for the old artifacts that come from that system that was created by Chairman Tauzin's grandfather years and years ago.

Let me back up a little bit and tell you about this.

This is not net metering. This is a device that regulates or, excuse me, records the amount of electricity that is used by a customer in increments of about 15 minutes. Why is that important? Well, right now, the old meters that are on your home currently record how much electricity you use during the period that the meter is read. Typically, your meter is read once a month, so you know how much electricity you use in a month, but you don't know when you use it. Why is that important? It is important because electricity costs different amounts to produce during the course of the day; and if you were able to shift your use of electricity to a time when electricity was cheaper, you would be able to, A, conserve; B, lower your bill; and, C, obviate the need for more generation to be built.

That doesn't mean that generation won't have to be built, but it means it doesn't have to be built just to be able to serve the customer on the peak.

Mr. Lane from Goldman Sachs alluded to the fact that there is a State-by-State patchwork means of implementing restructuring or deregulation for residential customers across the country; and you taking steps to make sure that these time of use meters are available to residential customers would help to make it clear that, at least in those States where competition has come, customers should have the right to have those meters installed.

Something else that you can do to help with this State-to-State patchwork approach is to require that uniform business rules be put into place. We currently serve customers behind three electric utilities in Pennsylvania. We had to build three different computer systems in order to be able to get bills out to our customers in those three different utilities. What does this do? Well, it leads to lower customer service because we have to build a different system every time we go someplace. It leads to higher costs because every time we build a new computer system it costs more money. And it keeps us out of districts that might otherwise want folks in there offering competitive services.

I am often asked as I travel around the country, well, you know, I represent a rural State or I represent a rural district. I don't have

a Manhattan in my district. I don't have a Dallas, Texas, in my district. How am I going to get competition now to my customers?

Well, one way to do it is uniform business rules. Because if we don't have to recreate the wheel each time we go into a new market, we can get into those smaller markets at lower costs and a little bit quicker. So that helps the folks who are in rural west Texas, and it helps the folks who are in rural Virginia.

Uniform business rules, as you have heard, on the wholesale side are equally important on the retail side; and as we look toward uniformity across the country we should make sure that it exists for retail customers as well as for wholesale customers.

One other point that I would make is, as I said, you have never heard from an entity like the New Power Company. What we find as we come to these entrenched bodies that make decisions like independent system operators and regional transmission organizations is that we are not permitted a seat at the table. It would be great if, as you clarified the FERC's jurisdiction to do a number of things, you also clarify that parties such as the New Power Company and any other interested and affected party in this debate be permitted a seat at the table. Unless and until you hear from providers who serve your voters, you are not going to have the full panoply of needs fully flowing all the way through to the customers.

The New Power Company intends to be around for a long time. The sorts of help that I have asked you for today will help make sure that we are able to make it into your district in a reasonable amount of time. We intend to continue to deal with the barriers to entry that are out there, but many of these barriers are artificially erected, and you can do a lot to help us knock them down.

I look forward to your questions.

[The prepared statement of Kathleen E. Magruder follows:]

PREPARED STATEMENT OF KATHLEEN MAGRUDER, THE NEW POWER COMPANY

Mr. Chairman, Members of the Subcommittee, I am Kathleen Magruder. I am the Vice President of Government Affairs for The New Power Company. NewPower is a retail marketer of natural gas and electricity to residential and small commercial customers. We currently serve more than 700,000 customers in ten states. My testimony today will focus on the benefits that residential customers currently realize when they have the ability to choose a competitive provider of energy, the need for uniform business rules across the many states to help achieve the goal of the best possible products and services for energy consumers, and the value of time of use metering for small consumers.

NewPower is living proof that small customers truly can benefit from competitive retail energy markets. Our customers enjoy a variety of product terms and prices which permit them to choose the package which best suits their energy needs. This is true despite the lack of any uniformity across states—or even across utilities within a state—and the dysfunctional rules which govern the operation of the wholesale market. Our market presence is demonstrated in the map attached hereto as Attachment 1.

While many decisions concerning restructuring of the energy industry are best left to state public utility commissions, there are several areas where Congress can be of assistance. Chief among them are:

- Clarify that the FERC's jurisdiction flows all the way to the meter at each customer's house; mandate that no utility can prohibit the installation of a qualified metering device which provides time of use data; and require that utilities settle and render bills based upon the data produce by time of use meters.
- Mandate that the Federal Energy Regulatory Commission, in consultation with the Federal Trade Commission, promulgate a final rule establishing uniform

business standards for both wholesale and retail energy sales in competitive markets.

- Support the Federal Energy Regulatory Commission ("FERC") in its attempt to create four large Regional Transmission Organizations ("RTOs") which will govern the flow of electricity across the continent.

While this testimony addresses electric markets only, many of these principles apply equally to natural gas markets.

ADVANCED METERING

Technology has provided tools in the form of time of use meters and remote management of home energy use that will give customers the power to manage their electricity usage and expenditures. The banking world provides a good analogy of how putting proper technology in customers' hands will lead them to adapt their behavior and better manage their money. Twenty years ago, the ATM card was introduced to banking customers and the banking world changed dramatically. In that time frame, individual bank customers adapted their behavior such that in the year 2000, more than 85% of the banking transactions which occurred, were achieved through some use of technology—either through use of an ATM card or through the internet. Time of use metering is a similar application of technology which will better help electric customers understand when they use electricity, the price consequences thereof, and ways to save money.

Residential customers in this country are generally charged an average rate for the electricity they use. That rate is calculated based on a number of factors including an average cost of the electricity purchased over several months and an average "load profile" for residential customers in their service territory. Unfortunately, electricity is not generally sold in wholesale markets at average prices. Rather, it is sold in increments as small as 15 minutes, each increment of which can be priced differently. For example, on Wednesday of this week, electricity traded in Texas for as little as $42.00 per MWh and much as $53.00 MWh—a 21 percent differential. Similarly, on Wednesday of this week, electricity in Pennsylvania traded for prices between $67.50 and $74.50 per MWh—a 10 percent differential.

In the same vein, there is probably no customer whose actual usage patterns are exactly the same as the load profile upon which customers' bills are calculated. Current utility meters tell a customer how much electricity he used over the period of a month. They do not reveal when that power was used—either all in the evening, all in the morning, evenly spaced across the 24 hours in a day, or all on the weekend. It is assumed that each customer is "average" and regardless of how much power he uses when prices are high, he is charged exactly the same as all his neighbors.

Installation of advanced metering technology in the form of time of use meters will permit customers to know when they are using electricity, compare that usage data to the actual prices for usage at that time, and shift their usage, if they desire, to minimize their electric bill. By shifting some uses, such as dishwashing or clothes drying, to off peak periods when power is cheaper, customers can minimize their electric bills without any significant change in their lifestyle. Add to that, the capability now provided by the internet to control home appliances remotely, and very real load shifting can be achieved—if you are able to install such a meter at your home and if your utility is required to settle based upon the readings from that meter.

Imagine that you are a customer in PJM West. If you could avoid using power at $74.50 instead of $67.50, wouldn't you like to be able to make that choice? Under existing law in most states, that option is not available.

On another front, NewPower is currently conducting two pilots—one in Houston and one in Philadelphia—where customers have volunteered to have devices installed in their home which permit them to control their thermostats over the internet. This device will permit the customer to sit at her desk in her office, access her home thermostat from her computer terminal at work, and adjust the thermostat setting for her home. If you forgot to turn your thermostat up this morning before you left for work, this would give you the opportunity to make sure you are not air conditioning an empty house.

Encouraging use of demand management techniques through deployment of this technology will provide a larger societal benefit than just lower bills. Each megawatt of usage which is shifted off the peak means another megawatt of usage can be added without the need for building a new power plant. Much focus has been placed on conservation of electricity this year. An equally important focus, perhaps, should be in shifting usage off the peak. Time of use metering and settlement on those me-

ters to permit customers to enjoy the benefits of lower prices will help achieve both goals.

So what can Congress do to make sure customers have the benefit of this new technology and to put the power into customers' hands to better manage their electric usage? First, Congress can clarify that the jurisdiction of the Federal Energy Regulatory Commission really does run all the way to the meter at a customer's home. That is important for two reasons. First, the meter at a resident's home is the last piece of the wholesale transaction that results in the delivery of electricity to a home. It is upon the readings from that meter that wholesale purchases and settlements are finally tallied and billed. It should be made clear that the FERC has the authority to order that qualified time of use meters may be installed at the home of any requesting customer. Second, settlement should be made on the basis of those meters. Utilities should not be permitted to force the usage of average load profiles on customers who choose to make use of this new technology.

UNIFORM BUSINESS RULES

Many barriers to entry exist for competitive marketers preparing to enter competitive electric markets. Customer education, brand awareness, credit requirements, licensing obligations, tax filings, are but a few of the items with which a new market entrant must deal. Layer upon top of that different business rules for each utility in each state and in many instances, the barriers become insurmountable. Texas has made a positive step by requiring that all utilities use the same protocols for enrollment, billing, and other necessary processes. That model should be mandated for all other states.

As an anecdote, NewPower is currently serving customers behind three electric utilities in Pennsylvania. Each utility has required the building of a completely different billing system for its customers, none of which can be used in any other venue. The cost of this lack of uniformity, of course, flows through to the customer and limits the savings a competitive market should be able to offer him. At the end of the day, marketers will evaluate the point at which further investment in new systems becomes intolerable and opt not to serve in that territory. This is especially true for utilities with small service territories with relatively few customers.

An issue of specific import to marketers who serve residential customers is scale. Achieving scale is absolutely critical to being able to offer world class service and savings. Serving small customer accounts, which in many instances are less than $100 per month, requires the ability of a marketer to be able to acquire large numbers of customers to defray costs. The ability to spread costs over a large number of consumers, thus, reduces the ultimate cost to each consumer. Inconsistency or lack of uniformity in the business rules across utilities and across states only adds costs for the ultimate consumer. It can also lead to customer confusion as lack of uniformity compounds different interpretations and treatments to different marketers. Congress should encourage the development of uniform business standards in the following areas, at a minimum:

- Consumer protection rules and requirements
- Utility tariffs
- Transactional and operational models
- Utility certification and testing (e.g. aggregation, EDI, trading, credit)
- Billing agreements

What would uniform retail business rules mean for customers? First, the customer should see some degree of consistency regardless of the marketer with whom he deals. Uniform rules would ensure that a marketer who had been operating in Ohio brought the same customer experience to Texas as the marketer who had been operating in Pennsylvania. It should result in increased customer service quality because training for each state and each utility service territory could be consistent and, thus, more effective. It should increase the speed of market entry for marketers which result in increased market competitiveness for customers. Bottom line—it should result in lower cost and higher quality service for customers.

Why would uniform business rules matter to a marketer? Put very simply, uniformity means a more streamlined process and lower costs which translates to better customer service, better products, and lower prices. Residential marketers exist to serve their customers. If they cannot offer customers innovative products and better prices, there is no reason for them to be there. Lowering this barrier to entry makes competition available to more customers. A NewPower customer who moves from Pennsylvania to New Jersey should not be faced with a significantly different customer proposition just because he has crossed the state line. His method of enrollment should not be different, the types of products available to him should not be different, and his method of payment should not be different—unless that is what

he demands. Regulation and legislation should not impose these differences on the customer experience.

Several groups have struggled over the last two years with the issue of uniform business rules. Because there is no mandate for a deliverable, and because retail issues have never been seriously discussed, NewPower is today asking that Congress insert itself into this process. We ask that you mandate that the FERC, in consultation with the Federal Trade Commission, promulgate a final rule to establish uniform business standards for wholesale and retail electric sales in competitive markets. The work of the organizations which have dealt with these issues over the last years need not be ignored. We would encourage the FERC and the FTC to impanel a stakeholder group to begin with the work that has already been done and proceed from there. We would, however, ask that the stakeholder group be comprised of representatives from all affected industry sectors. Too often, marketers who serve residential customers do not get a seat at the table. We should ensure that such a result does not occur this time.

REGIONAL TRANSMISSION ORGANIZATIONS

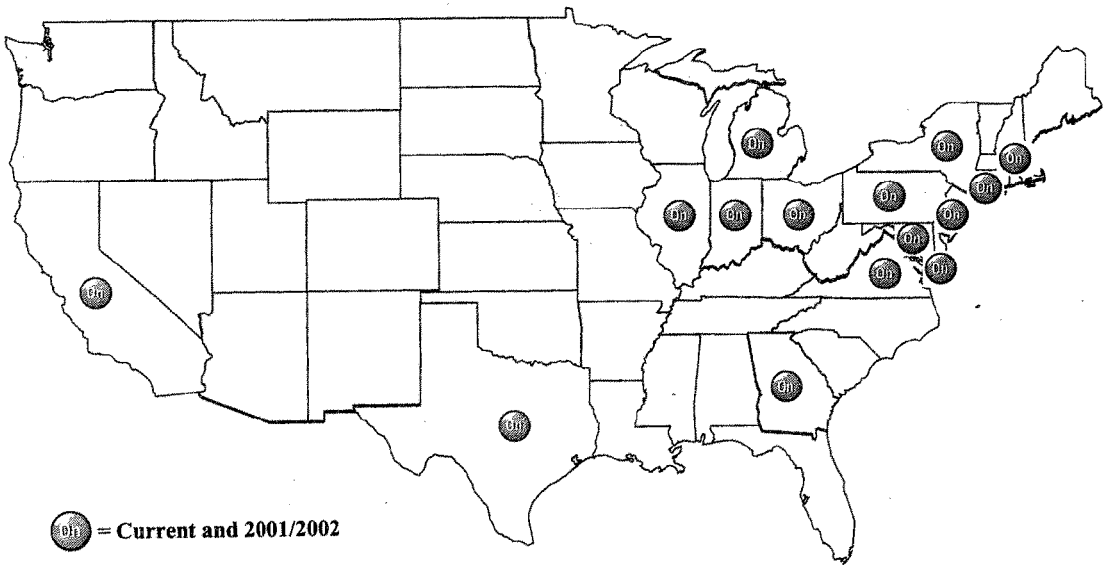
On July 12, 2001, the Federal Energy Regulatory Commission issued a number of orders which advanced the concept of the formation of four large regional transmission organizations (in addition to ERCOT in Texas) to better facilitate the movement of electricity within the continental United States. NewPower applauds the Commission's initiative and hopes that these efforts will finally bring some uniformity and consistency to wholesale transactions across the country. Congress could help in the effort by addressing governance issues within the regional transmission organizations which are to be formed.

It has been NewPower's experience that residential marketers, being new players in the game and owning no hard assets, rarely have a voice in governance of regional transmission organizations. Ultimately, we, who serve the homeowner, have perhaps the most vital interest in how these rules develop. For example, in PJM, NewPower is the largest residential marketer not affiliated with a utility in the territory. Because it has an affiliation to another member of PJM, however, NewPower is denied a full membership and has no voice on the board. Neither is there any similarly situated party who represents our point of view—or our customers' view—on the board. Congress should mandate that governance of regional transmission organizations should reflect all affected and interested parties.

CONCLUSION

NewPower knows that residential and small commercial customers can benefit from a well structured competitive energy market. Congress can do several things to assure that those benefits be made available to customers in the quickest possible time by taking action to ensure that: (a) customers have the right to have time of use meters installed at their homes and to pay for their electricity based on the data produced by those meters; (b) uniform business rules be promulgated and implemented to facilitate uniformity for business processes in both retail and wholesale markets so that processes are the same across state lines and among utilities within a state; and (c) the four large RTOs proposed by the FERC be adopted with governance that adequately reflects all the affected players in the wholesale markets they serve. NewPower has attached to this document proposed legislative language to implement these goals and we stand ready to work with you, Mr. Chairman, and the members of the Subcommittee to craft legislation that advances the interests of end use customers in workably competitive wholesale and retail markets.

NewPower™: Operational in 19 Electric and/or Gas Markets; 6 More Planned in 2001



NewPower™

Mr. BARTON. Thank you.

We now want to hear from Mr. Starrs. Your statement is in the record, and you are welcome to elaborate for 6 minutes.

STATEMENT OF THOMAS J. STARRS

Mr. STARRS. Thank you, Mr. Chairman, members of the committee.

My name is Tom Starrs. I am a senior partner in the energy and environmental consulting firm of Kelso Starrs and Associates LLC, based on Vashon island in Washington. My consulting practice focuses on the design, analysis and implementation of legal and regulatory incentives for the development of distributed generation technologies, with a focus on renewable technologies such as solar and wind energy.

I also serve on the board of directors of both the American Solar Energy Society, which is a national non-profit membership organization dedicated to advancing the use of renewable energy, and the Schott Applied Power Corporation, which is one of the largest distributors of renewable energy equipment in the United States. I very much appreciate the opportunity to testify this afternoon on removing barriers on competitive generation.

I should also say that I am here on my own behalf and not on behalf of my company or any of the organizations with which I am associated.

I am going to focus my testimony this afternoon on three areas: the development and adoption of uniform standardized interconnection requirements for distributed technologies, the use of net metering to encourage small-scale distributed generation, and the use of consumer friendly contracts to streamline and simplify the process of interconnecting distributed generating facilities.

We have heard a lot about the standardized interconnection, so I won't belabor the point. But I will emphasize that this is, in my view, one of the most significant barriers to the broader commercialization of distributed technologies. The problem arises because utilities historically have had substantial discretion over interconnection requirements and have often used that discretion to develop requirements that vary considerably from one to the next without appropriate technical or economic justification.

I will note that these utilities' specific requirements were of relative little concern for the developers of large-scale generating facilities, for example, those large facilities developed under PURPA whose projects were big enough that they could justify the cost of hiring consulting engineers and attorneys to negotiate projects' specific interconnection requirements for their facilities. But many of the folks that I work with develop smaller scale facilities such as residential rooftop solar electric cells, residential scale fuel cells or farm scale wind energy systems; and for these smaller scale facilities these costs are an absolute deal breaker.

Utilities play a tremendously important role in our society by maintaining the safety and reliability of the grid, and they do have legitimate concerns about the interconnection of nonutility equipment to their networks. But they face a conflict of interest because they have an economic incentive to discourage customers from gen-

erating their own electricity. The more customers self-generate the less they are buying from the utility.

The solution, as we have already heard this afternoon, is the adoption of national standards. In my view, the best way to go, as we have already heard this afternoon, is relying on appropriate authorities such as the Institute of Electrical and Electronics Engineers, the IEEE; the Underwriters Laboratories, or UL; and the National Fire Protection Association, which writes the national-electrical-code, or NEC.

The States are already pursuing this approach. As figure one, which is included in my written testimony, indicates, over 20 States have passed laws or enacted regulations requiring the development of standardized interconnection requirements for at least some categories of distributed generating facilities. However, as Chairman Barton already noted, you know, this helps by moving in the direction of uniformity within the States. But we still have the problem of State-to-State variability, and that is where our national standard comes into play.

A final note on interconnection. I would like to encourage the committee to specifically consider different degrees of standardization for different size facilities, with a goal of plug and play simplicity for the smallest scale facilities for the reasons that I mentioned earlier in terms of the relative affordability of these costs between large and small facilities.

With respect to net metering, net metering is a simple, inexpensive and easily administered mechanism for encouraging the use of small scale distributed generation. As Chairman Barton said, it is a no brainer. Net metering allows utility customers to spin their meter backwards when they produce more electricity than they need for their own lights and appliances.

Net metering policies have been tremendously popular at the State level. Just 5 years ago, only 14 States allowed net metering; and most of these requirements were adopted pursuant to State implementation of the Federal PURPA law. Today, the total stands at 34 States, with four new States—Arkansas, Georgia, Hawaii and Wyoming—enacting net metering laws just this year. And that is reflected in figure two, which is also attached to my testimony.

In most cases, these laws were enacted by legislation, although a few States have adopted it by regulation and in most cases with broad bipartisan support. I will note that in my home State of Washington, for example, the 1998 net metering law passed unanimously in a then Republican controlled legislature and was signed into law by a Democratic Governor.

It also worth noting that both the National Association of Regulatory Utility Commissioners and the National Association of State Utility Consumer Advocates have passed resolutions endorsing net metering.

One final note on net metering. There is a little-known fact that is fundamental to the appeal of net metering, and that is that the vast majority of meters that are installed on residential and small commercial customers property today are bidirectional. They are capable of measuring the flow of energy in either direction, and that reduces additional costs by allowing customers to use their existing meters.

I am running out of time, so I am just going to mention briefly my third point, which is the failure to adopt simplified interconnection agreements and simplified procedures for processing interconnection requests. Again, particularly for small scale facilities, the goal should be to attain plug and play simplicity that eliminates unnecessary delays and inappropriate expenses. Unfortunately, many utility customers across the country have had the experience of contacting their local utility seeking information on interconnection procedures only to be ignored or rebuffed or otherwise discouraged. In response, some States have explicitly required the development of simplified agreements and specific timelines for the processing of interconnection requests.

I thank you for the opportunity to be before you today, and I would be happy to answer any questions. Thank you.

[The prepared statement of Thomas J. Starrs follows:]

PREPARED STATEMENT OF THOMAS J. STARRS, KELSO STARRS & ASSOCIATES LLC

Mr. Chairman, members of the committee, ladies and gentlemen: My name is Thomas Starrs. I am a senior partner in the energy and environmental consulting firm of Kelso Starrs & Associates LLC, based on Vashon Island, Washington. My consulting practice focuses on the design, analysis and implementation of legal and regulatory incentives for the development of distributed generation technologies, with a focus on solar and wind energy. I also serve on the Board of Directors of both the American Solar Energy Society, a national non-profit membership organization dedicated to advancing the use of renewable energy; and the Schott Applied Power Corporation, one of the largest distributors of renewable energy equipment in the United States. I am the author of over thirty publications regarding renewable energy and distributed energy policy. In addition, I have made invited presentations on energy policy to numerous national organizations, and to legislative committees, public utility commissions, and state energy offices in over a dozen states. This is my first time testifying before the U.S. House. The opinions I offer here are my own and not necessarily those of any of the organizations with which I am associated. I very much appreciate the opportunity to testify this morning on removing barriers to competitive generation, which is an important element of our nation's path to greater energy diversity, energy independence, and energy security.

OVERVIEW OF DISTRIBUTED GENERATION

Continuing technology innovation is creating new market opportunities for decentralized or 'distributed' power generation. The distributed generation paradigm emerged in the early 1990s out of research suggesting that the use of small-scale electric generating facilities dispersed or "distributed" throughout the utility network provided technical and economic benefits to the electricity system that were not available from traditional central-station generation.

A number of studies—including several sponsored by utilities—have identified direct, measurable economic benefits of having generation sources located close to the end user.[1] Distributed generation reduces energy losses in transmission and distribution lines, provides voltage support, reduces reactive power losses, defers substation upgrades, defers the need for new transmission and distribution capacity, increases reliability of electricity supply and reduces the demand for spinning reserve capacity.[2] In fact, several studies have concluded that under many circumstances (particularly where the utility's distribution system is operating near capacity) nontraditional distributed benefits are comparable in scale to traditional energy and capacity benefits.[3]

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[1] See D. Shugar, Photovoltaics in the Utility Distribution System: The Evaluation of System and Distributed Benefits, Pacific Gas & Electric (July 1991); R. Lambeth & T. Lepley, Distributed Photovoltaic Evaluation by Arizona Public Service, 23rd IEEE PV Specialists Conference (May 1993).

[2] Howard J. Wenger, Thomas E. Hoff & Brian K. Farmer, Measuring the Value of Distributed Photovoltaic Generation: Final Results of the Kerman Grid-Support Project, Conference Proceedings, First World Conference on Photovoltaic Energy Conversion (December 1994), p. 793.

[3] See E. Prabhu, Finding High Value for Grid-Connected PV: Southern California Edison's Innovative Solar Neighborhood Program, American Solar Energy Society Annual Conference (1995); J. Oppenheim, PV Value Analysis: Progress Report on PV-COMPACT Coordinating

The increasing availability of distributed technologies will provide residential, commercial and industrial customers with economically viable options for using locally-available energy resources to meet their own electricity needs. In addition, I believe the public interest is best served by encouraging the use of solar energy, wind energy, and other environmentally-preferred renewable energy resources in distributed applications.

Where the distributed technology is fueled by a renewable resource, it offers the additional benefit of displacing fossil-fuel generation or other generation technologies with greater environmental impacts. Solar and wind energy are the quintessential distributed resources, allowing homeowners, businesses and industries to capture additional economic value from two natural resources that flow freely and nearly ubiquitously over the Earth. The use of solar and wind energy requires no mining or processing of natural resources, no shipping or pipelining of a fuel, no combustion, and no pollution control. Rather, these resources require only the technology needed to capture and convert the available sun or wind into electricity or other forms of useable energy. Solar electric and wind energy technologies can be located anywhere the sun shines or the wind blows, and can be used to generate power on any scale, from watts to megawatts.

From its modest start in the research and development departments of utilities a decade ago, distributed generation has emerged as one of the most-discussed aspects of the electricity industry. Electric and gas utilities are investing in distributed technologies; venture capital is pouring into companies focusing on distributed generation; and utility regulators are exploring the policy implications of integrating distributed generation into existing electric utility systems.

ADVANTAGES AND DISADVANTAGES OF DISTRIBUTED GENERATION

A recent report from the Worldwatch Institute lists eight benefits of distributed generation (which it refers to as "micropower" technologies). The following table describing these benefits is from the Worldwatch paper, with an additional column I prepared explaining their applicability to solar and wind energy.

Eight Hidden Benefits of Micropower

Benefit	Description	Applicability to Solar and Wind
Modularity	By adding or removing units, micropower system size can be adjusted to match demand.	Solar and wind technologies are among the most modular, available from watts to megawatts.
Short Lead Time ...	Small-scale power can be planned, sited and built more quickly than larger systems, reducing the risks of overshooting demand, longer construction periods, and technological obsolescence.	Solar and wind systems have shorter lead times than any other generating technologies.
Fuel Diversity and Reduced Price Volatility.	Micropower's more diverse, renewables-based mix of energy sources lessens exposure to fossil fuel price fluctuations.	As non-depletable renewable resources, solar and wind energy are freely available and cannot be exhausted, eliminating their vulnerability to fuel price fluctuations.
"Load-Growth Insurance" and Load Matching.	Some types of small-scale power, such as cogeneration and end-use efficiency, expand with growing loads; the flow of other resources, like solar and wind, can correlate closely with electricity demand.	Solar energy is well correlated with electricity demand, particularly for summer-peaking utilities whose peak is driven by air conditioning demand.
Reliability and Resilience.	Small plants are unlikely to all fail simultaneously; they have shorter outages, are easier to repair, and are more geographically dispersed.	Solar and wind energy systems use modular components that are easy to repair and replace, and can be dispersed over the landscape.
Avoided Plant and Grid Construction, and Grid Losses.	Small-scale power can displace construction of new plants, reduce grid losses, and delay or avoid adding new grid capacity or connections.	Solar energy systems can be sited in locations designed to maximize these benefits.

Council's Consensus Research Agenda, American Solar Energy Society Annual Conference (1995); H. Wenger, T. Hoff & B. Farmer, Measuring the Value of Distributed Photovoltaic Generation: Final Results of the Kerman Grid-Support Project, First World Conference on Photovoltaic Energy Conversion (1994); D. Keane, Grid-Support Photovoltaics: Summary of Case Studies, Pacific Gas & Electric (1994).

Eight Hidden Benefits of Micropower—Continued

Benefit	Description	Applicability to Solar and Wind
Local and Community Choice and Control.	Micropower provides local choice and control and the option of relying on local fuels and spurring community economic development.	Solar and wind energy development is usually the preferred choice of local communities, and small-scale applications often can be permitted without environmental impact review.
Avoided Emissions and Other Environmental Impacts.	Small-scale power generally emits lower amounts of particulates, sulfur dioxide and nitrogen oxides, heavy metals and carbon dioxide, and has a lower cumulative environmental impact on land and water supply and quality.	Solar and wind energy systems produce no emissions and have a minimal environmental impact.

Source: Seth Dunn, Micropower: The Next Electrical Era, Worldwatch Paper No. 151 (Worldwatch Institute, July 2000), p. 33 (first two columns); third column by Thomas J. Starrs.

By contrast, there are relatively few disadvantages of distributed generation. The principal one is that distributed generation remains more expensive than central-station generation. For example, while installed cost of new central-station generating facilities is between $500 and $1,000 per kW, the cost of combustion-based distributed technologies ranges from $600 to $1,500 per kW, and the cost of cleaner non-combustion technologies such as solar cells, wind turbines, and fuel cells range from $900 to $10,000 per kW.[4] It appears likely, however, that with mass production the cost of many distributed technologies will drop significantly, making them more competitive with central-station generation.

The second disadvantage of distributed generation is that most fossil-fueled distributed technologies are not currently as clean as their central-station counterparts, which means that distributed generation does not necessarily represent an improvement in the environmental characteristics of the electricity industry. According to the U.S. Environmental Protection Agency, the electricity industry in the mid-1990s was responsible for approximately:

- 72% of sulfur dioxide (SO_2) emissions;
- 33% of nitrogen oxide (NO_X) emissions;
- 32% of particulate matter (PM) emissions;
- 23% of emissions of mercury, a toxic heavy metal, and
- 36% of all human-caused emissions of carbon dioxide, the most dominant 'greenhouse' gas.[5]

Innovations in larger-scale generating facilities, such as combined-cycle gas turbines (CCGTs), have resulted in substantial reduction in emissions per kilowatt-hour from these facilities. Unless and until distributed technologies can match the environmental performance of these larger-scale facilities, increased use of distributed generation may not provide any incremental improvement in the environmental characteristics of the electricity industry. For example, recent studies prepared for the California Air Resources Board and the Energy Foundation[6] indicate that the diesel-fueled internal combustion engines used in some distributed applications are 60-100 times more polluting than CCGTs. Even fuel cells, when powered by hydrogen extracted from natural gas, may offer little if any environmental advantage over CCGTs.

It is important for policymakers to understand that not all distributed technologies are equal from an environmental perspective, and that among distributed generating technologies, only solar photovoltaic and wind energy systems currently offer clear environmental benefits compared to other newer, more efficient generating resources. Policymakers should recognize and account for the significant differences in the environmental characteristics of various distributed technologies in determining to what extent these technologies deserve support. Rules encouraging the use of distributed technologies without regard for their environmental perform-

[4] S. Dunn, *Micropower: The Next Electrical Era,* Worldwatch Paper No. 151 (July 2000), pp. 19 & 24.

[5] Comments of the U.S. Environmental Protection Agency to the Federal Energy Regulatory Commission, *Promoting Wholesale Competition Through Open Access Non-Discriminatory Transmission Services by Public Utilities,* August 7, 1995, p. 7.

[6] See *Air Pollution Emission Impacts Associated with Economic Market Potential of Distributed Generation in California,* Prepared for the California Air Resources Board and the California Environmental Protection Agency by Joseph Iannucci et al., Distributed Utility Associates (June 2000); and *Can We Have Our Cake and Eat It Too?: Creating Distributed Generation Policy to Improve Air Quality,* Prepared for the Energy Foundation by James Lents, Center for Environmental Research and Technology, University of California, Riverside (Distribution Draft November 2000).

ance may do a disservice to the public. As a result, public policies should favor those distributed technologies that offer significant environmental benefits relative to other generating technologies.

THE PUBLIC INTEREST IN A DISTRIBUTED ENERGY FUTURE

The transition to a distributed energy future is likely to result in an electricity system that is less polluting and more efficient, reliable, and resilient.

Distributed technologies are the electrical equivalent of the personal computer. Computing power used to be concentrated in large-scale mainframe computers with access via "dumb" terminals at the end-user's location. The last two decades have seen a near-complete transition to microcomputers or minicomputers, each able to operate independently but also frequently linked to other computers to create electronic networks of information. Similarly, the generation of electric power has been concentrated in large-scale central-station facilities with the power transmitted, for the most part unidirectionally, to end-users. Increased reliance on distributed generation ultimately will result in a complex web of generating sources, with power flowing in multiple directions through the distribution system. Although for the foreseeable future this transition will not be complete, in that distributed generation will supplement rather than replace existing central-station generation, some industry analysts believe that new central-station plants on the order of 1,000 MW (typical of large nuclear and coal-fired power plants) will soon be unheard of.

Much of the promise of the transition to a distributed energy future stems from potential improvements in the efficiency of energy conversion and in the environmental performance of the energy supply system. On-site generation allows the capture of waste heat, increasing the overall systems efficiencies of many combustion and non-combustion distributed technologies, including fuel cells, to as much as 80-90 percent. In addition, some distributed technologies—with the exceptions noted earlier—offer substantial environmental benefits relative to existing energy conversion technologies. The Worldwatch Institute notes that micropower technologies that rely on cogeneration and cleaner fuels—either renewable energy or the cleanest of the fossil fuels, natural gas—have 50 to 100 percent fewer emissions, on a per-kilowatt basis, of particulates, nitrogen and sulfur oxides, mercury, and carbon dioxide than traditional fossil-fuel generation.[7]

The threat of human-caused climate change alone is reason enough to encourage the structural changes necessary to support a distributed energy system. Under a business-as-usual approach, the construction of new generating facilities would triple the carbon emissions from the electricity sector in developing nations alone. Widespread adoption of distributed renewable generation could reduce these projected emissions by 42 percent.[8]

A distributed energy future also will help to resolve reliability and power quality concerns. Electricity reliability problems recently have reached crisis proportions, turning energy issues into front-page headlines for the first time in over two decades. Transmission constraints and capacity shortages in some regions have resulted in power disturbances and outages. An outage in Chicago during the summer of 1999 cut power to 2,300 businesses, including the entire Board of Trade on a midweek afternoon.[9] Supply problems in San Diego contributed to a doubling and even tripling of electricity prices during the summer of 2000.[10] These problems increasingly are seen not as isolated instances, but as indications of a power supply system that has eroded as demand has grown.

Contributing to reliability and power quality concerns are the increasing demands placed on the electricity system by the digital economy. Utilities traditionally sought to provide "three 9's" of reliability—99.9 percent availability, equivalent to about eight hours per year of outages. However, the proliferation of computers and other electronic equipment that is highly sensitive to even momentary disruptions in power has created a demand for "six 9's" or even "nine 9's" of reliability. The existing distribution system is unable to provide this level of performance, forcing e-commerce companies and other participants in the digital economy to look elsewhere for their reliability needs. Among the options to which they turn is distributed generation, where innovations in power electronics, storage systems, and communications networks have enabled distributed technologies to meet the most stringent needs for power quality and reliability.

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[7] *Micropower,* pp. 36-37.
[8] *Micropower,* p. 37.
[9] *Micropower,* p. 38.
[10] Testimony of San Diego Mayor Susan Golding to the Board of Governors of the California Independent Systems Operator (ISO) Regarding Wholesale Electricity Rate Price Caps (August 1, 2000).

BARRIERS TO INCREASED USE OF DISTRIBUTED GENERATION

A recent report prepared for the National Renewable Energy Laboratory describes the barriers to distributed generation encountered in 65 different case studies, ranging from a 300 Watt solar electric system to a 26 MW gas turbine project.[11] I was one of the authors of that report. In it, we identified and described a wide range of technical, business practice, and regulatory barriers encountered by the developers and owners of the distributed generation facilities.

Technical barriers arise from utility requirements intended to ensure engineering and operational compatibility between the utility grid and the distributed generator. Most of these requirements focus on the utilities' safety, power quality, and power reliability concerns. The dominant technical barrier for most distributed generating technologies is the failure to adopt uniform standards for interconnection to the utility grid. Applicable standards for solar photovoltaic systems have been approved by the Institute of Electrical and Electronics Engineers (IEEE 929-2000), the Underwriters Laboratories (UL 1741), and the National Fire Protection Association (NEC Article 690), and these standards have been adopted in over a dozen states, not only for solar electric systems but also in some cases for other inverter-based technologies such as small wind systems, fuel cells, and microturbines. Comprehensive standards for a broader array of distributed technologies have been developed and adopted by several states, including California, Delaware, New York, and Texas. The IEEE is in the process of developing a broader technical standard encompassing all distributed technologies,[12] but this standard is a year or more away from being approved.

Business practice barriers consist of contractual and procedural requirements for interconnection of distributed generation facilities. Among the most common complaints of owners and developers of distributed generation facilities is the absence of simple, standardized procedures among local jurisdictions and utilities for processing permitting and interconnection requests. According to the NREL study, more than 25% of the case studies cited project delays greater than four months. Many facility owners and developers also objected to application and interconnection fees that were seen as arbitrary and disproportionate. In one extreme case, the owner of a single-module solar electric system expected to produce approximately $40 per year worth of electricity was asked to pay up to $400 in application and processing/inspection fees, thereby offsetting ten years' worth of anticipated energy savings.[13]

Regulatory barriers include rate and tariff issues, including the imposition by utility regulators of backup or standby charges on distributed generation facilities; distribution wheeling charges for the delivery of power to wholesale or retail customers other than the utility itself; exit fees to discourage efforts to reduce dependence on utility power through self-generation or even demand-side management; and administratively determined buyback rates that do not reflect the economic benefits of distributed generation or clean power generation. For example, solar energy advocates had to appeal to the California Public Utilities Commission to prevent a utility from imposing a standby charge on net metering customers that would have offset nearly 90 percent of the anticipated energy savings from a 1 kilowatt solar electric system.[14]

Another fundamental barrier to a distributed energy future is the apparent absence among U.S. policymakers of the political will needed to support the infrastructure investments necessary to enable the widespread adoption of distributed technologies. Upgrades to the distribution system are essential for proper integration of distributed technologies into existing electricity networks. However, many utilities, instead of embracing the opportunity to create the electrical equivalent of an "open architecture" system, hesitate to make the necessary utility investments, perhaps fearing the loss of physical or economic control over the electricity system. Similarly, many utility regulators appear reluctant to allocate the costs of bolstering the distribution system among all customers, perhaps fearing the lack of public support for such expenditures. Although these issues are just starting to be addressed among the states, early evidence suggests that much of the cost of making the transition to a distributed energy future will be shouldered by private developers of distributed

[11] B. Alderfer, M. Eldridge and T. Starrs, *Making Connections: Case Studies of Interconnection Barriers and Their Impact on Distributed Power Projects,* National Renewable Energy Laboratory, Publication NREL/SR-200-28053 (May 2000).

[12] Institute of Electrical and Electronics Engineers, IEEE P1547 *Draft Standard for Distributed Resources Interconnected with Electric Power Systems.* See http://grouper.ieee.org/groups/scc21/1547/.

[13] *Making Connections Report,* Case #26, pp. 77-78.

[14] *Making Connections Report,* p. 24.

generation facilities, even while the benefits of a renewed, more resilient distribution system accrue to the public.

COMMENTS ON INTERCONNECTION AND NET METERING ISSUES

My oral testimony this morning will focus on three specific areas: the development and adoption of uniform, standardized interconnection requirements for distributed generation facilities; the use of 'net metering' to encourage small-scale distributed generation; and the use of 'consumer friendly contracts' to streamline and simplify the process of interconnecting distributed generating facilities.

Standardized Interconnection Requirements

One of the most significant barriers to the broader commercialization of distributed technologies is the absence of uniform, national technical standards for the interconnection of distributed generating facilities. The problem arises because utilities historically have had substantial discretion over interconnection requirements, and have often used that discretion to develop requirements that vary considerably from one utility to the next without appropriate technical or economic justification. These utility-specific requirements were of relatively little concern for the developers of larger-scale generating facilities, whose projects were big enough that they could justify the cost of hiring consulting engineers and attorneys to negotiate project-specific interconnection requirements for their facilities. For smaller systems such as residential 'rooftop' solar electric systems or farm-scale wind energy systems, these costs are an absolute deal-breaker.

Utilities play a tremendously important role in our society by maintaining the safety and reliability of the grid, and as a result they have legitimate concerns about the interconnection of non-utility generating equipment to their networks. On the other hand, utilities face a conflict of interest because they have an economic incentive to discourage customers from generating their own electricity: the more customers self-generate, the less those customers are buying from the utility.

The solution to this problem is the adoption of national standards developed by appropriate authorities, such as the Institute of Electrical and Electronics Engineers (IEEE), Underwriters Laboratories (UL), and the National Fire Protection Association (which writes the National Electrical Code, or NEC). The states are already pursuing this approach: As Figure 1 indicates, over 20 states have passed laws or enacted regulations requiring the development of standardized interconnection requirements for at least some categories of distributed generating facilities.

Net Metering

Net metering is a simple, inexpensive, and easily-administered mechanism for encouraging the use of small-scale distributed generation. Net metering allows utility customers to spin their meter backwards when they produce more electricity than they need for their own lights and appliances.

Under existing federal law (the Public Utility Regulatory Policies Act of 1978), utilities are required to interconnect with certain distributed generating facilities, and to purchase the excess electricity produced by those facilities. But under PURPA, the utility purchases that excess electricity at an administratively-determined 'avoided cost' price, which is usually a fraction of the retail price the customer pays for power. Net metering provides a modest economic incentive for eligible facilities by crediting them for this excess electricity at the retail rate.

Net metering policies have been tremendously popular at the state level. Just five years ago, only 14 states allowed net metering, and most of those requirements were adopted pursuant to state implementation of the federal PURPA law. Today the total stands at 34 states, with four new states—Arkansas, Georgia, Hawaii and Wyoming—enacting net metering laws just this year (see Figure 2). In most cases, these laws were enacted by legislation (although in a few cases net metering policies were adopted by regulation), and in most cases with broad bipartisan support. In my home state of Washington, for example, the 1998 net metering law passed unanimously in a then-Republican controlled legislature and was signed into law by a Democratic Governor.

Business Practices

Another fundamental barrier to the interconnection of distributed generating facilities is the failure to adopt simplified interconnection agreements and routine procedures for processing interconnection requests. Again, particularly for small-scale facilities, the goal should be to attain "plug and play" simplicity that eliminates unnecessary delays and inappropriate expenses. Unfortunately, many utility customers across the country have had the experience of contacting their local utility seeking information on interconnection procedures, only to be ignored or rebuffed or other-

wise discouraged. In response, some states have explicitly required the development of simplified agreements and specific timelines for the processing of interconnection requests.

COMMENTS ON PROPOSALS CURRENTLY BEFORE THE HOUSE

Although today's witnesses have not been asked to focus their testimony on any particular bills currently in the House of Representatives, I am aware of several bills that contain provisions relating to distributed generation, interconnection standards, and net metering. These include:

- H.R. 1045—"Energy Self-Sufficiency Act for the 21st Century" (Mrs. Wilson). Title I of this bill requires the Federal Energy Regulatory Commission (FERC) to adopt safety-reliability, and power quality standards for distributed generation facilities, and requires utility distribution companies to interconnect distributed generation facilities that meet the standards and pays the direct costs of interconnection. It also requires the costs, terms and conditions of interconnection and subsequent service to be just, reasonable and non-discriminatory, as determined by the Commission. This is a simple and logical approach to creating uniform, standardized interconnection requirements for distributed generation facilities. I believe the enactment of this provision would have a positive, market-enhancing effect on the commercialization of distributed technologies.

  Title II of this bill contains an investment tax credit for distributed power property or combined heat and power system property. However, the definitions appear to be narrowly drawn to exclude residential property (except rental property). These definitions would exclude residential fuel cell systems, solar electric systems, and wind energy systems on farms or ranches that are metered and billed as residential customers. I see no justification for excluding such facilities, which offer substantial distributed benefits and environmental benefits, from investment tax credits that are available to other distributed generation facilities.

  Title III of this bill provides for research and development on new distributed generating technologies, including various non-renewable technologies such as advanced natural gas turbines, advanced internal combustion engines, fuel cells, and microturbines but not including renewable technologies such as solar, wind, and biomass technologies. Again, I see no justification for excluding technologies that offer significant potential for diversifying our energy resources, improving our energy security, and protecting our natural environment.
- H.R. 1945—"Combined Heat and Power Advancement Act of 2001" (Mr. Quinn). Title I of this bill requires the FERC to adopt rules establishing reasonable and appropriate technical standards for the interconnection of a generating facility at the distribution level. Generating facilities that comply with the relevant rules are entitled to interconnection with the distribution facilities of the local distribution utility. The rules are to be administered and enforced primarily by non-Federal regulatory authorities. The Title also requires local distribution utilities to provide backup power (or to enable another entity to provide backup power using the distribution utility's facilities) under just and reasonable, and non-discriminatory, terms and conditions. Title I also contains comparable provisions for interconnection of generating facilities at the transmission level.

  Title II of this bill contains an investment tax credit for combined heat and power system property. This tax credit is even more narrowly drawn than the proposed tax credit in H.R. 1045 (above), since it excludes all distributed generating facilities that are not also combined heat and power facilities. These definitions would exclude most fuel cell systems, most biomass facilities, and all solar electric and wind energy systems. Because these technologies can contribute substantially to our nation's energy independence and energy security, I see no reason to exclude them from the favorable tax treatment.
- H.R. 954—"Home Energy Generation Act" (Mr. Inslee). This bill requires retail electric suppliers to offer 'net metering' arrangements to customers with eligible generating facilities, including fuel cells and solar, wind or biomass facilities with a generating capacity of up to 100—kilowatts. The bill defines the terms and conditions under which net metering calculations shall be made, including a non-discrimination provision prohibiting the imposition of additional fees and charges on net metering customers. It also limits the total capacity of net metering facilities to two percent of the utility distribution company's aggregate peak demand. Net metering facilities are required to meet applicable safety, performance, and power quality requirements established by certain national standards-setting authorities. In addition, the bill requires the FERC to develop broader standards for the interconnection of distributed generation facilities up

to 250—kilowatts. A non-preemption provision grants states the authority to establish or impose additional incentives for qualified generation and net metering, beyond those in the bill. Finally, the bill requires the FERC to develop simplified, "consumer-friendly contracts" for the interconnection of distributed generation facilities up to 250—kilowatts.

The language in this bill closely resembles the language enacted in over a dozen states in recent years, relating to net metering and interconnection of distributed generating facilities. Although these state laws have varied significantly in certain elements of their policies, they have been remarkably uniform in extending net metering eligibility to certain small-scale, renewable-fueled, customer-sited generating facilities and in adopting uniform, standardized interconnection requirements based on applicable IEEE, UL and NEC standards. The enactment of federal legislation along these lines would be the least disruptive to states that have already implemented comparable legislation.

CONCLUSIONS

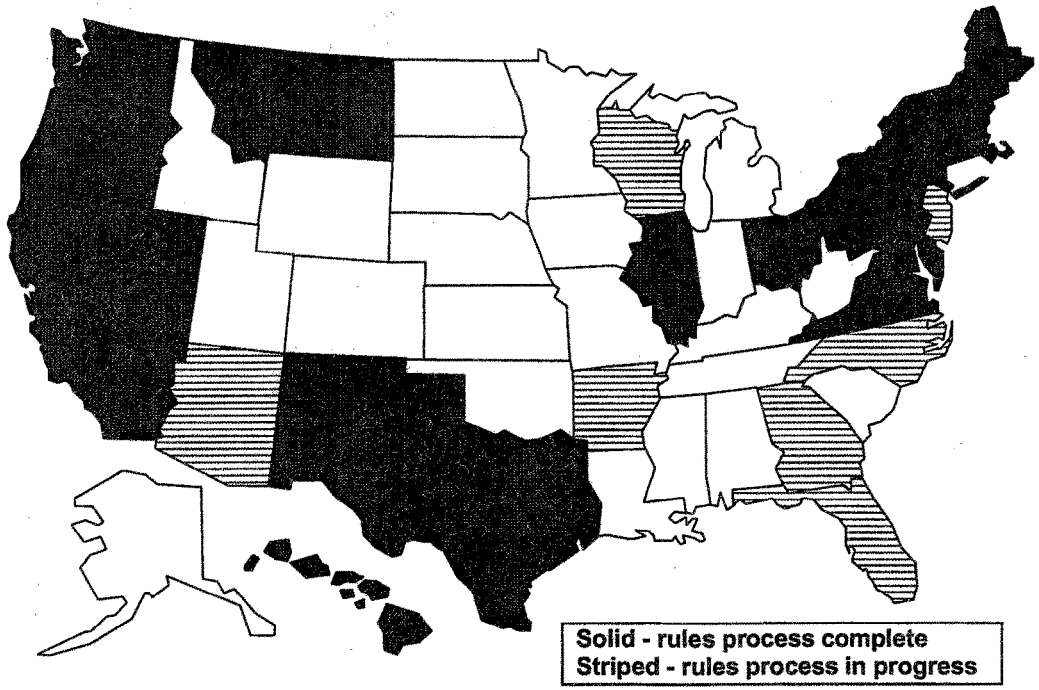
Twenty years ago, the telecommunications industry in the U.S. was a cumbersome, heavily regulated business dominated by regulated monopolies that demonstrated little appetite for innovation. Today, the telecommunications industry is highly competitive and highly innovative, with consumers able to choose among a remarkable array of products offered by many different manufacturers. One of the key elements in that transformation was overcoming the telephone utilities' institutional resistance to interconnecting facilities and equipment from competing providers into the wireline network under fair, non-discriminatory terms and conditions.

The electricity industry in the U.S. is in the early stages of a similar transformation. The traditional paradigm of large, central-station generating plants feeding a network of high-voltage transmission lines and local distribution systems in a geographic region, all owned by a single, vertically-integrated company, will evolve in the coming decades to a complex web of interconnected facilities for generating and storing electricity, owned by many different companies and even individuals. The utilities' role will shift to the management of electricity flowing in every direction through the network. Fortunately, this transition has the potential to provide substantial benefits for all Americans, including a more efficient, more responsive, more reliable, and more environmentally-benign electricity system. But our nation's ability to make this transition efficiently and smoothly is threatened by the same reluctance on the utilities' part—except that it is the electric utilities this time—to integrating these facilities into their distribution networks. The bills currently in the House can help overcome this reluctance and encourage the utilities to embrace this new era.

I would like to thank Congressman Barton and the others members of the Committee for their interest in removing barriers to competitive generation and for considering initiatives to encourage the development of viable, competitive markets for distributed generation technologies

Thank you for the invitation to appear before you today. I would be happy to answer any questions the Committee may have.

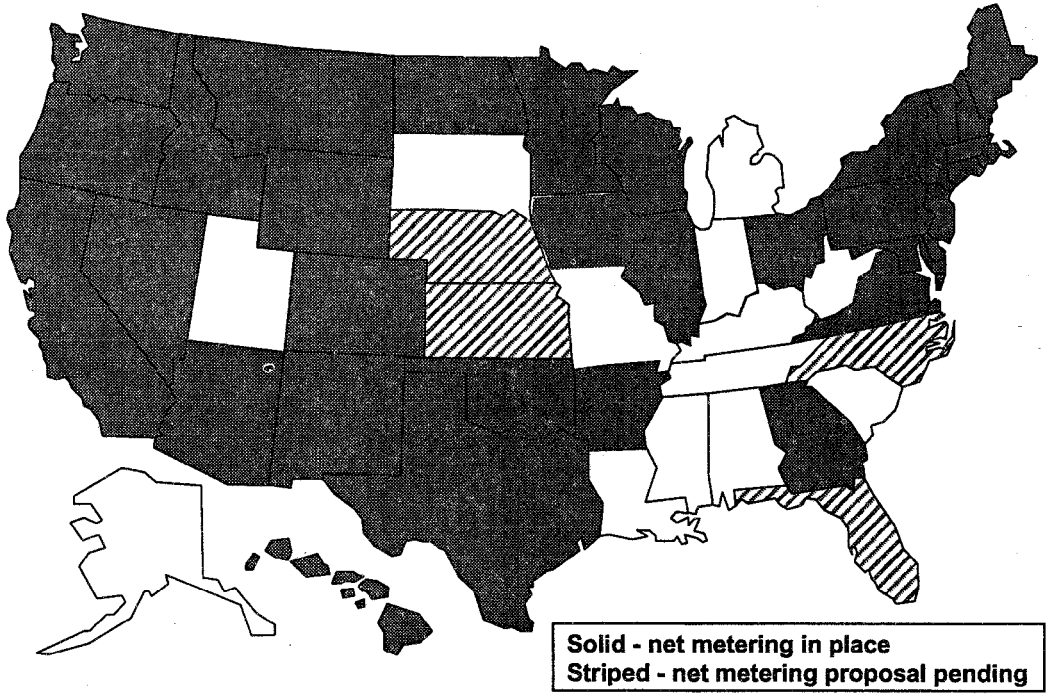
Fig. 1: State Adoption of Interconnection Rules



U.S. House, Energy & Air Quality, 27 July 2001

Kelso Starrs & Associates LLC, 206-463-7571

Figure 2. State Adoption of Net Metering



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Mr. BARTON. Thank you.

The Chair will recognize himself for the first question period. We are only going to have one question period because if we are really, really lucky we can get the questions in before we have to go vote; and once we go vote there is probably going to be 5 or 6 votes. So we may be able to let everybody go have lunch in the next 20 to 25 minutes.

I am going to ask Mr. Brent—I believe it is either Mr. Brent or Mr. Hall that talked about a consensus, a working group that is working within IEEE to come up with some national interconnection standards. Which of you talked about that? Mr. Hall or Mr. Brent?

Mr. BRENT. Mr. Hall talked about consensus. I talked about the IEEE as the working body doing the work on interconnection standards.

Mr. BARTON. Well, my question to both of you, how close are you all, this group, to consensus that actually could be put into legislative language if necessary to be put into a statute to help FERC?

Mr. BRENT. On technical standards I would propose that we are extremely close, and on some of the more esoteric I would say we are coming to closure rapidly.

Mr. BARTON. Okay. Mr. Hall.

Mr. HALL. I think there is two different issues here. One is, what are the actual standards; and the IEEE is working on a set of technical uniform interconnection standards. It is important to note that the IEEE is a body made up of voluntary participants based on——

Mr. BARTON. I am very aware of that.

Mr. HALL. [continuing] on consensus. And we heard testimony from Assistant Secretary Garmon last week on the Senate side that the IEEE process is not likely to complete their deliberations this year. However, some of the legislation that is before you in the bills, particularly in H.R. 1945, contemplates giving FERC the authority to convene bodies or use standards that are developed by a voluntary body like IEEE. So I think we are in a position right now where we have got consensus that establishing an authority to have uniform technical interconnection standards is appropriate now.

It is also worthy to note that the language that Mr. Brent talked about in H.R. 1045, all of the issues addressed in that piece are also addressed in H.R. 1945. It just happens to also address transmission interconnection as well as opposed to only being limited to distribution levels.

Mr. BARTON. We do not have to put in the statute to the degree of specificity that might be necessary to actually enact the standard, but if we are going to draft a bill and pass bill in the next 2 months, and we are going to have an interconnection requirement, I guess my question is, how close are the groups that are working on this to getting their squabbles squabbled so that we can move forward? Are there any major technical outstanding issues that are not doable?

Mr. HALL. I know specifically on H.R. 1945, practically—we have been working with practically every group that has any interest in

interconnection, and I would submit that this is as close to a consensus piece of language as you are going to find.

Mr. BARTON. Well, when you go back, encourage more consensus more quickly so that we can use your work product.

Mr. HALL. It would certainly be helpful if you had—if you were hearing directly from people that weren't before you, because what I heard this morning from the first panel and certainly from the second is that everybody seems to agree with this. So it would be helpful to the extent that you are hearing about disagreements.

Mr. BARTON. I always hear about the disagreements. There is no lack of people willing to tell me what they are unhappy about.

Ms. Magruder, you talk about time-of-use metering. Who is going to pay for these time-of-use meters, and how expensive are they compared to existing meters there in peoples' homes?

Ms. MAGRUDER. I can't address the question of how they compare to the cost of existing meters. I can tell you that if you can get a full truckload—if you can get your truck loaded up and send your guy out to install them, technology has gotten the cost down to about $100 installed now.

Mr. BARTON. These horror stories of $2,000 meters are just that, stories?

Ms. MAGRUDER. There may be a $2,000 meter. It is not one that we would propose to put on someone's home.

Mr. BARTON. A meter you would propose to put on somebody's home is equivalent in cost to the existing meter, and the cost of the meter can be spread out over time if that were a consideration. So that is not a reason not to do it.

Ms. MAGRUDER. It is not a reason not to do it. And depending on the circumstances of the State restructuring law, it might even be something that a marketer would bear himself, just like MCI or some of these folks who will give you a free cell phone if you sign up for a year's worth of service from them.

Mr. BARTON. Mr. Starrs, my time is about to expire right now, but this is a little off the subject. But since you are our renewable guy and our solar guy, what is the latest cost number for a solar panel to put on your home in terms of kilowatt per hour if you wanted to run a water heater or something at that level? What is your kilowatt-per-hour charge these days?

Mr. STARRS. It is still considerably more expensive than the average retail rates that customers pay. Systems are available on an installed cost of little as, say, $2,000 and as much as, say, $20,000 to $50,000 depending on how much of your electricity you want to offset. And those figures translate roughly, obviously depending on the financing, to a per-kilowatt-hour cost of between 20 to 25 cents a kilowatt.

Mr. BARTON. Even in California or some high-cost State, unless you are in a remote area——

Mr. STARRS. That was the short answer. These systems are basically cost-effective in California today because of additional incentives that California has put in place. California has a pretty substantial rebate program that returns to the customer about half the cost of the system when it is installed. So that, along with other incentives that have been enacted at the State level in California,

frankly means that if you are building a new home in California, it doesn't make sense not to install a solar system.

Mr. BARTON. Thank you. My time has expired.

The gentleman from Virginia is recognized for 5 minutes.

Mr. BOUCHER. Thank you very much, Mr. Chairman.

Mr. Hall, Mr. Brent and others who may want to comment on the question, if we proceed to adopt an interconnection standard for distributed generation, I would like your advice on whether we should address a couple of concerns. The first of those would be whether there is any limitation in size of the generating unit that would qualify as a distributed generation unit for purposes of accessing this interconnection standard. And the second question is whether we should have any particular requirements with regard to emissions or the type of fuel that is used in that unit.

We do not have any definition of distributed generation today, not in a legal sense. I mean, we know what it means to talk about distributed generation with a consumer putting the source of his electricity very near the point of consumption. That is what we mean by it, but we don't have a legal definition, and as we draft one, should we address these concerns? Should we talk about the size of the unit? Should we talk about emissions from it? These units presumably would have to comply with the new source performance standards and meet all of the requirements of current law with regard to emissions. But some people, when they talk about distributed go beyond that. They talk about the need to have superclean units and green units. And I would like your advice on that set of considerations.

If we write a definition, if we adopt an interconnection standard, to what extent should we address these other elements? Mr. Hall?

Mr. HALL. I would be happy to address it. The short answer to both is no. It is unnecessary to either define or limit in any way, shape or form the size, nor is it necessary to limit the performance, specifically in establishing uniform interconnection standards. Everybody needs a set of uniform technical interconnection standards that they can rely on in interacting with our distribution and our transmission system. There are varying—different definitions that people might propose of what is distributed generation versus what is not.

I think the future is a continuum of technologies, burning a variety of fuels in a whole range of settings, all of which should have equal opportunity to participate in the market as long as they are also capable of satisfying other objectives that we have, clean air being one, but using a limiting definition of a distributed generation facility. Having to meet a particular environmental standard is, in my mind, not the role of energy legislation. It is the role of environmental legislation and regulation.

Mr. BOUCHER. Let me ask you the question, do you have——

Mr. BARTON. Would the gentleman yield just on that?

Mr. BOUCHER. I would be happy to yield.

Mr. BARTON. In our bill in the last Congress, we had a size limitation. I don't remember exactly, but it was either 10 or 50 megawatts, but it was not unlimited, and we had some opposition to that, but not a lot. We don't want to you build a 500-baseload megawatt power plant and call it distributed generation.

Mr. HALL. There are two issues that we are mixing together here. I think that if you are limiting your interconnection only to the distribution system, then you may find that there is an upper bound on the size that is appropriate to connect it to a distribution system. Is that necessary for us to, A, limit interconnection only at the distribution level? I would say no. Is it clear, the line between distribution and transmission? No. There are plenty of cases before FERC where various lines are being refunctionalized from transmission to distribution and distribution to transmission.

Mr. BARTON. There is probably going to be—in fact, I would say there is almost a certainty there will be some size limitation on distributed generation.

Mr. BOUCHER. Mr. Brent, would you care to comment?

Mr. BRENT. Yes. My testimony called for distributed generation and is generally considered to be up to around 50 megawatts in size.

I agree with Mr. Hall in terms of the answer of no relative to emissions. We are of the opinion that we need to be as clean as we can going in and be as inclined as we are to the regulations in place coming down the road. Technologies will allow us to raise higher efficiencies. Efficiencies today are not considered in environmental compliance. We need to look at output-based standards. And I think, depending upon whatever fuel you use, as you meet the emerging regulations and guidelines for distributed generation and combined heat and power, we are going to answer the environmental responsibility for distributed generation. It is not the fuel. It is the ability of the technology to convert the fuel cleanly.

Mr. BOUCHER. Educate me about the fuel and emissions generally. My understanding is that, generally speaking, new sources have to meet very stringent requirements for new sources under the 1977 Clean Air Act. If somebody wants to put a diesel generator on their parking lot and supplement their power today, can they do that? It probably doesn't meet the new source performance standards. So can somebody put a diesel generator in their parking lot under current law today? And if the answer to that is yes, and, in fact, that doesn't meet the new source performance standard, do we have to be concerned about people using diesel or something else that is not particularly clean if we are going to have a broad encouragement for more distributed generation by providing this interconnection standard?

Mr. BRENT. If I may, sir, we would prefer to be called reciprocating engines that burn distillate fuel. And we would also suggest to you that that individual who puts the reciprocating engine on the back of his parking lot is limited by the number of hours that they can run because of the amount of emissions that they produce. So there are already regulations in place today through the State regulatory and the Federal guidelines on how many hours they can run before they hit the total ton limit.

I would suggest, again, it is not the technology. It is a matter of complying to the statutes that are in place today. There are many times when we can't get gas through a particular distributed generation end user, who is very concerned about the reliability of supply, as we have seen, unfortunately, happen in California with a plethora of distributed generation technologies going in because we

have people who have suffered great loss for lack of electricity and are willing to put up——

Mr. BOUCHER. We will digest that answer. I think we need to be cognizant of what the effect of a lot of distributed generation might be on air quality.

Mr. BOUCHER. May I ask for 2 additional minutes? My time is expired.

Mr. BARTON. Without objection.

Mr. BOUCHER. Mr. Yacker?

Mr. YACKER. If I could respond to that briefly. Given the Cheney report, it talked about—I think it was 1,300 new power plants over a period of years. I would like you to reconsider the size limit. In particular, a concept growing in popularity is the idea of industrial parks, cogeneration parks—some people call them power parks—that would have either in whole or in part a generation base for that facility. It would make permitting easier.

Mr. BOUCHER. Mr. Starrs?

Mr. STARRS. As a designated renewables guy here, I largely agree with Mr. Hall and Mr. Brent, but with a couple of qualifications. On the emissions issue—by the way, there is a fair amount in my written testimony that does relate to these issues. I think that it is a very important issue from a public policy perspective. But I think we should be developing—this committee's jurisdiction is over the technical and nontechnical interconnection requirements, and those are issues for energy, legislative and regulatory committees. I think the air quality issues are very important. And frankly, I think there are going to be significant constraints placed on distributed technologies that are not currently in place now. But those issues are now being addressed by air quality regulators and other environmental regulators.

Right now, for example, it is clearly the case that some of these facilities, like the diesel generators that you discussed, have been largely exempted from the air permitting requirements because typically they are used just as emergency backup generators, and their run times are very short. But I think those issues will be revisited if and when you start seeing those kinds of facilities for distributed applications where they are starting to press the limit on those run times.

Mr. BOUCHER. Well, we are the people who have the responsibility for revisiting. Part of this subcommittee's jurisdiction is air quality. And so we have to consider the broad range of issues.

Let me thank this panel of witnesses. I would personally like to spend a little more time with you—actually, they have been by the office. But let me conclude by saying——

Mr. BARTON. I am sure they are available for lunch.

Mr. BOUCHER. That is right, but I am out of money this week, Mr. Chairman. But let me conclude with two comments.

First of all, Mr. Yacker, I very much appreciate your recommendations to us on the question of PURPA. I agree with what you have said. I personally think that the interconnection right, the right to buy power from the grid and sell power into the grid, will have to be retained for qualified facilities until we have a fully competitive market locally where they can meet those needs on the

open market if circumstances require. And my goal, as we consider PURPA in this subcommittee, will be to adhere to those principles.

Ms. Magruder, I want to commend you also. I think the realtime metering that your technology affords brings to consumers of electricity the opportunity to save substantially on their bills by consuming power during times of lower overall demand. That also produces the benefit of perhaps lessening the number of new generating units that will have to be built by flattening out peaks. And you might want to supply this subcommittee with any estimates that you have of two things, and you can do this sometime in writing later.

One would be the amount of electricity savings in terms of bills paid by the typical consumer if that consumer is able to use realtime metering. And the second would be any estimate you would care to make of the new generating capacity that would not have to be built; in other words, the avoided cost of new generating capacity that might arise from a broad use in the United States of realtime metering.

The other thing I would suggest is that you supply to us a very precise set of recommendations for what we need to do to change the law in order to make sure that consumers have access to the technology that you are putting forth.

Thank you very much. The gentleman from Oregon is recognized for 5 minutes.

Mr. WALDEN. I have no other questions at this time.

Mr. BARTON. Seeing no other members present, again, we may have a few questions for the record. We hope that you would reply quickly, because we are going to begin drafting a draft in the next couple of weeks.

This hearing is adjourned.

[Whereupon, at 12:45 p.m., the subcommittee was adjourned.]

[Additional material submitted for the record follows:]

PREPARED STATEMENT OF KNOXVILLE UTILITIES BOARD AND MEMPHIS, LIGHT, GAS & WATER DIVISION

INTRODUCTION AND SUMMARY

Memphis Light Gas and Water ("Memphis") and Knoxville Utilities Board ("Knoxville") submit this statement for the record of the Committee's hearings on electric industry restructuring issues to set forth their views on the need for legislation related to the Tennessee Valley Authority ("TVA"). Knoxville and Memphis are two of TVA's largest customers, accounting for approximately 16 percent of TVA's power sales for resale and serving more than half a million customers.

As distributors of electricity, Memphis and Knoxville are committed to providing their customers with reliable service at the lowest reasonable cost. Currently, however, TVA's wholesale rates to distributors are sometimes higher than those offered by other power suppliers outside of the Tennessee Valley. Yet, federal law effectively prohibits TVA distributors, like Knoxville and Memphis, from purchasing power from wholesale suppliers outside of the TVA service area. Without action by Congress to change this legal framework governing TVA in a comprehensive way, consumers within the Tennessee Valley region will not even have the opportunity to benefit from alternative electric supplies available in today's more competitive bulk power markets.

It is certainly true that TVA is a federal public works success story, and Memphis and Knoxville recognize the infrastructure and economic benefits that TVA has contributed to the Tennessee Valley over many decades. It is also true that the electric industry has changed dramatically since TVA was created in the 1930s, and it is now time to reform TVA to equip it and its customers to meet the challenges and opportunities of the 21st century. Unlike other electric systems across the country

as to which the Federal Energy Regulatory Commission (FERC) or state and local regulatory bodies can facilitate change in response to changing market conditions, only Congress can take the necessary steps to facilitate change as to TVA. TVA is a creature of federal law, and only federal law can change it. Accordingly, Knoxville and Memphis respectfully urge Congress to take the actions necessary to restructure TVA and extend the potential benefits of wholesale electric competition to the people of the Tennessee Valley region.

More specifically, Memphis and Knoxville support the so-called "Consensus" legislation developed over months of negotiations by TVA, municipal and cooperative electric distributors, and industrial users in the Tennessee Valley. Further, Memphis and Knoxville support with the addition of FERC jurisdiction over TVA's wholesale rates. Accordingly, Knoxville and Memphis respectfully request the Committee's consideration of the Consensus legislation and the additional provision regarding FERC jurisdiction over TVA's wholesale rates, which is essential for public accountability of TVA's rates and service and for fairness to consumers and other industry participants alike.

FERC Regulation of TVA Wholesale Sales

In addition to the provisions set forth in the Consensus, Memphis and Knoxville urge Congress to include FERC regulation of TVA wholesale sales in any TVA reform legislation. Under existing law, TVA's wholesale power sales are not subject to any oversight by FERC or any other regulatory authority. The only entity with the power to oversee TVA is the United States Congress, and its exercise of that function as to core commercial matters such as the rates, terms, and conditions for wholesale power sales is nonexistent. TVA is a completely self-regulated entity that sets its own rates, terms, and conditions for wholesale power sales without any independent review of any sort at any time.

The Federal Power Act grants FERC jurisdiction over wholesale power sales in interstate commerce by public utilities. Rates, terms, and conditions of service are required to be just, reasonable, and not unduly preferential or discriminatory. In addition, customers have the right to file a complaint with FERC challenging rates or contracts as unjust, unreasonable, or unduly preferential or discriminatory. Knoxville and Memphis strongly believe that this regulatory structure should be applied to TVA.

Without oversight by an independent regulatory authority, like FERC, TVA could charge whatever rates it wanted to charge, set terms and conditions of service in whatever manner it wanted to set terms and conditions, and otherwise use its market power in a wholly unrestrained fashion in its wholesale sales business. It is true that provisions in the Consensus legislation, such as removing the anti-cherrypicking provision and requiring TVA to provide open access nondiscriminatory transmission service, will produce some competitive options for TVA's wholesale customers, but it is also true that TVA will continue to possess market power in the wholesale sales market with respect to many, if not all, of its distributor customers. Thus, it is critical that Congress include in any legislation to reform TVA FERC regulation of TVA's wholesale sales rates and service.

Fair Competition and Transmission Regulation

Foremost in any consideration of opening the Tennessee Valley to electric competition is the notion that TVA will have an unfair advantage over other wholesale power suppliers. The Consensus addresses this concern by removing the TVA "Fence," which prohibits TVA from selling electricity outside of its existing service area, and the "anti-cherrypicking" provision, which prohibits open access transmission on the TVA system into the TVA service territory.

The Fence restriction was established when TVA was granted the authority to issue bonds to finance capital expenditures for its power programs. TVA's legal ability to compete was so restricted because of concerns that TVA's unique status could give it an unfair advantage over other wholesale power suppliers. However, under the Consensus legislation with FERC wholesale sales jurisdiction, the Fence would no longer be necessary. TVA would be subject to the same regulatory scrutiny as other public utilities making wholesale sales, including FERC and the federal antitrust laws, and would be on a similar competitive footing as others.

Hand in hand with removal of the Fence, Memphis and Knoxville support the position set forth in the Consensus legislation that TVA provide the kind of open access, nondiscriminatory transmission service that is required today throughout the rest of the country. Current law—the "anti-cherrypicking" provision—prohibits FERC from requiring TVA to provide open access nondiscriminatory transmission service within the TVA service territory. Thus, power distributors in the Tennessee Valley, like Knoxville and Memphis, cannot access power from suppliers outside of

the TVA region, and TVA remains insulated from the market for competitive electric supplies.

There are also concerns with respect to TVA competing with power suppliers outside of the region. For example, TVA sales outside of the region could denigrate TVA's capacity to meet the requirements of its principal mission—serving the electric power needs within the Tennessee Valley. Further, potential competitors of TVA have asserted that TVA may have an unfair advantage when competing against suppliers that do not have the funding and support of the federal government. Therefore, the Consensus legislation provides that TVA will only be permitted to sell electricity outside of the Fence in excess of the demand of its customers inside the TVA service area. Moreover, FERC jurisdiction over TVA's wholesale sales would require TVA to abide by the same cost and rate rules as other wholesale sellers and would provide a knowledgeable forum for resolution of any complaints about TVA's rates and service.

Memphis and Knoxville fully support repealing the TVA Fence and the anti-cherrypicking provisions. These Fence and anti-cherrypicking provisions have become anachronisms in this day and age of competitive wholesale power markets and should be repealed as set forth in the Consensus legislation, thereby permitting TVA to sell power outside of the Fence to a certain extent and permitting TVA distributors to access power from suppliers other than TVA. These components of the Consensus legislation, along with FERC jurisdiction over TVA's wholesale sales, are essential to bring electric industry competition to the Tennessee Valley and should be incorporated into any legislation on TVA reform.

Contract Reformation

Knoxville, Memphis and every other retail electric distributor in the Tennessee Valley are currently parties to long-term power supply contracts with TVA. These contracts require no less than five, and often ten years advance notice for termination; otherwise they continue in perpetuity. Thus, even if a TVA supplied distributor were to give notice of contract termination today, it may not be able to purchase power from alternative sources until 2010. To provide competitive options that can actually be used by distributors in the Tennessee Valley, TVA restructuring legislation must include mechanisms to reform these contracts.

Under the Consensus proposal, distributors of TVA power, such as Memphis and Knoxville, will be permitted to renegotiate their existing power contracts in conformance with a more competitive market and to facilitate access to alternative power supply options, including self-generation, provided in a restructured TVA environment. For those distributors who are unable to reach an agreement with TVA, the Consensus provides distributors with the opportunity to cancel their contracts on three years notice. Additionally, each year distributors may, on two years notice, elect to purchase ten percent or less of their power requirements from another supplier. These options, including the three-year notice provision, provide TVA ample time to obtain other buyers for the power made available by a distributor's contract termination or reduction and, of course, allow distributors to take advantage of new competitive power supply options that would otherwise not be available as a practical matter.

TVA Debt, New Generation, and Stranded Costs

TVA has significant debt, and consideration of TVA reforms will surely generate debate about how to deal with that debt, how to decrease it, and how to prevent TVA from increasing it unnecessarily in a competitive environment. The Consensus proposal addresses this specifically by providing electric distributors in the Tennessee Valley with forty-five days to review and provide comments on all TVA plans and projections for new electric generating facilities prior to acquisition. The notion here is that electric supply and disposition will be harmonized through a supplier/market consultative process. Further, the application of FERC regulation to TVA's wholesale rates will not permit unjustifiable increases in costs, like new TVA generation, where alternatives are available.

Potential stranded TVA costs are another area of concern. The Consensus proposal deals with this subject in several ways. First, it authorizes TVA to recover stranded costs that may arise from the exercise by distributors of their contract reformation rights under the same FERC stranded cost recovery rules applicable to other wholesale sellers of power. This stranded cost recovery opportunity is, as already committed to by TVA, strictly limited to the pre-September 30, 2007 time frame. Second, any stranded costs authorized to be recovered by TVA must be used in the first instance to pay down TVA's debt. And, finally, TVA is prohibited from using any stranded cost recovery revenues to pay for additions to its generation capacity.

Application of Antitrust Laws to TVA

TVA is now exempt from the antitrust laws, yet it is clear that TVA has enormous market power within the Tennessee Valley. Thus, in a competitive power market, there would be no antitrust law protection for TVA customers or competitors alike from potential antitrust violations by TVA. Therefore, pursuant to the Consensus, TVA would be subject to the federal antitrust laws to the same extent as other governmental entities are subject to such laws—that is, injunctive relief would be available through a successful court action, but treble damages and attorney fees would not.

Repeal of TVA Regulation of Distributors

Currently, retail distributors of electricity in the Tennessee Valley are regulated by TVA instead of by local governing bodies or state public service commissions, as is the practice elsewhere in the country. This means that TVA sets rates for distributors and thereby controls the essence of the distributors' business relationships with their retail customers. In a competitive electric market, it would be viewed as anticompetitive for a wholesale supplier to regulate retail distributors. To remedy this situation, the Consensus repeals TVA regulation of distributors subject to the election of individual distributors.

Conclusion

In conclusion, Knoxville and Memphis strongly urge Congress to enact fundamental reforms to TVA as described above. The Consensus proposal was reached only after very intensive efforts on the part of the entities most directly affected by reform of TVA, and it is supported by the Tennessee Valley Public Power Association, the Tennessee Valley Industrial Coalition, Memphis, Knoxville, and TVA itself. All parties, including distributors such as Knoxville and Memphis, worked diligently to develop a fair and pragmatic proposal for reform of TVA that would best serve the interests of citizens and businesses in the TVA service territory. Now, however, congressional action is necessary. Otherwise, the Tennessee Valley region will remain an island of federal monopoly in a sea of competition, which does not bode well for electric consumers or economic development generally in the region.

MID-AMERICAN ENERGY HOLDINGS COMPANY
August 29, 2001

The Honorable JOE BARTON, *Chairman*
Subcommittee on Energy and Air Quality
2123 Rayburn House Office Building
Washington, DC 20515

DEAR CHAIRMAN BARTON: Thank you again for inviting me to participate in the Energy and Air Quality Subcommittee's hearing on National Electricity Policy: Barriers to Competitive Generation. It was a pleasure to testify before the subcommittee, and I particularly appreciated your gracious introduction and kind words about my wife, Peggy.

Attached is my response to the question submitted for the record by Members of the Subcommittee. I hope this serves to educate members of the subcommittee on the extensive regulatory scheme that will remain in place after passage of legislation that includes the provisions of H.R. 1101.

Please feel free to contact me with any other questions about my testimony, PUHCA repeal or other important issues facing your subcommittee.

Sincerely,

DAVID L. SOKOL
Chairman and Chief Executive Officer

RESPONSE OF DAVID SOKOL TO THE QUESTION FROM THE HOUSE SUBCOMMITTEE ON ENERGY AND AIR QUALITY

The Subcommittee has requested a description of federal and state oversight of several topics: utility mergers, consumer protection, wholesale and retail electric rates and market power. In response to this question, I am very pleased to provide the Subcommittee with the following:

I. MERGERS

The primary authorities over a merger, acquisition, sale or combination of investor-owned utility assets are the Federal Energy Regulatory Commission ("FERC") and the utility regulatory commissions in the state or states where the affected as-

sets are located. FERC's standard in approving a merger, as stated in the Federal Power Act, is that the merger must be "consistent with the public interest." Federal Power Act Sec. 203(a), 16 U.S.C. sec. 824b(a). FERC has implemented this standard by examining how the merger affects rates, competition and regulation. If these effects are negative, FERC will not find that the merger is consistent with (*i.e.*, in) the public interest, and the merger will not occur. Even if FERC approves a merger, it may impose conditions before the transaction can proceed.

While statutory and regulatory requirements differ from state to state, review of a merger, acquisition or sale of investor-owned utility assets by state regulators generally seeks to ensure that assets that are used to meet a public service obligation continue to be used in such a manner. If the relevant state regulatory authority does not approve the transaction, it will not occur.

Two additional reviews are necessary for utility mergers. Either the Federal Trade Commission ("FTC") or the U.S. Department of Justice ("DOJ") review mergers from a perspective of protecting consumers from anticompetitive harms and antitrust abuses. The objectives of both the Sherman Act and the Clayton Act are to preserve and promote competition, not competitors. Their further objectives are to protect the public from any failings in the market and to preserve competition unfettered by any restraints of trade. These statutes provide severe penalties, fines of up to $10 million and imprisonment of up to three years, for their violation. *See* 15 U.S.C. secs. 1-7 and 45. Additionally, the Securities and Exchange Commission ("SEC") reviews the mergers of registered holding companies but has generally been deferential to the decisions of FERC and the state regulators ("watchful deference doctrine"). *Madison Gas and Electric Co. v. SEC,* 168 F.3d 1337 (D.C.Cir. 1999); *Holyoke Gas & Electric Co. v. SEC*, 972 F2d 358 (D.C.Cir. 1992). Again, if a merger fails to win the approval of the FTC, the DOJ or the SEC, the transaction will not occur.

II. CONSUMER PROTECTIONS

The consumer protections that apply to all aspects of a competitive, free-market economy also apply with equal force to electricity sales. The FTC protects consumers from misleading or deceitful advertising. State utility commissions, in their oversight of the safety and reliability of electric service, assure the public that meters are accurate, that utilities honor their statutory and tariff obligations, that restoration of service is consistent with the public interest, and that consumers have fair processes available to dispute their bills. The DOJ's antitrust authority also protects consumers from failures of the market in the course of its review of pending mergers. *See* 15 U.S.C. secs 1-7 and 45. Many states also have antitrust statutes. Under those statutes, state attorneys general have price oversight to assure that no market participant is selling at below-cost prices in order to drive a competitor out of the market. Attorneys general also enforce state deceptive advertising laws, as well as laws intended to thwart pyramid schemes and fly-by-night sellers.

III. RATE REGULATION

With respect to rate regulation, the jurisdiction is divided between federal authority over wholesale rates (rates for sales for resale and transmission in interstate commerce) and state authority over retail rates (rates for end-use). The overall standard for ratemaking is that rates, no matter how they are calculated or determined, must be just and reasonable. 16 U.S.C. secs. 824d(a) and 824e(a).

IV. MARKET POWER

Market power is generally defined as the ability to sustain higher than market prices over time. In a merger context, a wide variety of behavioral and even structural conditions may be imposed by the FERC, applicable state commissions, FTC or DOJ to mitigate and prevent market power abuse. These remedies range from affiliate codes of conduct that specify the pricing of transactions between a utility and its affiliate (and require public disclosure of market information to competitors on the same basis as that information is provided to affiliates) to structural actions, such as excluding certain participants from certain markets.

V. H.R. 1101

H.R. 1101 preserves this entire myriad of consumer and investor protections (except for the SEC) and even strengthens regulatory access to books and records by both federal and state regulators in sections 5 and 6, respectively. Additionally, under H.R. 1101, mergers will remain subject to the same level of scrutiny, whole-

sale and retail rates will be subject to the existing levels of oversight, and all market power protections are completely unchanged.

The only real change in the legal landscape as a result of the repeal of the Holding Company Act will be the elimination of that Act's restrictions on investments, delays or actual prevention of the offering of new products and services to consumers, barriers to the development of regional transmission organizations, and the elimination of a duplicative layer of federal regulation.