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THE FUTURE OF THE GRID: PROPOSALS FOR

REFORMING NATIONAL TRANSMISSION POLICY

FRIDAY, JUNE 12, 2009

House of Representatives,

Subcommittee on Energy and Environment,

Committee on Energy and Commerce,

Washington, D.C.

The subcommittee met, pursuant to call, at 10:24 a.m., in Room 2123, Rayburn House Office Building, Hon. Edward J. Markey [chairman of the subcommittee] presiding.

Present: Representatives Markey, Inslee, Butterfield, McNerney, Welch, Pallone, Green, Capps, Harman, Baldwin, Matheson, Barrow, Waxman (ex officio), Upton, Whitfield, Pitts, Scalise and Barton (ex officio).

Staff Present: Matt Weiner, Legislative Clerk; John Jimison, Senior Counsel, Energy; John Beauvais, Counsel; Jeff Baran,

Counsel; Melissa Bez, Professional Staff Member; Mitchell Smiley, Special Assistant; Caren Auchman, Communications Associate; Andrea Spring, Minority Professional Staff; Mary Neumayr, Minority Counsel; Peter Kielty, Minority Legislative Analyst; and Amanda Mertens Campbell, Minority Counsel.

Mr. Markey. Welcome, ladies and gentlemen, to the subcommittee on energy and environment on this very, very important hearing on the future of the grid and the proposals for reforming the National Transmission Policy. There is no more central issue to resolve here than this question.

Three weeks ago, the Energy and Commerce Committee passed the American Clean Energy and Security Act of 2009. This landmark legislation on which the House will soon vote will revolutionize our Nation's energy policy, creating millions of clean energy jobs, saving consumers billions of dollars in energy costs, and unleashing trillions in new investment.

The 21st Century grid will play a central role in this revolution. Wheeling the country's vast wind solar and geothermal resources to market. Enabling the electrification of our transportation system and multiplying energy productivity through smart-grid technologies.

The Waxman-Markey bill recognizes this role by establishing a new framework to plan the grid of the future. We task the Federal Energy Regulatory Commission with establishing national grid planning principles which it will use to support and coordinate regional planning processes across the country.

Within 3 years, the commission must report back to Congress on the results of this effort together with recommendations for further congressional action if necessary. Some believe we should

go further by substantially expanding Federal authority to plan and site new transmission lines. That includes overriding State decisions to reject proposed lines and using Federal eminent domain authority if necessary. I think we need to look closely and skeptically whether such a step is warranted at this juncture.

I urge caution for three reasons. First, if it ain't broke, don't fix it. As several of our witness emphasize, there are a number of innovative and promising bottom-up planning processes now underway from New England to the Midwest to the West. We should give those processes time to succeed.

Moreover, as Commissioner Azar's testimony emphasizes, one of the greatest obstacles to developing the grid of the future is not a lack of Federal authority but rather uncertainty as to what energy policy that grid must serve. By establishing a national renewable electricity standard, a firm cap on carbon pollution, and efficiency programs that will dramatically curb growth in electricity demand, the Waxman-Markey bill will provide this certainty needed to guide private, State and regional development of the transmission system of tomorrow.

Second, look before you leap. Transmission is amongst the most complex and controversial aspect of energy policy. Today's hearing is literally the first hearing in this committee in this Congress or the last Congress on transmission. We cannot afford to take a ready-fire-aim approach in this area.

Further there appears to be little common grounds amongst

core stakeholders. To give just one example, we invited the Edison Electric Institute, which represents investor-owned utilities that own most of the Nation's transmission system, to testify today. EEI cordially declined, in part because it was unable to agree on a witness that could represent the disparate views of its membership. The testimony before us confirms that it is very tough to find agreement in this area.

And third, to a man with a hammer, everything looks like a nail. Precipitous action could result in a policy that is ill-suited to address the problems at hand and could lead to perverse consequences. For example, the Western Governors' Association will testify today that, "Western Governors see little benefit in preempting State transmission line permitting processes," because, "the major hurdle for permitting transmission in the West has been securing permits from Federal agencies."

In other words, it is the Federal Government, not the States that is the problem from the perspective of the Western Governors.

Several witnesses in the East emphasize that Federal planning or siting authority could actually undermine regional efforts to developing renewable resources and encourage expansion of high carbon generation in the Midwest.

We need to take time, take a careful look at this and see what really makes sense. Today's hearing is an excellent beginning to this process. We have a great line up of witness, and I look forward to their testimony.

I would like now to turn to a matter related to the subject of today's hearing which has been brought to my attention. After I agreed last month to hold an oversight hearing on the subject of electricity transmission and the question of whether to adopt additional new legislation in this area in addition to the regional transmission planning language that is already in the Waxman-Markey bill, I directed my staff to obtain additional information about two important provisions of the 2005 Energy Policy Act that also dealt with transmission and which are directly relevant to today's hearing.

As part of that effort, the subcommittee sent two letters to the Federal Energy Regulatory Commission. The first letter, dated June 3rd, dealt with the impact of the 2005 bill's incentive rate provisions on the construction of new transmission around the country. That letter was sent out last week.

The second letter, dated June 9th, dealt with the impact of 2005 bill's repeal of the Public Utility Holding Company Act on the construction of new transmission. That letter was sent out Tuesday.

Neither of these letters were related in any way to the allocation hearing that the subcommittee held on Tuesday on MidAmerican Holding CEO David Sokol's testimony before the subcommittee. They were being drafted prior to our even being aware that Mr. Sokol would be invited by the minority to be a witness at the Tuesday hearing. Both letters were aimed at

helping the subcommittee better understand the impact of previously adopted transmission legislation.

The PUHCA letter contained 8 questions, two of which reference Mr. Sokol's earlier testimony before Congress in support of PUHCA repeal. Mr. Sokol was one of the leading proponents of repealing PUHCA, which is why his prior testimony was relevant to the issue.

However, these questions were in no way seeking to target Mr. Sokol or to intimidate him in any way for his appearance before the subcommittee earlier this week.

The day following the release of the PUHCA letter, I heard from Representative Barton that minority members of the subcommittee had concerns about the questions relating to Mr. Sokol and the timing of the letter's release. In response to those concerns, I made it clear that there was no attempt or intent to intimidate any witness.

In addition, to make it absolutely clear that this was the case, I sent a second letter to FERC clarifying that the FERC should respond to the subcommittee's questions generically and not just look at MidAmerican specifically.

I shared a draft of that letter with Mr. Barton's staff and Mr. Terry's staff on Wednesday night immediately after they brought this issue to my attention. I responded immediately to their concerns.

And finally, I reached out to Mr. Sokol to inform him of what

my intent was, to clear up the misunderstanding, and to make it absolutely clear that neither he nor his company are the focus of the subcommittee's inquiry.

So I want to say to Mr. Barton, to Mr. Upton and to the members on the other side of the aisle publicly what I have already said to them privately, that I would never seek to intimidate or retaliate against a person from having to come in and testify before this subcommittee. I value hearing the perspectives that all of our witnesses bring to the issues that we are considering.

I regret any misunderstanding or misimpressions that the contents of the letter or its timing may have raised. That is why I immediately after learning of the minority's concerns prepared a second letter to the FERC to direct them to respond generically to the questions rather than focusing on MidAmerican. That is also why I contacted Mr. Sokol directly, to let him know of my intentions and to express my apologies, which I have done.

Joe and Fred and the other members, I just want to let you know that I have the personal greatest regard for you and that in no way do I want to leave any impression at any time that we would conduct hearings that were not fair and open to all of the members of this subcommittee or to the witnesses who appear before this committee. And I just want to make that very clear, very publicly at this hearing.

I now turn to recognize the ranking member of the

subcommittee the gentleman from Michigan, Mr. Upton.

Mr. Upton. Thank you, Mr. Chairman.

And I, like many members on this side, do value your friendship.

I realize we are adversaries, good adversaries, on a number of fronts, and we have been together on a number of fronts.

And I know, as we have talked about this privately that it is very important that there is no intention to intimidate or pressure witnesses to testify in something that they perhaps don't believe in. And I for one appreciate your statement this morning.

I also appreciate you calling for the hearing today on National Transmission Policy. The electricity grid is of vital importance to our Nation. We all know that.

However, it is an area that is often overlooked, as evidenced by the fact that there were only minor mention of transmission in the Waxman-Markey climate bill and the fact that today, weeks after the climate bill has been passed out of committee, we are having our first really big transmission hearing.

We do have a long and distinguished panel today. I would like to thank all of our witness for joining us.

I would like to give special recognition to the heads of two Michigan-based companies, Dave Joos and Joe Welch. I know that ITC and CMS do not exactly see eye to eye on this issue, but I know that they have Michigan's interest at heart. And I would hope that we could all work together on this issue as we move

forward.

This committee passed a sizable renewable electricity mandate without any consideration to the question of getting the renewable electricity to population centers. The strongest winds are concentrated in low population areas. The strongest sun exposure is found in low population areas as well. Existing transmission lines are centered in areas of high population, and there are inadequate high voltage lines to the areas with the most abundant sources of renewable power.

If we are going to be serious about renewable power, we have to revamp the grid. And to properly do so, we will have to block the lawsuits from environmental groups that have increased costs and blocked much-needed transparency lines.

But let's put it in perspective. According to DOE, it would cost \$60 billion, yes B as in big, in new transmission lines to reach the 20 percent mark for wind power. Al Gore's lofty goal of fossil fuel electricity would cost perhaps as much as \$400 billion in transmission lines. And if we are serious, we must block the lawsuits and make real investments in the needed infrastructure.

A good example of these lawsuits is found in California. The proposed Sunrise Powerlink in southern California will connect the region to existing and proposed renewable energy sources, whether they be wind, solar or geothermal, located east of San Diego. Energy experts estimate that there is perhaps as much as 2000 megawatts of geothermal power and tens of thousands of

megawatts in solar available in the area. However, without new power lines, the clean, green energy could not be delivered to its customers.

Studies show that the line will reduce greenhouse gas emissions by as much as 1.3 million tons. Yet various environmental groups, like the Sierra Club, are fighting it, well documented in publications like the Wall Street Journal. The areas that are best for wind, power and solar are often in these very remote areas, away from population centers.

Transmission lines are needed to get electricity from wind and solar farms to consumers. And I feel it is a mistake to legislate a costly renewable mandate without addressing the transmission issue.

With all of that said, we must also recognize that many renewable energy sources are unreliable and can bring instability to the grid. Transmission lines cannot distinguish between the green electrons or the brown ones. So we just can't be planning a transmission system for renewables. We have to take all sources into account, wind solar, nuclear, hydro, coal, clean coal and everything else. Changes need to be made to the current regulatory system. FERC can provide a backstop, but we not completely abandon the State and local process.

We must also be mindful of the cost. Renewable power is not free. Transmission lines are not free.

Consumers deserve to know what the real costs are of any

policy and understand exactly what they are going to pay for and what they are getting for their hard-earned money. Consumers will already be saddled with rate increases, and these costs will only go up under the Waxman-Markey bill. Transmission policy shouldn't add to those burdens.

I yield back.

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

The Chair recognizes the gentleman from Washington State, Mr. Inslee.

Mr. Inslee. Thank you, Mr. Chair, and thanks both for holding this hearing and your great work in assembling the Waxman-Markey bill.

I think that bill is tremendous mosaic of using multiple tools to solve our energy problems. But it really is missing one critical piece, and that is the piece that will help us spur the development truly of a 21st Century national grid. And I think we have to recognize that today, despite tremendous efforts of people in this field, we have a grid fit for the 19th or 20th Century, but not for the new challenges of the new American energy policy.

And the way I would categorize that new challenge is that we used to be able to move our energy components around by truck and rail. We could move coal to the site we wanted to generate electricity. We could move natural gas to the site where we wanted to generate electricity or heat, but we cannot ship photons on rail cars, nor can we ship wind by packages by truck. They

have to be generated -- the electricity has to be generated in fact where they are located.

Our existing policy on the grid is satisfactory for the first scenario but not the second. So I have now been at this for some time hoping to advance our ability to plan, site and finance a new grid system that is fit for the 21st Century. I have introduced H.R. 4059 and made some progress in the bill and hope to make further progress in the hopes to achieve this goal in this energy bill.

I want to make note of several things. Number one, our grid system is doing good work today. I am not sure you could say the grid is broken, but you can have a horse-and-buggy system that is working but not fit for today's new world. And we know that it will not be fit for the challenges of tomorrow. So while it may not be broken, it is certainly not fit for what we are now asking it to do. And it is my belief that if we are going to meet our appropriate and necessary 15 percent renewable energy goal, we will need to allow transmission to move forward.

Second, I would point out that the reason we are here today and the reason we need to act today is that this is the only vehicle moving out of town, and it will be the last chance and only chance to really move forward on this effort, and we can't move forward with a renewable electrical standard without a transmission piece.

So I think Lincoln's old quote fits, as our case is new, so

should we think anew. And thinking anew means Federal backstop authority in the event that regional governments are unable to site these necessary facilities. And the reason national backstop authority is necessary is twofold.

Number one, our grid has always been designed to respond to local and regional interests, but with the challenges of global warming and national security needs, we have a national need for a national grid.

And second, we know that, while all of our constituents love electricity, virtually none of them love electrical lines. There is a time and a place where Uncle Sam needs to step in to overcome at times the reluctance of all of us to bear with some of the onerous aspects of moving electricity. It is simply necessary, and we know we cannot wait decades to move these electrons.

I am excited about hearing the testimony.

Mr. Chair, thank you, and I hope we get this job done in this bill. Thank you.

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

The Chair recognizes the gentleman from Kentucky, Mr. Whitfield -- I am sorry, the ranking member of the full committee the gentleman from Texas, Mr. Barton.

Mr. Barton. Thank you, Mr. Chairman.

Since we have an oversight hearing on upstairs, it helps me if I could give my statement.

I am going to give a double statement, kind of a bifurcated

statement. I will talk a little bit about this hearing and then I want to comment on your personal comments, because I think we need to elaborate on that a little bit.

But first, on the hearing before us, it is a scary thing when I agree with Jay Inslee, but I do agree with Congressman Inslee. His amendment in the committee on the climate change bill was directed, as I recall, towards green energy or clean energy for transmission. But once you have generated that electricity, whether it is by wind, solar or even coal power, electricity is electricity, and it is going to go on the same wires. And the wires don't know what the source of the generation was.

So we do need to update our transmission grid. We started that in the Energy Policy Act of 2005. And I thought we had bipartisan support, and it became law. The Fourth Circuit has ruled recently that parts of EAct are not as they should be. I disagree with that court ruling, and I hope that the Supreme Court will overturn it.

But in any event, I agree with Congressman Inslee that we do need to modernize our grid. We do need to give FERC more authority, in my opinion, to make decisions in interstate commerce when the States can't do it themselves. We tried to do that in EAct. If that is not the right way to do it, perhaps we can try it a little bit different way.

In the Natural Gas Act, we give the right of eminent domain to the FERC. Now, I don't know that we need to go that far for

electricity transmission. There is, in all probability, a middle ground where the States and the FERC can work together.

But in any event, Mr. Chairman, this is a good hearing, and hopefully out of this will come some consensus on both sides of the aisle about what to do legislatively.

Now let me comment on what you said, Mr. Chairman Markey, when you were talking about the letter of June the 9th and the comments towards the CEO of MidAmerican, David Sokol.

First of all, I am very appreciative of what you have said, that it was not intended to intimidate Mr. Sokol and that you have called him and taken steps to make sure that to correct what you say was a misunderstanding. To say that publicly means a lot, and I appreciate you doing that.

But let me elaborate on why people like myself have expressed concerns. You can't make the best public policy if you don't have witnesses come before this committee and give their full honest assessment of whatever the issue is that is before this committee.

If we adopt a standard that the only witnesses that are going to be received are witnesses that testify to the side of the question that the majority is supporting, you don't really have a full and fair debate on the issue.

And in the instance that you alluded to, David Sokol represented a point of view that was contrary to the majority's position on the climate change legislation and the allocation system that is a part of that, the allowance system. That is a

side that needs to be presented to the American people.

Now it may be serendipity, and it may be inadvertent, but within 2 hours of him giving that testimony, a letter was sent under your signature to the chairman of the Federal Energy Regulatory Commission, who is sitting before us today, asking six generic questions and two specific questions about David Sokol and his company.

And the chairman of the FERC was asked to respond in writing to you by close of business yesterday. How can that not be perceived as an attempt to intimidate? Testified in the morning adverse to the position of the majority, received a letter that was sent in the afternoon to the chairman of the regulatory commission with jurisdiction over your industry and your company asking probing questions about the conduct and business decisions of your company.

Now, I take you at your word when you say that that was not intended and you are beginning to take steps to correct it, but what upsets myself and the others on the minority is that we do not accept that we can develop the mechanism where we allow any Member, majority or minority, to threaten, to intimidate, to abuse the power of the office that we are given by the people of our congressional districts on behalf of the people of the United States of America.

Now you are already taking steps to correct the perception that perhaps intimidation was being attempted, and I commend you

for that. You are going to get a letter from myself and Mr. Upton and other members on the minority later today asking that we consider those discussions to make sure that we make it absolutely clear that any citizen of this country that comes before this committee can testify to whatever they believe is the truth as they know it without fear of intimidation or retribution.

And I think Members on both sides of the aisle will share that goal. If we are absolutely certain that that is the way it is going to be, then nothing else will be said.

But again, you and I have been friends for 25 years, and I hope we are going to be friends for another 25 if we both live that long. I have nothing but the upmost personal and professional respect for you and your conduct. And I am honored to sit on the same committee as you. I have sat in that chair as chairman of this subcommittee, so I think we can get this worked out. But it is a serious issue, and it deserves serious consideration. And to your credit, you are giving it that serious consideration.

With that, Mr. Chairman, I yield back.

Mr. Markey. I thank the gentleman very much. And I thank the gentleman for his words.

The Chair now turns and recognizes the gentleman from California, Mr. McNerney.

Mr. McNerney. Thank you, Mr. Chairman.

I want to thank you for holding this hearing. This is a

complex and difficult issue. I want to thank the panel for appearing this morning, in particular the chairman of the FERC. I had the opportunity to visit the FERC this week, and it was a good, worthwhile use of my time.

This issue is complex and difficult, as I just said. It has economic challenges, technical challenges and political challenges. And I believe the outcome will be best if we do our homework, consider the challenges and devise a rational and bipartisan plan. So thank you for appearing, and I look forward to your testimony. I hope I can stay most of the time this morning.

And with that, I yield back.

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

The Chair recognize the gentleman from Kentucky, Mr. Whitfield.

Mr. Whitfield. Thank you, Mr. Chairman.

We look forward to this hearing today and welcome the witnesses, and we look forward to their testimony.

I just want to make a couple of points. If the advocates for a renewable energy mandate are successful, there is going to be large portions of the Midwest that do not have solar, do not have wind power sufficient to meet their needs. It is going to be extremely difficult for them to meet this 20 percent renewable mandate without some Federal involvement regarding the siting, financing and the building of additional transmission lines.

And particularly when you consider the Department of Energy's 20 percent wind energy by 2030, saying that they are going to have to build at least 12,000 miles of new transmission lines to meet that need and then on top of that, when you consider this recent Fourth Circuit Court of Appeals decision that Ranking Member Barton mentioned which does make it more difficult for FERC to operate in this area, I do think we have some significant issues. And I hope this hearing can help us resolve those.

I yield back the balance of my time.

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

The Chair recognizes the gentlelady from Wisconsin, Ms. Baldwin for an opening statement.

Ms. Baldwin. Thank you, Mr. Chairman.

Transmission is critical to our Nation's electrical system. And I certainly support grid expansion.

I have significant concerns however about many of the recent Federal proposals that jeopardize State and regional efforts to develop the transmission grid. Specifically these efforts ignore progress and may actually slow investments being made in States like Wisconsin and other in the Midwest.

Over the last 7 years my home State of Wisconsin, the Wisconsin ratepayers have supported more than \$2 billion in investments in our transmission system. These actions have and will continue to improve reliability and increase the flow of renewable energy in Wisconsin and our neighboring States.

Congress must ensure that we are not undermining the existing processes if we are going to venture into the transmission arena, especially when sensitivities already exist to State authority, cost allocation, safety and eminent domain issues.

As we examine these issues there are some questions and challenges that we must keep in mind. Who is going to pay for this? Will those not receiving the benefits of transmission have to pay for cost of lines traversing this country?

I am hearing strong concerns about the designing our transmission system for one specific purpose. It is not the just of transmission planners or transmission companies to choose the types of generation that may interconnect with the transmission system. Transmission is needed, plain and simple, regardless of the type of generation.

Where I come from, transmission is a sensitive subject. It will be very difficult to convince Wisconsinites and other Americans that in the name of national interest, the Federal Government is taking their property to essentially stretch an extension cord across it to power a larger urban area many, many miles away. So what will this process be like for public input if it is a Federally directed process?

While the siting of underground transmission lines may be easier than that of above-ground lines, the costs are significantly increased, perhaps as much as \$3 million per mile. So mandating technologies on States and regions has significant

ramifications.

Again I share the goal of ensuring that critical new investments are made in our transmission system, but we must proceed with caution, not undermining existing efforts that are already working in this process.

Thank you, Mr. Chairman. I yield back.

Mr. Markey. The gentlelady's time has expired.

The Chair recognizes the gentleman from Pennsylvania, Mr. Pitts.

Mr. Pitts. Thank you, Mr. Chairman.

Thank you for holding this hearing on our National Transmission Policy.

The official report on the 2003 Northeastern Blackout concluded that, "As evidenced by the absence of major transmission projects undertaken in North America over the past 10 to 15 years, utilities have found ways to increase the utilization of their existing facilities to meet increasing demands without adding significant high-voltage equipment."

Clearly there is a significant need for an increase in transmission capacity. This need is amplified as we consider adding more and more renewable energy to the grid. And while I am fully supportive of adding more transmission capacity, I believe we do need to keep in mind legitimate desires of localities to preserve green spaces and historic sites.

My district includes some of the most pristine historic

landscapes in the Mid-Atlantic. My district also has some of the most productive farm land in the United States. Chester County, the home of Valley Forge and the Brandywine Valley where I come from is one of William Penn's original three counties.

The tradition of preserving land and being good stewards of the earth have been passed down from generation to generation. We are not against progress, but we want to protect our heritage and be wise about how we use and develop the land we have.

Having the needed energy to turn on lights and heat water is critically important to the quality of life of every American. However, the preservation of our historic resources and natural environment of people's communities contributes to our quality of life as well. We need to ensure that all stakeholders are included in deciding where and when transmission lines are sited.

Dialogue and compromise are key in this issue. Indeed, it is critical to strike a delicate balance between the crucial electricity needs of the country while at the same time maintaining the historic open space areas that make our country beautiful and unique. As this committee continues to consider this issue, I hope that we hear from all affected parties and work towards viable solutions.

Mr. Chairman, I am grateful for the opportunity to discuss this issue. And it is my hope that today's hearing is only one in a series of hearings on this issue to ensure a robust and well rounded approach to our National Transmission Policy.

And I look forward to hearing from our witnesses, and I yield back.

Mr. Markey. Great, I thank the gentleman.

The Chair recognizes the gentleman from Vermont, Mr. Welch.

Mr. Welch. Thank you, Mr. Chairman.

I actually want to get my microphone to work here.

I am proud that we have here today as one of our witnesses, David Coen. David is a member of the Public Service Board in Vermont, serving on his third term. And he has been appointed by Republican and Democratic Governors alike. He has done a tremendous job. He is now the vice president of the National Association of Regulatory Utility Commissioners.

David is acutely sensitive to the particular needs of rural utilities. We are a small State, but this issue of transmission is incredibly important to us as it is all around.

So I want to welcome him and thank you, Mr. Chairman for inviting David to be here and add to the testimony. Thank you.

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

The Chair recognizes the gentleman from Louisiana, Mr. Scalise.

Mr. Scalise. Thank you, Mr. Chairman.

Renewable energies will play an important role in the future of our national energy policy, and I support the development of renewable sources of energy. As a matter of fact, Republicans have drafted legislation, the American Energy Act, which will

invest heavily in the development of renewable sources of energy.

As we explore the advancement and promotion of energy sources like wind similar and hydro, and as the Congress and this administration discuss the future of our national grid and its capacity, we must not neglect that many of these renewable sources of energy are intermittent and need to be backed up by other sources of energy. And we would be remiss if we do not emphasize diverse the importance of diversifying our energy portfolio in ensuring that nuclear power is part of any comprehensive policy we discuss.

Wind and solar power still need to overcome fundamental obstacles and we cannot today exclusively rely on these sources of energy alone to power our Nation. When the wind stops blowing and the sun stops shining, our hospitals that care for our families and schools that teach our children must continue to have reliable sources of energy that ensure that the life-saving equipment and the lights stay on.

Transmission infrastructure, planning, and siting policies are all important to this conversation as is the regulatory framework that will surround these policies. I believe it is also important for the Congress to carefully weigh regional considerations as we further discuss this issue.

I look forward to today's hearing, and I yield back.

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

The Chair recognizes the gentleman from North Carolina, Mr.

Butterfield.

Mr. Butterfield. Thank you very much, Mr. Chairman.

I will move one seat down so I can have the benefit of this microphone.

Thank you for convening this hearing. I particularly want to thank the five witnesses who have come forward today to make their testimonies available.

It goes without saying, Mr. Chairman, that I support the expanding of the grid using 21st Century technology. We certainly must do that.

Waxman-Markey takes dramatic steps to further the growth of renewable electric generation. The nationwide RES standard demands use of those sources, and the price signals sent from a carbon cap will further the use of clean fuels.

As we move forward, Mr. Chairman, we must focus on developing policies that ensure electricity generated from these new sources gets to the load centers that demand them. And this means we must address the deficiencies in our transmission grid that will delay us from reaching our full, renewable generation potential or hamper grid efficiency.

There are a number of challenges to improving transmission, but siting will be particularly difficult to overcome. Balancing the Federal and State and regional and regional and local stakeholder needs and interests will be difficult but critical to the completion of a modernized grid. Comprehensive planning, cost

allocation and ownership will also present challenges, as we have heard today. I applaud the collaborative nature of this subcommittee and look forward to discussing the issue further.

I yield back.

Mr. Markey. I thank the gentleman.

The Chair recognizes the gentlelady from California, Ms. Harman.

Ms. Harman. Thank you, Mr. Chairman, we are debating on the floor a bill to have the FDA regulate tobacco, and I have to say it is a long time in coming, and I am absolutely thrilled that we will finally, I believe, pass it, and it will become law very soon.

So while I am celebrating about that, I am thinking about another hard issue, this one, which require all of us to step up and think about some risky strategies to make certain that the promise of renewable energy and the absolute need for transmission of electricity throughout the country can be accomplished. I think anything we do in this committee will make us a few friends and make us a few enemies. And that applies to us regardless of which party we are in and which region we are from.

But I think we have to step up, as many people finally have stepped up in both parties to the need to regulate tobacco.

I just want to point out some of the obstacles. The U.S. electric transmission system encompasses about 167,000 miles of high voltage transmission lines and another 300,000 miles of lower

voltage lines. The grid is operated by approximately 130 balancing authorities, which are typically utilities that own transmission systems and operate control centers to monitor and control the grid.

Those transmission systems are owned by several hundred private and public entities, so let's just start with that. It is incredibly complex. And if we don't get a handle on that and don't step up to the tough decisions, we won't solve the problem.

But I would close by saying that if we really want renewable energy in this country, we really have to fix the grid.

Thank you, Mr. Chairman.

Mr. Markey. The gentlelady's time has expired.

The Chair recognizes the gentleman from Texas, Mr. Green.

Mr. Green. Thank you, Mr. Chairman, and I have a full statement I would like to place into the record.

And just a little history, in the 2005 Energy Act, we actually provided for the Federal transmission corridors that are so needed. And like my colleagues, some of my colleagues, have said, we disagree with the court decision.

Hopefully it will be overturned by the Supreme Court, but there are things that we can do that may help, Mr. Chairman.

I appreciate both Mr. Inslee's legislation and to expand and have a national grid. We know that, and it can't be just limited to renewables because those electricity protons don't decide where they come from; they just go down those lines, so that is why I am

happy to be part of the hearing. And, again, I would like my full statement to be placed in the record, and again, I support our effort to expand the national grid.

I have a huge transmission corridor right behind my neighborhood, and I guess, in Texas, we don't have any problem with pipelines or transmission grids because our PUC just approved \$5 billion for the renewable fuel electricity to come from west Texas to our urban market.

Thank you, Mr. Chairman. I yield back the balance of my time.

[The prepared statement of Mr. Green follows:]

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

The Chair recognizes the gentleman from New Jersey,
Mr. Pallone.

Mr. Pallone. Thank you, Mr. Chairman.

I want to first thank you for all that you have done on this issue. I mean, I know it has been so many years, and we finally passed a bill out of committee, and I know that we will pass it on the floor and send it to the President eventually.

I wanted to point out that Ralph Izzo, chairman and CEO of the Public Service Enterprise Group, a New Jersey based energy company will be testifying on today's second panel. And under Ralph's leadership, PSE&G has been a leader in renewable energy investments throughout the State of New Jersey.

Today the committee will address policy proposals for transmission planning, cost allocation and siting authority. A strong transmission grid is essential to ensure energy reliability and to move clean, renewable energy from remote locations to population centers.

I think we can all agree that planning and investing in a reliable grid is a national priority. With that said, we need to be very careful how we craft any National Transmission Policy. Too main areas of concern for the northeast and specifically for New Jersey are how to site new transmission lines and how to pay for those new lines.

It is critical that States like New Jersey have authority over the siting of new transmission lines that would run through the State. Giving FERC greater authority to site high-voltage electric transmission lines will generate widespread local opposition. Any new transmission legislation must give States adequate authority over siting to ensure that States can protect properly the environment and cultural and historical sites.

Another issue that will affect my State is cost allocations, specifically how do we craft legislation that encourages investment in new transmission lines to move renewable energy, such as wind, to population centers? I believe we should think regionally. New Jersey has tremendous potential to meet our renewable energy goals through solar and offshore wind. It does not make sense for New Jersey ratepayers to subsidize the cost of moving wind from the Midwest to the East Coast, a cost of \$10 million per mile. This could slow development of alternatives closer to home.

I believe the transmission provisions passed in the American Clean Energy and Security Act provide a balanced approach that respects regional differences and local concerns. Before we pass comprehensive transmission legislation, we must consider how it will affect the economies of local renewable energy projects and whether it provides adequate siting authority for the States.

Again thank you, again, Mr. Chairman.

Mr. Markey. I thank the gentleman very much.

The Chair recognizes the gentleman from Georgia, Mr. Barrow.

Mr. Barrow. I waive.

Mr. Markey. The gentleman's waives his opening statement.

All time for opening statements has been completed.

We will now turn to our very distinguished panel.

STATEMENTS OF JON WELLINGHOFF, CHAIRMAN, FEDERAL ENERGY REGULATORY COMMISSION; DAVID COEN, FIRST VICE PRESIDENT, NATIONAL ASSOCIATION OF REGULATORY UTILITY COMMISSIONERS ON BEHALF OF NARUC; LAUREN AZAR, COMMISSIONER, WISCONSIN PUBLIC SERVICE COMMISSION; PAUL HIBBARD, CHAIRMAN, MASSACHUSETTS DEPARTMENT OF PUBLIC UTILITIES; AND RICH HALVEY, ENERGY PROGRAM DIRECTOR, WESTERN GOVERNORS' ASSOCIATION

Mr. Markey. And our first witness, who is John Wellinghoff. He is the chairman of the Federal Energy Regulatory Commission, which oversees wholesale electric transactions and interstate electric transmission and gas transportation in the United States. He is also cochair of the Demand Response Collaborative launched jointly by FERC and the National Association of Regulatory Utility Commissioners.

We thank you so much for being here in your first appearance before our committee.

We welcome you, sir. Whenever you are ready, please begin.

STATEMENT OF JON WELLINGHOFF

Mr. Wellinghoff. Good morning, Mr. Chairman.

Mr. Markey. Could you push the mike a little closer and turn it on?

Mr. Wellinghoff. Thank you Mr. Chairman, Ranking Member Upton, and members of the subcommittee.

First, I have two quick preliminary issues. One is I would like to recognize and thank my colleague, commissioner Phil Moeller who is here with me today, and I would also like to request that my full pre-file testimony be placed in the record.

Mr. Markey. Without objection, so ordered.

Mr. Wellinghoff. The following is a summary of that testimony.

I appreciate the opportunity to appear before you today to discuss our Nation's electric transmission grid.

Mr. Chairman, your invitation for this hearing envisions, "A transmission system that will serve the goals of substantially reducing greenhouse gas emissions, developing renewable energy resources and improving energy efficiency while preserving or enhancing reliability."

A transmission system that meets the goals you have articulated will result from a strong and smart electric grid that can assist in promoting field diversity, reducing greenhouse gas

emissions, strengthening our national security, revitalizing our economy, enhancing competition and ensuring reliability. Such a reliable and robust transmission grid is essential to allow regions, States and our Nation to meet these goals.

The commission has taken a number of important steps in recent years to promote the development of such a transmission system. For example, in February of 2007, the commission issued Order 890, which among other things required open, transparent, and coordinated regional planning; required evaluation in that planning of demand resources on a comparable basis to other resources.

The commission also approved an initiative proposal from the California independent system operator to better allocate costs of facilities needed to interconnect location constrain resources, such as wind and solar, to the transmission grid.

Nonetheless, I believe there are gaps in the commission's statutory authority. The absence of an adequate regulatory framework is the principal obstacle to developing the transmission system to support the goals have you outlined.

If we are to overcome that obstacle, we need a national policy commitment to develop such a transmission system. In developing that policy, Congress should consider three closely related issues: planning, siting and cost allocation.

First, the scope of existing regional planning initiatives needs to be expanded. To achieve greater benefits and

efficiencies, we must create a structure that includes coordination on an interregional basis. Such coordination will facilitate, for example, the development of facilities, transport power from areas rich in renewable energy resources to load centers, as well as the deployment of distributed resources and key smart-grid equipment and systems.

Second, States should continue to have the opportunity to site transmission facilities, but transmission developers should have recourse to the commission as a Federal siting authority under appropriate circumstances. Federal siting authority would be helpful, even if limited only to transmission facilities needed to reliably meet renewable energy goals.

Third, if Congress determines there are broad public-interest benefits in developing the transmission system necessary to meet the goals discussed, then Congress should consider clarifying the commission's authority to allocate costs of such infrastructure to the load-serving entities within an interconnection or part of an interconnection where it is appropriate to do so. Of course, the commission would need to ensure, as it does today, that these costs are allocated fairly to the appropriate entities and that due deference is accorded regions that work together to develop cost-allocation mechanisms that garner broad support.

Finally, it is important to recognize the issue is not how to choose between nearby renewable or more distant renewable resources. Both should be part of the mix of energy resources to

achieve our national goals. And appropriately allocating the costs of transmission facilities needed to connect remote resources should not disrupt the implementation of State policies or disadvantage local renewable or other distributed resources.

Rather, full planning analysis that reveals respective costs of alternative resource scenarios and a fair cost allocation of necessary transmission to reliably deliver those resources to loads will eliminate a barrier to the development of new clean resources and thus will facilitate competition. Such a measured approach should inform consumers of the least-cost sustainable resources options to meet State and national environmental, economic and security objectives. And enacting a regulatory structure that enables such an approach to be implemented will ensure our national energy goals can be achieved.

Thank you, again, for the opportunity to appear before you, and I would be happy to answer questions that you may have.

[The prepared statement of Mr. Wellinghoff follows:]

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Mr. Markey. Thank you, Mr. Wellinghoff, very much.

Our next witness is David Coen. He is the first vice president of the National Association of Regulatory Utility Commissioners. Mr. Coen has also served as a member of the Vermont Public Service Board since 1995 and has continued. He has served in a variety of regional and national leadership positions, including the Chair of the Consumer Affairs Committee of the New England Conference of Public Utility Commissioners.

We welcome you, sir. Whenever you are ready, please begin.

[11:15 a.m.]

RPTS BINGHAM

DCMN MAYER

STATEMENT OF DAVID C. COEN

Mr. Coen. Good morning, Chairman Markey, Ranking Member Upton and members of the subcommittee. My name is David Coen. I am a member of the Vermont Public Service Board. I also serve as the first Vice President of the National Association of Regulatory Utility Commissioners, also known as NARUC.

I am honored to have this opportunity to appear before you this morning and offer a State perspective on transmission. In addition, I would like to thank Representative Welch for his kind introduction and his service to our State. He is certainly my favorite Congressman from Vermont.

At the State level, we deal with transmission planning and siting requests regularly. And I can tell you that the issues and concerns are not policy or procedural, but multifaceted and do not lend themselves to a one-size-fits-all solution.

State commissioners are obligated to act deliberately to ensure that any new projects will benefit the public. This means regulators must determine whether a demand response, energy efficiency or perhaps a local renewable energy source is more appropriate than putting steel transmission towers in the ground.

A major impediment to siting energy infrastructure is the

great difficulty in getting public acceptance. As a country, we want our electricity to be affordable, reliable and increasingly clean. But we also want to ensure that transmission infrastructure does not impact our quality of life.

Public hearings on transmission lines are always packed with concerned ratepayers and landowners with nearly all of them in opposition to the project. I can assure you that no level of Federal involvement will make this go away. Still, the State and local level provides an important venue for all parties to be heard. State regulators know the geography and citizenry better than any Federal agency can. Our processes are transparent and give all parties a voice. What some interests may consider roadblocks or impediments we consider due process.

Let me say a few words about what we are doing in Vermont. Vermont has a transmission planning process that analyzes potential transmission constraints over a 20-year horizon and considers various alternatives, including distributor generation and targeted energy efficiency programs that would address any identified reliability issues. The process ensures that solutions to transmission constraints serve the long-term needs of consumers at the lowest cost.

After decades without any major transmission investment, the public service board has approved three major transmission projects from 2005 through 2008, with total projected capital investment over half a billion dollars. At the regional level,

these decades without any major transmission investment, nearly \$4 billion of transmission infrastructure has been placed in servicing New England since 2002.

Despite the activity on the State and regional level, there is momentum in Congress to provide the Federal Government with broader transmission authority, although we are just 4 years removed from the enactment of the Energy Policy Act of 2005. EAct gave the Federal Energy Regulatory Commission "backstop" siting authority in specific areas designated by the Department of Energy. Not enough time has passed to determine whether this law needs to be revisited, but the Congress is addressing this issue nevertheless.

NARUC recently updated our transmission policy in anticipation of Federal action. We believe that a bottom-up State- and regional-driven approach is the most appropriate model going forward, while we are not convinced that the case has been made for expanded Federal authority.

If Congress chooses to act, we recommend the following principles:

Any such additional authority granted to FERC by the legislation allow for primary siting jurisdiction by the States and provide the FERC's backstop siting authority be as limited as possible;

In no event should FERC be granted any additional authority over the siting or construction of new interstate transmission

lines;

In no event should FERC be granted any additional authority to approve a new interstate transmission line that is not consistent with a regional transmission plan developed in coordination with affected State commissions or other siting authorities or regional planning groups;

In no event should FERC be granted any additional authority to approve a new interstate transmission line unless there is already in place either a cost allocation agreement among all the States through which the proposed project will pass governing how the project will be financed and paid for, or a FERC-approved cost allocation rule that covers the entire route of the proposed project;

In no event should any legislation allow FERC to preempt State authority over retail rate-making, the mitigation of local environmental impacts under State authority, the interconnections to distribution facilities, the siting of generation or the participation by affected stakeholders in State and/or regional planning processes; and

In no event should any legislation preempt existing State authority to regulate bundled retail transmission services.

In conclusion, the electric transmission system must have the capacity to meet the growing energy needs of the Nation regardless of the generation source. The solutions to the challenges will not come quickly or easily and will require the cooperation of all

stakeholders including State and Federal governments.

Thank you and I look forward to your questioning.

Mr. Markey. We thank you very much.

[The prepared statement of Mr. Coen follows:]

***** INSERT 2-1 *****

Mr. Markey. I am now going to turn to Congresswoman Baldwin to introduce our next witness.

Ms. Baldwin. Thank you, Mr. Chairman.

I am pleased to welcome a very special constituent to our hearing today. In 2007, Governor Jim Doyle appointed Lauren Azar to the Wisconsin Public Service Commission. As a commissioner, she has played a leading role in confronting the challenges associated with transmission development. Just yesterday the Wisconsin PSC sited a very significant transmission line.

Lauren also serves as President of the organization of MISO States where she is leading a regional planning and cost allocation effort for developing electrical transmission over the Midwest ISO region, which includes 13 States and one Canadian Province.

Prior to her appointment to the Wisconsin PSC, Commissioner Azar worked as an attorney and practiced extensively in the areas of electric and water utilities representing both ratepayers and utilities. She helped create the Nation's first stand-alone transmission company, American Transmission Company, otherwise known as ATC, and helped to site a 210-mile extra-high-voltage line in Wisconsin and Minnesota.

In addition to all of these credentials, I can also tell you that I know what she eats for breakfast and what she grows in her vegetable garden because for those of you who don't know, Lauren

is also my partner. And it is a thrill and a very proud moment to have her here to testify based on her significant expertise on the issues before us.

I welcome her to our subcommittee.

Ms. Azar. Thank you, Congresswoman.

Mr. Markey. We welcome you. Whenever you are ready please begin.

STATEMENT OF LAUREN L. AZAR

Ms. Azar. Thank you, Mr. Chairman, Ranking Member Upton, and the members of the subcommittee. Thanks for inviting me to appear at this hearing on the future of the grid. And my primary messages for today are, number one, before a transmission grid can be cost effectively planned, Congress must define the goals for that grid; number two, States with technical assistance from the regional and utility transmission engineers should plan the grid and site transmission lines; three, Congress should define the framework through which the States will design and site the grid -- if the States fail, then it is appropriate for the Federal Government to step in; and four, Congress should agree to do no harm by not selecting a specific grid design or technology and by not selecting a specific cost allocation.

As to point number one, Congress should define the goals. The renewable energy standards and carbon limits that Congress may set will define the generation portfolio that our Nation will need to develop. With clear identification of RES and the carbon mandates, the States can begin designing the transmission grid that is necessary for that generation portfolio.

Point number two, States should develop the plan and site the lines. There are a variety of reasons why a State-led process will lead to better results than a federally led process, and

these reasons include, first, State commissions have the ultimate responsibility for retail electric rates; second, planning must accommodate State choices for generation in demand side programs, the distribution decisions that they have made; third, planning must incorporate the designs for the existing State transmission and distribution systems; and lastly, State decision-making allows more complete public information, participation, and acceptance.

Point number three, Congress should define the process. Congress could define the parameters for a State-led process. Such parameters could include the following:

Essentially, require the States to participate in regional planning initiatives to design a grid that will meet the congressional mandates;

Set strict but reasonable deadlines for the planning product and the siting of lines in that plan;

Ensure that parties who will profit from this grid build-out do not make the decisions for that build-out; and

Lastly, if States do not complete the plan or the siting of the lines in that plan, then the Federal Government should intervene.

Point number 4, Congress should do not harm. I ask you to take a Hippocratic oath today, and such an oath would require you not to do two things. Number one, do not pick technologies or plans. While the moniker "transmission superhighway" sounds good, depending on the goals of Congress it may not be what we need. I

suspect one-size-fits-all solutions such as the 765 grid overlay will not be cost effective, will likely be oversized and will harm some areas.

As an aside, the parties who are advocating for a 765 grid overlay are the very parties that will make a lot of money off of that plan.

And the second point about not doing harm is, do not select a specific cost allocation for the grid. Because cost allocation should be tailored to the plan developed, Congress should not preselect such an option. If Congress mandates a specific cost allocation, it will be indirectly endorsing a specific type of design. For instance, endorsing a so-called "postage stamp" which allocates the costs evenly over a very large area is more appropriate for an alternating current solution than a direct current solution.

In conclusion, I ask Congress to promptly set renewable standards and carbon limits so that the problem is defined. I also ask that Congress essentially lock the States in a room and instruct them to solve the problem within a specified time period.

The \$80 million already appropriated under the ARRA will provide the funding necessary to conduct this endeavor. After being locked in the proverbial room for a reasonable period of time, if the States are unable to design a transmission grid meeting the congressional mandates, then the Federal Government should step in. The same framework should also be applied to

transmission siting.

I see I still have 43 seconds, so I will quickly provide a quick summary of some of the efforts that are currently happening within the States as far as regional planning and siting. The chairman and Congresswoman Baldwin already referenced one of them, which is namely the organization of MISO States, and that is the Midwest Independent System Operator. The States within that 13-State region and one Canadian Province are currently developing a regional plan and cost allocation process, and we expect to have that done by the end of the year.

More, I think, importantly to this committee's work, in the ARRA, Congress identified they wanted to have interconnection-wide plans. And on May 15, leaders from the eight different regions within the eastern interconnection met to begin the process of planning on a interconnection-wide basis. At the end of this month, we expect to have all 40 States present at a meeting in which we will begin to discuss just how we expect to go forward in that process and what the States' role should be in that process.

Thank you very much, Mr. Chairman.

Mr. Markey. We thank you very much for being here today and for your testimony.

[The prepared statement of Ms. Azar follows:]

***** INSERT 2-2 *****

Mr. Markey. Our next witness is Paul Hibbard. He is the Chairman of the Massachusetts Department of Public Utilities. Chairman Hibbard previously worked for the Massachusetts Department of Environmental Protection.

We welcome you, sir. Whenever you are ready, please begin.

STATEMENT OF PAUL J. HIBBARD

Mr. Hibbard. Thank you, Mr. Chairman. I also want to thank the members of the subcommittee for inviting me here today to talk to you about this critical topic.

On behalf of Governor Deval Patrick and the Commonwealth of Massachusetts, I want to thank you all for your leadership in addressing our energy challenges and global climate change, and for your wisdom in addressing both at the same time in the ACES legislation. We support your efforts and encourage Congress to move forward with the ACES legislation expeditiously.

On transmission, we think that ACES has got the transmission planning and siting question exactly right. In its current form, it presents a measured and sensible approach that supports the continued and vital primary role of State and regional resource planning in siting efforts and expands the role of FERC to coordinate regional planning across a broader geographical footprint and with an added focus on national energy policy. But

most importantly, it does so without jeopardizing the critically important role of competition in wholesale energy markets.

In contrast, I have serious concerns with the more aggressive proposals that have been put forward to expand Federal authority in transmission planning and siting. At their core, these proposals appear to put FERC in three roles:

First, in the role of requiring the development in a short period of time of interconnection-wide plans like the JCSP, ostensibly to access renewable resources;

Second, it puts FERC in the role of deeming transmission included in such plans as needed for the public convenience and welfare triggering the siting override and eminent domain authorities; and

Third, it puts FERC in the role of approving or imposing the allocation of associated costs on a broad basis across all load.

Under these proposals, FERC's traditional authority is expanded to where it becomes a de facto central planning authority to select and direct the build-out of renewable generating resources across the Nation, potentially diminishing the development of the abundant level of demand reduction and renewable resources that are available at the local level in all of our regions.

Developing renewable resources locally is a top priority for the Commonwealth, as I am sure it is for States across the country. We believe that renewable resources in our State and

along the eastern seaboard, both onshore and offshore, represent one of our Nation's most promising yet underdeveloped renewable resources, sources of energy.

While offshore wind installation costs currently exceed those of onshore installations, these resources are much closer to our load centers. And research and development efforts that are focused on reducing costs and improving reliability promise to make offshore wind competitive with distant but onshore wind farms on a delivered cost of power basis.

As regional onshore projects move forward and offshore wind moves into commercialization in the United States, they all must have the opportunity to compete on an even playing field with the onshore and more remote sources of renewable power and not be disadvantaged by upfront transmission subsidies.

The threat that unsubsidized local renewables would be unable to compete in fact has been taken very seriously in our region and beyond. A bipartisan group of 11 Governors representing every coastal State from Maine to Virginia, as well as Vermont, recently joined together to raise these concerns in a letter to the committee chairman.

A top-down central planning process is in stark contrast to how free markets are supposed to operate. In our region and at the direction of FERC, to ensure fair competition, all generating resources, renewable or otherwise, are responsible for all development costs, including the costs of environmental compliance

and the costs of delivering their power reliably to load. In this competitive market context, it is the lowest-cost provider, based upon the price at retail, that prevails ensuring that society's electric reliability and environmental goals are met at the lowest possible cost.

Notably, this is the design principle under ACES, where the prices offered by fossil fuel resources will be higher and less competitive due to the additional marginal costs associated with purchasing carbon allowances, and the price offered by renewable resources will be lower and more competitive due to the additional marginal revenues associated with the generation of renewable energy credits and other incentives. In this framework there is no need for a central planning decision to force development or to pick the winning resources because, by definition, the cost of carbon allowances and the value of renewable energy credits will rise to levels that are needed to support the resources that must come on line in order for our Nation to meet our carbon cap and our renewable resource floor.

This is the way it is supposed to work and indeed has worked in emission markets over the past couple of decades. By suggesting that FERC needs to engage in resource planning to build transmission to preselected renewable resources is to concede at the outset that the free market structure for emission control and renewable control contained in ACES will fail.

In my view, the more aggressive proposals for transmission

legislation, thus, are about much more than siting. They force the Federal Government into an administrative role of central renewable resource planning, a role that I believe in the long run will damage the operation of competitive markets, suppress the technological innovation and creativity that come from the operation of competition, and ultimately will result in our meeting our climate objectives at prices to retail consumers of electricity that are higher than they otherwise would need to be.

So I want to, again, thank the members of the committee for this opportunity and look forward to questions

Mr. Markey. Thank you Mr. Hibbard.

[The prepared statement of Mr. Hibbard follows:]

***** INSERT 2-3 *****

Mr. Markey. Now we have one final, very important witness representing the Western State Governors, who I think we should all hear from before we cast our vote on the floor on the last vote of the day. Then we will reassemble after that roll call. But I think since we are all here right now that we will hear from Rich Halvey, who is the Energy Program Director for the Western Governors' Association and representing those Western Governors before this subcommittee today.

We welcome you, sir. Whenever you are ready, please begin.

STATEMENT OF RICHARD HALVEY

Mr. Halvey. Thank you, Mr. Chairman, members of the committee; thank you for the invitation to testify here today.

Over the last 8 years, the Western Governors' Association has assumed a strong leadership role in defining policies for transmission planning, cost allocation and regional cooperation. In 2002, a protocol governing cooperation among State and Federal agencies in the siting and permitting of interstate transmission lines in the Western United States was developed and signed by the WGA, the Departments of Energy, Interior and Agriculture and the Council on Environmental Quality.

In June 2006, the Western Governors' Association published a report that explained that while vast resources, renewable resources, exist throughout the West, many reside in remote areas without ready or cost-effective access to transmission. Lack of transmission access was and remains the greatest impediment to the rapid development of utility-scale, renewable, rich resource areas.

In April 2008, the Western Governors partnered with the United States Departments of Energy, Interior and Agriculture and the Federal Energy Regulatory Commission to create the Western Renewable Energy Zones project. This project will ultimately identify those areas with the highest potential for large-scale,

cost-effective, renewable energy development across the Western region and the high-voltage transmission that would ensure this electricity can be delivered to demand centers.

This coming Monday, the Western Governors' Association will be releasing the project phase one report quantifying the potential of the richest renewable resource areas.

WGA will continue to work on the project over the next 2 years. We are partnering with utilities and the Western Electricity Coordinating Council to evaluate transmission needs to move power from preferred renewable energy zones. We will be working to improve the integration of wildlife and environmental values in decisions on the development of generation and transmission associated with these renewable energy zones.

Ultimately, we will propose conceptual transmission plans to move electricity from the most desirable zones to markets. We will work with load-serving entities to coordinate purchasing for the desirable renewable energy zones and to foment interstate cooperation for renewable energy generation and transmission.

The Western Governors support the development of interconnection-wide transmission plans. However, if the Federal Energy Regulatory Commission is given the authority to approve such plans, Congress needs to set explicit criteria by which FERC evaluates these plans. At a minimum, statutory criteria should require that the States approve electricity future scenarios to be studied and approve interconnection-wide plans corresponding to

the future scenarios.

Even with the success of our past efforts, the Western Governors recognize that we need help from the Congress. I will mention four positions the Governors have consistently emphasized as necessary elements of transmission planning, cost allocation and regional cooperation where legislation will be critical:

First, the Federal Government should be responsible for ensuring that near-term projects proposed to serve large geographically constrained low-carbon resource areas are adequately sized to meet long-term needs. When we know future demand will materialize, action by the Federal Government to correctly size lines will help projects capture economies of scale in building transmission and avoid environmental impacts from the construction of multiple lines to the same area. We propose that the Federal Government pay for the incremental cost of building higher capacity lines to these areas.

Second, Congress should redirect the implementation of sections 1221 and 368 of the Energy Policy Act of 2005 to preserve important transmission corridors and ensure the timely siting and permitting of large transmission lines to move geographically constrained low-carbon generation. Specifically, once higher priority zones and associated conceptual transmission have been identified, Congress should direct Federal land management agencies to use those results when evaluating and designating corridors.

Third, the Western Governors see little benefit in FERC preempting State transmission line permitting processes. The major hurdle for permitting transmission in the West has been securing permits from Federal agencies. The implementation of Federal law has resulted in lengthy and inflexible Federal permitting processes. Enabling FERC to preempt State siting processes will not fix the underlying problem.

I would like to mention the limited instances in which the Governors could agree with FERC backstop siting authority.

It must be demonstrated that the transmission line is needed to meet national carbon and renewable generation requirements; comports with an interconnection-wide transmission plan; is right sized to meet the long-term needs for geographically constrained low-carbon generation; is the lowest cost option to meet long-term needs and where the State has failed to make a decision within a reasonably set statutory period.

Finally, the Western Governors believe the current system for cost allocation in the West has worked well, and we believe it will continue to be adequate for the future. The exception, of course, would be the cost allocation as it applies to the kind of right sizing we described.

We are attaching two letters to our testimony and we ask that they be included, two letters that the Western Governors have sent to the Congress in 2009 regarding transmission issues.

[The information follows:]

***** INSERT 2-X *****

Mr. Halvey. Thank you for the opportunity to talk with you today.

Mr. Markey. Thank you, Mr. Halvey, very much.

[The prepared statement of Mr. Halvey follows:]

***** INSERT 2-4 *****

Mr. Markey. I think this is about as important a hearing as we are going to have this year. We appreciate the opening statements from the witnesses.

There are 5 minutes left on the House floor for us to cast our vote. And so what I will recommend is that we reconvene this hearing in 15 minutes and then we will begin with questioning of the witnesses by the subcommittee members.

The subcommittee stands in recess.

[Recess.]

Mr. Markey. Welcome back, ladies and gentlemen, and we would ask all of the witnesses to please be reseated. And I would ask that the rear door be closed so that we can have the attention of all of our audience on the witnesses. Thank you.

So the Chair will recognize himself. And I will ask you, Mr. Halvey, to please elaborate on your testimony that permitting on Federal lands is the major obstacle to siting transmission in the West.

That issue is not generally within this committee's jurisdiction, but rather within the jurisdiction of the Committee on Natural Resources. But I don't think this is a widely understood kind of political reverse takedown that it is not the problem that the Federal Government has with the States, but the problem the States have with the Federal Government as represented by the management of the Federal lands, especially across the

West.

Could you elaborate on that and perhaps give us some specific examples?

Mr. Halvey. Sure. Thank you, Mr. Chairman.

Let me mention a couple of things. At a meeting of the Western Governors in February, Governor Otter from Idaho made the statement very clearly that in those instances where we have the opportunity to site transmission lines and not go through Federal lands, we are often going to want to exercise that.

There are a couple of issues, I think, that come to mind in terms of permitting with Federal lands. One, if you live in the West, it is difficult to avoid Federal lands. Many of the States are covered with lands under Federal jurisdiction, both the Department of Interior and the Department of Agriculture. So that is certainly an issue.

Second, there is no priority system for dealing with lease applications. It is on a first-come, first-served basis.

One of the things they are doing with the Western Renewable Energy Zones is really pointing out what we think is a critical issue, which is that there are places that are really better for not only locating renewable energy, but there are also transmission corridors that are going to be more important in moving that renewable energy. We believe that there ought to be some kind of a way to recognize that priority and to do the transmission work, the permitting work that is necessary to get

those facilities located.

We think, in many cases, it is not unusual to see 5, 7 or even 10 years to locate transmission lines when they go through Federal land.

Mr. Markey. Would you repeat that fact?

Mr. Halvey. Yes. That it is not unusual to see 5-, 7-, 10-year time periods in terms of getting lines approved through Federal lands.

Mr. Markey. So when the States go to Federal agencies, it takes 5 to 7 to 10 years?

Mr. Halvey. There are certainly instances where it has taken that long.

Many of the applications that we see now, that are going through that process -- in fact, Governor Rounds from South Dakota was talking about a line to run from South Dakota to Minnesota. At one of our meetings he mentioned that they have been working on it for 2 years, and they have had very little success in moving it through the Federal permitting process; and he sort of got the response of a chuckle from people in the audience, essentially suggesting, 2 years, you have barely started.

And so I think there is a great frustration on the part --

Mr. Markey. So what you are saying is that the States were working together cooperatively to try to find a solution to that regional, North Dakota-Minnesota issue, but because of the Federal Government, there was a multiyear delay in getting to a point

where the issue could be resolved.

Mr. Halvey. That I think is the sense of the Western States that the Federal permitting process is difficult, it is onerous, it is time consuming, and in many cases there are requirements that don't add any value to the permitting process.

We would hope to see something that one would recognize those areas that have a priority because of the richness of their renewable resources, but more than that, recognize that if we are going to meet any requirements for renewable portfolio standards or carbon reduction, we have got to do a much better job of matching up how long it takes to do renewable development with how long it takes to get the transmission to those developments.

Mr. Markey. So again, not to make too fine of a point of this, but you are saying that out West it is very difficult, if you are dealing with the remote areas where the wind and the sun might be strongest -- geothermal, as well -- to create any kind of a transmission system without at some point confronting this Federal issue.

Mr. Halvey. That is absolutely true.

Mr. Markey. And no matter how cooperative the States are -- and your testimony is that in most instances when States are trying to resolve these issues, the Federal Government serves as an impediment sometimes of such a nature as to just paralyze the process?

Mr. Halvey. That is correct.

Mr. Markey. That is very helpful to us. Thank you.

Let me now turn and recognize the gentleman from Kentucky, Mr. Whitfield.

Mr. Whitfield. Thank you, Mr. Chairman.

And thank you all for your testimony.

Mr. Wellinghoff, back in April of 2009, the New York Times quoted you in an article saying that new coal and nuclear plants may be unnecessary. And I know that Chairman Barton and Mr. Walden and some others have sent you a letter about that. And I have not had an opportunity to read your response, but you are certainly not opposed to coal and nuclear power, I am sure of that.

Mr. Wellinghoff. That is correct. I am not opposed to coal and nuclear power.

Mr. Whitfield. Since I didn't even read the New York Times article, would you basically explain what you were referring to when you made that statement?

Mr. Wellinghoff. I would be happy to. Thank you for the question.

I was referring basically to a scenario where, if we look at the diversity of the number of renewable resources, which would include, potentially, Midwest wind, that may have a diversity of delivery from offshore wind and include solar and geothermal, biomass; and also include the demand side, looking at demand response, energy efficiency, distributive generation, combining

these things together with a smart grid.

And the whole answer was -- in the response was, in the context of the smart grid, if you combine these things together it may, in fact, be possible with a smart enough grid to effectively provide these renewables as if they are base load, displacing base load; and that was the context of my statement.

Mr. Whitfield. When you talk about a "smart grid," do you have any idea or thoughts, or have you seen any studies about what the cost would be to complete transformation to a smart grid?

Mr. Wellinghoff. I have seen cost estimates anywhere from \$50 to \$60 billion up to \$200 billion.

Mr. Whitfield. And to reach the scenario that you referred to in the New York Times article that you just explained, in what sort of time frame would you view this transformation taking place?

Mr. Wellinghoff. At least a 10-to-15-year time frame.

Mr. Whitfield. Now on the Fourth Circuit Court of Appeals decision, have you all appealed that decision? Has FERC appealed the decision?

Mr. Wellinghoff. Let me check with my counsel.

It is due in July. We haven't yet made a decision. We are looking at it now.

I will tell you, though, I personally disagree with the Fourth Circuit decision.

Mr. Whitfield. Well, I know there are many of us that hope

you will appeal, but that is a decision that you all make, of course.

Mr. Coen, Ms. Azar, Mr. Hibbard, can you tell me the last -- when the last new transmission line was built in each of your States?

Mr. Coen. We are actually, in Vermont, in the process of upgrading most of our transmission systems. So we actually have ongoing projects as we speak.

The most major transmission line that has ever been sited in Vermont, the docket ended 2 years ago, and the line is currently almost complete today.

Mr. Whitfield. And how many miles is that line?

Mr. Coen. Well, this is Vermont. The line was 60 miles.

Mr. Whitfield. And what about you, Ms. Azar?

Ms. Azar. Just yesterday, we approved a 32-mile, 345kV line that costs about \$220 million through the city of Madison. So, in other words, the three commissioners essentially sited a transmission line through their backyards.

Over the last 8 years, we have spent \$2.5 billion upgrading or creating about 1,700 new miles of transmission in the State of Wisconsin. We have construction going on all over the State. A line was just energized, I believe last week, which was over 100 miles long.

And as Congresswoman Baldwin indicated, before I became Commissioner I was on the other side. I was getting permits for a

210-mile line between Minnesota and Wisconsin, and that line has been energized.

Mr. Hibbard. In Massachusetts, our most populous area, of course, is the Boston region and it is where our heaviest electrical load is. And over the past 10 years we have sited and had constructed a number of transmission enhancements to support the flow of power into Boston, including two major 345kV lines to eliminate the constraints between Boston load pockets and the remainder of Massachusetts.

Mr. Whitfield. One other question to you three: With the anticipated increase in demand of electricity needs over the next 15 or 20 years, do you think the existing system is adequate in your State?

Ms. Azar. With regards to the increase in demand, we continually update our systems. So we are going to continue to do updates. We have been doing updates all along. I don't think that process ever stops.

Mr. Coen. In Vermont, we have actually been able to mitigate any increase in our load over the last 5 years with energy efficiency. So I would say, offhand, that with the completion of what is called the Southern Loop in a couple of years, I think our transmission grid will be adequate for the next 10 to 15 years.

Mr. Whitfield. Mr. Hibbard?

Mr. Hibbard. I would give a similar answer. The answer to your question is "yes." When we look at potential scenarios for

load growth over time within Massachusetts, and indeed within the New England region, we see that the transmission system, including what is existing today and what is in the process of going through the regional planning process in siting, will be more than adequate to support the movement of power throughout our region for a decade or two.

Mr. Whitfield. Mr. Chairman, I see I have gone 1 minute 25 seconds over.

Mr. Markey. I thank the gentleman.

By the way, we will be having a second round and perhaps a third round of questions of the witnesses if the gentleman is interested.

Let me turn and recognize the gentleman from Washington State, Mr. Inslee.

Mr. Inslee. Thank you. I would like to put in the record, with no objection, a letter from the University of California, Berkeley, from Dr. Dan Kamen, a letter describing the reason and appropriateness of expanding new transition lines -- if I can put that in the record.

Mr. Markey. Without objection, it will be included in the record.

[The information follows:]

***** COMMITTEE INSERT *****

Mr. Inslee. Chairman Wellinghoff, I wanted to ask you to expand on your thoughts on how FERC could implement -- if it does receive backstop siting approval, how it could implement a greenhouse gas performance interconnection standard for new transmission and/or some criteria associated with compliance or fulfillment of the Nation's renewable energy goals.

Several of the other witnesses made reference to something of that nature. Could you tell us how you think that could work? Even though we have heard the physical explanation and that an electron is an electron is an electron, how could this function?

Mr. Wellinghoff. Thank you, Congressman Inslee.

First of all, we have initiated a rule-making, and certainly as part of that, all stakeholders would have an opportunity to provide any proposals as to how to implement such a greenhouse gas performance standard. But in doing so, there are a couple ways it could be done.

Certainly, in looking at the current emission permits from the generation stations -- from those, it is based on known items such as model and configuration of the generator and its mission control equipment and composition of fuel and the approximate run time of the generator.

You could take from that also the annual emissions are typically capped by a permit that can be used as the baseline to determine compliance.

So we could take compliance, I think, from their current permit applications, or new permit applications from generating stations, and take that data, put it into a database and ultimately from that use it to determine a greenhouse gas performance standard for particular plants that were into the interconnect.

Mr. Inslee. So you can obviously do that for particular plants, but could you effectively reference that to particular lines? In other words, are the plants specific enough to the line that this type of standard could be applicable to lines?

Mr. Wellinghoff. I think you would have to do that by regions, because it is all a matter of sort of displacement. You are not really delivering electron A to point B necessarily over an AC line. It is really pushing one electron down the road.

So I think you would have to do it basically on a regional basis, but I feel that we can do it, yes.

Mr. Inslee. Thank you.

Commissioner Azar, I appreciated your comments, first off, about the appropriateness of Federal backstop authority and its general view, that I share, that it is appropriate. And I appreciate your views on that because of your incredible background in this area.

But I also appreciate you making reference to the necessity of considering demand-side issues when you do siting and planning. And I want to make sure you are aware that in the ACES bill, we do

have a very specific policy that is a policy of the United States and regional electrogrid planning to meet these objectives should take into account all significant demand-side and supply-side options.

Do you want to comment on that? Is it a good idea? Is there anything we should do to expand on that to make sure we consider that is part of our planning process?

Ms. Azar. It is a very good idea. And my point in raising it is that those kinds of solutions are oftentimes best made at the State level because the States are going to understand how they are going to be setting up their distributed generation, how they are going to be setting up their energy efficiency and conservation measures, better than the Federal Government.

So that was the point I was trying to make with regards to why I thought a State-led process would be better with regards to those specific items.

Mr. Inslee. Thank you.

Chairman Hibbard, I wanted to ask you about cost allocations. I am told that recently there has been a 345kV end star reliability project in transmission in the Boston area, and I am told that the total cost of that was \$334 million and 325 of that was spread across New England in a cost allocation system; only 3 percent was assigned directly to the Boston area ratepayers. So regional cost allocation seems to work at least in your area.

If cost allocation in general of that nature seems to be

acceptable, should we not be able to fashion some other cost allocation more widely?

Mr. Hibbard. Certainly.

Thank you, Congressman. I think it is instructive when thinking about the cost allocation issue to draw a very clear line between transmission projects that are needed to maintain grid reliability and transmission projects that are essentially for the benefit of generation developers.

In the New England system, we have exactly that split. If, through the regional planning process, lines are identified that are needed to maintain reliability on a regional basis -- and the end star line in Boston was exactly one such line -- then we support the socialization of costs across the entire region, because it benefits everyone within the region to maintain the reliability of the grid.

So the cost of the end star line is shared by everyone in New England. In Massachusetts, we are about half of the load; we pay about half of the bill. Similarly, the project that Commissioner Coen referred to in Vermont, other projects that are on the books in New Hampshire and Maine and Connecticut, all focused on reliability of the grid, projects for which even though they are not within Massachusetts, Massachusetts consumers will pay half of.

It is a vitally important component of cost allocation that when looking at reliability there be a willingness within an

integrated power grid to share that cost across load.

The distinction I want to make here is that the issue of cost allocation for building lines to interconnect generation resources departs from that. We want -- in order for our consumers to be protected, we want the cost of developing generation, including the cost of meeting compliance measures, the cost of delivering power reliably to load and making sure you don't adversely impact the reliability of the system to be borne by the generation developer and included in the price that they are charging customers.

Mr. Inslee. I just want to comment, I think this is a new approach that some of us are suggesting, because there is a new national need just as important for reliability and that is to prevent the Earth from turning into toast. So that is the reason for our thinking.

Thank you very much.

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

Again, there will be a second round of questions for all members who are interested.

The Chair recognizes the gentlelady from the State of Wisconsin.

Ms. Baldwin. Thank you, Mr. Chairman. And I want to direct this question to Commissioner Azar.

One of the proposals that we hear a lot about on Capitol Hill is the possibility of a 760kV line, often known as the

"transmission super highway." And I would like to hear your insights on how a 765kV overlay might affect a State profile like a State of Wisconsin, and if you could, describe any concerns that you might have that it would be detrimental to Wisconsin or others.

Ms. Azar. Thank you, Congresswoman.

When you add a high voltage overlay into a State, you have got to make sure that the underlying system is built up to accept that. In Wisconsin, as both you and I have noted, we have spent billions of dollars at this point in time designing a specific kind of system. The American Transmission Company has designed a 345kV system. If there is a 765 overlay built into Wisconsin, it is essentially going to mess up our very deliberate 345kV design. So we are going to have to build up our underlying grid.

That being said, ultimately, if Congress gives us the mandates and the group of States decide that the best thing to do would be a 765 grid overlay, then we are going to need to accommodate that. But I think there are better ways to do it.

The one-size-fits-all will likely be, in my estimation, probably oversized and not cost effective. The one way in which I think about a 765 grid overlay is, you have got somebody with a hose on one side of the swimming pool and he has to get the water to the other side of the swimming pool, there is a drain at the other side of the swimming pool. There are two options he has got. One, he can extend a hose, or the second option is, he fills

up the swimming pool. And the 765 grid overlay is more akin to filling up the swimming pool than extending the hose.

I think there are better ways to do it than one-size-fits-all. The bottom line is -- the primary message is, we need to do the calculus. We can figure this out. A tailor-made answer is better than a sort of a generic answer.

Ms. Baldwin. Another proposal that we hear a lot about that has been floated is making RTOs the final decision-makers with regard to transmission decisions. And I wonder how you would analyze this as an option. Do you think that RTOs have all the correct interests in mind when they would approach these sort of decisions?

Ms. Azar. You know the decision-maker, in selecting the plan for the grid, needs to be beholden to only one interest and that is the public interest. The RTOs have got a lot of different stakeholders. And they are very adept, and I compliment them on trying to balance the competing needs of the stakeholders.

But I can speak for the Midwest Independent System Operator. They actually have a contractual obligation to their transmission owners to maximize the revenues of the transmission owners. And when you have got those kind of interests, they will not be thinking about the public interest when they are making their decisions; they will be thinking about their contractual obligation to the transmission owner.

So, no, I do not believe the RTOs should be the ultimate

decision-maker in this. That being said, their expertise with regard to planning and their planning engineers absolutely needs to be involved in this process.

Ms. Baldwin. I don't know if Mr. Coen or Mr. Hibbard have any comments on that same question.

Mr. Coen. I would concur with Commissioner Azar's comments as well.

Mr. Hibbard. As would I.

Ms. Baldwin. Mr. Chairman, I don't have any other questions at this time.

Mr. Markey. Great. I thank the gentlelady.

The Chair will recognize himself for another round of questions. Let me move to you, Mr. Hibbard, so that we can put this out on the table.

A lot of people, when they think of the solar revolution, they think, well, we are going to bring it in from the deserts of the United States and bring it into the cities of our country. And that is true. And they also think that when we consider wind, we are going to go out to the prairies of the United States and we are going to bring it into the cities in order to provide the electricity.

But people don't really think about the oceans as much a source, in the future, of renewable electricity. And you made a reference to all of the Eastern States' Governors from Maine down to Virginia, who are very concerned that their plans for bringing

in wind off of the coastline or other renewable sources might be undermined by this kind of a proposal.

Could you talk about that and talk about what your vision is -- that is, all of these Governors' -- in terms of what the long-term renewable prospects are for the East Coast?

Mr. Hibbard. Certainly. And thank you, Mr. Chairman.

In Massachusetts and I think throughout the New England region, we are strongly supportive of the climate goals that are inherent in the ACES legislation and the renewable goals -- certainly, in Massachusetts we are -- and we want to find the best way to meet them.

We see offshore wind as being an enormous renewable potential for the coastlines of our country, a potential that is very close to load centers and can interconnect in multiple locations on the lower-voltage-type networks that Commissioner Azar mentioned in a way that will strengthen the reliability of the grid; and that it represents -- there is also a huge amount of onshore renewable potential up and down the East Coast.

The concern that we have is that by -- if you take, for example, what is included in the Joint Coordinated System Plan, it would essentially dump --

Mr. Markey. Could you expand on what that is?

Mr. Hibbard. Sure it is a multiregional plan that was done -- I think, coordinated by MISO.

Mr. Markey. Can you explain what MISO is?

As you all continue your testimony, we have C-SPAN watching this, and I think it would be a very interesting subject if it was actually communicated in English to the watching audience. So we are going to be on acronym alert for the rest of this hearing, and I am going to stop every time you use an acronym and every time you make an assumption that everyone in the room knows what you are talking about.

This is a very important issue that has very profound impact on families, so please explain what you are talking about.

Mr. Hibbard. Thank you, Mr. Chairman. I will try not to use a lot of acronyms. I hope my Boston accent is okay.

Mr. Markey. You sound very eloquent. All of the other people in the room have such funny accents, don't they?

Mr. Hibbard. I agree.

Mr. Markey. How about those Red Sox and Yankees last night?

Mr. Hibbard. I was going to, on a personal note, commend you for your astute observation about the link between our national economy and baseball because we are seeing signs that our economy is improving, and it occurred to me that at the same time, as you watch the Red Sox once again sweep the Yankees over the past few days, Ortiz is hitting home runs again.

Mr. Markey. I will give you 1 extra minute, so everyone -- again, people won't know what you are talking about.

I gave a speech in Boston on Monday, and I said that -- I said in Boston that the economy was in a David-Ortiz-like slump,

but that I had faith that our economy and David Ortiz would be hitting home runs again. Now, unfortunately, the Boston Globe ran a little editorial the next day questioning my judgment in linking David Ortiz's recovery to the American recovery. That night David Ortiz hit a home run. Last night David Ortiz hit a home run.

Today and yesterday we received all this new, positive commentary about the American economy. I am not saying it is directly related to my speech on Monday. However, I do believe that, and I thank you for pointing this out, that my comments were accurate.

So please continue, and we will add back the time onto your statement.

Mr. Hibbard. I will see if I can remember the original question.

There was what I think has gone hand in hand with the efforts to push for expanded Federal oversight over transmission, there have been a couple of major studies done recently by DOE and also done by a group of regional planning entities across the country to look at this idea about how do we actually expand the development of renewable generation in the parts of the country where it exists and move that across the multiple regions and deliver it into subregions.

So the Joint Coordinated System Plan was a very large technical analysis of how to go about doing that, what the transmission network would look like, a super-high-voltage

transmission network would look like, to accomplish that result.

As part of that plan, when you look at it, one of the things it does is, it would dump on extra-high-voltage lines on the order of several thousand megawatts of power into New England at a very high voltage.

Now, in addition to that -- issues that Commissioner Azar has mentioned -- that would require a lot of building out of the transmission network within New England.

The concern I have is that we have a competitive market framework in New England that is absolutely essential to keep commodity prices low for our consumers. We have a need in the region over the next couple of decades only on the order of several hundred to 1,500 megawatts for new power. If we were to administratively put in a large high-voltage transmission line that put that quantity of power into our region, it would eliminate the market signals that our local renewable resources require in order to move forward with financing and development. That is the threat.

Our position is, we absolutely have to meet the carbon goals that the country is now warming up to and that we need to meet in the coming years. But the way to do that is to do it through ensuring that the resources that are brought on line are those that make the most sense to the customers from the standpoint of the delivered price of electricity; and we think we can do that without this level of Federal oversight.

Mr. Markey. So -- if I may, so one of your concerns and New England's concerns generally, those six States, would be that as you put together regional plans to generate renewable electricity within the region, offshore or onshore -- there is a huge project up in Aroostook County in Maine that could be, ultimately, in the thousands of megawatts if it is built out completely; but there will be an issue there of getting that electricity down into the population areas. But nonetheless it is contained within New England that has had historic relationships and worked through all of the reliability, cost allocation and siting issues over the years.

But you would be concerned that if there was some superimposed decision made to build transmission lines in from other parts of the country, that that would then change the economics of developing the renewables that are indigenous to Massachusetts and New England whether it be in Aroostook County, Maine, or off the coastline of New England.

I think -- and I will add this as well -- one of the things that is not well understood about the East Coast of the United States is that when you go out 10 miles, 20 miles, 30 miles, 40 miles, you are still only in 200 feet of water. When you go out that far on the West Coast, you are out -- you are miles deep in the ocean. And so in terms of the siting issues along the East Coast, for wind especially, you can go out miles and miles and still be just hundreds of feet from having to site these wind

facilities; and then with superconducting technologies, just bring them in to the shore and hook them into the preexisting grid that already is there in New England -- with the States having to work out, of course, what the cost allocation is, but knowing that all of New England, for example -- and New York, for that matter, and New Jersey and Maryland are all committed to resolving and cooperating in the production of new, renewable energy resources.

So just opening up this whole question of the remote areas of Maine, for example, most people don't know that 95 percent of Maine is forest. It is woods. It is rural. So there is a lot of opportunity there as well, and it is a huge State as well. So I just raise that issue because we have to strike a balance here, because we do want each region's indigenous resources to be developed as well.

Let me just stop there and recognize the gentleman from California, Mr. McNerney, for his questions.

Mr. McNerney. Thank you. I was expecting you to recognize Mr. Inslee first.

Mr. Markey. He has already been recognized for his first run. So I think it is appropriate for you to be recognized.

Mr. McNerney. Thank you.

First of all, I want to thank Chairman Wellinghoff for his hospitality this week. And I think your testimony was rational. I noticed one thing though. You were seeming to advocate that the Fed has a significant, large role and the State regulators were

all saying, Well, the States should have a larger role and the Fed should have a littler role. So I guess that is not too surprising.

I wanted to ask you, though, do you think that the U.S. faces significant technical hurdles, or do you think it is mostly political hurdles to improving our national grid?

Mr. Wellinghoff. Thank you, Congressman McNerney.

First, on the issue of the Federal role, I really believe that we should primarily defer to the States. I think what we need is to have Federal pressure to ensure that the States can move forward with interconnection-wide regional planning, siting, cost allocation.

But I largely agree with Commissioner Azar and her testimony. I think really it needs to be primarily informed by the States.

We certainly, though, have to have some entity who would overlook that State activity to ensure that the national goals are also incorporated into what the States --

Mr. McNerney. And I like Ms. Azar's suggestion that we lock all the State people in one room until some decisions are made. But I don't think that that is really going to happen.

Mr. Wellinghoff. But on your second question with respect to whether it is technical or political, it is a good mix of both. And on the technical side, I think it is important to understand -- and I know that New England and the eastern seaboard States are very interested in offshore wind, and I support

offshore wind; that is a great resource.

What we have to understand is, they are not an island either; they are interconnected to the entire eastern interconnect. So, for example, if we had offshore wind from Rhode Island, New Jersey, New York all the way up through New England put in place, developed, say, 10 gigawatts, 10,000 megawatts of wind put into the East Coast, we could not simply, as I understand it from my reliability engineers, simply interconnect that into the existing grid. We -- in fact, if we had that happen, and we had as little as perhaps 2,500 or 3,000 megawatts of that go off line, we could black out Florida.

So we ultimately need to look at how to strengthen the entire interconnect so that all the regions, in fact, can meet the renewable goals and can do it with their local renewable resources and with distance-renewable resources, if necessary.

Mr. McNerney. Thank you, Mr. Chairman.

Mr. Halvey, I certainly appreciate your work toward the Western region. I understand your desire to streamline the permitting process. Do you have any specific recommendations along those lines?

Mr. Halvey. Yes, I think a couple of recommendations, one because of the work that we are doing with regard to the Western Renewable Energy Zones project. We think it will become clear very quickly which areas represent the most desirable, the richest and the most developable renewable resource zones. Given that

identification, we think there is the opportunity to prioritize those areas. Where they exist in concert with federal lands, we believe there should be a priority given to the permitting on those areas.

Same thing with the transmission lines that would be necessary to move that power from those renewable energy zones to the market centers where it is needed.

One of the other aspects of the project is that we will identify, conceptually at least, where the transmission lines need to be in order to use that power.

Mr. McNerney. So you are really addressing the prioritization, not the actual process of permitting?

Mr. Halvey. We think it is both. One recommendation is the prioritization. The second is to look at the requirements and certainly limit the number of requirements that agencies have to go through that have no value added in terms of that permitting process, that there is a way to protect wildlife, that there is a way to address environmental values, that there is a way to go through these processes and not take the kind of time that we are seeing with many of these applications.

Mr. McNerney. I agree. And I just want to remark on Mr. Hibbard's optimism that offshore wind can be as significant as it can. And the fact that it is proximate to load centers, that is an important consideration as opposed to putting in a lot of transmission. So I appreciate that.

And also the observation about just putting in large transmission capacity can have a negative impact on renewables. So those are appreciated, those comments are appreciated.

And with that, I will yield back.

Mr. Markey. Gentleman's time has expired.

The Chair recognizes the gentleman from Washington State, Mr. Inslee.

RPTS MERCHANT

DCMN NORMAN

Mr. Inslee. Thank you. I wanted to read just a little portion of Commissioner Azar's testimony and ask a couple of questions to the three of you about it. Commissioner Azar said Congress can and should play an important role in bolstering and catalyzing State efforts by setting clear mandates and guidelines as well as strict deadlines for State and regional transmission planning efforts. If these planning efforts fail to meet these mandates or deadlines, Congress can set up additional backstop authority for Federal agencies to take action and ensure that projects identified in the regional planning efforts move forward. I am paraphrasing now. Examples of the type of leadership that would be helpful include the following, and the commissioner lists four things. But the fifth thing is clear and powerful backstop authority for Federal action to plan for, approve and site transmission lines that are identified as vital in the State-led transmission planning process.

I agree essentially with that statement. And I think a bill I have introduced heads in that direction. The question I would like to ask Mr. Hibbard, Commissioner Azar and Chairman Wellinghoff is, Mr. Hibbard has identified this issue that he doesn't want to see offshore wind intruded upon by, say, coal coming in from Ohio or somewhere else. And I believe if we do

have this backstop authority, we can and should build something in that would make sure that we preserve our goal of enhancing low carbon-based fuels as part of what you might think of as bonus backstop Federal authority.

Is there a way to do that? And if you could give us your thoughts on the best way to do that. I will just start with Mr. Hibbard. If we were going to adopt this backstop Federal authority, what would you encourage us to do to prevent the scenario that you fear?

Mr. Hibbard. Well, let me start by saying I think that the legislation as it stands contains that backstop authority. By setting a cap on carbon and by setting a floor on renewable resource development, you are providing competitive markets the market signal they need to spur the development.

The question you are posing is what if that is not enough? What if at some point we look and we see that, for whatever reason, we are not getting the level of development of renewable and low-carbon resources to meet our clear caps and our clear floors?

What I would urge all of you to consider is to try to come up with a framework that does so while maintaining the importance of competitive market solutions.

Again, under FERC's leadership, our wholesale competitive markets in New England are critical to keeping prices low to consumers, and not violating that is extremely important. Now,

are there ways to do that? The one example I can give you is that in Massachusetts we recently enacted legislation that requires our distribution utilities to enter into long-term delivered-price contracts with renewable power sources so that the utilities themselves would issue solicitations and would select the lowest-cost option for meeting that goal of the Massachusetts State Legislature.

You could consider something along the same lines where at some point you could evaluate whether or not the country is heading towards meeting its carbon cap and its renewable power floor, and if there is a deficiency identified, have FERC step in in essentially a backstop planning mode and require that regions, RTOs, utilities or interconnecting transmission owners issue solicitations for long-term contracts for renewables on a delivered-price basis.

Mr. Inslee. I want to make sure, if you could kind of wrap up, I want to make sure we get to the other two witnesses.

Ms. Azar. Thank you, Congressman. I am optimistic that if Congress sets the goals and sets the process and has a strong backstop authority, that we will be able to get this done. If we don't get it done, again, I think that is when the role of FERC steps in. So if FERC for instance -- if the States came up with a specific plan and the plan did not meet the objectives of Congress that Congress set, I think there needs to be essentially an overseer. And I personally would be fine with that being the

Federal Government saying, yeah, this plan actually meets those objectives. But the plan itself has to be designed by the States.

Mr. Inslee. Mr. Chairman.

Mr. Wellinghoff. Thank you, Congressman Inslee. Just to respond to Mr. Hibbard, I want to make very clear that FERC is very committed to competitive market solutions. We wouldn't choose to do anything that would be counter to that. But I think when we look at transmission, there are some nonmarket barriers, and those include the issues of siting and cost allocation. And, again, agreeing with Commissioner Azar, I think it is necessary to allow the States to move forward in those areas to see if they in fact can do some interconnect-wide planning collectively, that they are moving forward to do that both in the eastern and western interconnects, and then see from that if the siting and cost allocation can be agreed upon. But if not, we have to I think have that pressure, that Federal pressure behind it to inform that process, to make sure that it moves forward to ensure that we meet our national goals.

Mr. Inslee. Thank you.

Mr. Markey. The gentleman's time has expired. The Chair recognizes the gentlelady from Wisconsin.

Ms. Baldwin. Thank you, Mr. Chairman. When I hear the discussions about connecting Dakota wind generation through transmission to load centers on the east coast, I sort of feel like Wisconsin could become a State that has an extension cord

just running through it. Maybe I should use the swimming pool analogy instead. But that is the image that it conjures up for me. And I worry that it disincentivizes distributed generation.

And as I pondered in my opening statement earlier this morning, how we propose to pay for the transmission upgrades that are coming down the pike is a critical question. Will those who do not receive the extensive benefits of this transmission have to pay for the cost of traversing lines across the country?

The ratepayers that I represent, as you have already heard, have supported their share of more than \$2 billion of new investments in the Wisconsin transmission system. Clearly there are transmission technology decisions that need to be made, and there are cost allocation decisions that need to be made. But I guess I would ask the whole panel and anyone who wants to comment, how we best protect those ratepayers, how we set up the system in a way to best protect those ratepayers who will not be receiving the huge benefits of this transmission buildup.

Mr. Hibbard. If I may jump in, Congressman. I think the model that I have been discussing here this morning of requiring that the cost of transmission associated with moving generation from the generation source to market be included in the price that is offered to consumers that will be purchasing it is our first line defense on that. So that if transmission were coming from the Dakotas and being put into New England, the price of that would include not just the cost of developing the generation but

also the cost of the transmission. We can then compare that price to other generation prices available to us within the New England market for local renewables, for demand resources, or for more traditional generation, and that ultimately the projects that will go forward will be the ones that benefit ratepayers.

Ms. Azar. As far as cost allocation I don't think we can actually speak to what would be the best cost allocation at this point in time. It should be tailor-made to the grid that is essentially planned. As I mentioned in my initial comments, if you pick a specific cost allocation right now, it is likely to steer the plan in a specific direction. And I would rather have the physics drive -- the physics and the economics drive the plan, and then we can figure out how to pay for it after the plan is designed. So that is my recommendation.

Mr. Coen. As a Vermont commissioner I would concur with my colleague from Massachusetts. For the naval perspective, we would be looking to take a position case by case as it comes forward.

Mr. Wellinghoff. And, again, I would agree with Commissioner Azar. We should not dictate a particular method, number one. But number two, my preference would be to have the States try to work it out ultimately. And if those States that were involved in the line, the line went across the State, but that State could make a case if there wasn't real benefits to that State. So hopefully that solution could be worked out and ultimately resolved in a collaborative way.

But ultimately, at the end of the day, if the decision had to be made and it couldn't be made by the States and the region collectively, I think it would be appropriate for FERC to determine that allocation; and the allocation, in fact, may decide that a particular State like Wisconsin did not benefit, depending upon the definition and breadth of the term "benefit" from a particular line, and, as such, may not be allocated costs.

But, again, you have to provide the flexibility for that kind of a decision to be made. You can't restrict specifically or dictate in a rule how that has to be done. It has to be in a very broad, in a broad way that allows FERC to meet its mandate to ensure that rates are just and reasonable.

Mr. Markey. Okay. Let me now turn and recognize once again the gentleman from California for another round of questions.

Mr. McNerney. Thank you, Mr. Chairman.

I had a question for Commissioner Azar. You had some recommendations for congressional action to facilitate projects, transmission projects. Do you feel that those recommendations are widely shared across the country by State commissioners.

Ms. Azar. I have not had the opportunity to float that idea by my colleagues, so I can't speak to that.

Mr. McNerney. Well, that is my only question and I yield back.

Mr. Markey. I thank the gentleman.

The Chair will recognize himself just to pursue a few

questions here. Mr. Hibbard, perhaps you could deal. Mr. Wellinghoff said that if there was 3,000, 5,000 megawatts of wind brought in from offshore up in New England, that it could cause reliability problems down in Florida. But the converse could also be true with what Florida Power and Light and, hopefully someday, the Southern Company is doing in Florida to generate renewable electricity could cause reliability problems up in New England. How do we resolve that issue?

Mr. Hibbard. Thank you, Mr. Chairman. The issue, the engineering issue that the Chairman refers to is really one of the size of the transmission and the associated capacity being put onto the transmission network in the region. So for example, if as Commissioner Azar was referring to you have a 765 kv line and it is --

Mr. Markey. You know, can you imagine the audience right now? Okay, what is that? What is that?

Mr. Hibbard. If you have a really extra high-voltage line --

Mr. Markey. What does that mean? What does that mean? "Dropping," what does that mean?

Mr. Hibbard. Think of it this way.

Mr. Markey. Okay. Try again.

Mr. Hibbard. When a transmission line interconnects or it hooks up with the transmission system in New England, it looks like a generating facility. So if you have a really high-voltage line it looks like a really big power plant.

Mr. Markey. So when people are riding down the street or out on the highway, and they look off and they see something, explain it in those terms just so they can understand why people's sensibilities might be affected by what it is that is constructed, so that you can put it in those terms, because 765 kilovolts doesn't really mean anything to people.

Mr. Hibbard. What they would actually see is a really big tower. But from the standpoint of how it affects the grid it just puts a lot of electricity onto the grid in a single location. And if that were suddenly to disappear, then there could be problems if the transmission system can't withstand it, and cause the type of widespread outage that he was referring to.

The value I see in offshore wind technology along the eastern seaboard is it completely overcomes that problem, because it can be built out incrementally at lower voltages that hook on individual lines into the major load centers along the east coast so that we can build it out without the need for increasing the reliability, the potential reliability risk on the underlying transmission system.

So that, while I think if we were to take the path of interconnecting 3,000 megawatts in a single point -- that would be the problem that the Chairman is referring to -- but that offshore wind has the potential to be dispersed on a much more widespread geographic basis and actually enhance the reliability of the grid.

Mr. Markey. Mr. Wellinghoff, would that solve your Florida problem, or, from our perspective, our New England problem?

Mr. Wellinghoff. I am not sure that it would, Mr. Chairman.

Mr. Markey. Can you explain why?

Mr. Wellinghoff. I am not sure that it would, Mr. Chairman. Ultimately, even though you may disperse the 3,000 megawatts over a number of locations, the issue is going to be the variability of that wind and the effect of that variability on reliability across the interconnect with respect to frequency. And I have actually directed our reliability division to commence a study that will look at this issue and determine how that incursions infrequency can affect reliability across both the eastern and/or western interconnects.

Mr. Markey. Mr. Hibbard, you are back at a FERC hearing right now; what are you going to say to Mr. Wellinghoff when they raise that issue?

Mr. Hibbard. First I will commend the Chair and FERC for looking into reliability.

Mr. Markey. Good.

Mr. Hibbard. And I would encourage them to consider in that study the difference between variability of 3,000 or 4,000 or 5,000 megawatts being connected at a single point to the variability, and the impact of it being spread over a very wide geographic region. And whatever the outcome is I am certain it will be the right answer.

Mr. Markey. And would you agree that there could be a distinction made between a concentrated renewable source and something that is dispersed over hundreds or thousands of miles?

Mr. Wellinghoff. Mr. Chairman I try to not practice electrical engineering without a license, but I would agree there may be a difference between the two.

Mr. Markey. Thank you. And by the way, would those same issues exist in a Western State, for example, that might want to produce 3,000 or 4,000 or 10,000 megawatts of renewable in their State and try to move that, for example, into a metropolitan area in another State or several other States? Would it create the very same issue?

Mr. Wellinghoff. Yes, it could be applicable in either interconnect.

Mr. Markey. So it is an issue that we ultimately have to resolve here. I think that going back to this 765 kilovolt issue is an important thing to understand. Because in my experience, at least on this committee for 33 years, there are corporate entities that really think big; the bigger the facility, the bigger the plan, the better it is. And then there are others that think, well, maybe we can disperse the way in which we generate electricity. Maybe we can do this in a way -- and here it is going to be increasingly important -- to generate solar and wind and other renewables from more dispersed sources. And that is to a certain extent where the smart grid comes in so that we are

doing it. We not only need a smart grid, but we need smart people planning a smart grid so we don't overbuild it and put those burdens back on to the consumer.

And we saw all of that happen back in the 1970s and early 1980s where all of these nuclear power plants that were guaranteed to be needed by the year -- if we didn't build 500 new nuclear power plants, they told us, by the year 2000, we would have blackouts all over America.

So we need to think big and put all these costs on the shoulders of ratepayers all across America. In the New England region we really suffered from the overenthusiasm, I will say, of these big central planners. And so we have to be careful here that those types of -- we will call it planners -- don't control this process, because it is just the opposite era that we hope we are entering in terms of the development.

And I can just feel the hoofbeats of the large central planners moving towards this whole concept. And after 33 years, I am kind of aware of what can happen. There is an old saying that a smart man learns from his own mistakes and a wise person learns from other people's mistakes. But at my age and service in Congress, I am an expert in both areas of mistakes, and so I just don't want to see that happen again. And that overbuilding issue is really something that is quite important to me.

So if you could, Ms. Azar, could you go to the question of AC/DC. And first of all, explain to our viewing audience what

that is and why different results occur depending upon the decision which is made.

Ms. Azar. Yes. The alternating current system is the primary transmission grid we have right now, and it is completely interconnected. So when you put an electron on that AC grid it is going to go to the path of least resistance. With models, you can predict where it is going to go but you can't direct it. The electron goes where it wants to go. On a DC line it is actually very directed. It has one direction.

Mr. Markey. So DC means direct current.

Ms. Azar. Direct current, thank you. The direct current line. You have a lot of control over it. The electron goes in one direction. You know, for instance, when you drop an electron on one end of a DC line, you know where it is going to end up. It is going to end up on the other side of the DC line. Whereas in an AC grid, if you drop an electron at the same point, you are not sure what path it is going to take. The only thing you know is you are pulling power off at certain locations. So there are two very different models.

Mr. Markey. And for the purposes of our discussion today, how does that instruct this discussion in terms of the goals that we are seeking to achieve.

Ms. Azar. I can give two answers to that. One is we need to know what the goals are from Congress. And then we are going to be able to decide which of those, or the combination of the both

of them, will solve the problems that you are going to put forth to us.

I can tell you from a personal perspective that the DC lines, if your problem is trying to get power from a fairly localized location, let's just say in the Dakotas, and you are trying to get it far east, as long as you are over 400 miles long, DC lines will likely be a very good solution to that problem.

Mr. Markey. Are they more or less expensive?

Ms. Azar. That is a good question. As a general rule I would say they are less expensive, but it depends on what kind you are building.

Mr. Markey. And that should be a decision, in your opinion, made by the regions.

Ms. Azar. That is correct.

Mr. Markey. And that could actually turn on how much burden is placed upon consumers in terms of their electricity bill each month.

Ms. Azar. That is correct.

Mr. Markey. Mr. Wellinghoff, if I may, you heard Mr. Hibbard and others talk about what the impact would be of the Waxman-Markey bill on the marketplace. The signal will be sent to move away from carbon-producing electrical generation; there will be a national renewable electricity standard now as a result encompassing an additional 20 States. And he largely believes that that is going to now force States on a regional basis,

because of these national goals, to reach a combination on these new lines, and that the Federal Government is actually going to be less needed in the future, perhaps with the exception of the Federal lands issue, to resolve these issues.

What is your response to that in terms of -- because we are trying to create a market-based response. And I will just give you an analogy and perhaps you could -- or an analogous situation and perhaps you could reflect upon it.

After we passed the 1996 Telecommunications Act, all of a sudden there was an explosion of broadband deployment across the country. Telephone companies, cable companies, others who had been telling the local PUCs, oh, it is not in fact cost-effective to be deploying fiber optic or broadband technology. We are now in a mad race to do so because there is now a new Federal law which is placing a premium upon it, and by the time we reached 2000 we actually had a dot-com bubble because of the vast and very rapid deployment of broadband across our Nation.

Now, we created thousands of new companies. Some survived, some didn't. But it was great for our country in the long run. Is there any reason to believe that the legislation, as it is now drafted, won't unleash a similar and very, very significant deployment of renewables across the country and kind of press regions and individual utilities to finally resolve their longstanding, call it -- no, I won't call it opposition, I will call it skepticism. Because I saw it in the telephone sector, I

saw it in the cable sector. They moved overnight to challenging their perspective.

Do you think the legislation will do that, and, as a result, perhaps this Federal role isn't going to be as needed, with the exception of the Federal lands issue?

Mr. Wellinghoff. Well, certainly as you are aware, Chairman Markey, there are approximately 29 States now that have renewable portfolio standards. In fact, my State of Nevada is one of those. We have a standard that is 20 percent by 2015, so it is far ahead of most State standards. And those standards have in fact created markets, created markets for renewable energy, and moved renewable energy into those markets very effectively. So I think that is happening already on the one hand.

But on the other hand, I have people coming into my office who tell me that wind is being curtailed in the Midwest because we don't have adequate transmission. So that tells me we have a problem. It is not simply the markets are creating these new markets for renewables, it is the need to somehow ensure that this transmission gets built to make a deliverable. We need to make a deliverable.

Mr. Markey. You are saying that the States are not cooperating in the Midwest in the transmission of wind.

Mr. Wellinghoff. No, I am not saying necessarily the States or the Federal Government. I think it is a combination of the fact that we have certain barriers, which include issues of

planning, siting, and cost allocation that need to be relooked at in ways that we can facilitate more transmission for renewables.

Mr. Markey. You are basically saying the Federal Government needs more authority because the States aren't doing the job in moving that wind around in the Midwest.

Mr. Wellinghoff. I am saying that ultimately what we need to do is ensure that the States understand --

Mr. Markey. And I appreciate that.

Mr. Wellinghoff. -- those priorities, and that in fact --

Mr. Markey. But you are saying they will need that, - in addition to the new law which we are passing, which will create all those incentives for utilities to move and for states to move, you are saying that that is not going to be sufficient; that you believe that the States themselves have some built-in inertia, and some of those utilities do as well, and that because they don't move, even though we passed this new law and created these high goals that have to be met by national mandate, that we will still need the Federal Government to come in as a club. Is that what you are saying?

Mr. Wellinghoff. I am saying that I am not blaming the States, nor am I saying the Federal Government is the panacea. I am ultimately saying --

Mr. Markey. Right. But here is the problem. In terms of -- and I appreciate what you are saying, and you are engaging in a bit of terminological inexactitude which is necessary for to you

maintain good relationships with the States, and I appreciate the position that I am putting you in. But at the same time, we are going to create a brand new law here that is going to affect all these States.

Mr. Wellinghoff. That is correct.

Mr. Markey. So we need some evidentiary basis for preempting the States that is based upon a Federal perception of the problem that exists in these States. So while we won't use the word "blame," we need to find some way in which we pinpoint what it is that is occurring that is the problem, and then we can tailor a solution to it. But we can't deal with it in kind of broad generalities. We need to have the specifics, and then even in the report language of the legislation we can ensure that we are explaining the problem as it exists, let's say, in a particular region. And here we are talking about the Midwest and the fact that wind is not moving around, even though it is readily available. So pinpointing what that problem is helps us then to tailor the language to reflect that problem.

So maybe you can elaborate a little bit on that Midwestern problem where the bottlenecks are, what causes it; and then we can kind of contemplate, cogitate, on what might be necessary.

Mr. Wellinghoff. And I am suggesting part of the bottlenecks are the fact that, number one, FERC really doesn't have the authority to allocate across boundaries. So between Misol and PGM, for example, we don't have the ability to allocate costs of

transmission across these boundaries, and, as such, we are not really getting the types of transmission built.

And I think you are going to hear from Mr. Welch from ITC in the next panel, and he has a very interesting transmission project that I would commend you to explore this with him further, because he is in the Midwest trying to get large amounts of wind out of the Dakotas into the Chicago area. And I think one of his issues he is talking about is cost allocation across two regions.

So what I am suggesting ultimately is that Congress needs to look at an entire structure of planning, siting and cost allocation that is initially deferred to the States, and I would say that the States should in fact ultimately solve that problem. But if they can't, then the pressure should be there to allow the Federal Government to step in if necessary.

Mr. Markey. Thank you. Mr. Wellinghoff. I was the author in 1992 of the wholesale transmission access provisions in the Energy Policy Act that, for the very first time, gave the FERC the ability to force utilities to stop blocking requests for open and nondiscriminatory access to wholesale transmission lines so that there could be more competition in that area.

The FERC then built upon that new law that I created and issued a generic order 888 on transmission access, which is an historic order, and that is based upon my 1992 law.

So I am very sensitive to this issue, but, again, I don't think we should tailor something that goes beyond what is needed.

And I say this to you, Chairman Wellinghoff, that part of the problem we have up in Massachusetts, and New England as well, is the -- and it is not you, it is your predecessor of FERC that has just left office -- but preempting our State and local governments from granting FERC siting authority on wholesale electric transmission lines, that issue is illuminated by the fact that the FERC has seemed to be completely unresponsive to our local concerns when it comes to the siting of the liquefied natural gas facility in Fall River, Massachusetts. I have an LNG facility in my district in Everett, Massachusetts.

Massachusetts, working with the Federal Government, has licensed two LNG facilities about ten miles off of our coastline to bring LNG into our market and into the New England market. It is upwards now of 30 percent of the natural gas that we use in New England, and we support LNG and we have licensed two facilities.

But notwithstanding Massachusetts saying to the FERC, we don't need another one on land, we are doing it offshore and we have licensed them, the FERC -- not your FERC -- but the FERC up until this point has been saying, no, you are going to have another one in Massachusetts. And even that decision itself could affect the amount of renewables that we need. Notwithstanding the fact that natural gas may be half of the carbon in its use as coal, it is not nearly as good as renewables will be, but it is going to affect our marketplace by having that be forced upon us.

And the FERC has been pressing that now for the last 4 or

5 years. So that kind of calls into question kind of this Federal one-size-fits-all process, where, even when the State is saying back off, the FERC continues to come in and say, no, this is what you are going to have for New England. So how do we reconcile that, Mr. Wellinghoff?

Mr. Wellinghoff. Well, Mr. Chairman, I am not suggesting a one-size-fits-all process. Again I am suggesting, unlike the LNG process, where FERC has the primary and initial responsibility with respect to siting and permitting, that in fact States be given the initial opportunity in this regard. And that opportunity I think should be given all the tools necessary for it to succeed.

Mr. Markey. Thank you, Mr. Wellinghoff.

Are there other members who wish to ask questions of this panel? Let me recognize the gentlelady from Wisconsin.

Ms. Baldwin. Thank you. Just one more rather big question. But I appreciate the Chairman for asking our witnesses to make this understandable for a viewing audience.

We had a discussion recently of follow the electrons. And I actually would like to pose a question about following the money. I ask anyone who wants to give just a very brief primer on the economics of transmission, is there a guaranteed rate of return; how is that determined; who decides; and, if so, what is that guaranteed rate of return for transmission?

Mr. Wellinghoff. Congresswoman Baldwin, I will attempt that.

I like to believe in rate-based regulation and transmission is not -- first of all, you have to understand transmission is not a market item, it is an item that we have a limited number of entities who are putting in transmission, and it is under a rate-based cost service scheme.

So they are authorized a return on their investment and they have an opportunity to earn a return. But to earn that return they have to manage their expenses and they have to manage their operations in an efficient way to ensure that their expenses match what their projections are, so that their return comes out to the level that they hope to achieve. The regulators, whether it be a State regulator or a Federal regulator, would authorize a level of return on equity that would be authorized. But, again, that is only an opportunity to earn that level of return.

Ms. Baldwin. Do you have any averages of what that rate of return might look like?

Mr. Wellinghoff. I am sorry; what it might look like?

Ms. Baldwin. What is the average rate of return? I know there are variables. A ballpark.

Mr. Wellinghoff. I can submit that to you in writing but I don't have an average today for you.

Ms. Baldwin. Okay. Thank you.

[The information follows:]

***** COMMITTEE INSERT *****

Mr. Markey. I thank the gentlelady. And I thank all of our witnesses. You have been absolutely fantastic.

And you, Mr. Wellinghoff, I want to tell you how much we appreciate your willingness to take on this job. This is one of the toughest jobs we are going to have in America. You have an outstanding record. And I have already had an extensive conversation with you privately, and I really am very very glad you have this job. I think you are going to do a tremendous, tremendous service to our country there in that position. It is very sensitive. It is going to require people like you who are willing to spend the time to get this right so we have a long-term solution. And as we are going forward, especially over the next week or so, we are going to need some specifics to help us to think through this issue in terms of where the problems have been, what has caused the problems, and what would be needed in order to correct those problems.

We will need some examples and some specifics with regard to what has been used as a blocking mechanism to the resolution of these regional issues, because we want to get at that issue. We want to have real competition out there in the marketplace. So for you especially, Mr. Chairman, we hope that we can work with you in the next week. You have an outstanding staff and you are an outstanding individual and I think we can accomplish that.

Mr. Wellinghoff. We would be happy to do that Mr. Chairman,

and thank you very much for your kind words.

Mr. Markey. I thank you. What I am going to do now is to work now in reverse and I am going to give each one of you 1 minute to tell us what you want us to remember as we consider this issue over the next week.

And we will begin down on this end with you, Mr. Halvey. You each have 1 minute apiece.

Mr. Halvey. Thank you, Mr. Chairman. I think the two things that we would emphasize are the issue of supersizing, which relates directly to the cost allocation issue that we spoke about. It doesn't make a lot of sense for us to use up whatever goodwill we might have trying to locate a line -- or, excuse me, locate a line that is undersized.

The second thing is I think the Federal lands issue, the permitting issue, I have elaborated some on that. But this we see as a very large impediment. Those would be the two things that I think we would like you to bear in mind.

Mr. Markey. Thank you, sir. Mr. Hibbard.

Mr. Hibbard. Thank you, Mr. Chairman. I would just say that certainly from our perspective in the Commonwealth, we completely agree with the goals of the ACES legislation. We absolutely have to address the carbon issue and we have to address it now.

What I would urge you to consider from the standpoint of transmission is to try to retain the competitive market structure that delivers benefits to our ratepayers in the designs that you

implement going forward. the carbon cap that provides a value or cost, additional marginal costs associated with allowance purchase for fossil generating resources, and a renewable portfolio floor that provides additional revenues to renewable resources should provide the financial incentives needed to get the renewables and the associated transmission built. And that we want to maintain the distinction between who is responsible for paying for transmission if it is a generating facility, and who is responsible if it is needed for reliability.

Mr. Markey. Thank you. Commissioner Azar.

Ms. Azar. Thank you. Number one, define the goals that we need to be with the transmission grid.

Number two, define a State-led process by which we can meet those goals. One of the primary aspects of that needs to be that the decision maker must be beholden only to the public interest.

Number three, ensure there is Federal backstop authority so that we get our job done,

Number four, don't do harm. And with regard to that don't define a specific technology and please don't define a cost allocation process.

Mr. Markey. Thank you. Mr. Coen.

Mr. Coen. Thank you, Mr. Chairman. Very, very briefly, I just want to reiterate that the States are here to help. We would like to work closely with your committee in developing some transmission planning, and that Federal preemption of transmission

siting should only be used as a last resort.

Mr. Markey. Thank you. And, Mr. Wellinghoff.

Mr. Wellinghoff. Mr. Chairman, thank you. I would suggest that hopefully you come away with this, number one, that we are not as far apart as we initially seemed to be, I think, when we started out in our testimony. But we all have the same goals: to reduce carbon and to ultimately develop as much renewables as possible to do that.

But I think we need to remember that there are nonmarket barriers that we need to look at how to get that development done. And as part of those nonmarket barriers I think we need to do, put a construct together that would allow the States to initiate the processes of planning, siting and cost allocation, to have the transmission developed to deliver renewables. We also have to have that back pressure of the Federal Government standing there, being able to step in if necessary to make it happen and get it done.

Mr. Markey. Thank you, Mr. Wellinghoff, very much.

And in the spirit of what Mr. Wellinghoff said, we may not be as far apart as the initial statements indicated. Let's work towards that goal. Time is of the essence, so all of these conversations now continued outside of this hearing room over the next week or so would be very helpful to us. With the thanks of the committee, this panel is dismissed, and we will ask the next panel to come up to the table.

Mr. Markey. We thank you all for being here and we apologize for the delay. This is obviously a very important issue. We may be writing the transmission rules for the next generation of electricity generation in our country. Over the next couple of weeks we will see if that can be accomplished, perhaps it can, perhaps we can't. But your testimony is going to be central to accomplishing that goal. We could not do it without your participation.

We apologize to you for the delay in your panel being recognized and for it being Friday afternoon, getting later as the minutes transpire.

STATEMENTS OF RALPH IZZO, CHAIRMAN AND CEO, PUBLIC SERVICE ENTERPRISE GROUP; JAMES NIPPER, SENIOR VICE PRESIDENT, AMERICAN PUBLIC POWER ASSOCIATION; GLENN ENGLISH, CEO, NATIONAL RURAL ELECTRIC COOPERATIVE ASSOCIATION; REID DETCHON, EXECUTIVE DIRECTOR, ENERGY FUTURE COALITION; JOSEPH WELCH, PRESIDENT AND CEO, ITC HOLDINGS CORPORATION; CHRIS MILLER, PRESIDENT, PIEDMONT ENVIRONMENTAL COUNCIL; AND DAVID JOOS, CEO, CMS ENERGY CORPORATION

Mr. Markey. We will begin with Ralph Izzo. He is Chairman, President and Chief Executive Officer of the Public Service Enterprise Group, Incorporated. He is a leader within the utility industry in the public policy area. We thank you once again for

being here. Mr. Izzo, whenever you are ready please begin.

STATEMENT OF RALPH IZZO

Mr. Izzo. Mr. Chairman, members of the subcommittee, thank you for this opportunity to appear before you today to testify. PSEG distributes electricity and natural gas to more than 2 million customers in New Jersey, and owns and operates electric generating capacity in the Northeast, Mid-Atlantic and Texas. PSEG has long supported policies to promote renewable generation.

We are planning major investments in solar, offshore wind generation, and in energy storage technology that will make renewable energy more competitive.

The question today is not whether we should vigorously promote renewable generation, but how. Specifically, how should we use transmission policy to promote renewable generation at the lowest possible cost? This would include not just Federal siting authority, but decisions about transmission planning and cost allocation that are fundamental to determining how much transmission is built and where.

There are two competing views on this. One view which I strongly favor is that government should establish prices for externalities such as the cost of emitting greenhouse gases, and let market forces determine which technologies and which locations are most promising for investment. This is the approach taken in

the landmark ACES legislation. It establishes a price for carbon through a cap-and-trade program and a market-based subsidy for renewable generation through the Renewable Electricity Standard. With these price signals developers can compare the cost of renewable generation in different locations, including the associated transmission cost.

The alternative view is that some central entity should plan and site transmission that will connect the areas with strong renewable resources to areas of high electric demand via some grand superhighway, paid for by a broad group of taxpayers. Under this model government would essentially pick winning renewable technologies and locations, and build transmission to facilitate them.

I have several concerns about this approach. First, it could lead to unnecessarily expensive outcomes. All business owners know that if they establish their factory at a distant location to keep production costs down, they have to weigh that against shipping costs. But if we socialize shipping costs of renewable generation, we skew decisions away from locally based options that may have a lower total cost.

That is why a bipartisan coalition of ten Northeastern Governors wrote to Congress warning that this policy would undermine their efforts to grow renewable industries. Moreover, building thousands of miles of transmission lines in anticipation of the arrival of renewable generation may lead to an expensive

excess of transmission capacity.

Transmission planning is a delivered process meant to respond to long-term reliability and economic concerns. It is not intended to predict and facilitate dynamic markets.

Second, as has been said so many times already, there is no such thing as a green transmission line. Transmission lines carry all electrons without regard to the carbon footprint of the generator. In fact, the dispatchability of renewable resources would suggest you would have a significant underutilization of the transmission line unless you filled it with other forms of generation. So a green transmission line will give market advantage to any power plant fortunate enough to be close to the new line.

Third, creating a new planning process across regions is unnecessary. We already have regional planning processes that are effective and sensitive to local concerns. Cross-regional issues should be addressed through improved coordination between regional planning bodies, which is exactly the approach taken in the committee-passed bill.

Finally, existing tools can help renewable projects connect to the grid without distorting locational price signals and without potentially burdening consumers with an excess of expensive transmission.

For example, if the costs of connecting to the grid and getting power to market are too much for one developer to bear,

multiple developers can share costs among their projects. Or FERC can require that ratepayers initially bear these costs, provided they are reimbursed by developers after the projects become operational.

In closing I believe we will meet our long-term carbon reduction goals. But sitting here today, I cannot tell you what renewable technologies, and, more importantly, in what locations, it will take to get us there to serve our customers at the lowest possible cost, and neither can government.

That is why I strongly support policies such as an RES and carbon pricing that send price signals to the market and unleash the creativity and entrepreneurial spirit of the American people. Thank you.

Mr. Markey. Thank you, Mr. Izzo, very much.

[The prepared statement of Mr. Izzo appears at the conclusion of the hearing:]

***** INSERT 3-1 *****

Mr. Markey. Our next witness is Joe Nipper who is the Senior Vice President for Governmental Affairs of the American Public Power Association, representing the Nation's more than 2,000 community-owned electric utilities. We thank you for being here. Whenever you are ready, please begin.

STATEMENT OF JAMES NIPPER

Mr. Nipper. Thank you, Mr. Chairman, and members of the subcommittee. I appreciate the opportunity to be here today.

APPA, as you mentioned, represents the interests of 2,000 publicly owned State and locally owned utilities across the country, collectively serving 45 million Americans; 110 public power utilities collectively own about 8 percent of the Nation's transmission lines of 138 kilovolts or greater.

However, the great majority of APPA's members are transmission-dependent; that is, dependent on facilities owned by others, in order to acquire the electricity they need for redistribution of their retail customers.

Our members report that more transmission is needed in almost every area of the country to serve a variety of purposes, including increased use of renewable energy, reliability and to enhance competition.

In our view, the single most significant impediment to

getting a new transmission built continues to be siting, and we urge Congress to clarify and continue to support the Federal backstop siting authority included in EAct05. EAct05 siting authorities were a major step forward but have been called into question by the recent court decision in the Fourth Circuit Court of Appeals.

As an intervener the side of FERC in this case, APPA believes that legislation should clarify the original congressional intent in EAct05 by expressly providing FERC with the authority to consider backstop transmission siting applications when a State denies an application.

It is important to note for us that as units of local and State government, public power utilities are not typically supportive of Federal policy that diminishes State authority, and we certainly have had concerns about Congress' and FERC's attempt to expand authority in other areas. However, the importance of siting new interstate transmission lines cannot be understated, and thus our continued support of the compromise crafted in EAct05.

There is some misconception, though, that higher voltage lines are always better. In actuality, the interconnected nature of the grid is such that a lower voltage line, located strategically, could have a greater ability to relieve congestion and to enhance reliability than a higher voltage line, and could experience less local resistance to the siting and cost less than

a higher voltage line.

Of course there are situations where higher voltage lines is preferable and necessary, but we want to make it clear that bigger is not always better when it comes to the grid. This is one reason why regional planning is so important.

The impact of proposed new higher voltage facilities on an existing transmission network needs to be fully considered so that the optimal mix of facilities can be determined. Encouraging proportional joint ownership of transmission facilities by load-serving entities, including public power utilities in a given region, another way to get more transmission built.

If the responsibility for building and owning the transmission grid is spread more broadly among the entity serving customers in a region, en joint transmission planning will be facilitated simply because there are more participants at the planning table supporting the immediate projects.

If network customers of a dominant regional transmission provider are encouraged to own their load ratio share of the transmission system, transmission usage and ownership will be more closely aligned, d the friction between transmission-dependent utilities and transmission owners can be reduced. There are many examples, Mr. Chairman, where that is the case.

With respect to planning, APPA supports the transmission planning provisions, including the committee-passed version of the American Clean Energy and Security Act, as we believe they will

bolster rather than duplicate or further complicate the existing and extensive transmission planning process under FERC Order 890 occurring at the regional and subregional levels across the country.

The manner in which transmission facilities' costs are allocated among generators, transmission owners, transmission-dependent utilities and other stakeholders is one of the most controversial topics related to transmission.

APPA strongly supported the language included in EAct that underscores FERC's flexibility in determining the appropriate transmission pricing methodology. We don't always agree with the decisions made by FERC on cost allocation. We continue to believe that Congress had it right in leaving these decisions with appropriate stakeholder input and administrative due process to FERC to determine under sections 205 and 206 of the Federal Power Act.

The issue of who pays for transmission facilities to provide regional benefits is a difficult one. Such facilities can provide Presidents future system benefits that extend well beyond the specific entities wherein the facilities are constructed. Therefore APPA urges FERC to provide greater guidance on cost allocation for new major transmission facilities that afford regional benefits.

APPA does not support the allocation of costs of facilities to regions, subregions or entities that will receive little or no

benefit from the facilities, and therefore opposes a Federal statutory requirement to allocate such costs on an interconnection-wide basis.

And lastly, Mr. Chairman, APPA has concerns with respect to FERC's application of its incentive rate authority provided under EAct05, for it seems to regard section 219 as a statutory requirement to offer a variety of different transmission incentives to applicants. It appears that these entities have been helping themselves to those incentives and that the Commission has not taken a sufficiently disciplined approach to awarding rate incentives.

We appreciate your long-held concern in this area and your recent letter to FERC asking for an explanation of their use of their incentives, and we look forward to their response and to working with the Chairman on that issue. Thank you very much.

Mr. Markey. Thank you, Mr. Nipper, very much. And I appreciate the very diplomatic way in which you used the word "entity" in your testimony.

[The prepared statement of Mr. Nipper appears at the
conclusion of the hearing:]

***** INSERT 3-2 *****

Mr. Markey. Our next witness is Glenn English. He is the Chief Executive Officer of the National Rural Electric Cooperative Association. But more significantly, he served in the United States Congress for ten terms as one of our most distinguished members. And it is our honor to have you back before the subcommittee. Glenn, whenever you are ready please begin.

STATEMENT OF GLENN ENGLISH

Mr. English. Thank you very much, Mr. Chairman. I appreciate that. I am not sure my board of directors would agree with the "more significantly," but I appreciate that and understand where you are coming from on that.

Mr. Markey. I think the one thing that the board and I can share in comment is that we will each reserve to ourselves which of us believes that you had a more important job.

Mr. English. Well, I appreciate both of you thinking I have an important job.

Mr. Markey. The fact that you are so important to both of us.

Mr. English. You are very kind Mr. Chairman. I appreciate that.

As I think the members of the committee know, electrical cooperatives are consumer-owned. We are in 47 States across the

country and we serve, however, 7 percent of the population through about three-quarters of the land mass of the United States. So when we talk about transmission and when we talk about the fact that you are talking about generating renewable energy in this country, it is most likely going to come from areas that are served by electric cooperatives. So we have a big stake in that. We plan to have a big part of the future as we move forward in that general direction.

Mr. Markey. Can you just repeat that number again; 7 percent of the customers, but --

Mr. English. We have got three-quarters of the land mass.

Mr. Markey. Okay. Thank you.

Mr. English. And it is all owned by those individual consumers throughout those 47 States, Mr. Chairman.

Also I think we can all agree that the signing of the American Clean Energy and Security Act of 2009 is going to bring about a profound change in the way that not only energy is generated in this country, but the way that we use energy in this country. It is going to change our lives.

And with that understanding, I hope that we can also recognize that we have got to be prepared for that kind of a dramatic change. The transmission system as it he exists today was certainly not designed for this kind of change. In fact, it wasn't designed for the 1992 Energy Act with the deregulation on the wholesale level, so we are still trying to adjust to that.

What we would suggest, Mr. Chairman, is that we need a sense of urgency here. And certainly we need transmission as a part of this act. It needs to be addressed in this act. And as a result of that, we think there are some very basic principles that need to be incorporated as you move forward with any kind of legislative language as it applies to this new transmission system, new transmission policy, that the country is going to be following.

As I think you know, Mr. Chairman, we have established now a National Renewable Cooperative so each cooperative in every one of those 47 States can participate in any renewable project in any part of that three-quarters of land mass of the United States. So a wind project in South Dakota, for instance, may be invested by people from Wisconsin, co-ops from Wisconsin, or they may be from Alabama or Georgia or wherever. They can own a piece of that.

And what we are looking for is a way in which we can generate that power through renewables in the most efficient way possible, no matter where it is located. We should be looking for the most cost-effective way in which we can do that. And just as we know that certain wind corridors exist that will provide us with a great amount of production of wind energy throughout the Great Plains, not every farm is the same, not every State is the same, that we also then have got to make sure that when we locate that kind of generation in those areas that we can move that power out of those regions. So we need an efficient and effective

transmission system to do it.

But we also, I think, have to be very aware of the fact that -- and it has been our experience that bottom-up planning works the best. So you need local regional planning, you need local folks putting this plan together to determine what is the best way to move forward on this. And so that is a principle I think we need to adhere to, a bottom-up rather than top-down as far as planning the transmission system of this country.

I would also suggest that under these conditions, and given the fact that we are going to have to move in a more efficient transmission system, we are going to have to move that transmission across State lines, that we may run into difficulties and encumbrances, we may run into delays that, quite frankly, the national best interest is not being served.

So I think we have got to, while we are having that local planning, we have got to also make sure that we don't have impediments put in the way that are going to prevent that local planning from being implement. We have got to make sure that the overall national policy of moving across State lines is dealt with. And for that reason we do think that there is going to have to be some authority on the Federal level as far as siting is concerned. But, again, it should be focused on certain qualifiers as we look at that siting authority.

First of all, it should be facilities that are only identified on regional planning. It should be facilities that are

interstate projects. In fact, the owners of those facilities should not be eligible for enhanced rates or any other financial incentives as far as where they are building that transmission. And the cost of facilities should be fairly and broadly allocated, along with the use of the facilities, should not be limited to just one kind of power.

It should not just be renewables only. And that is mainly because of the fact that the law of physics, as we have heard expressed here today, doesn't distinguish between electrons. They are all the same once they get into that transmission system.

And we would also suggest that the law which we are proposing this become a part of, would in fact itself dictate the direction that we would be manufacturing or generating those particular electrons.

Also we would suggest there needs to be broad fair-cost allocation. We think that is a very important point. Obviously those of us who are electric cooperatives are very sensitive about that. We would have a few people. And all the costs being dumped on those few people would be unbearable, so it should be allocated on the basis of who is getting the benefit, who are the folks that are receiving the benefits of that energy that is being generated and produced.

Also, we would suggest, Mr. Chairman, that we move forward and recognize the fact that there are more benefits to building such a transmission system across this country in different areas

of this country than just the movement of that power. The right-of-ways for any kind of transmission like that would become extremely valuable. And it would also be a way in which it would in fact. Become a new technologies right-of-way; ways in which you could move new technologies. And I know you are particularly interested in the smart grid. And obviously there are many uses that could be incorporated into any new transmission system along those lines. Fiber between the towers is obviously another way in which we can make good use of that transmission system.

So, Mr. Chairman, I would suggest to you that we need a new transmission system to go along with the legislation that is being proposed.

Mr. Markey. Thank you, Glenn, very much.

[The prepared statement of Mr. English appears at the
conclusion of the hearing:]

***** INSERT 3-3 *****

Mr. Markey. Our next witness is Reid Detchon. He is Executive Director of the Energy Future Coalition, a nonprofit organization that seeks to reform U.S. energy policy. We welcome you, sir. Whenever you are ready, please begin.

STATEMENT OF REID DETCHON

Mr. Detchon. Mr. Chairman, thank you for inviting me to testify today on this important and timely topic. I find a great deal of agreement across the table, and particularly with Congressman English.

Last year, in partnership with the Center for American Progress and the Energy Foundation, the Energy Future Coalition undertook a series of listening sessions with a diverse group of stakeholders including Federal agencies, grid operators, transmission companies, utilities and environmental groups, and we found broad support for changes in Federal law to facilitate the transmission needed to bring stranded renewable resources to market.

RPTS DEAN

DCMN SECKMAN

Mr. Detchon. Wind in the great plains; solar in the desert Southwest; and yes, offshore wind in the East.

Our vision statement for the national clean energy smart grid, which is attached to my full statement, was endorsed by some 55 organizations, including the AFL-CIO, the Council on Competitiveness and the Digital Energy Solutions Campaign, along with many renewable energy advocates and environmental groups, including the Sierra Club, who are not usually prone to supporting new transmission capacity.

What brought these environmental groups to the table and ultimately to agreement was the imperative of action to address with urgency the growing climate crisis. Time is running out for the world to avoid serious harm from climate change.

Mr. Chairman, you understand this challenge very well, and we owe a great debt of gratitude to you and Chairman Waxman for your leadership and acumen in advancing H.R. 2454, the American Clean Energy and Security Act. You have set the appropriate long-term target for emissions reductions, more than 80 percent by 2050.

The changes in our energy system needed to reach this goal are profound. We need to begin planning today to reach those reductions by 2050. And one thing is clear, we cannot deliver that much low-carbon energy without changes to the grid. Low

carbon electricity will be expected to power not only our homes and businesses but also an increasing portion of our vehicle fleet.

The system we have today for planning, permitting and financing transmission lines was not designed to respond quickly to a challenge of this magnitude, moving many thousands of megawatts of renewable energy from remote areas to load centers.

Our discussions with those who must deliver on this promise, renewable energy developers and transmission companies, quickly focused on the obstacles of planning, siting, and cost allocation that we have heard repeatedly today. Of these, planning turned out to be the linchpin, as our group concluded the better planning could reduce the difficulty of siting and financing new lines.

We recommended enlarging the scale of the planning process to the two principal power grids in the United States, the Eastern and Western Interconnections, for two reasons. First, long-distance transmission is needed to support development of some major renewable energy resources and necessarily will cross State and regional boundaries. For example, almost 300,000 megawatts, an enormous amount of wind, 300,000 megawatts of proposed wind projects, which is more than enough to meet 20 percent of our electricity needs, are waiting to connect to the grid because there is inadequate transmission capacity to carry the electricity they would produce.

Second, planning for transmission to support the renewable

energy standards of State and Federal legislation must occur on a broad regional basis, just as the benefits of such investments will be shared on a broad regional basis. Your discussion of the impact of wind resources and ease is a good illustration of the need for planning across the entire interconnection.

An enhanced regional planning process of this kind should build on, not replace, the current engagement of stakeholders, including States, grid operators, utilities, consumer and environmental interests and landowner groups.

This will remain a State not a Federal process. Siting authority would rest with FERC, but the States collectively would have more power not less than they do now, because their plans would govern the exercise of that Federal authority. Only if planning process breaks down would FERC have the ability to resolve disputes and get transmission built to bring renewable energy to market.

We have been gratified to see many of our recommendations reflected in H.R. 2211, introduced by Congressman Inslee, a system of interconnection wire transmission planning supported by broadbased cost allocation and underpinned by Federal siting authority. We would be pleased to work with the committee on further legislative language if you think that would be helpful.

Mr. Chairman, you and your colleagues have taken an enormous step forward by reporting legislation that will begin the process of transforming our Nation's energy system to deal with the threat

of global climate change. Expanding and modernizing our transmission grid is essential to that transformation. By addressing transmission directly and comprehensively, you can help our common goal of a clean-energy future become a reality and not be left stranded by regulatory impediments. Our economy, environment and national security deserve no less. Thank you very much.

[The prepared statement of Mr. Detchon follows:]

***** INSERT 4-1 *****

Mr. Markey. Thank you so much for your testimony.

Our next witness is Joseph Welch, chairman and president and chief executive officer of ITC Holdings. That is the Nation's first independent transmission company.

We welcome you sir, please begin.

STATEMENT OF JOSEPH WELCH

Mr. Welch. Thank you and good afternoon.

Mr. Markey. Could you move the microphone in a little closer and turn it on?

Mr. Welch. Thank you and good afternoon, Chairman Markey, and members of the subcommittee.

As the Chairman said, my name is Joseph Welch. I am chairman, CEO and president of ITC holdings, the Nation's first and only independent transmission company in the United States.

Being independent means that we are not affiliated with any market participant. We have no ownership or have any dealings in energy transactions. Our job is to facilitate the market, to facilitate the interconnection of any sources of generation that are put before us, and to make sure that we connect the loads and reliably do so.

We own and operate about 15,000 miles of high-voltage lines in Iowa, Minnesota, Illinois, Missouri, Michigan and our

developing regional transmission projects in Kansas and Oklahoma. As we have worked through these various States, each time we come to the point where we need to build transmission, for whatever reason, we have come up against a set of obstacles, each one different in every State.

Probably that is as it as should be, but when we get to the outcome of where we want to go in this country, this is going to become a major impediment for us to move forward as a country who dearly and necessarily needs to seek energy independence.

I brought with me today a report from the Council on Competitiveness and Energy Sustainability which I believe is a good framework, and I will leave it with you all for you to read. I think it offers a lot of information which is very consistent with the very principles and items that you are considering here.

But going to the fundamental principles that we need, and at the top of the list, and I want to go to right to the top of the list, we need a policy for energy in this country. We have talked about all the things underneath, and we debate about whether it is right or wrong, but the fundamental issue is that we need a policy and something to plan to.

With that policy in place, the rest of the items become a lot clearer and a lot more succinct. And a lot of the debates that we hear from all of us who really are closer than further apart really start to come together. For instance, with a policy, then the planners, and when I say the planners, and we have talked

about this in the item I support and my company supports, is that we need independent planning authority. We need to take the policy and get the policy implemented in a very clear and succinct way.

Secondly, if you have the policy, then the cost allocation can be dictated by the policy itself, meaning that from that policy, we now know where we want to go. We now know who are the benefactors and what those benefactor issues are. And so that policy sits at the top and we need that.

And last but not least, when we get down to the very bones, I always tell people being in the transmission business it is a great business until I do one of two things, and the first item is build new transmission lines. The minute we start to build them, it becomes a nightmare. And the process is hard, and it is long. And what we need is true Federal backstop siding authority. That is not meant to cut the States out of the process. The States should be involved in the process. They are the most knowledgeable about local issues. But at the end of the day, we have to get a regional transmission grid built.

As you have heard here, there are literally thousands upon thousands of megawatts of renewable energy that this country needs to deploy, and we need to deploy it now. And if we start now, we are years and years away from our goal line. So please let's have this conclusion and bring it to an end, and I thank you very much for my opportunity to speak here today.

[The prepared statement of Mr. Welch follows:]

***** INSERT 4-2*****

Mr. Markey. Thank you, Mr. Welch.

Our next witness is Christopher Miller. He is president of the Piedmont Environmental Council, an environmental organization focused on conservation issues in the Piedmont region of Virginia.

We thank you for being here, sir.

STATEMENT OF CHRIS MILLER

Mr. Miller. Thank you, Congressman Markey. Thank you for the opportunity to testify on behalf of the Piedmont Environmental Council, also for land trusts and land conservation organizations across the country. We are a very active member of the Land Trust Alliance and are working hard on this issue with them. And they have asked us to express some of their concerns.

I have a couple of maps which I hope the staff can put up, because I think they will help instruct this conversation.

We appreciate the time and attention that this committee is taking to consider the complex issues associated with the transmission. We appreciate the willingness of the committee to deal with transmission as part of a broader energy policy and not as an end in itself.

From our perspective, transmission is only a tool for moving electricity from the source of generation to the end user, but much more important are the policies that will reduce demand for

electricity, modify peak demand so that the need for generation and transmission infrastructure is minimized. And encourage clean generation close to load centers, which will reduce the losses of energy caused by long-distance transmission.

For in the end, the high-voltage transmission lines with towers that can exceed 180 feet in height and wide rights of way are part of the energy system with the largest footprint and often the most dramatic impacts on communities that lie along them. The transmission system has the potential for substantial land-use impacts, including impacts that directly conflict with Federal, State and local policies to protect and enhance important natural and cultural resources.

In the brief amount of time I have, I want to focus on a couple of issues that have not been raised yet. The first is the assertion that the only way to meet national and State goals to reduce greenhouse gas emissions and to increase the role of renewable sources of energy is to build a national transmission grid. One example of this grid is up here. This is the grid proposed AEP for the 765 KV system that would link resources.

It was originally overlaid over wind resources, but in fact, the correspondence with coal resources is actually higher when you actually go see where those lines are laid out. That is one of the causes of concern that in fact what you would be doing by doing a transmission-loaded set of incentives is in fact encouraging greater transmission of coal-fired generation than in

fact of renewables.

The reason for that is that no where in the legislation do we recommend a change in the economic dispatch rules that govern which generation is brought on line first. All the renewable goals notwithstanding, we dispatch energy by price, and the auctions are by price. We have heard lots of calls for competitive pricing, but the potential that that will in fact increase the amount of transmission that is carrying coal-fired emissions, and in fact from the dirtiest and oldest plants, is very real.

Unless this committee can also ensure that, before that transmission is made available, we are in fact putting in the carbon cuts through the carbon cap-and-trade and otherwise governing the emissions of grandfathered coal plants who have never reduced their emissions, there is a very real possibility in the Eastern Interconnect that the gains that have been made by RGGI, the 45 million tons or so of carbon emissions reductions, could be offset.

Second, an issue that has not been addressed so far is the issue of peak versus average demand. The transmission and generation system is being designed to meet peak loads, and the more we can do to reduce peak loading, the less we have to build across our landscape. And so it is very important that this committee address the fact that transmission planning that has been done to this point really hasn't addressed the full

incorporation of some of the policies that are in the ACES legislation. They did not take into account the amount of demand-side management that is recommended and in fact assumed a level of per capita electricity used that steadily increases over time rather than is reduced.

The final thought is this, to the extent the transmission is necessary, and obviously connecting some renewables will require transmission, it is very important to respect the other public policy values that are out there, and particularly related to the lands that have to be crossed by transmission. We should be seeking to avoid wherever possible the natural resources, the historic resources, the cultural resources and, yes, even the landscapes that America values so much.

Current legislation draws a distinction between publicly-owned lands and privately-owned lands. And that is something that I think this committee needs to look at hard. East of the Mississippi, most natural resource lands, most historic lands are privately-owned but protected through public-private partnerships, whether it is the designation of historic districts or the donation of conservation and historic easements. Those easements are often approved by State government.

In the case of Massachusetts, hundreds of thousands of acres are actually individually approved each time by the attorney general. The same is true in the State of Virginia. And they are due all of the respect that a national park or national wildlife

refuge or State park would. So as you think forward on those transmission lines that have to be built, make sure we are avoiding the resources, the private resources as well as the public resources. And make sure we mitigate and compensate for the impacts on those resources.

[The prepared statement of Mr. Miller follows:]

***** INSERT 4-3 *****

Mr. Markey. Thank you, Mr. Miller, very much.

And other final witness is David Joos. He is the president and chief executive officer of CMS Energy, and chief executive officer of its principal subsidiary, Consumers Energy.

We welcome you, sir.

STATEMENT OF DAVID JOOS

Mr. Joos. Thank you, Mr. Chairman.

And thank you also for pronouncing my name properly. I appreciate that.

I appreciate the opportunity to address the subcommittee this afternoon. Consumers Energy, our principal subsidiary, serves 1.8 million electric customer; 1.7 natural gas customers in lower peninsula of Michigan.

I would suggest that we have a bit of a unique opportunity. Having developed, owned, and operated transmission assets along with distribution and generation assets for a century, Consumers Energy now no longer owns transmission assets. We sold our transmission system in 2002, and it is now independently operated.

We therefore appreciate the difficulty in siting new transmission and support Federal backstop authority for new interstate lines as a last resort. We also see a need for new transmission in Michigan to interconnect new wind resources that

are being developed in the Thumb in particular and along the Lake Michigan shoreline as part of the renewable portfolio standard compliance effort in the State of Michigan.

We believe new transmission development should meet three key commonsense principles. Number one, benefits of proposed projects should exceed the cost by a reasonable margin. Number two, proposed projects should be similar or should be superior to other alternatives, which would include other transmission solutions, distribution solutions, perhaps lower-voltage transmission solutions and generation solutions. And finally, costs ought to be fairly allocated to the beneficiaries of the project as determined through the planning process.

I would concede that these principals are complex to apply and therefore need an independent planning authority of some sort to apply them, a regional transmission organization or a group of RTOs, for example, to conduct the evaluation.

They cannot be objectively performed by market participants, including independent transmission owners that have a vested interest in new transmission. In our view, overly generous FERC incentive policies have created a rush to invest in transmission, often not justified on a cost-benefit basis. I provide some specific Michigan examples within my written testimony and won't go over those now.

Fortunately for new intrastate projects in Michigan, we have a certificate-of-need process that fully vets these projects

before allowing condemnation. I suggest that might be a model that is appropriate at the Federal level as a Federal backstop.

Now there are proposals to build massive new high-voltage infrastructure over the entire Eastern Interconnect, the so-called overlays. Part of that, a \$3.2 billion 765 KV project largely in Michigan has already been evaluated by the Midwest Independent System Operator and determined not to meet a cost-benefit test for the State of Michigan.

A number of independent system operators and planning authorities in the Eastern Interconnect recently studied a joint coordinated system plan that was referred to earlier involving \$56 billion high voltage overlay. Some have referred to it as the equivalent of constructing an interstate highway system. That study concluded that Michigan would receive virtually no benefit at fairly large cost. Looking just at consumers customers, if cost were spread a "postage stamp basis" to all our customers, we would pay about \$159 million a year of increased cost for roughly a \$2 million annual benefit. I would submit that Michigan simply can't afford that.

Another \$10 billion to \$12 billion project that has been proposed to bring wind power from the Dakotas to as far east as Chicago, of course, does not reach Michigan, but further, when the cost of that transmission is included in the equation, Michigan-based generation is less expensive to develop. On that score, we agree with the 10 Northeast and Mid-Atlantic Governors

with regard to the potential implications on developing renewable resources locally.

Let me be clear, we don't object to such projects if the benefits exceed the cost by a reasonable margin; reasonable alternatives have been considered; and the costs are spread appropriately to the beneficiaries. That might be, for example, Dakota wind developers or purchasers of that power who need it meet their own standards.

Finally, Michigan transmission rates today are four times what they were in 2002 when we sold the system. Even without these overlay projects, we are forecasting they will increase by another 50 percent from today's rates over the next 6 years. Transmission investment is occurring in the State of Michigan.

We don't feel that FERC rate making oversight currently is sufficient in States where transmission is independently owned and therefore not subject to State regulatory oversight. That situation, along with overly rich incentives, are causing in our view transmission development that is sometimes not in the best interest of our customers.

In summary, we think targeted transmission investment is needed both in Michigan and nationally. We believe that planning and evaluation by our RTOs or groups of RTOs that are independent from market participants is an appropriate way to pursue that. And we think three key principals need to be followed: One, benefits exceed cost by reasonable margin; two, reasonable

alternatives have been considered; and three, the costs are appropriately allocated to the beneficiaries.

Thank you again.

[The prepared statement of Mr. Joos follows:]

***** INSERT 4-4 *****

Mr. Markey. Thank you, and we thank our entire panel.

I turn and recognize the gentleman from Washington State, Mr. Inslee.

Mr. Inslee. Thank you.

First, I would like to put on the record a white paper which is quite instructive. It is entitled "Green Power Super Highways," provided by the American Wind Energy Association and the Solar Energy Industries Association.

Mr. Chair, if I may.

Mr. Markey. Without objection.

[The information follows:]

***** COMMITTEE INSERT *****

Mr. Inslee. I appreciate that, Mr. Chair.

This does confirm what the witnesses talked about, which is that we have got 300,000 megawatts of wind projects waiting in line essentially to connect to the grid. And they point out that the lack of transmission capacity is also hindering States' ability to meet multiple renewable energy goals, and it just confirms what several the witnesses have testified today.

I want to ask Mr. Detchon about the greenhouse gas interconnection standard that your proposal has incorporated that basically would essentially allow Federal backstop authority. It would encourage it in relationship to those sources that are low and zero greenhouse-gas-emitting generators. Can you tell us how you envision that working?

And by the way, would it help in at least some sense some of the concern of the Northeast States who don't want to see their offshore wind projects intruded upon by, say, if we can call it dirty sources from far away intruding on their corridor.

Mr. Detchon. Thank you for the question.

I think there is confusion how a greenhouse gas interconnection standard would work. In the first place, it is an interconnection standard. It doesn't govern what electrons are on the line because, as everybody has pointed out, you can't distinguish between green and brown electrons.

But if we are going to provide some additional authority to

site and pay for special new transmission lines to benefit renewable energy, let's make sure that the generation that is hooked up to it is not conventional coal. And so what we have suggested is that, since you are going to need probably gas to balance renewable energy on these lines, that up to a single-cycle gas turbine, emission level would be acceptable to connect to these lines, but above that would not. And that seems like a fairly straightforward way to approach that.

With regard to the question of competition with local resources, I think what should be important and I think inevitably would happen if the States are driving this planning process even on an interconnection-wide basis is that they take into consideration State policies considering local resources and use delivered prices, as was mentioned in the last panel, as the basis for comparing different resources. I think that is a very straightforward way to make sure that the competition is fair.

Mr. Inslee. I will ask you what I hope is a rhetorical question, but in the bill that I have introduced, we have tried to preserve the bottom-up planning, so that the States and regions really do the planning rather than a cramdown from the Federal Government. Do you think that is a fair characterization of the proposals that we have made?

Mr. Detchon. No, absolutely. And I think that there has been a lot of talk about top-down or Federal intervention here, but I think the legislation that you have proposed, Congressman,

establishes mechanisms for States to work collaboratively addressing these regional issues. And those decisions will be executed with the assistance of FERC, but FERC would only be able to step in if the States are unable to reach a plan.

Mr. Inslee. And could you suggest any other solutions to the concern that the gentleman from Massachusetts expressed about this offshore wind being crowded out, if you will? I perceive that greenhouse gas interconnection standard would help solve that problem, because it would essentially allow the use of the Federal backstop authority for clean source, green sources of energy. I think that would help solve that problem. Do you agree with that, and is there anything else you could suggest that would help solve that concern?

Mr. Detchon. Well, I think a stronger step which Mr. Miller suggested, which would be to have Federal intervention on the loading orders for the use of different kinds of resources, I doubt that that would be politically saleable right now. So I think, within the context of what is doable, I think the approach you outlined is about as strong as it could be.

I might add the greenhouse gas standard to a certain extent over time gets overtaken by the requirements of the cap-and-trade legislation, assuming that that is enacted, but I think your legislation reflects that as well as.

Mr. Inslee. Thank you.

Thank you, Mr. Chair, for your cooperation.

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

The Chair will recognize himself for a round of questions.

Let's go down the line and each of you could answer yes or no. Do you support giving FERC the authority to modify any transmission plans that are established through bottom-up regional planning processes?

Mr. Izzo.

Mr. Izzo. I would not.

Mr. Markey. Mr. Joos?

Mr. Joos. Nor would I.

Mr. Markey. Mr. Nipper.

Mr. Nipper. No.

Mr. English. No.

Mr. Detchon. I think that if the plans are developed by a broad array of States in the way we are describing, I would agree no.

Mr. Markey. No.

Mr. Welch.

Mr. Welch. Bottoms-up is each State brings it up, or how do you envision that?

Mr. Markey. Regional planning that is agreed to by the State. Should the FERC be able to modify a regionally agreed-upon plan?

Mr. Welch. If the planning process is independent, no. If the planning process is not independent, yes.

Mr. Markey. "Not independent" meaning?

Mr. Welch. That it is influenced by market participants and other political entities. The planning process to me --

Mr. Markey. Even if the State governments agree to it?

Mr. Welch. I believe that all the transmission within the State that is not regional in nature should -- the State should have as much authority over it as they want when we develop regional transmission, which is for the good of the region or the good of the country.

Mr. Markey. Should the FERC be able to override that original plan agreed-upon by those States?

Mr. Welch. I stand by what I said. If it is done by an independent planning authority, yes. I am saying no. And if it is not, yes.

Mr. Markey. Mr. Miller?

Mr. Miller. I think one of the concerns we would have if FERC were involved, that the right of appeal ought to be not only limited to the transmission proposers but also those with other perspectives. Right now --

Mr. Markey. Under those circumstances, you would give FERC the authority to modify a transmission plan?

Mr. Miller. Well, there are legitimate Federal issues with anything involving interstate transmissions, but if you are going to create that, it ought to be equally available to both the proponents and those that have concerns.

Mr. Markey. Okay. Let me go down the line again, how many of you would support a greenhouse gas interconnection standard of the type proposed by Mr. Inslee?

Can we go down and ask how many of you would support that?

Mr. Izzo. I would not for the simple reason that a greenhouse gas interconnection standard does not speak to existing carbon-intensive generation being able to piggyback.

Mr. Markey. Thank you.

Mr. Joos?

Mr. Joos. I will have to qualify my answer, I am not 100 percent sure the specifics of the standard. I haven't read them.

I would say we have, of course, standards for interconnecting all kinds of renewable capacity already. I would not be supportive of something that limited the use of the transmission line to certain types of technology simply because I agree with what has been said earlier, that you can't label the electrons.

Mr. Markey. Thank you.

Mr. Nipper.

Mr. Nipper. No, sir, we would not.

Mr. Markey. You would not.

Mr. English.

Mr. English. I believe that the bill in itself, since this is going to be part of the legislation, the bill in itself takes care of that issue, so no.

Mr. Markey. No.

Mr. Welch, I know you do support it. Mr. Welch.

Mr. Welch. With my company, we are an independent transmission company. You make the policy, we are going to support the policy.

Mr. Markey. Mr. Miller.

Mr. Miller. I think it is an interesting concept would apply to lines that feed into the grid, but unfortunately, the authorities that are being discussed would apply to transmission that is not simply for bringing new generation on to the grid but for expansion of the grid as a whole. So I would have to say no.

Mr. Markey. And I will let you answer for the record, Mr. Detchon.

Mr. Detchon. Just to touch on these two points, we are talking about specially authorized renewable energy transmission lines that would be feeding into the larger grid, not to the larger grid. And I agree with Glenn that if this is attached to H.R. 2454 and enacted, then some of the reason for it goes away. But there is always the possible that this will become disconnected from that bill, and as a free-standing measure on transmission, we think that a greenhouse gas standard would be important.

Mr. Markey. How many of you would limit Federal authority to only lines that affect renewable electricity that is generated? How many would limit Federal authority just to that?

Mr. Izzo. I would do quite the opposite, Mr. Chairman. I would limit Federal siting authority to lines that affect reliability.

Mr. Markey. Reliability, okay, thank you.

Mr. Joos.

Mr. Joos. I would limit Federal authority as only a backstop provision and rely on local and regional planning as the primary mechanism.

Mr. Markey. Mr. Nipper?

Mr. Nipper. Assuming the backstop authority, no, we wouldn't limit that.

Mr. Markey. You would not limit.

Mr. English, would you limit?

Mr. English. And again, backstop.

Mr. Markey. Mr. Detchon, would you limit it just to renewables?

Mr. Detchon. What I would say is that, if we are going to create special new authorities, they ought to be targeted at the problem, which is renewables.

Mr. Markey. Mr. Welch?

Mr. Welch. I would not limit the Federal backstop siting authority.

Mr. Markey. Mr. Miller?

Mr. Miller. I think we would support limiting it and also respecting the Fourth Circuit opinion that we were involved in.

Mr. Markey. Mr. Izzo, do you support Federal back-up siting authority for lines for any reason other than reliability?

Mr. Izzo. No, I would not.

Could you talk a little bit about that first map which Mr. Miller put up that showed very rich wind resources along the East Coast of the United States. With the exception of some portions of the Great Lakes and out on the West Coast, it looks like it has the greatest potential for renewable electricity generation in our country.

Mr. Izzo. You are absolutely right, Mr. Chairman.

And as I may have mentioned, we pursuing 150 megawatt wind farm. And as you mentioned, we can do that 20 miles out and still be within 140 feet of water. That is not to underestimate the challenges of construction and operations and maintenance cost. We expect to fully bear the cost of the short-haul transmission and would be opposed to having a nationwide support for a long-haul transmission and be unfairly disadvantaged.

Mr. Markey. Well, what could happen if we take Mr. Miller's charts -- I guess they are not Mr. Miller's charts. They are AEP's maps that have been put together. Is that right, Mr. Miller?

Mr. Miller. The transmission map is AEP's. We overlaid it on wind and then the coal resource maps.

Mr. Markey. If that transmission plan was implemented, it would bring a transmission line in from the Midwest very close to

the East Coast. What impact might that have on your planning for renewable electricity off of the coastline or other parts of New Jersey?

Mr. Izzo. We would stop planning for that.

Mr. Markey. Why would you stop?

Mr. Izzo. Well, because we would not be able to be competitive with the cost of the wind if it is not burdened by the cost of transmission. So the wind from the Midwest if it does not face the transmission charge would be cheaper in that case.

Mr. Markey. Now you are up in the Great Lakes, Mr. Joos.

Could you talk about that as well in terms of the potential renewables coming in off the Great Lakes and what impact that could have for Michigan and what could happen if, instead, power is wheeled in from other parts the country through Federal preemption and Federal eminent domain takings?

Mr. Joos. It is a bit similar but maybe two aspects to what Mr. Izzo said.

First of all, it is clearly windier in the Dakotas for example that it is Michigan. Michigan has wind resource even on land, but it is not as windy in the Dakotas. So instead of 42 percent roughly capacity factors, you might see in the range of 30 percent capacity factor.

However, once the cost of transmission to get the power from the Dakotas to Michigan is taken into account, it is cheaper to develop it in Michigan.

Now you mentioned offshore, Michigan does have a very strong offshore wind resource. Unfortunately, offshore is still about twice as expensive to develop than onshore resources. So when that calculus is taken into account, we think it makes more sense to develop the onshore resources in Michigan first.

Mr. Markey. Now you heard the earlier testimony about the problem getting renewable energy resources from Dakotas over to Minnesota and the blame being laid at the feet of the Federal Government. In that region, do you believe that is one of the main problems that otherwise the regions have been able to harmonize their electricity transmission policies in a way that is viewed as fair to all States?

Mr. Joos. I am not familiar with specific Federal Government problems that may have come up in Minnesota. My observation is that the regional planning process has been effective and is a good solution to the problem.

I think as many of us are pointing out, you warp the economics when you start putting effectively free transmission or postage-stamp transmission across broad regions, and then you change the economics dramatically rather than having them compete on a stand-alone basis.

Mr. Markey. Now for our audience, when we say "postage stamp," what are you referring to? Why is the phrase "postage stamp" used?

Mr. Joos. Effectively what a postage-stamp rate is, and it

is used an analogy to the Federal postal system, where you put a stamp on a letter, and you can send it anywhere for the same price.

Mr. Markey. You could send it from the Dakotas to New Jersey for the same price.

Mr. Joos. The reality, of course, is the costs are not the same. And when we look at the cost of transmission to move power from West to East, there is a significant cost involved. However, if that cost is ignored and everybody pays the same price regardless of how far it moves, it changes the economics, and yes, Dakota wind would then be more economic on that basis, once the cost of transmission is ignored, than Michigan or the East Coast. We don't think that is the right way to look at it.

Mr. Markey. And one of the things that we are really trying to accomplish obviously in the Waxman-Markey bill is to generate renewable electricity and renewable energy jobs generally in all 50 States.

So Mr. Izzo here has a plan to, along with many other people in New Jersey, to generate new renewable energy jobs that help with the employment in his company, but in the State of New Jersey as well. And we don't want to invoke the law of unintended consequences here and have a great revolution, have a standard imposed upon New Jersey and not have the jobs created in New Jersey, especially if they have the richest renewable energy resource right off their shore.

Mr. English?

Mr. English. Mr. Chairman, I think you make a good point, but I also suggest one other thing, that it might make more sense, in light of the objective of the legislation and in light of the fact that we are entering into a little different world than we have in the past, that really what we are trying to do here is maximize the amount of renewable energy that we get produced all over this country.

Now the fact of whether it is produced in one State versus another State, as long as it is the most cost-effective way in which we produce it and we can in fact make use of it all across this Nation, I would think would be the ultimate objective.

Now I can understand why some folks may want to look at this very localized, and it may be a very parochial thing, but this is a national piece of legislation. And we are trying to achieve a national objective, and the thing that is limiting us to being efficient is this transmission system.

Mr. Markey. Absolutely, and by the way, we couldn't agree more on this.

Mr. English. So if you are looking at this map and the fact that we are talking about along the coast, and they may have more wind there, then obviously we ought to be looking, that is where we ought to produce it, and we should use that most cost-effectively. And that should be the driver in where we go. If we can't do that and have to do it out in the Dakotas, then

fine, do it in the Dakotas.

But it shouldn't matter whether it is off the coast of Massachusetts or in the Dakotas, as long as we are meeting the Nation's needs, and we are going to have a huge amount of power that is going to be necessary to come from renewable energy if we are going to meet the objectives as outlined in the legislation.

One quick point, I know, I have a home down in South Carolina. It is up on a mountain top. We have a huge amount of wind up there, but I can assure you, if you try to build a wind generator on that mountain, you are going to have a lot of people that are going to be objecting to it, unlike what you will find in the Dakotas.

Mr. Markey. Absolutely.

I think the point that Mr. Izzo is making and Mr. Joos as well is that, using this postage stamp analogy, it doesn't cost \$0.47 to really move a letter from New Jersey to New York City. It probably costs less, but the average is \$0.47, so that someone from South Dakota can mail a letter to New York City, and we have communications across the country. That is great, and we accept that. It is the way it should be.

But what Mr. Izzo is saying is that if you do the same thing for electricity and you make it the same price to transmit electricity in from the middle of America to New Jersey as it would be to bring it in off the coastline of New Jersey, then that is going to undermine the economics of all the projects along the

East Coast because it hasn't factored in how much it costs to transmit that electricity 1,500 miles all the way into the East Coast market. And so the question then becomes, how many new jobs will be created along the East Coast of the United States if there is no incentive any longer for Mr. Izzo because he is almost bound by his obligation to his shareholders to take all of this very inexpensive but subsidized electricity coming in from the Midwest?

So how do we square this circle, Glenn, so that Mr. Izzo and Mr. Joos and others are not disincentivized to produce renewable electricity within their own service area?

Mr. English. Broadbased fair rates, that is basically what you are talking about. The people that are receiving the power, that are using the power, are paying the cost. That is what it really comes down to. If you are not talking about mailing that letter from the Dakotas to some other region of the country, and you are talking about, instead, what it costs to actually mail that letter to that location, that is the real issue that you are coming down to.

Mr. Markey. Mr. Izzo, what would you respond to that?

Mr. Izzo. So I would say that, if I looked at just this last year alone, the price difference associated with transmitting power from the plains States to New Jersey, depending upon how busy the transmission lines were, range from \$20 to \$80 a kilowatt hour. Typically, it was \$30 to \$40 a kilowatt hour. That means it would be cheaper for a customer in New Jersey to use a wind

farm operating 25 percent of the time than to use a wind farm operating in the plains 40 percent of the time, because it is the total cost that matters.

If you eliminate transmission, then suddenly the 40 percent time of the Dakota farm looks cheaper, but you have put a burden on the American taxpayer, and you have ended our economic development in that region.

Mr. Markey. Well, we want to be fair here, though, right? I mean, that is our goal of the bill. We want to incentivize renewable -- this green energy revolution should be everywhere, not just in certain parts of the country. So we need to find a way then to make sure that we don't invoke this kind of consequence that undermines economic development in States that have incredible resources indigenous to them, and that is a real difficult problem here and something we that we have to work through.

I apologize to everyone. I really could spend a whole afternoon with you, and next week I might spend an afternoon with each one of you in working out this issue, because we have to be fair. We have to be fair. We have a big vision, but everyone, every State can actually play a role here. There is actually a role for everyone, and we have to make sure that we render to the East Coast the things that are theirs; the things to the South that are theirs; and the Midwest that are theirs; and the West that is theirs. The prairie, the desert.

And, Glenn, even as you were saying you represent 75 percent of the land mass of the United States, there is an ocean mass, too, that is also out there. And we have to --

Mr. English. We do have coastal co-ops, Mr. Chairman.

Mr. Markey. That is what I am saying to you, and so I want to make sure those coastal co-ops are able to go out into the ocean and have the incentive --

Mr. English. I am with you.

Mr. Markey. So we have to work out a fair formula.

So I thank each of you. And we are going to have to stick close together over the next couple of weeks so we can have this conversation and reflect what our national goals are, but with each State, each region, and the history of each State and region; States that are not even States, commonwealths, whether it be Virginia or Massachusetts, have their own traditions in terms of what lands are sacred that might not follow the traditional Federal Lands Act but have just the same impact in terms of the relationship with the history our States.

So I thank each of you, and I am going to turn over the remainder of the hearing to Congresswoman Baldwin who will bring it to a conclusion. Thank you so much.

Ms. Baldwin. [Presiding.] I don't get to sit in this chair very often, but I won't make you stay long just because I am enjoying it.

First, a quick comment, and I am construing or interpreting

from some of Mr. Welch's testimony that there is a frustration with some of the planning that is occurring at the State-level process. And one of the things that I would just point out, and certainly we have heard some testimony in the first panel about very successful State-level planning, but if you look at Order 890 and this process, it is really relatively new and I think I would argue hasn't yet been given the chance to play out.

If you look at the area that I am most familiar with, the first time MISO Order 890 planning processes were approved by FERC and then subject to additional compliance requirements was on May 15th, 2008. And thereafter, they had to do a filing in August of 2008, where it was just approved on May 20th, 2009. So you could make an argument that really just 3 weeks ago this is getting underway, and it is a process to be given 12 to 24 months to occur.

So it certainly concerns me to have a characterization of this State and regional planning processes as not being -- as being broken or not working when really much of the new focus that is subject to Order 890 is just underway.

I have one question for the panel with regard to, it goes without saying that construction of a transmission super highway will be a money maker for certain parties involved, and we heard the chairman of FERC testify about the economics of transmission siting, and construction as well as the guaranteed rate of return.

And so I guess I would like to ask you all what role, if any,

should these entities with profit interest play in the transmission siting and decision-making process? How should we appropriately limit or not the role that they play?

And why don't we go from left to right this time and start with Mr. Miller.

Mr. Miller. I appreciate that question, that has been one of the most troubling aspects of the planning process in the PJM region. The PJM is essentially, from our perspective, a trade association of utilities who are proposing projects and then ratifying the proposal amongst themselves. They do not, until very recently, have a process that complies with the FERC Order 890. They were looking only at transmission solutions and not at alternatives. And they do not do the kind of balancing of impacts, you know, other issues of the public interest that State utility commissions more clearly have authority to do.

So the current way we do regional transmission planning is very disturbing. The owners of the transmission lines propose projects. There is a reactive approval process, and there is no balancing of other considerations, even within the alternative energy solutions like energy efficiency DSM. They are starting to incorporate those things, but the process is very conservative and very oriented towards producing transmission solutions.

Ms. Baldwin. Mr. Welch?

Mr. Welch. Well, to go to your question, first, the frustration that I feel with the planning process is that I would

agree with you that Order 890 went a long way, but the one thing that we don't have in MISO or any of the other RTOs, we don't have full participation from all of the affected people. As a result of that, when you are trying to do regional planning, you are not going to get to the solution set that you need, number one.

Number two, like when we had problems in 2003 with the largest blackout that affected this country, we finally came to the conclusion that NERC was funded improperly and wasn't independent in their decision-making for setting reliability standards. As a result of that, we changed the way NERC was funded. It reports to FERC. It is funded through an assessment through all the utilities, and that assessment is paid to FERC, who then pays NERC, and we have taken the financial incentives of the market participants out of the RTO or, in this case, the reliability council.

So when we talk about independent planning, it is not about some kind of closed-door deal here. It is about getting the financial impacts off the back of the RTO so that they can do the job that they are supposed to do.

Then when we get to that point, you have the question that says, who should participate and which of the rates of return that these companies should earn? I think that the fair thing to say, when you start to build regional projects, that everyone is affected by it; they should be all participating in as financial investors. This shouldn't be just a one-stop, one-person place,

but those people should be part of that investment proposition because they are all there to make the grid work and work in a concert way.

When you build a regional grid, you have to have yourself in a position where you can also maintain it. No one company could ever go across thousands of miles, have linemen and line crews, warehouse facilities and everything that we need. So it is going to take the participation of all of those people on the route, but without everyone being there at the table, this gets tough to do. So when you get to that point, whatever the FERC says is just and reasonable; that is what it will be.

Ms. Baldwin. Mr. Detchon?

Mr. Detchon. I thank you for the question, let me suggest a way to think about cost allocation and rate of return together. Under the current system, private companies enter into agreements to provide transmission, and they go out, and they raise the capital on the markets to do that. So as our regulators consider that, they have to provide the cost of that at the high cost of raising that capital and then a rate of return on top of that.

If the costs are more broadly shared, first of all, you have a guaranteed revenue flow which will reduce the cost of capital to raise the money in the first place. And in the second, and therefore a reduced rate of return to the companies would be justified. So there would be two ways by sharing the cost that you would reduce the cost of building out this transmission,

sharing it across a broader range of customers.

Ms. Baldwin. Mr. English.

Mr. English. We have had many complaints about the fact that it is difficult for electric cooperatives to participate in this process both because of the size and the complexity and the type of expertise that is required to participate independently, but also I think a lot of it does come down to the situation that the big entities of the region, quite frankly, are the ones that seem to have the control and the influence or at least feel that they should.

And many of those -- so that basically does not have an all-inclusive broad participation locally in designing many of the systems that come forward.

RPTS BINGHAM

DCMN MAYER

[2:35 p.m.]

Mr. English. So, I think there is much work that needs to be done in the improvements in that, and hopefully we are going to see that in the future, but we need a broad-based planning system in place.

Ms. Baldwin. Mr. Nipper.

Mr. Nipper. Yes, ma'am. We would agree with the comments that have been made that it really requires a participation by everyone involved, all the stakeholders, it is varied in our members' views among regions, some a bit better than others, but it really is necessary that everyone be at the table and be participating and their input be counted.

I will say that, following up the comment on the RTO and ISO regions -- and they vary a bit, as well, among them; but the opportunities to participate, equally participate in the stakeholder process with some of the other stakeholders, for our members leaves a lot to be desired. I will say that.

And then I will lastly mention the benefits that I mentioned in my testimony about joint ownership, and if there are opportunities, equal opportunities for folks, and yet American transmission company is a good example of this, where an opportunity for broad and joint ownership by multiple entities

provides planning and other benefits as well.

Ms. Baldwin. Mr. Joos.

Mr. Joos. Well, I might just pick up on something Mr. Miller said.

I think that FERC's incentive policies have created a situation where not only independent transmission companies but integrated utilities that hold distribution, transmission and generation favor investment and transmission for solutions to the problems, even if they are not the most optimum solution. Because frankly the rates of return are higher and the levels of risk are significantly lower than other kinds of investments that might be under State regulatory policy vis-a-vis, for example, what the FERC has put in place. So our concern is you see a rush to invest in transmission.

Now, I want to clarify again there are transmission projects that make sense, and if they make good economic sense, they ought to be supported. I think we have to be careful not to incent investment because of the low-risk, high-return environment vis-a-vis public interest; and therefore, I do think broad public planning of some nature is necessary with broad participation.

Ms. Baldwin. And Mr. Izzo.

Mr. Izzo. We operate both a regulated transmission and distribution business and an unregulated generation business. And the regulated transmission business provides reliability 99.99 percent of the times through a regional planning process.

It works and it works well. And that is regulated and rates are based upon our cost of service.

Our unregulated generation business always has to consider the cost of connecting to the grid as part of its investment strategy and fully bears that cost.

We need to dispel the notion that renewables are not being built because of the transmission system. Renewables are not being built because we are not sending clear price signals. This committee deserves congratulations on doing that through cap-and-trade and through setting an RES.

And now, at the risk of being a little slip, the next thing I expect to hear from people is that if only we had refrigerated freight trains running free of charge from the North Pole, our local supermarket would get its ice cubes through there. It just doesn't make sense to ignore the transportation charges.

Ms. Baldwin. I want to thank all of you gentlemen again for your time and expertise and your patience.

Before I adjourn, I need to ask unanimous consent that two letters from FERC to Chairman Markey are put in the record. Without objection so ordered.

[The information follows:]

***** COMMITTEE INSERT *****

Ms. Baldwin. And with that, our hearing is adjourned.

[Whereupon, at 2:40 p.m., the subcommittee was adjourned.]