JOINT MEETING OF NUCLEAR REGULATORY COMMISSION (NRC) AND

FEDERAL ENERGY REGULATORY COMMISSION (FERC)

ON GRID RELIABILITY

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TUESDAY

JANUARY 23, 2007

1:30 p.m.

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NRC CHAIRMAN AND COMMISSIONERS

CHAIRMAN DALE E. KLEIN

COMMISSIONER JEFFREY S. MERRIFIELD

COMMISSIONER GREGORY B. JACZKO

COMMISSIONER PETER B. LYONS

FERC CHAIRMAN AND COMMISSIONERS

CHAIRMAN JOSEPH T. KELLIHER

COMMISSIONER SUEDEEN G. KELLY

COMMISSIONER PHILIP D. MOELLER

COMMISSIONER JON WELLINGHOFF

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MICHAEL MAYFIELD, Director, Division of Engineering, Office of New Reactors

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JOE McCLELLAND, Director, Division of Reliability, Office of Energy Markets and Reliability

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RICHARD P. SERGEL, President and CEO, North American Electric Reliability Corporation

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KEVIN M. KOLEVAR, Director, Office of Electricity Delivery and Energy Reliability, U.S. Department of Energy

P-R-O-C-E-E-D-I-N-G-S

CHAIRMAN KLEIN: Good afternoon. The Nuclear Regulatory Commission is pleased to have this joint meeting with our Federal Energy Regulatory Commission members. And it's very important that we continue our dialogue on the important matters related to maintaining the nation's electric power grid and its reliability.

The last joint Commission meeting between FERC and the NRC was held last April at the FERC headquarters and so we're honored to be able to reciprocate today. And we thank you for making the trip out to the NRC headquarters. So thanks for coming.

We regret today that NRC Commissioner Ed McGaffigan and the FERC Commissioner Mark Spitzer will not be able to join us. As I understand the first meeting, joint meeting between FERC and the NRC occurred in April 23, 2004, exactly three years ago today. And that was thanks to the efforts of the then FERC Chairman Pat Wood and Commissioner Merrifield.

These joint meetings developed out of the power blackout that occurred in 2003 that struck most of the Northeast and also parts of Canada. And so a Memorandum of Understanding between FERC and

the NRC was developed and signed in September of 2004 to facilitate the interactions between the two agencies on matters of mutual interest for the electrical reliability grid.

The purpose of today's meeting is to continue that dialogue, and so we will continue those activities, both activities with the NRC, with FERC, the North American Reliability Corporation, the Department of Energy on their status of many activities.

Before I introduce the presenters Chairman Kelliher would you like to make any opening remarks?

CHAIRMAN KELLIHER: Sure. Thank you Chairman Klein. I want to thank you for inviting us to your building. And I thank you especially for your hospitality. We just had a very nice lunch. And it was very civilized of you here at the NRC.

(Laughter)

As you indicated Commissioner Spitzer on our side is not here today. He had a very longstanding commitment that he made that he chose to honor. So that's why he's not here, but otherwise you have four of us. And that's an increase from last year's levels, I have to say.

Now some may be curious about why are FERC and the NRC meeting, because we're not the usual bed fellows that people put together to get interagency cooperation. But we do have a common interest in grid system reliability. And as you said it started in August 2003, but it's been constant ever since. It hasn't been a fleeting interest; it's been a common interest of the two agencies. And I think we can expect it will continue. And it's a common interest, but our perspective is a little bit different.

From our point of view the loss of a nuclear plant can present the most serious threat to grid reliability. And I think from your point of view the loss of off system power poses significant threat to nuclear plant safety. So we're really both looking at it from a safety perspective; we're looking at the grid, you're looking at nuclear plant safety.

Now at FERC we've made a lot of progress on reliability over the past year, implementing the Energy Policy Act. We've certified an electric reliability organization. We proposed mandatory reliability standards, and we'll hear some more about that today. And we're posed to act, to finalize reliability standards as well as approve delegation agreements that will establish, we hope, a strong enforcement regime.

And I m someone I admit at our last meeting that I like regulation and I find regulation interesting. So that was a public statement that probably hurts me in some quarters. But I think that means looking at regulatory models, seeing what might work in our context and adapting or adopting it. And I think you have some experiences here that we should look to and look to adopt.

As we've been implementing our reliability responsibilities we've looked very much at the RECO model and the NRC experience. How do you track operational performance, how do you not only assure compliance, but promote excellence, or how do you assure that operator training is adequate. And how do you develop a really strong enforcement regime? We are both safety agencies. FERC is generally, and I think the NRC is certainly recognized as a safety agency. We're typically viewed as an economic regulatory body. That's what we do. But we also are a safety agency. We're a safety agency when we regulate dam safety; we're a safety agency when we look at LNG facilities. But we're also now a safety agency as we look at grid reliability. So we're going to look to some of your experience and try to adapt, or adopt it.

One reason I was very interested in our joint meeting last year was I wanted to see first hand what this thing called a five member Commission actually looked like.

(Laughter)

I heard that they exist, but at FERC it had been a number of years. It was almost like the unicorn at first.

(Laughter)

Something you have heard about but not quite sure it really exists. We now know the unicorn does exist. We are back to five at FERC, thanks to the Senate and to the President, we have three excellent nominees, and they're with us now. And I think FERC s been functioning very well as a five-person Commission.

I also want to acknowledge the retirement of Jeff and Ed. I think they have served very admirably and they ve been fine public servants. And I think, I just want to credit their service and we've been friends as well, so I'm going to miss you.

COMMISSIONER MERRIFIELD: Thank you.

CHAIRMAN KLEIN: Thank you Chairman Kelliher. What I want to do is sort of layout out our agenda so we know the roadmap for which

we're undergoing today. So first we will hear from the NRC staff, Mr. Patrick Hiland, Director of the Division of Engineering in the Office of Nuclear Reactor Regulation, and then Mr. Michael Mayfield, who is Director of the Division of Engineering in the Office New Reactors. So they'll give us some updates on the grid reliability issues and operating reactors, as well as the anticipated new reactors.

Then we'll hear from Mr. Joe McClelland who's the Director of the Division of Reliability in the Office of Energy Markets and Reliability at FERC and on the establishment of Electric Reliability Organization and Reliability Standards. We look forward to hearing those.

And then we'll hear from Mr. Richard Sergel, President and CEO of NERC on the progress of industry initiatives on grid reliability, including the status of the responses to the recommendations of the U.S./Canada Power System Outage Task Force.

And lastly we'll hear from Mr. Kevin Kolevar, Director of the Office of Electricity, Delivery and Energy Reliability at DOE on responses to the Energy Policy Act of 05. Kevin is currently in transit. There's this event tonight called the President's speech.

(Laughter)

They're doing some last minute fine tuning. And so he will be joining us around 2:30. In the event that he is not able to make it we'll have David Meyer who will give us that update. So we'll have an opportunity to do that.

To keep us on schedule being Commissioners we also are five and five and four and four today, what we thought we would do on the Q and A sessions following the FERC Commissioners would be able to ask questions of the NRC presenters, after their presentation, and also ask questions after the NERC and the DOE presentation.

The NRC Commissioners will be asked questions after the FERC, NERC and DOE presentations. So we thought rather than ask questions of our own people, we would let our counterparts do those. So that's sort of the way we will do that.

Any comments before we start? Well with that I'll ask Pat and Mike to begin.

MR. HILAND: Okay, thank your Mr. Chairman. We'll call up our slides for our grid reliability update, please.

Mr. Chairman as you stated our presentation is to provide updated information regarding the Nuclear Regulatory Commission's activities in the area of reliable offsite power.

Slide two. In our presentation we plan to discuss three issues: the staff's actions following the last joint Nuclear Regulatory Commission and Federal Energy Regulatory Commission meeting in April of 2006, in assessment of our licensee's readiness to anticipate and respond to events that may affect the reliability of offsite power supplies during the summer of 2007, and lastly Mr. Mayfield will discuss the impacts of new reactors on offsite power reliability issues. Slide three. We took five follow-up actions from the April 2006 joint Commission meeting. First, we provided staff reports to Federal Energy Regulatory Commission staff on nuclear power plant loss of offsite power events.

Second, we engaged the Federal Energy Regulatory Commission, the Department of Energy, and other stakeholders regarding the potential for new generating capacity to impact grid reliability.

Third, the NRC staff hosted a meeting with Federal Energy Regulatory Commission representatives to share information on the NRC

inspection and performance monitoring process and the use of control room simulators for operator training.

Fourth, we reviewed the Federal Energy Regulatory Commission's open access, same time information system, the acronym being OASIS. This system helps ensure that public utilities do not use their ownership, operation, or control of transmission systems to deny access unfairly to other power generators. While the OASIS provides valuable information we determined it would not assist the NRC staff with our oversight process.

And today's meeting resolves a fifth action item. Slide four. Following the 2003 Northeast blackout we took several actions. We conducted summer readiness inspections each of the last three years and we reviewed our regulations governing power sources and personnel training. We found our regulations adequate. But feedback from our inspections identified differences in understanding specific requirements.

To address this we issued Generic Letter 2006-02 to all of our licensees. A generic letter was one tool we used to communicate issues. Last April we received the initial responses from our licensees. Additional clarifying information is expected to be received by the end of January. As

a result of these inspections and our reviews we've concluded that our licensees are prepared to address grid changes.

Over the past year we completed regional inspector training to assure consistent inspection and oversight of grid monitoring. Routine inspection procedures and training will continue to be updated.

NRC staff continues to monitor grid reliability daily. Any unusual grid condition is discussed with our stakeholders and regional counterparts.

This effort has been useful in identifying potential stress grid conditions in various regions across the country and has provided the NRC additional confidence that the nuclear plants can continue to operate safely through the summer period.

Slide five. As we move forward we will continue to work closely with the Federal Energy Regulatory Commission, the Department of Energy and the Electric Reliability Organization. Recently we worked with these stakeholders to provide comments on their Standards Revision Process.

Based on our inspections and review there appears to be some differences in the interpretation of the Station Blackout Rule. That

rule required licensees to assess their ability to respond to a loss of offsite power and identify appropriate coping strategies.

Since the April 2006 joint meeting there have been five grid-related localized plant events in the United States. Two international events have occurred over the same time period. These events are reviewed under the NRC's operating experiencing program to identify any lessons learned.

This concludes my portion of the presentation, now Mr. Mayfield will discuss the impact of new reactors.

COMMISSIONER MERRIFIELD: Mr. Chairman may I ask a clarifying question?

MR. HILAND: Yes, sir.

COMMISSIONER MERRIFIELD: You said that there are differences in the Station Blackout Rule, can you just explain whether those are differences between our licensees or differences between ourselves and other regulators? What did you mean by differences?

MR. HILAND: It's the staff's interpretations of the current rule and how it impacts a licensee that may have a station blackout event today. Does that licensee go back and revisit their coping strategies or do they

look at the current station blackout under their Appendix B program, their quality assurance program? The differences, when you read the rule and you read just the words in the rule it could imply that there's not an obligation to go back and revisit what the baseline coping strategies were. Obviously if you look at Appendix B in a Quality Assurance Program you would reach a different conclusion.

I brought this issue up as one of the discussion topics. We're still formulating a discussion on that topic but I wanted to raise it and talk about it today.

COMMISSIONER MERRIFIELD: Okay, just so I get it straight.

MR. HILAND: Okay.

COMMISSIONER MERRIFIELD: So there's a lack of commonality between ourselves and our licensees and among our licensees in interpreting Station Blackout Rule. That's what you meant by that bullet?

MR. HILAND: We have one example of a licensee so I don't want to be too general about it. We have one example of a licensee. But it's an interpretation amongst the staff first. And once we get the answer we'll address it. COMMISSIONER MERRIFIELD: Thank you.

MR. MAYFIELD: May I have slide six, please. When we briefed you last April we presented a map similar to this one that depicted the locations of the new reactors that had been announced by the industry at that time. Since that briefing a few additional sites have been identified and this slide depicts the anticipated new reactor locations that have been announced by the industry.

I should point out for you that the two dots off the west coast of Florida we had originally put out in the water just because the licensee or the applicant hadn't identified the specific location. They have now announced that the plants would be located near the Crystal River site. They're not floaters contrary to what had been suggested last April.

These announcements constitute approximately 30 new units at 20 sites. As you can see most of the units are located in the Southeastern part of the country, with a few additional units in Texas, the deep South, mid-Atlantic States and the Northeast.

Overall the proposed new units would add over three gigawatts to the electric generating capacity in the U.S. starting in 2015 and beyond.

Next slide, please. We've been interacting with the industry fairly aggressively over the last several months to address issues related to licensing new plants. And through those meetings we've identified two issues where the NRC's processes appear to interact with the Federal Energy Regulatory Commission's processes.

The first is the environmental review is conducted for the plant and for the transmission lines that connect the plant to the grid. We're just now starting to discuss this issue with the FERC staff to make certain there's no overlap and that activities that are undertaken for environmental reviews are coordinated and that they are coordinated to the extent appropriate.

The second issue is the interaction between licensing the plant and the process for gaining access to the transmission grid.

The chart that we're showing here is a much simplified version of the chart the industry presented during one of our interaction meetings that depicts the parallelism in reviewing and approving the plant and the grid connection process. The top half and the bottom half of the chart generally depict the Federal Energy Regulatory Commission and NRC processes, respectively.

As we indicated in the presentation last April and as Pat's emphasized today the NRC's staff's interest in this area is on a stable and reliable source of offsite power for the nuclear power plants.

We've had discussions with both the Federal Energy Regulatory Commission staff and with staff from a transmission system operator to understand the process for utilities seeking to add generating capacity and the process by which they interact with the transmission system operators.

So when the industry presented their much more complicated slide we weren't surprised by it, but it did serve to emphasize for us the need for continuing dialogue with our counterparts at FERC and the Electric Reliability Organization as well as with DOE as we go forward.

This completes our presentation.

CHAIRMAN KLEIN: Thank you very much. I'd now like to invite Chairman Kelliher and fellow Commissioners to ask questions of the NRC staff.

CHAIRMAN KELLIHER: I have a question or two but if any of my colleagues want to go.

COMMISSIONER WELLINGHOFF: I do too, go ahead Joe.

CHAIRMAN KELLIHER: I'll ask two quick ones and then turn to my colleagues. Your chart is interesting, the planning chart, basically the length of time that it takes to build a nuclear plant. Actually might match up fairly well with the length of time it takes to make major transmission expansions. I don't know if that's a good thing or bad thing, but it seems the two planning cycles actually fit pretty well, nuclear and major transmission grid expansions. It fits less well for other generation sources though, for example wind or other facilities you can build much faster than a nuclear plant facility. That's a comment I suppose. I won't even pretend to mask it with a question at the end.

But the real question is, to what extent, when you're looking at nuclear plant licensing, do you look at the grid upgrades that are necessary for that plant's output to get to market, or do you really assume that the licensee will make those arrangements because it's in their own interest to get it to market, get it to load?

MR. MAYFIELD: The licensee does the initial analysis and on the chart there is an ellipse showing grid stability and reliability information. That's a specific analysis that they have conducted by the transmission systems operator and is submitted as part of their combined license

application. So they have go through the analysis and demonstrate that there will be a reliable source of offsite power that ties to their ability to transmit power to the grid..

CHAIRMAN KELLIHER: Let s say that there might be a situation where there s a reliable source of offsite power but it still could be constrained, in some kind of a pocket, it could not be able to move throughout all of New England, for example. Does that bear on your licensing decision or you say it is a safe plant, the design was built correctly, it does have offsite power.

MR. MAYFIELD: Power availability and reliability is our primary book. However that's part of the interaction that we would have with Joe and his colleagues.

CHAIRMAN KELLIHER: When you look at offsite power do you look at a specific generating facility that has to be named?

MR. MAYFIELD: Well, they typically name particular lines as opposed to a generating source.

CHAIRMAN KELLIHER: Okay.

MR. MAYFIELD: They'll have multiple lines.

CHAIRMAN KELLIHER: Okay, colleagues?

COMMISSIONER WELLINGHOFF: I ve got a couple of things Joe. I think Mr. Hiland I ve got two areas. One is, Mr. Hiland did you indicate that the NRC's monitors grid reliability daily, was that what you said?

MR. HILAND: Yes, that's correct. We started this last summer. And, of course, we worked closely with the other stakeholders. But in our operating and experience group as well as our electrical engineering group in the morning we gather and we look at the reports that come in, and if there's a higher level of grid interest in a certain area we communicate that back out to our regional offices to ensure that our onsite inspectors have discussed the current grid conditions with their operators.

COMMISSIONER WELLINGHOFF: And so are you looking at the -- data or are you looking at PMU data. What data are you looking at?

MR. HILAND: Well, I'll have to ask the specific details on that. Would you answer for us please, Mr. Wilson?

MR. WILSON: We actually get the data from like SERC and PJM and NERC. We go to their websites

COMMISSIONER WELLINGHOFF: Okay, it's already what the RTOs and ISO s have and provide to you.

MR. WILSON: That s correct, that s where we get the information.

COMMISSIONER WELLINGHOFF: Okay, great, thank you. The other one is on the Station Blackout Rule and I'm trying to understand this a little bit, I m pretty new to nuclear facilities. It's my understanding I guess that a nuclear facility shut down needs a source of outside power. Is that correct?

MR. HILAND: That's correct.

COMMISSIONER WELLINGHOFF: Okay, do any of these facilities have inside the fence auxiliary generation?

MR. HILAND: They all do. That's correct.

COMMISSIONER WELLINGHOFF: Okay, do they use that for this purpose?

MR. HILAND: The requirement of the Station Blackout Rule was with the assumption that you've lost not just offsite power, but also your onsite auxiliary generating capabilities.

COMMISSIONER WELLINGHOFF: I see.

MR. HILAND: And there, depending on the frequency of a number of variables, you were to devise a coping strategy, could be four hours, if you had to live with that or 12 hours that you had to do with that condition.

COMMISSIONER MERRIFIELD: If I could help the staff on this one. In order to keep -- after the reactor is shut down there s a need to continue to keep the core cool and wet.

COMMISSIONER WELLINGHOFF: I see.

COMMISSIONER MERRIFIELD: You need the equipment, electrical equipment, to be able to continue to pump that water in. Now in the Station Blackout Rule we impose on our licensees the requirement to have redundant emergency diesel generators for each of their units, so a single nuclear power plant would have at least two emergency diesel backups that would be able to power all the emergency systems at the site.

In addition, there are also battery backups for some of the emergency systems as well. You won t have a full scope of coverage, but it's an attempt to have redundancy built into that so that they can cope through that accident..

COMMISSIONER WELLINGHOFF: Where I'm going with this is I'm wondering whether or not any of the utilities that have the capability have ever used that emergency generating facility for peak shaving to support the grid offsite. Is that something that s ever been done?

MR. HILAND: Not that I'm aware of.

COMMISSIONER WELLINGHOFF: Okay, thank you.

COMMISSIONER MERRIFIELD: No and I think that's something that generally we would frown upon. In the case of Canada I know that there's at least one, actually the Darlington site and also I believe Gentilly which had nearby gas turbines which are dedicated not only to providing emergency backup power, but also at certain points feeding power into the grid. That is not a practice we have here.

COMMISSIONER WELLINGHOFF: Why would you frown on it?

COMMISSIONER MERRIFIELD: The intention is to make sure that those diesels are in a operating condition such that they would be ready to be called on in an emergency situation.

COMMISSIONER WELLINGHOFF: So if you exercised them, you might in fact have, they may have higher availability factor if you exercised them. If we're sitting there and they re never used and all of a

sudden you ve got to kick them on, as we found out in the 2003 blackout a lot of these emergency generators didn't come on, but if you got them so they re actually being exercised you actually have a higher availability of them.

COMMISSIONER MERRIFIELD: One could quibble on that. We have very stringent requirements for how often these are to be tested. We typically require 30 day tests, at full load, on a fast start. It's one of the major issues that we inspect and clearly an area that we put a lot of effort on the part of our staff to make sure that those diesels are operating appropriately.

And I think that just as a general matter, the feeling has been that we wanted to make sure that they were dedicated solely for the purpose of providing emergency backup power. Typically you're talking about diesels that are anywhere from, and staff can correct me if I'm wrong, two and a half to eight megawatts. Not a significant addition to the power load in that generalized area. And I think the preference of the staff, and the Commission has not overridden, is to make sure they're dedicated to the purpose.

COMMISSIONER WELLINGHOFF: Thank you.

CHAIRMAN KLEIN: I guess for a clarifying, Luis, during the 03 blackout could you comment on the diesels and how they started?

MR. REYES: Yeah, this is Luiz Reyes, the Executive Director for Operations. During the blackout all the emergency diesel generators that were called upon operated properly. So we had 100 percent correct performance of that equipment, which we expected because we have a very stringent requirement for testing and monitoring.

COMMISSIONER WELLINGHOFF: And Mr. Chairman I didn't mean to imply that it was your equipment but other commercial operators had some problems with their diesel backup. Thank you.

CHAIRMAN KELLIHER: You have the gavel. You have the power of recognition.

(Laughter)

COMMISSIONER MOELLER: A quick question for Mr. Mayfield. I realize that this is a little bit out of your scope, but as we look forward to a new generation of nuclear power one of the challenges we've seen really just in the last year is the skyrocketing cost of both materials and labor.

And I wonder if you are at least cognizant or analyze that at all in terms of where the industry is going because that can have a significant

cost factor, which in turn can result in whether we get some of these reactors on line or not.

MR. MAYFIELD: I have a vested interest in that information, but we don't specifically address the cost factor with the licensee.

COMMISSIONER KELLY: I have a question, a more general question, as you undertook your assessment of nuclear plant readiness and concluded that they are ready, summer of 2007, to adjust to changes in grid stability, did you come across any issues that you think we should be aware of at FERC? Or any issues that FERC could help you with?

MR. MAYFIELD: If I could.

Just in general and it's the reason we've had continuing dialogue with Joe as well as colleagues at NERC, to make sure that our licensees and their control rooms are in communication with the grid operators and that is a free flowing dialogue.

The interpretative order that you issued last year was a help in that area. And it's my understanding, based on what I've heard back from staff, that that communication now works fairly well. So right now based on what I've seen and what I've heard back from others it appears we're in pretty good shape.

COMMISSIONER KELLY: Thanks. And have we had continuing dialogue on the development of the NERC standards, to the extent that they impact nuclear power plants, specifically?

MR. HILAND: I don t know that it would be continuing, but we have interacted when asked to provide comments at the staff level. We've gone back and provided some information. And we're certainly willing to continue to do that.

COMMISSIONER KELLY: Well, thanks, I really appreciate that. And we need all the help we can get. So you have the expertise in the nuclear plants as we look at these standards and we're charged with adopting. And we really appreciate your input.

MR. SERGEL: I would just in response to that say that we at NERC have been in contact on the standards from both sides. So we're obviously receiving information from the FERC on our standards. But we've also received comments on the standards from NRC staff. So in that sense we're the common denominator that will be connecting the two of you.

COMMISSIONER KELLY: Thanks.

CHAIRMAN KLEIN: Any additional questions?

COMMISSIONER JACZKO: Yeah, I just wanted to follow up a little bit on Commissioner Wellinghoff just specifically with the case of Oconee. Oconee relies, I recall relies on the sources other than diesel for providing some of the backup power. Do they use, I believe is it a dam that they use at Oconee, is that ever used for any other source or that is exclusively used to provide backup power to that facility?

MR. REYES: Luiz Reyes, Executive Director for Operations. The Oconee station has two hydro facilities on the order of 20 megawatts. And they are allowed to use those facilities to produce electricity for the grid. But there are a list of requirements that we impose on them when they can do that versus when they can be used as emergency supply for the facility.

COMMISSIONER JACZKO: Okay.

MR. REYES: But they're extremely large capacity compared to all the other requirements we have at the remaining stations.

COMMISSIONER MERRIFIELD: The only other one I'm aware of, I believe it's Peach Bottom has a pump storage hydro facility as well.

MR. REYES: We have more than one facility that has pump storage. But that would be a separate facility. And what we would do is

run the nuclear unit at 100 percent power 24 hours a day and at night when the demand is lower we will use a pump storage facility as a mechanism to have digging power when they need it later, but that could serve as another source of backup power to the facility. But it's a separate entity, it's a separate facility.

COMMISSIONER JACZKO: Thank you.

CHAIRMAN KLEIN: Thank you. Next we'll hear from FERC. And Joe McClelland is going to educate the NRC on your activities. So Joe.

MR. MCCLELLAND: Thank you Mr. Chairman. If I might have the first slide, please. Well, good afternoon, my name is Joe McClelland, and I' m the Director of the Division of Reliability at the Federal Energy Regulatory Commission. It's my pleasure to be here today to review the Commission's actions regarding the reliability of the nation's bulk power system.

Next slide. In August of 2005 President Bush signed the Energy Policy Act of 2005 or EPAct into law. The Act provided the Commission with substantial new authority over the reliability of the nation's bulk power system, excluding Alaska and Hawaii.

EPAct called for the certification of an electric reliability organization or ERO to develop and propose to the Commission reliability standards for the nation's bulk power system.

The standards are to be mandatory for the users, owners and operators of the system. After the standards are developed by the ERO they are submitted to the Commission for review. The Commission can approve a reliability standard if it finds it to be just, reasonable, not unduly discriminatory or preferential, and in the public interest.

If the Commission does not find the standard passes these measures it can remand it back to the ERO. That said, the Commission must give "due weight" to the technical expertise of the ERO. The Commission shall not defer however with respect to the effect of a standard on competition.

Now the term bulk power system is defined in EPAct as, and these are direct quotes, facilities and control systems necessary for operating and interconnected electric energy transmission network or any portion thereof, and electric energy from generation facilities needed to maintain transmission system reliability. The term does not include facilities used in the local distribution of electric energy.

EPAct does not authorize the ERO or the Commission to order the construction of additional generation or transmission capacity. In addition EPAct does not allow the Commission to pre-empt any authority of any State to take action to ensure the safety, adequacy and reliability of electric service within that state so long as such action is not inconsistent with any reliability standard, EPAct allows for regional variations.

For instance, the State of New York has a call out for the establishment of rules that result in greater reliability, so long as such rules do not decrease the reliability outside the state.

Next slide, please. In order to implement EPAct the Commission issued Order 672 on February 3rd of 2006. Among its more notable determinations Order 672 recognized that the United States, Canada, and Mexico not only share common borders, but also share elements of the same bulk power system, and will likely share the same ERO.

The Order therefore encouraged the ERO candidate to seek recognition in Canada and Mexico, directed the ERO to propose an approach to international coordination for standards development and acknowledged that the Commission will consider a necessary time, a

necessary time for Canadians and Mexicans to act while reviewing those standards.

672 also established that an ERO candidate must be able to develop and enforce reliability standards and has procedural rules for fairness in governance, processes, enforcement and assessment of fees and penalties.

If recognized the two processes can be delegated by the ERO, only two, development of reliability standards and enforcement of the same standards. These items can only be delegated to regional entities. The delegation of duties will be accomplished by a delegation agreement prepared by the parties and submitted to the Commission for approval that affirms that uniform standards are preferential.

However, there may be circumstances where regional variations are necessary. Two such circumstances are when the regional variation is more stringent than the national standard and where a regional standard is necessary due to a physical difference in the bulk power system. It required that the ERO and the regional entities have programs to ensure compliance with the reliability standards. Each program must include audits, actions to correct problems and due process to investigate

allegations and incidents. Investigations are generally not public, but the results are.

Violations must be reported promptly to the Commission by the ERO and the ERO must develop penalty guidelines and submit them to the Commission for approval. The penalties can be monetary or non-monetary and there is only one appeal to the ERO concerning the application of a penalty. Penalties are filed with the Commission for approval, the alleged violator has 30 days to appeal the penalty to the Commission.

If the Commission takes no action the penalty is invoked on the 31st day after it is filed. The Commission has the authority to independently conduct enforcement actions.

Next slide, please. On April 4th, 2006, the North American Electric Reliability Council or NERC filed an application with the Commission to become the ERO. Concurrent with this application NERC filed its 102 reliability standards for approval.

In anticipation of NERC's reliability standards filing, Chairman Kelliher ordered the Division of Reliability to begin a thorough evaluation of the standards in the fall of 2005, shortly after EPAct was signed into law. On May 11, 2006 the Division of Reliability and the Office of General Counsel

released the staff preliminary assessment of a North American Electric Reliability Council's Proposed Mandatory Reliability Standards, that's the title, Preliminary Assessment in short.

The Preliminary Assessment did not make any recommendations as to whether a standard should be approved or remanded. Rather the Preliminary Assessment only sought to explain the purpose of each standard and then to identify any major issues with the standard.

Its purpose was to provide a basis as to which of the proposed standards should be approved or remanded to the ERO, identify and prioritize potential problems with the standards and provide a comprehensive and objective assessment of the standards.

Comments were solicited from industry and stakeholders through June and a technical conference was held on July 6 to review the comments pursuant to the preliminary assessment. The comments at the preliminary assessment were used to help draft the reliability standard's Notice of Proposed Rulemaking, or NOPR.

Next slide. On July 20th, 2006 the Commission certified NERC as the new ERO. On August 28th, 2006 NERC filed eight new Critical

Infrastructure Protection, or CIP, reliability standards for the Commission's review.

NERC's CIP standards proposed to enhance the bulk power system's cyber security by identifying critical cyber assets needed to operate the bulk power system and by encouraging affective protection by carefully balancing available technologies with existing control systems.

Staff immediately began to evaluate the standards to prepare a preliminary assessment for public comment at the time of the filing. On October 19th, 2006 the Commission conditionally approved NERC's proposed 2007 budget for its ERO activities as well as the budgets for regional entity candidates within the United States.

The approval included the ERO's and each regional entities complete business plan and organization chart, an explanation of the proposed collection of all dues, fees and charges, and the proposed expenditure of funds collected.

The order authorized NERC to issue billing invoices by December 1st, 2006, which will allow it to fully fund its first fiscal year as the ERO. The order found the following activities to be entitled to funding through the ERO: reliability standards development; compliance

enforcement and organization registration and certification; reliability readiness audits and improvement; training, education and operator certification; reliability assessment and performance analysis; situational awareness and infrastructure security; and administrative services.

Next slide. Also on October 19th, 2006, we've been very busy.

(Laughter)

The Commission issued reliability standards and notice of proposed rulemaking or NOPR. Interested parties were given until January 3rd, 2007, and I had a very enjoyable Christmas and New Year's preparing their comments, to comment on the NOPR proposals.

(Laughter)

The NOPR proposes to approve 83 of NERC's 107 standards, including NERC's glossary of terms. The NOPR calls for modifications to 62 of the 83 standards. The remaining 24 standards will be pending at the Commission.

Most of these are fill in the blank standards that require specific regional criteria for implementation that must be filed with the Commission in order to become mandatory and enforceable. Others refer to a

regional reliability organization, a non-statutory term, which is not a user, owner or operator of the bulk power system or regional entity or the ERO.

A decision not to remand any standards was made considering a combination of factors. Number one, the unprecedented move from voluntary to mandatory reliability standards; number two, the need to put mandatory and enforceable standards in place before the summer of 2007; and number three, giving due weight to the technical expertise of the ERO which represented that the standards were adequate to accomplish their intended purpose.

The reliability standards and NOPR should be thought as the second part of a three part series. The first part was the preliminary assessment of the standards that gave the public an opportunity to comment on staff's evaluation of the reliability standards. The assessments and comments were then used to develop the NOPR issued on October 19th, 2006.

And NOPR is the second part. The public had the opportunity to comment on the Commission's disposition towards the standards as comments were due by January 3rd, 2007. To date 128 entities have filed 2,100 pages taking advantage of this opportunity.

These comments are being used to develop the third and last part, the final rule to make the standards mandatory and enforceable. Incidentally NRC staff filed 11 pages of comments on ten of the standards that covered topics such as system restoration, control center loss, system status notifications and minimum voltage inputs to the to the new nuclear power plants.

Next slide, please. On November 29th, 2006, NERC filed for Commission approval, compliance monitoring and enforcement agreement and seven of the eight delegation agreements for the regional entities. The eighth agreement from the Florida Reliability Coordinating Council was received in mid-December.

The filing included a standardized compliance monitoring and enforcement program that all eight regional entities are committed to utilizing in overseeing compliance and enforcement of mandatory reliability standards, a base regional entity agreement adopted by each regional entity that corresponded with NERC's Delegation Agreement. Each base agreement was supplemented by an appendix that proposes to account for and seeks approval of variances in such items as regional

board composition, membership requirements, voting protocols and annual fees.

The regional entity standards development process with a review and adoption of proposed local and national liability standards. That was the last item, sorry.

On December 11th, 2006, the Division of Reliability and the Office of General Counsel released a staff preliminary assessment of NERC s proposed Critical Infrastructure Protection CIP reliability standards. That's the preliminary assessment.

Once again a preliminary assessment did not make any recommendations as to whether a standard should be approved or remanded. Rather the preliminary assessment only sought to explain the intent of each standard and then to identify any major issues in the standard.

And once again its purpose was to provide a basis as to which of the proposed standards should be approved or remanded to the ERO, identify and prioritize potential problems with standards and provide a comprehensive and objective assessment of the standards.

Comments were solicited from industry and stakeholders and will be accepted through February 12th of 2007. The comments of the preliminary assessment will be used to help draft the CIP reliability standard's Notice of Proposed Rulemaking.

The goal of the Commission s, and I left out many steps, there are multiple other items that we've done in the meantime, and aren't you glad. The goal of the Commission s and industry efforts is to have mandatory and enforceable reliability standards in place by the summer of 2007 to help ensure the reliability and security of the nation's bulk power system.

This concludes my prepared remarks for today. Thank you for your time and attention.

CHAIRMAN KLEIN: Thanks Joe. I think what we might do is go ahead and hear from NERC now before the NRC Commissioners ask their questions, so Mr. Sergel if you would go ahead and begin.

MR. SERGEL: Thank you Chairman and thank you all for the invitation to address this second joint meeting of Commissions and an opportunity to provide you an update on grid reliability. I'm Rick Sergel, I m the President and Chief Executive Officer of the North American Electrical

Reliability Corporation. And corporation exists only as of January the 1st, prior to that it was NERC, Council, and exists from 1968 in that form. But the designation as this corporation is a part of our designation as the Electric Reliability Organization by the FERC pursuant to the Energy Policy Act. So that's a very important change for us and it signals this new set of responsibilities to implement mandatory standards and enforce them.

Joe has done a very nice job describing our efforts to improve grid reliability by developing and enforcing reliability standards. And I'll be happy to answer questions in that area. But what I thought I would do this afternoon is just touch briefly on four additional areas that we think are important to the general discussion of grid reliability and next slide, please.

Next slide, please. And they are, the first is the transmission needs for new nuclear units and I think there we would consider the definition of new to be really any change in an existing license as well, probably would fall under the same category.

And then I'll do some progress reports on the blackout recommendations and the offsite power reliability standard. And finish up with just my view on the importance of the coordination that we have with both the FERC and the Nuclear Regulatory Commission.

Next slide, please. So one of the most important issues for us to address is how to ensure that the necessary transmission is developed, sited and constructed to reliably integrate proposed new nuclear units to the gird, and you've already heard about that this morning. And we have seen proposals to build nuclear units in the 1,100 to 1,600 megawatt range, maybe even larger, for initial service in a ten-year window.

And they will require coordinated wide area studies of the power grid involving the generation providers, transmission providers and regional planning coordinators to ensure that adequate transmission outlet capacity and a reliable offsite power supply is available for these units.

Because of the lead time to plan, cite and build new transmission these studies must be initiated as soon as possible, so as not to become an impediment to bringing new nuclear generation into service on schedule.

Just quickly, you know we've touched on the why that's true. First the very special requirements of a nuclear plant, it can go from providing generation to becoming a critical load instantaneously; that is, the critical load for backup.

The size of these units relative to the grid is often the largest unit and then becomes important in that capacity. The distance from load, it's often further away because of the safety requirements, the multiple feeds of transmission lines, meaning more than one coming into the site. And often there is more than one unit at a site, further complicating the situation. All of which makes for a transmission study that is complex. That's not in and of itself a problem, but it does mean that we need to take the time to do it right.

One of the things that we found out is that we have the role of providing ten year assessments of the power gird, and did so in October. And as we were reviewing that with our trustees, determined that we didn't have any nuclear power plants in the study and we did not therefore look at transmission as an issue with respect to those units because the units weren't in the study.

And we determined that in fact we needed, with respect to nuclear, to increase the horizon of our long term assessments. And we can assure both the FERC and the NRC that we will be doing that in our 2007 assessment; we'll expand the horizon. Whether we will do that across the board or exclusively for nuclear plants I can't say today, but we will be

doing that. And it's appropriate for the FERC, the NRC and the DOE to take an active role in seeing that this issue is fully addressed.

Next slide, please. I also wanted to just update you on progress since the 2003 blackout. NERC and the industry have taken a number of actions to address its direct causes. Among those we've established technical groups that are developing best practice and operator tools such as enhanced web based communication among reliability coordinators, coordination is essential.

We've rewritten NERC's operating policies and planning standards, drafted many new ones, such as vegetation management and relay load-ability. We've implemented or laid the foundation for permanent programs such as operator training and cyber security whose scopes go far beyond the blackout recommendations.

We have successfully with great help from many participants modeled the entire blackout event to better understand exactly what happened during the final brief moments of the dynamic cascading failure.

And we've confirmed what we already knew that the industry can provide experts of enormous depth and breadth who are willing to

provide their time to analyze these kinds of grid events and recommend ways to improve reliability.

Now these activities are now integral to NERC's mission as the ERO and they re included in the specific programs and tasks that NERC will continue to perform. Those were described by Joe; those are the program areas that we have at NERC.

And we work closely with the U.S. Canada power system outage task force throughout the development and implementation of the blackout recommendations and development of the task force's final report which was issued last September.

And while some of the blackout recommendations required one time actions, many require an ongoing commitment, not only to maintain the recommended measures over time, but also to continuously review and improve them and NERC as the ERO is fully committed to that task. Next slide, please. Just a few minutes on the offsite power reliability standard. The NRC began to raise questions about the impacts of deregulation and its understanding of the power grid on the adequacy of offsite power reliability. An incident at the Callaway Nuclear Plant in August of 1999 is sort of a watershed event. Voltages fell below minimum

operability levels for 12 hours, with the reactor at zero power and that focused increase attention on the issue.

And as a result the industry began to look for ways to assure the operational coordination between generator operators and transmission operators that was inherent in a vertically integrated industry. For several years I was the Chief Executive Officer of a company that had minority shares of nuclear power plants and we operated very much in a vertically integrated fashion at that time.

But I can tell you that I think we had the same issue then that we didn't really coordinate as well as I think we're going to be coordinating now with these new standards. So in October of 2004 at the request of the Nuclear Energy Institute's Grid Reliability Task Force, NERC began developing a standard to ensure that the transmission system has the capacity and capability to support the safe operation of nuclear power plant safety systems, and that the necessary agreements would be developed and put in place.

The team working on this standard expects to submit it to ballot in April and we would expect to be voting that standard at our board meeting in May and to approve it.

Now because it will take time for nuclear plant operators and transmission operators to develop the necessary coordination agreements we would anticipate full implementation, including compliance monitoring and enforcement, about 18 months after FERC approves this standard. And of course this standard like all others will come to them.

I don't want to leave the impression that there won't be anything done in the meantime. That's far from the case. We have been addressing this issue through our readiness evaluations. This is a program in which the Commission was quite instrumental in having it started. It's modeled after INPO. We go out and evaluate the performance of operators to determine their ability to meet the requirements necessary to reliably serve the power grid.

And one of the things that we added to those evaluations specifically was this issue; that is, were they prepared to have proper coordination of transmission and generation, particularly for nuclear plants. And several examples of excellence have been cited and highlighted in this area. So we're doing this through our current program. And we're out on a three-year cycle, we visit every location. So we would have visited all of them since the blackout and we'll be visiting all of them going forward.

With that last slide, and just a pitch for the importance of this communication and that is we have a Memorandum of Agreement, an MOA, between the NRC and NERC. The basic agreement was signed in 2004.

And then it has appendices that are coordination plans, those were signed in 2005, specific ones with respect to how we communicate during emergencies, how we would analyze an event together, exchanging of information and our operational experience, as well as, for example, how the NRC has an opportunity to participate in the NERC committees and provide us the kind of information that Joe just referred to and do it in a first class way.

Our relationship with the FERC is one of designation; it's a formal relationship established by law, and obviously a very close one. And we will be continuing to work to improve that as well. But our relationship with the NRC is through this Memorandum of Agreement. And I just want to emphasize how important that is to our being mutually successful.

In conclusion, and turning to the last slide, I just wanted to put what I think are a few important to dos out there for us. The first is to complete the offsite power standard. If we're back here next year we

should telling you that that's been passed. And the second is to integrate nuclear generation and transmission requirements into our long term assessments, and we should be doing that in October of this year when we do that, and finally to make sure that we maintain and enhance the relationship with the two Commissions over this year.

Thank you very much for the time.

CHAIRMAN KLEIN: Thank you very much for your presentations. I know this will probably not come as a surprise to the FERC Commissioners but the NRC sometimes is process driven, and so included in that we have an order for which we ask questions. And so today I happened to draw the first straw followed by Commissioners Merrifield and then Jaczko and Lyons. So we're a very process driven agency here.

(Laughter)

So I'll start first with a question with Mr. McClelland. I know you have a goal I think of having an enforceable system in place by the summer of 07 could you tell us kind of where you stand on that and whether it's the beginning of the summer or the end of the summer?

MR. MCCLELLAND: We're on track, currently on track. The number of comments, that's a large volume of comments; 128 comments

and 2,100 pages. I don't know of any particular NOPR that's drawn more comments, although there may be one that I'm not aware of. But that's a large volume. But we are on track to have the order finished and the standards mandatory and enforceable by June of 2007. So that's the beginning of June 2007.

CHAIRMAN KLEIN: So that should be in place for the summer heat load.

MR. MCCLELLAND: That's the plan.

CHAIRMAN KLEIN: Good, thanks.

MR. MCCLELLAND: Thank you.

CHAIRMAN KLEIN: Question for Mr. Sergel. The question seems to come up periodically on a transmission system, who pays? And so when you notice a weakness or something that needs to be changed, how do you determine who pays?

MR. SERGEL: The who pays question is always a challenge. And in my career it didn't matter how large the stakes or how complex or even how much money was involved, the difficulty is, of course, what actions need to be taken and what their relationship is to the party who's actually doing, let's say has the principle responsibility for the project.

And so, for example, you can have an upgrade of a nuclear facility in New Hampshire in which the actions that would be needed taken in the grid would have to take place in upstate New York. You could have a transmission line that needs to be constructed through four or six states to serve a new nuclear power plant that would not be in any of those states.

I think that with respect to the who pays question, however, if we can focus on who benefits and use that as the primary guide then I think we can be successful and I know that much work has been done by the FERC in dealing with this difficult question.

CHAIRMAN KLEIN: Okay, thanks. Mr. Merrifield.

COMMISSIONER MERRIFIELD: Mr. Chairman, you had asked me a while back and I've been working away at it with our staff to take a look at our combined operating license process to see if there are further efficiencies and greater effectiveness and timeliness that we can inject into it.

One of the areas that we have looked at to a limited extent is the overlap between our two respective agencies. I think our staff slide, and this is sort of a question I think goes collectively both to the NRC and FERC staff, the slide that Pat Hiland presented talks to this issue of the

overlap between the transmission provider application process and that process that engages FERC and our combined operating license process that engages the NRC review..

For us as an agency we get into that review because our analysis under the National Environmental Policy Act obviously needs to look to the need for power and needs to look to some of those transition issues in crafting the NEPA document that goes into our overall COL application.

So the question that comes out of this is given the parallel nature of those processes are we convinced that we have done all that we can do to make sure that the process the NRC has and the process that FERC has are integrated in such an extent as to inject greater efficiencies, more effectiveness, and more timeliness. So I give that challenge to both staffs.

MR. MAYFIELD: I knew he was going to do that.

(Laughter)

I think I'll jump in because if I try and saddle Pat with this question he's just going to get grumpy. So I'll go ahead and deal with it.

The interaction on the environmental reviews is something that I think has just started occurring to the NRC staff that there is a parallel activity that we really do need to go and engage on.

And Jon and I had a conversation just last week identifying points of contact and I got that information. So we're reaching out, probably not today, but certainly tomorrow. Not today because I failed to get the information to Mr. Lyons where the contact is. But it's something where we're starting to focus on that particular bit of overlap.

In terms of the connection to the transmission gird that's one that we've known about for some time, and particularly the requirement for an applicant to, as part of doing the need for power and part of their combined license application to address the stability and reliability of the grid. That's one we've known about for some time, and it's been part of the dialogue both with FERC and with NERC.

The applicants, I think I mentioned that the slide that we presented is a much simplified version of the chart that the industry representatives presented. They also are focused on this overlap. And it was something where they were raising to make sure that we were aware that there was this interaction and to help focus us on it.

As I mentioned we were aware of it. But the fact that they put it on the table re-emphasized we need to be interacting with other agencies, other stakeholders that have an interest in this. So it's an active dialogue, it's ongoing, and we're expanding it now to address the NEPA piece of it.

I hope that answers your question.

COMMISSIONER MERRIFIELD: Well, it seems to me as folks look back at what happened in the review process for reactors dating to the late 80s and early 90s when things, for the lack of a better word, fell apart, some of the blame, and a fair amount has been injected on us as a regulatory body not having appropriate discipline in our process.

It would seem to me that one of the fruit of the effort that we are engendering to try to have the two Commissions come together. This is a classic example of where the integration between what we individually do in a collective way can have a real impact on the ability to build new reactors going forward.

And I think the challenge that I've certainly given to the staff working with our effort is to make sure we're identifying these types of areas so as to take the greatest benefit of the work you've done, not duplicate it,

and hopefully engender a process that will be more timely and disciplined.

On the same score I think Mr. Sergel you mentioned and I think I got this right, you said you were doing your ten-year assessment of the grid, but that you had not really done an in-depth analysis, particularly as it relates to the nuclear assets that may come forward in that timeline.

Now I was slightly surprised by that, particularly since as a result of the Energy Policy Act we've got the list that I think Mike Mayfield showed today of 20 utilities seeking as many 29 nuclear generating units in a timeframe that would bring that on board potentially 2014 and 2016 time period, which is within that ten-year time frame, if my numbers are right.

So I guess the bottom line of this question is to what extent have you all been working with some of the consortiums and utilities which have expressed an interest to us in building nuclear generating units to make sure that that falls into your process and to identify what if anything needs to be done in order to make sure we've got the right planning necessary to anticipate the construction of those units down the line.

MR. SERGEL: I would start by saying, I just would concur with your view of surprise. The reality was that we did not find those facilities in

the plans that had been submitted to us. The process that we engaged was that they're developed from the bottom up; they come out of a process in the regions. Often they concentrate on committed resources, those that they might have approvals for. Occasionally uncommitted resources are included.

In any event those specific plans did not make it there, it wasn't as if we could then, could look to that result. And we were disappointed, in that sense. Whether that was just the nature of the truncation of the process, meaning the actual year we chose, whether it was the process itself, meaning that they weren't committed enough in the eyes of those that were doing, whether they hadn't made that kind of firm commitment that they would have included it.

Whatever that set of reasons were not as interested in that because that's the past, but going forward we'll be affirmatively working with those organizations and with you all to include those proposals in our overview regardless of whether they're strictly within the period of time, and even regardless of whether they, even if we expanded the time, even if they weren't we would still seek out to include nuclear plants and the transmission associated with that.

So this is like any process we found that our process was not allowing this issue to receive its proper identification.

COMMISSIONER MERRIFIELD: That may be reflective of the fact and unlike many other generating assets, you know a gas unit you can put on line fairly quickly after having made a decision, even a coal unit. The permitting process for those aren't as lengthily as perhaps the one that we have in our process. And the lead times for nuclear generating assets are quite different. So that may be reflective of it.

But I guess I would observe Mr. Chairman, and I would say to our FERC counterparts, in our process we have something that comes out of meetings like this called a Staff Requirements Memorandum. And it's basically the instructions of the Commission to the staff as to how to proceed in reaction to the meeting.

And I might posit that perhaps we should consider in the SRM coming out of this meeting the notion of having perhaps a workshop, our staff with NERC, with the utilities and other interested parties to take a look at the integration between our process which is more focused on the combined operating license application process and the transmission issues that would be dealt with by FERC to see in the planning regiment we

can all get on the same page as to what the expectations are going forward in areas where we may be able to have some further successes.

CHAIRMAN KLEIN: Thanks. Commissioner Jaczko.

COMMISSIONER JACZKO: I guess I'll probably follow up on some of these ideas about transmission. I think it's clearly I think an interesting area. Note that I think it was in the NERC report about reliability for 2006, or 2005, the most recent report that came out, one of the areas where there's not expected to be problems with reliability and where there seems to be excess capacity is in the Southeast, as I recall from that report.

And that if you'll notice the nice chart that the staff put together that's where most of the red dots seem to be. And I was somewhat surprised to read that because a lot of what we have been hearing is that the development in the Southeast is really intended to deal with issues with lack of supply and other issues.

On the issue of transmission I think the Chairman asked who pays. I think that's a good question. I think there's another question that perhaps precedes that, and that's really the question in my mind of who builds?

I think we've talked a lot, Commissioner Merrifield raised the issue of planning and studies and a lot of these things that need to happen. But I guess the question in my mind is ultimately who has the responsibility for building transmission that's necessary?

And we could go through an entire siting and construction process for a new nuclear plant, yet if necessary transmission is never built that process certainly would not have been I think a useful expenditure of anyone's resources.

So I guess that's perhaps a broad question. I know from Mr. McClelland you have nice bullet in there that the Energy Policy Act did not give FERC the authority to order construction of new facilities. So I guess perhaps if you could describe a little bit how that process would work to get new transmission facilities on line.

And you know again I look at it from the nuclear perspective we have a safety issue in mind. If we have new units and ensuring their reliability, offsite power and things like that, so perhaps you could comment on that a little bit.

MR. SERGEL: Let me begin with the caveat that we too have been limited by law, that we do not have the right to order the

construction of facilities and our limitations are precisely the same as the Commission's.

Having said that I think it points to the importance of our assessments in which we can use those assessments to provide guidance as to what the requirements are and what the needs for those facilities are. I think that the who builds are obviously the current transmission owners and it's probably some opportunity for independent transmission.

That's not happened yet, but I still think there's hope for that. They're ready, willing and able to do that. They will step up and build the facilities. I think that they're looking for answers to these same questions, assurances on the recovery of cost would be high on that list.

But I do think that just the difficulty of determining the need and siting those facilities is part of that. And that's where we all play a role, because the more that we can have our mutual processes be efficient in providing the right signals and the right information about the requirements of a line to support a nuclear plant and its role in the regions power requirements.

The more we do that and the more that we do that effectively that allows all of those who play a part in approving those facilities and

building those facilities to do it. So I don't think it's, I think those who would be those who would step up and build it are there, they're ready to do it and they just need all of us to do our jobs with respect to providing the right signals. If we do our part I think they will step up and do what they need to do.

MR. MCCLELLAND: If I might add to that also. The current planning processes are dealt with by the regional planning process folks. So the regions, for instance, PJM has a regional transmission expansion process in which they evaluate the constraints, the current constraints in the system, they project reliability standards violations. And they evaluate then plans to mitigate those violations.

So the regions play into the resource adequacy role. I know that NERC has worked with the regions, we've been engaged with the regions as far as with the transmission expansion processes and the projects that are in the pipeline and proposed.

So although the Commission has, does not have the authority nor does the ERO to order the construction of additional generation and transmission, the Commission can ask, can request, can require the ERO to perform a resource adequacy report to determine what the resources are

in the separate regions and then to do a projection to engage the regions themselves to determine what their processes are and what the projects are on the table to address those projected resource deficiencies.

COMMISSIONER JACZKO: As I understand some of your earlier comments, Mr. Sergel, right now you haven't really incorporated into your planning studies some new nuclear units. Let's say best case next year you come out and that includes planning requirements for new nuclear. How long from there on average would it take to get new transmission access up and ready to accept current, whatever the appropriate phrase is in that world?

MR. SERGEL: Yeah, I think that in the context of the kind of transmission that it takes to support nuclear facilities I would concur with the Chairman's prior remark that the time table is probably similar to that, if I was asking the question how long would it take to cite and license and construct a new nuclear plant.

So those lead times are probably right at the length of our current horizon of ten years. And it points to this issue of saying we have to bump that out a bit, because we have to allow for there to be a dialogue in advance of the actual period that it's going to take.

So I think if we can engender a dialogue for let's say three to five years ahead of that window we would probably be putting ourselves in a position in which the facilities could then make their way to being sited, licensed and constructed in the appropriate time horizons.

COMMISSIONER JACZKO: And I guess I think what this generally raises because it seems to me I guess somewhat surprisingly that perhaps we are a little bit behind on the transmission side. And we, as Commissioner Merrifield mentioned this Commission, meaning the NRC, this side of the table is often criticized for our inability to site and license nuclear power plants in a more timely manner.

I personally don't think that that's necessarily as much an issue as others may. But nevertheless it seems that we may, in this case, may actually be doing a little bit better than somebody else.

(Laughter)

And I think it's always good to know that. But you know again, I do raise this because I think we have been putting a lot of effort and focus on new nuclear construction. And it seems that this piece of transmission is really missing and may in fact make it a situation that we

may go through the process of doing a lot of work on these nuclear units and find that there's no socket to plug the plant into.

COMMISSIONER MERRIFIELD: Can I ask a clarifying ... I think this is an excellent point ... Can I ask a clarifying question, however? It seems to me that there are different, there isn't one simple answer to that question, because in a number of the units we have that are being proposed they are at sites where there are either currently existing reactors or sites where it was originally intended that there would be multiple units.

The Harris site, for example, where they were going to build four units, they previously built the transmission for four units but they are currently only using ... now there is only one unit located there ... versus we have some other sites that are potentially being proposed where there will be green fields.

Is there, I would, intuitively I would sense that there is a difference between the timing issues associated with sites where there's pre-existing transmission and sites that are green fields? Or am I wrong on that case?

MR. SERGEL: I guess I would be cautious about reaching that conclusion because of the length of time that would have transpired

between when they would have originally thought of the site as being a good one for a nuclear facility and/or whether they thought they were going to do two there instead of one. So in terms of, where I would agree is in terms of the facilities that might be very local to a plant, meaning does it have the adequate number of separate transmission lines from the plant itself to the grid? That's probably likely yes.

But in terms of the wide area view, meaning what would be the impact on that over an expanse of several states and whether there would be new stability questions that were raised, it's most likely that the situation would have changed significantly for that period.

COMMISSIONER MERRIFIELD: But it would be fair to say there's no single answer to the question, it's more of a site specific variation.

MR. SERGEL: It's absolutely, it s absolutely site specific, and I would go as far as to say and most likely if it had been contemplated at one time probably means that there's a likelihood that the situation would be less difficult there then it would be on an entirely green field project. That's not an unfair assumption that it would be less. But it would be very site specific.

MR. MCCLELLAND: If I may just add to a point that was made earlier and Kevin Kolevar's arrival is very timely, part of EPAct, one of the tools that EPAct provided was the destination of national interest in electric transmission corridors. Two of the major problems to build transmission are the permitting and siting issues.

I don't know Kevin how we're going to launch Kevin into this, but I think it would be a good point for Kevin to discuss the designation of the national interest electric transmission corridors.

And when they are designated then FERC has the ability to invoke back-up siting authority to attempt to keep the process timely in a case (inaudible). COMMISSIONER JACZKO: Thank you, I don't know if you wanted to add, you're perhaps coming in right in the middle of a conversation, however you want to handle that.

CHAIRMAN KLEIN: We might hear from Kevin later.

COMMISSIONER JACZKO: Sure, sure.

CHAIRMAN KLEIN: And then we'll follow up with that question if it's not answered and we'll move with Commissioner Lyons.

COMMISSIONER LYONS: Thank you Mr. Chairman. I'd like to start by thanking all of the presenters. I find these meetings to be very

useful and I'll be looking forward to continuing these meetings. I think it's a useful exercise, certainly from my perspective, and I hope for the Commissioners on both Commissions.

A question for Mr. McClelland. In the past there's been discussion about the analysis, the very extensive analysis that went in following the very large North American blackout. I'm curious if you have a process by which you analyze perhaps somewhat similar situations around the world. And I was thinking particularly of the European blackout in November.

I m just wondering how that type of information is translated or if it is of relevance to the operations of FERC?

MR. MCCLELLAND: It is of relevance. And we do watch, do track outages of blackouts around the world. Staff, our operations or planning staff, depending on the nature of the outage, will analyze that. We'll do an internal staff review, and then we'll attempt to overlay those outages to the effectiveness of our current standards.

To date I can say from the analysis that we've had of the outages that we've seen that NERC standards are far superior or much

more superior then comparable standards around the world. They're certainly more organized, more detailed and better executed.

So as far as comparability it's difficult to find a situation around the world that would have, would transfer exactly. But we do keep our eyes open and we do watch those outages, yes.

MR. SERGEL: I just might add that it's not by coincidence we had our European counterparts in our office last week. And so this is part of what we do.

COMMISSIONER LYONS: A suggestion. I don t know if this would be better at the staff level or at the Commission level. We have an extensive operational experience program where we try and look at experiences from plants within the U.S. and in addition plants throughout the world that can give relevance to the design of U.S. plants.

And I don't know if there's any lessons that can be learned, either from the way that you analyze international or events around this country and the way that we analyze, but I'm just wondering if a comparison at some level of the operational experience programs, you may have a different name for it, but I wonder if there could be some

benefits to both Commissions from asking how we try to learn from past events?

Then perhaps a quick question for, probably for Mr. Sergel, or maybe it will come back to Mr. McClelland. There was a reference, I think in Mr. McClelland's talk to the hope that NERC would be recognized throughout North America including Canada and Mexico and that you would be looking towards an overall coordination perspective. I'm just curious if you could comment to what extent that has happened or is happening?

MR. SERGEL: It is happening and in different forms because as you would expect there are different enabling legislation and different regulation.

But in varying forms we have a relationship with each of the eight provinces in Canada, as well as with the NEB. So we would expect that to be in some form recognized in all of those as the organization that's setting the standards and that ultimately would then be enforced. It is the case that in a couple of places they are already mandatory and enforceable by virtue of being a NERC standard.

The situation with respect to Mexico is slightly different in that we have not yet been able to get either a regulatory or legislative mandate that would enable us to set up a formal relationship. So we have not been to do that.

But we have an informal relationship with them. And one of our objectives over the years will be to make that relationship formal. The one place that it is formal is that the Western Reliability Organization which goes by WECC, they do have a formal relationship with a portion of Mexico. And so those standards are made mandatory through that process.

COMMISSIONER LYONS: Thank you.

CHAIRMAN KLEIN: Thank you. I'd also like to thank the presenters, and glad that you could join us Kevin. As I had indicated earlier the way we were running the structure was that the FERC Commissioners ask questions of the NRC staff. The NRC Commissioners ask it to the NERC and FERC. You, however, are very lucky because ...

(Laughter)

Because you have questions from both of us, and so after your presentation we'll start with our FERC colleagues and then to the NRC. So Kevin. Thanks.

MR. KOLEVAR: Thank you Mr. Chairman, Mr. Chairman, for having me here today and allowing me to speak to you. Some of the work I'm sure that I'll discuss is more familiar to the FERC Commissioners because we've worked with them on some and occasionally seek advice and counsel from them.

But in any event I thought I would walk through principally the piece that Joe McClelland raised and that is the work that we're doing on the national interest electric transmission corridors.

There are a couple of other provisions in the Energy Policy Act, electricity title which are somewhat relevant to the goal of expediting siting and seeing new transmission built where appropriate and necessary. And I m happy to speak to those. Those include the national energy corridor, and energy corridors across western lands, and then a portion of the statute speaking to the DOE's acting as a coordinating role for requests to site new infrastructure across federal lands and see what we can do to coordinate the actions of all the various land management agencies.

The real big one though, and certainly the one that's getting the most attention and the one that is really most timely, Mr. Chairman, is the work that we've done under 1221(a) of the Energy Policy Act.

The Energy Policy Act called first for the Department of Energy to do a national study on congestion to identify where we had problems in moving electricity efficiently and to call those out within a one-year time frame.

Then following that report, and based upon that report, the Secretary could then designate national interest electric transmission corridors where there was congestion or to address constraints causing the congestion for the purpose of creating a Federal role in some siting decisions.

And I'll speak a little more to how that plays out. The Department finished the congestion study on the one-year anniversary of the Energy Policy Act and immediately went into a formal comment period, a 60-day comment period. Although we have continued to take comments and post comments on the web subsequent to that October 10th deadline.

We are evaluating those comments now and in November of 2006 announced that the next step would be one not anticipated by the statute, but not prohibited by the statute, and that was that to the extent the Department made designations on national interest electric

transmission corridors that the next action would be draft, and we would give stakeholders, that being utilities, states, consumers, environmental groups, regional organizations the opportunity to review the work that the Department of Energy was doing, what our current state of thinking was, and then hopefully that they would offer comment on those draft corridors and give us the benefit of their thinking on those. And so we are hard at work on that portion of it now.

The congestion study itself really laid out three areas of congestion that were, that we thought merited calling out in this study. The first was a critical congestion area. And I think as most people know that was the mid-Atlantic to New England area and the second was the Southwest.

These were areas where when the Department and the organizations, with whom we work, contractors, WECC, when we analyzed the data, ran the models to validate the data, these two areas literally jumped off the page at us. There were long term existing problems with congestion in those areas. And we identified them as critical to demonstrate the concern we had with them.

There was a second area that we identified as congestion areas of concern. And these were areas around the country, and I believe that maps were sent over in the presentation that you were given Mr. Chairman, Seattle, San Francisco, the Phoenix area, where we saw congestion in transmission and there was a strong feeling that these could be pre-cursors to reliability problems and they would also merit consideration when we came around to designating, when the Secretary came to considering designating national interest electric transmission corridors.

The third area that we identified were those areas of the country where we believed it would be very useful to think respectively when planning for new sources of generation. The Department of Energy is of the view that most of the future sources of generation are gong to be increasingly remotely located. And whether that is the case for wind, because some of the greater wind resources are in the upper plains, around the west Texas area, or solar, resources that are remotely located, but not just limited to renewables, also to nuclear energy, to clean coal.

We've been working quite a bit with the Office of Nuclear Energy at the Department of Energy and their sense is that should we truly

see a renaissance in the construction of new nuclear facilities that some of those facilities, certainly the early ones would be done on site within the bounds of existing nuclear facilities.

Should that renaissance continue there would eventually be a need to turn to green field sites and so that would lead us to considering how we were going to move massive amounts of power from these remote locations to the loads.

Of course the statute does not call for us to think prospectively in terms of designating these national corridors, we just thought it was worthy of consideration, so we put that out.

The next step that the Department is now engaged in is reviewing the comments as I said Mr. Chairman and working toward the submission of draft corridors to the Secretary for his review, and should he agree that they merit release, then to put those out for the public comment as I noted. Following the comment period the Department is then required by law to produce a full report that would or would not, based upon the discretion of the Secretary, create these final corridors.

I'll briefly discuss what that means when you've had a corridor designation, and certainly Chairman Kelliher is at least as well versed in this

as I. If and when the Department of Energy designates a national interest electric transmission corridor over a geographic region, applicants to build transmission within that corridor will be by virtue of the rule that the FERC has released, required to continue to work with states who are principally responsible for siting most of the construction that takes place, to see that project come to a fruition.

If they are unable to do that, then after a period of one year there is now an opportunity for that applicant to go to the FERC again when this project is within the bounds of a designated corridor and put in front of them, the FERC, an application for action by the FERC.

Finally, Mr. Chairman, I thought I would just leave you with what are probably well understood thoughts by the Department and that is that if we are to see the development of new nuclear generation facilities across the country, we believe that the time is now for planners, developers and transmission planners to begin to sit down and discuss what the requirements will be for ensuring that the transmission system within that area is capable of taking on significant new amounts of electricity and doing so in a continued and reliable manner and not causing new problems in terms of congestion, line overload and the like.

And so we are prepared to begin the dialogue. Certainly we'd be very interested in working with developers and talking with developers about new generation sources across the country and making sure that they are actually contributing to some of the work that's going on with planning by states, regions and the like. (Telephone musical ringing)

And I thought I'd end it on the musical note.

(Laughter)

COMMISSIONER MERRIFIELD: That s not a regular part of our process if you were wondering.

MR. KOLEVAR: I was thinking usually I just get a red light

CHAIRMAN KLEIN: Had you gone overboard it would have been different music. Thanks, Kevin for those comments. And now we'll start with the FERC Commissioners. Chairman Kelliher.

CHAIRMAN KELLIHER: Thank you Dale. Let me pick up on what Commissioner Jaczko?

COMMISSIONER JACZKO: Jackzo.

CHAIRMAN KELLIHER: Jaczko, thank you. I've been mispronouncing your name now for a year.

(Laughter)

COMMISSIONER JACZKO: Our previous Chairman had his own special challenge.

CHAIRMAN KLEIN: It might have been intentional.

(Laughter)

CHAIRMAN KELLIHER: I think we have fallen behind in transmission investment in this country and I think we've actually had a period of sustained underinvestment going back to the 70s. So we're actually now trying to reverse that and I think that's reflected in the Energy Policy Act because it had a number of discrete provisions whose purpose clearly was to develop a stronger energy infrastructure, a stronger grid.

There's siting provisions of the law and there's also transmission pricing provisions. And that's a role we're comfortable with. At the beginning I described FERC as now we're a safety agency in some respects. We're also an infrastructure agency and we actually always have been. That's what we did first before anything else. Back in 1920 our job Congress gave us was to license hydro power projects, including the Duke projects that you were referring to earlier. So we're given another infrastructure role now to help develop a stronger gird. And that's needed if we're actually going to develop more nuclear plants, but also if

we're really going to follow through on fuel diversity. Recently we've been relying largely on one fuel to meet our electricity needs.

And if we actually are gong to pursue fuel diversity we're going to need a very different kind of grid and that's reflected in Kevin's chart, the conditional congestion areas. And that's really somewhat of a fuel diversity scenario, if we actually pursue fuel diversity, if we build the wind capacity in the upper Midwest what kind of grid will we need? And we'll actually need a very different grid then if we continue to build only gas.

And the Western governors, there was a report done in the West and it looked at the Western grid, what will the needs be, investment needs be if the Western grid, assuming two cases, continue to build gas, largely gas only, or you build coal, clean coal, wind resources in the West; very different grid, very different pattern of investment.

So Congress has given us this job and we are cooperating with DOE on the siting provisions, the siting provisions are complicated. We also, we site hydro projects. We also site natural gas pipelines. And our pipeline siting role it's very clear, it's an exclusive pre-emptive Federal role.

We actually are very efficient in our exercise of that authority and we've sited over 9,000 miles of natural gas pipeline in the past few

years and the average length of a pipeline preceding is 11 months. The average length of a major transmission upgrades is far beyond that.

We had the recent AP line, the Jackson's Ferry line going from West Virginia to Virginia and it took 16 years for that project to be sited and constructed. So it is harder to build transmission. It probably always be harder to build transmission. The siting language, the role that Congress gave both DOE and FERC is intended to improve upon the status quo. And I think it will, but only really if the agencies work very closely together. And I think we can do that.

We are, at FERC we're actually housed within the Department of Energy. We're an independent agency, but we're within the Department of Energy. So we've always had a close working relationship.

But as Kevin said for us to use our siting authority, first of all there has to be a corridor designation; a project has to be in the corridor. And there's three possible ways a project developer would come to FERC if it's in a corridor.

One is if under state law the entity, just by nature of the entity, is not eligible for siting under state law. And that could be, as Rick referred to an independent transmission project, it could be a new entrant that is a

pure transmission company. And they might not be considered a utility under state law. So they might not be eligible for a siting under a state law. They could come to FERC since they wouldn't be eligible for siting under state law.

Another scenario is if state law does not consider interstate benefits from the project. So there is a state law, they'd be eligible for siting under state law, but by virtue if the state, state law doesn't permit the consideration of interstate benefits then the project sponsor could come directly to FERC.

And the third is if the state has withheld approval for a year. So in practice I think by and large states will continue to site the vast bulk of transmission projects, even large projects. And the starting point will be corridor designation and that will to some extent define the universe of projects that might be able to go to FERC. But even then in many instances I think they initially will go through a state siting process.

So we hope in the end it's not going to be as efficient as the natural gas pipeline siting process at FERC. I don't think Congress actually intended it to be that efficient or they actually would have just used the

pipeline model. So it's more complicated and it does require the two agencies to work closely together.

But we won't know, I m pretty confident that it will be an improvement on the status quo. The Jackson s Ferry line took 16 years. So it's hard to see how the status quo could have been undermined.

(Laughter)

I'm not saying that's the typical project. A lot of projects ...

(Laughter)

COMMISSIONER MERRIFIELD: You don t want to lowball this too much?

(Laughter)

CHAIRMAN KELLIHER: I think it will be an improvement on the status quo. We won't know how much of an improvement until actually some projects go through the process. Much as you have a process for combined operating licenses, it looks elegant on paper, but until actually someone goes through it, we actually probably won't really know how much of an improvement that is. Again similarly it has to be an improvement upon the prior process, I have to think.

So that's really more of a statement I suppose, but I wanted to pick up on Kevin's comments and just explain a little bit what FERC's role would be on Siting. Colleagues do you have questions?

Well, why don't we turn to you since we meet with Kevin on a regular basis and we're pretty familiar with the work at DOE? So it might be more profitable for NRC Commissioners to ask questions.

CHAIRMAN KLEIN: One question that I had Kevin if you look at your three areas of congestion one of them is close to our area, Washington, D.C., Baltimore, you know that area. And one of the plants that has indicated a possible expansion is Calvert Cliffs. So from your perspective if Calvert Cliffs comes along are we ready for it to handle the transmission needs in an already congested area? And, if not, what's happening?

MR. KOLEVAR: A challenging question given some of the other folks that are around the table next to us. But given the concerns we have with the Northeast and mid-Atlantic I'm not sure I'd go so far as to say that the region is simply not ready for a new unit at Calvert Cliffs and could not handle it.

I would have concerns with whether or not or perhaps the timing that goes into taking a look at the parameters of the grid that we have in there now and making sure that enough planning is going on to ensure that the power there that would be generated at Calvert Cliffs can be shot to the areas where it's needed the most and can be done effectively.

There is a consensus within the Department and I think with some others as well although I'll let them speak to that, that we need to be able to bring more electricity into this region. That the demand for electricity is continuing to grow and if we are not going to make some infrastructure changes in the future, we are going to start seeing some interruptions and reduced reliability.

For that reason it would be timely to be able to see new very consistent base load generation going in in the Maryland area. I think that we just need to make sure that there is sufficient planning ahead of time so that we know that the power generated can be distributed where it is needed most and in an efficient manner.

CHAIRMAN KLEIN: If you look at your congested areas they look like they're still areas of population growth. And so are you working on

plans to relieve that congestion? Even if it's not a nuclear plant because, for example, this area I can tell by traffic is still growing.

(Laughter)

MR. KOLEVAR: Well, Mr. Chairman the answer is no, but because that is not a responsibility that is vested at the Department of Energy. The responsibility for addressing that growth is going to be laid first and foremost at the feet of the utilities that serve that area, regional transmission organizations that might serve that area.

At the Department we will do what we have always done and that is continue to provide analytical tools to the states, regions, stakeholders, so that we help them make good decisions as they are planning to meet future demand.

And as the Chairman said we will carry out our statutory obligations under EPAct and where appropriate the Secretary will make designations of national interest electric transmission corridors so that we can facilitate the introduction of new transmission infrastructure into areas where it is needed most.

But we need to be clear on this, the Department has a variety of roles and siting is not one of them. And to the extent that the

Department plays a role in planning I think it will really be a new one that has to be developed over time with regional planning organizations that by and large will involve the Department sitting in the room and listening and making sure that to the extent the Department is going to take actions consistent with some of the sections of the Energy Policy Act that we are doing it in a complementary manner, not disrupting the planning processes that do exist in various areas around the country.

Those are inherently difficult exercises and we think it's imperative to ensure that we continue or begin to contribute to the process and not detract from that process.

CHAIRMAN KLEIN: Thanks. Commissioner Merrifield?

COMMISSIONER MERRIFIELD: Commissioner Jaczko asked a question before you arrived relative to the nix between congestion and transmission and I'm sort of paraphrasing, a lot of the growth that we project for nuclear assets is based in the Southeast which is not currently an area of congestion. And I guess I ve got a question and a clarification.

The clarification is, the map you've provided to us identifies critical congestion areas. But that is not necessarily equated or is it I guess is the question, to areas that have high demand growth. And presumably

you could have an area with not necessarily a lot of growth in the area but it happens to be in a congested area because of power wheeling through. Is that fair or not?

I mean in looking at the map can you necessarily equate high population growth with congestion I guess is the question?

MR. KOLEVAR: No, I'm certain that in areas where you would have inadequate transmission that would be the case. I think we focus on the high, the densely populated centers because that is where huge portions of population are located now and that is the area where we're going to have the most pressing need.

COMMISSIONER MERRIFIELD: I guess the question flows from there. What I m trying to get through this is there is a lot of interest in building new units down in the Southeast. But the fact that that's not a congested area doesn't necessarily mean that there's not a need for additional power in a particular region..

MR. KOLEVAR: Oh, I see your point. I would absolutely agree. I think what you would take away from the congestion study is that there is not a need for the Department of Energy to be moving out and

designating national interest corridors where we have not identified areas of congestion.

But certainly nobody should draw the conclusion, in my opinion, that the development of new sources of generation ought only take place in areas the Department of Energy has identified as congested.

We are seeing increased demand across the nation. And to the extent that some areas are able to build transmission now or have infrastructure adequate to meet that, at least the transmission of electricity, now to meet demand, then they're going to have to continue to make the decisions with respect to the siting of new generation plants.

COMMISSIONER MERRIFIELD: So is it plausible that increased build in the Carolinas could have a beneficial impact on congestion in the area identified in the mid-Atlantic? Or is that not the case?

MR. KOLEVAR: I think I would probably defer to you Rick on whether you thought that Duke units would ...

CHAIRMAN KELLIHER: Assuming there's no transmission upgrades, it's just building generation in the Carolinas.

MR. SERGEL: Yeah, it would go to the development of the transmission. That would be the question. But just to this inherent point, the fact that our projections are showing that there's a balance between, a reasonable balance supply and demand in that region doesn't suggest that there's not large growth in a number of facilities that are proposed, and, in fact, more to be proposed because nothing could be further from the case.

Very high growth area just means that their planning is staying abreast with their growth, as opposed to the Northeast in which they re having a much more difficult time having their planning keep pace with their growth.

So it doesn't mean there aren't new units required, it's very different.

CHAIRMAN KELLIHER: An example would be Commissioner Wellinhoff's state which is a high growth state, but you can also, there's relative ease of entry by new generation into the state. You can build generation in Nevada it seems. And say in my home state of northern New Jersey there's some growth, but it's very hard to build generation inside it.

So there's a balance between is the solution a transmission solution, is it a generation solution? And the generation solution is harder in some parts of the country.

MR. MCCLELLAND: If I could just jump in on that for a minute also, it goes back to another point that Kevin made, you had a question about, the Chairman had a question about Calvert Cliffs, it really depends on the network configuration.

Although Kevin's drawn vectors and he shows imports into certain areas, it doesn't necessarily mean that a large nuclear unit that would be placed within that load pocket, that area wouldn't incur some form of transmission congestion because by definition the units are exporting power from the site anyway, those lines may be at their maximum capacity. It may mean a new transmission corridor, it may need additional right of way to be an appendix to a transmission corridor.

There are a lot of concerns and that's where the network congestion study that s been identified by Mike Mayfield and his group. The study is done, the interconnect study is done with the region itself. So all of these factors play a role. they're all tied together. And they have to be evaluated to the specific application that one runs against.

COMMISSIONER MERRIFIELD: I appreciate that. Those are very helpful. Let me ask one other question. It doesn't relate to our area of concern, but certainly from my own personal edification if nothing else, and I'm paraphrasing this by saying I'm asking the question, it may be a matter that could well become before FERC so I have to be careful how I ...

CHAIRMAN KELLIHER: That happened last time too.

(Laughter)

COMMISSIONER JACZKO: I think it was at the opposite last time that it

COMMISSIONER MERRIFIELD: No, no, no.

CHAIRMAN KELLIHER: Seabrook.

COMMISSIONER MERRIFIELD: I m not talking about Seabrook this time, but being a Virginia resident and watching some of the newspaper articles about the decision on the part of Dominion to combine I think it was with Allegheny Power to try to build some new transmission through parts of western Virginia.

You talked a little about the process that they would use to go through that. In using that if nothing else as the example, they're having entered into the field to try to site some new transmission, and since that

would seem to fall within a critical congestion area how would EPAct apply to something like that in their process?

MR. KOLEVAR: Well, should the Secretary of Energy designate a corridor over the area that you were referring to, Loudoun County and Fauquier County, then the process that the Chairman articulated would be put in place.

And essentially what it means is that notwithstanding a decision by the State of Virginia not to route a line, there would be one more opportunity for Dominion to seek to have that line approved.

Of course it's too early to discuss whether or not that actually will fall into a corridor, whether or not the Secretary actually will designate corridors, but that has been the concern that has been voiced to the Department of Energy rather vocally, and it is that both the proponents and the opponents understand that should the state not act that there would still be at least one more avenue for consideration before, and that could be before the FERC.

COMMISSIONER MERRIFIELD: And I just want to understand the timelines. What would be the timing, and you can take it away from Dominion if it's more helpful, but what's the timing on submittal of the

application, the time for the state to act or not act, and then the opportunity for the utility to appeal that to FERC?

CHAIRMAN KELLIHER: Hypothetically?

COMMISSIONER MERRIFIELD: Hypothetically.

CHAIRMAN KELLIHER: A hypothetical project because otherwise I was going to ask that we talk about Seabrook for a while.

(Laughter)

But a hypothetical project, first of all there has to be a corridor designation or there's no prospect that could come to FERC. So you have to assume there's a corridor designation.

Then we have to look down what are the three possible paths to FERC. Our first question, someone that comes directly to FERC they would either have to be not eligible for siting under state law, not be a utility, or state law doesn't consider interstate benefits.

Let's assume, well, if both of those are true, an applicant can come directly to FERC and then we would go through the process that we've used in other contexts, we'd start with pre-filing. We d basically, pre-filing is a process we use for hydro projects, we use it for LNG projects, we use it for natural gas pipelines. And what we're trying to do there is scope

out the project, what are all the studies that are needed to really truly evaluate the project?

It's actually, it s a process that landowners, environmental groups, state governments have participated in the other context and found that it's very useful. So it basically identifies early on in the process, almost like the way you change your process, identify early in the process what are the issues that have to be considered by the agency in a siting decision? Don't wait until the end of the process, do it at the very beginning. So that s, we would have pre-filing first. And then we'd move along and make a decision.

But that's under the scenario where an applicant could come directly to FERC. I think that will actually probably be pretty rare if it actually-- I think that would be fairly rare.

The other process is they are eligible for state siting or state law does provide for consideration of interstate benefits. We interpreted the statute to provide that the applicant would have to wait a complete year before they could initiate a FERC process. We could have interpreted the statute differently; we could have allowed an applicant to file with FERC and the state simultaneously. We heard a lot of legitimate concerns,

particularly from state governments, that state governments thought we could be game that way, our resources would be stretched, we wouldn't be able to participate in the FERC process, because we would be barred by ex-parte considerations.

So under our rule, our final rule an applicant could not come to FERC for a year. Then they would initiate pre-filing. Pre-filing I think typically takes something like eight months, in my recollection. Pre-filing is a period that takes a number of months. At the end of pre-filing they could make a formal application with us. And you know we would hope to make a decision within 12 months or so once we got the formal application.

And that would only be possible because of pre-filing, because pre-filing is identifying early on the full range of issues that we'd have to study. So, but once pre-filing begins or even actually once a formal application commences that doesn't cut off the state proceeding. So it's possible the state actually might not have made a decision in that first year; the applicant could then initiate pre-filing at FERC. The initiation of pre-filing doesn't somehow cut off the state proceeding.

If five months into pre-filing the state actually granted approval I assume we'd terminate our proceeding. So it doesn't cut off the state proceeding.

COMMISSIONER MERRIFIELD: Thank you for that clarification.

CHAIRMAN KLEIN: Commissioner Jaczko.

COMMISSIONER JACZKO: I didn't have any additional questions. I guess I would just I appreciate both the NRC staff, the FERC staff, and DOE and also appreciate the Commissioners coming over. I think it's always, these are always interesting meetings. I think we get to hear a different side of some of the things that we do and I think we always, I certainly learn a lot and I appreciate it.

CHAIRMAN KLEIN: Commissioner Lyons.

COMMISSIONER LYONS: Perhaps a very brief question for Mr. Kolevar. You talked a little bit about the critical congestion areas. And I was just curious if you could give us some indication, some measure of how critical is critical. How, I'm just curious of the parameters, of the process that you go through to decide where these areas are and then some measure of how close to a breaking point perhaps they are.

MR. KOLEVAR: Commissioner I can't speak to the specific metrics, I can certainly have our office follow up with the Commission and supply data. I can tell you that in conducting the congestion study we pursued two avenues. We used data that was already existent regarding the status of the transmission system in these parts of the country. And in both parts of the country a considerable amount of analysis had already been done, particularly in the West on the state of transmission infrastructure.

And so the Department of Energy did not have to go through and develop from whole cloth the analysis that we used; we were able to turn to some very good bodies of work that had already been done and incorporate them.

We also, however, did independent modeling to do essentially just a gut check on the work that we had already been reviewing. And our models found that there was consistency in these areas of the country. We've had some disputes on some of the work that's gone on in some of the lesser congested areas and we'll continue to work on those. I expect that you'll see some of those changes reflected in future updates.

But I would say by and large that the models that the Department conducted validated the reports that had already been put out. And so the level of congestion in those two regions probably without giving specific numbers or percentages, I can just tell you, was significantly greater than in the other areas, say the San Jose/Sacramento area. And it was a real concern, a great differential between the problems that we identified in those kinds of regions.

COMMISSIONER LYONS: Thank you. And if there are a few measures of that congestion I'd be interested in getting them sometime.

MR. KOLEVAR: We have those and we will supply them to you.

COMMISSIONER LYONS: Thank you very much.

CHAIRMAN KLEIN: Thanks. Chairman Kelliher would you have any final comments?

CHAIRMAN KELLIHER: I just want to thank you for hosting us today and for that fine lunch upstairs. And as Commissioner Jaczko said ... that better?

COMMISSIONER JACZKO: Yes, very good.

CHAIRMAN KELLIHER: I think these meetings do help, because we are looking at the same problem from two sides of the fence, if you will.

And I think it helps to get together occasionally, so far annually, and talk about the common problems. And as I said at the beginning I think our interest is going to be continuing on grid reliability because you're going to have continuing interest in loss of offsite power and the implications for nuclear safety. We're going to have continuing interest on what the implications of a sudden loss of a major nuclear plant are on grid reliability. So I think we'll have continuing interest and probably some good continuing relationships.

CHAIRMAN KLEIN: Great, thanks. There is one minor activity that we'll need to do, a request has been made for a joint Commission photo.

(Laughter)

Shortly after we adjourn, so that no one leaves. And apparently we want to take this back behind us with the seal. So we'll determine whose ear of the eagle wing in terms of the arrangements.

But again I'd like to thank our presenters for your effort is was very helpful for us to have this dialogue, I think it was very educational. As Chairman Kelliher said I don't think this is the last joint meeting we will have.

I want to thank the FERC Commissioners for coming out to our part of the world and we look forward to having another joint meeting in the future.

COMMISSIONER MERRIFIELD: Mr. Chairman before you hit the gavel I just want to make one remark. First of all I want to thank Joe for your kind comments earlier. And I thank Ed McGaffigan would want me to say the same on his part. I agree I think this is a very useful meeting. Occasionally, recently the Chairman has been urging me to think about things which I would consider part of my legacy. This is the last one of these meetings I will be able to attend as a Commissioner.

And I'm very pleased in the relationship that we've been able to develop over the last three years to enhance the relationship between our two respective Commissions. I'm very glad that Pat Wood and I had that discussion and I made that suggestion some years ago that we engender this kind of relationship. And I'm very glad to see that it has occurred, and I certainly want to think that one of my legacies is helping to foster what is a better relationship between these two agencies. It's important for the people of America, and I think it's a good thing. Thank you Mr. Chairman.

CHAIRMAN KLEIN: Thank you.

CHAIRMAN KELLIHER: I'll just follow up, I m going to miss Jeff personally. One of my first official tours, I think it was my first tour, facility tour as a FERC Commissioner was riding bicycles at the Cove Point LNG project, at Jeff's suggestion, so we did. We did a good trip.

COMMISSIONER MERRIFIELD: We did indeed.

CHAIRMAN KLEIN: Thank you very much, and the meeting is adjourned.