BEFORE THE

FEDERAL ENERGY REGULATORY COMMISSION

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In the matter of:

TECHNICAL CONFERENCE ON:

AD11-6-000

PRIORITIES FOR ADDRESSING:

RISKS TO THE RELIABILITY OF:

THE BULK-POWER SYSTEM:

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Commission Meeting Room

Federal Energy Regulatory Commission

888 First Street, Northeast

Washington, D.C. 20426

Tuesday, February 8, 2011

The technical conference was convened, pursuant
to notice, at 10:05 a.m., Commissioner Cheryl A. LaFleur,
presiding.

ATTENDEES:

CHAIRMAN JON WELLINGHOFF, Chairman, FERC

COMMISSIONER MARC SPITZER, Commissioner, FERC

COMMISSIONER PHILIP MOELLER, Commissioner, FERC

COMMISSIONER JOHN NORRIS, Commissioner, FERC

COMMISSIONER CHERYL A. LaFLEUR, Commissioner, FERC

JIM PEDERSON

JOSEPH McCLELLAND
ATTENDEES (Continued):

NORMAN BAY
ROGER MORIE
MICHAEL BARDEE
JONATHAN FIRST
CHRISTOPHER YOUNG

THE HONORABLE TRENT FRANKS, (AZ) U.S. HOUSE OF REPRESENTATIVES

JOHN Q. ANDERSON, Chairman of the Board, NERC
GERRY W. CAULEY, President & CEO, NERC

THE HONORABLE BETTY ANN KANE, Chairman, DCPUC, on behalf of DCPS AND NARUC

KEVIN BURKE, Chairman, President & CEO, Consolidated Edison Inc., on behalf of Consolidated Edison and the Edison Electric Institute

ROBERT S. BROWN, P.E., President, Sassafras River Assoc.
MIKE SMITH, President and CEO, George Transmission Corp., on behalf of Georgia Transmission Corp. and the Rural Electric Cooperative Association (NRECA)

JOHN A. ANDERSON, President, Electricity Consumers Resource Council (ELCON)

LONNIE N. CARTER, President and CEO, Santee Cooper
RANDY VICKERS, Director, United States Computer Emergency Readiness Team (US-CERT)
ATTENDEES (Continued)

AVI SCHNURR, President, Electric Infrastructure Security Council

RONALD L. LITZINGER, President, Southern California Edison Company

STEPHEN J. WRIGHT, Administrator and CEO, Bonneville Power Administration

STEPHEN G. WHITLEY, President and CEO, New York ISO

ED TYMOFICHUK, Vice-President, Transmission Manitoba Hydro
CHAIRMAN WELLINGHOFF: If we could all take our seats please and get started. We're here this morning, and if you could sort of turn off your cell phones, that would be helpful too please. We're here this morning for a technical conference, to address the risks and reliability of the bulk power system. Really, we're here to talk about priorities with respect to reliability.

We have a number of panels throughout the day that are going to address that for us, but we are going to also hear from a Congressman, Congressman Trent Franks here in a moment. But I want to let you know that this is a very important issue to me. Reliability, I think, is a critical issue.

I was actually speaking with Steve Wright of BPA coming into the workshop this morning, and he and I were discussing how critical reliability is and how it interfaces with the issues of the commercial side as well. Economics and reliability are very entwined.

So I'm looking forward to the panel this morning. I want you to know that we're going to have our Commissioner LeFleur, who is going to take over the session this morning, and she'll be chairing it. But I'm very appreciative for all of you coming, and looking forward to all the remarks.
you're going to provide. Thank you. Commissioner LeFleur.

COMMISSIONER LeFLEUR: Thank you, Mr. Chairman.

Good morning everyone and welcome. What a great group, both
the speakers and all the folks that are here. We really
appreciate having you here, especially our honored guest
from the Hill.

As everyone knows, the purpose of today's
conference is to discuss policy issues for addressing risk,
reliability and emerging issues. We'll begin with opening
remarks from the Commissioners, followed by remarks from our
Congressman, Trent Franks.

We'll then proceed to three panel discussions,
ask each of the panelists to give brief, five-minute opening
presentations, followed by a question and answer period.
We'll break for lunch approximately 11:45 to 12:30.

After the conference, interested parties may
submit written comments in Docket AD11-6. The Commission
may issue a further notice seeking comment on specific
areas, based upon what we hear today.

Now I'd like to recognize my colleagues for their
opening remarks, beginning with the Chairman.

CHAIRMAN WELLINGHOFF: Thank you, Commissioner
LeFleur. As indicated, I think reliability is one of the
most important things that this Commission addresses, and we
can all appreciate that, number one, from the recent events
in Texas, New Mexico and Arizona, and from events in the
District here that don't necessarily relate to reliability
at the bulk power system level. But when I go to dinner,
people ask me what am I going to do about PEPCO?

(Laughter.)

CHAIRMAN WELLINGHOFF: I tell them to talk to
your D.C. Commission and your Maryland Commission, because
there's 99 percent distribution issues there.

But nevertheless, they're intertwined, and we
need to look at those issues, the ones that we have
jurisdiction over, and the ones that certainly our federal
and state commissioners have issues with as well, and we
need to work together to ensure that the bulk power system
is reliable and secure, and to also ensure that that
security is maintained at a reasonable cost.

We can do that and move forward with integrating
those clean energy resources into the grid that we need to
integrate into the grid, to ensure the economic viability
and security of this country.

So with that, I'm looking forward again to
listening all the panelists today, and seeing how we can
take that information and move forward with it together, and
ensure that reliability does become an integral part of what
we do every day. Thank you.

COMMISSIONER LeFLEUR: Thank you. Commissioner
Spitzer?

COMMISSIONER SPITZER: Thank you, Commissioner. Once again, I appreciate the opportunity to hear from stakeholders with regard to the reliability and the implementation of our reliability program. I also want to sincerely thank Congressman Franks for his leadership on reliability issues, especially with regard to electromagnetic pulses.

The starting point for me on any discussion with the industry on reliability is to acknowledge that FERC and the regulated community have the same goal, to ensure the reliable operation of the nation's transmission grid.

I know industry and NERC take their obligations seriously, and I commend the industry and NERC for their hard work on these critical matters, and I am committed to working with the industry and NERC to achieve our common goal.

I recognize, however, that some have disagreed with the role FERC has played with regard to the development of reliability standards. Section 215 of the Federal Power Act imposes responsibilities on FERC and NERC regarding the development of reliability standards. I believe that we have struck the proper balance of our respective roles in the recent order regarding the definition of the bulk electric system.
In revisions to electric reliability organization definition of bulk electric system, that's Order 743, we offered guidance, but left to industry the role of developing a standard to address the Commission's concerns. I believe Order 743 established a template for the future. Now I do not hold false hope that our approach in 743 will eliminate all disagreements between FERC and NERC. However, as we continue to work together towards our common goal, I believe we can and will find common ground. As for today's discussion, the topic is priorities. I consider priorities in at least two ways. First, I think of a priority in terms of identifying specific reliability standards or key reliability issues that we need to address first, to best ensure the reliable operation of the system. I perceive this as a "what" question.

Second, in answering the what question we cannot lose sight of the need to be sensitive, is the "how" question. That is, how should the Commission, NERC and the industry best ensure that the reliability standards address Commission orders and other important reliability developments, without interfering with ongoing work or the reliable operation of the grid, as required by the Federal Power Act.

I look forward to hearing about both aspects of
the reliability question today, and in follow-up comments. Finally, I'd like to thank all those in attendance, particularly colleagues from the states and our international regulators, for their effort and attention to these matters. Thank you.

COMMISSIONER LeFLEUR: Thank you. Commissioner Moeller?

COMMISSIONER MOELLER: Thank you, Commissioner. In 1999, I was a staffer for the United States Senate, worked for Senator Gorton, and we put together the first stand-alone reliability legislation, which did eventually pass the Senate in 2000, only to die in the House, but become law five years later.

So as some of you know, I'm partly to blame for us being here today. Nevertheless, it was an honor to be a part of that process and, as we look at where the present reliability set of issues are, it's I would say our most important job here. It's not always the most glamorous job we have, and there's a lot of hard work behind it, and that's what today's effort is about.

I echo Commissioner Spitzer's thanks for the extraordinary effort that many of you have put in to travel here, prepare your remarks, and it's a complex relationship that I believe is getting better. It's a relationship between ourselves at the Commission, NERC and the industry.
Like every good relationship, it will be better with more open channels of communication, and that is what today's effort is about.

I look forward to our discussion, and especially the discussion on priorities and how to use tools to reach those priorities that we can all be comfortable with. Thank you, Commissioner LeFleur.

COMMISSIONER LeFLEUR: Thank you. Commissioner Norris.

COMMISSIONER NORRIS: Thank you, Commissioner.

I'm hard-pressed to think of a meeting or anything I'm involved in at FERC since last July 6th, when Steve Wright launched this notion that we should have a high level discussion about priorities. It's been a topic of conversation nearly every meeting I've been in with industry and at NERC since then.

So I have a lot of anticipation for today, and good anticipation, because I think the discussion we're going to have this afternoon is a much-needed discussion. It's clear that everyone wants a better sense of priorities, and I agree with what Phil just said.

I think this is not -- if not the most, it is, reliability is fundamental to our responsibility here at FERC. If there was any doubt about that before 2005 in NEPAct '05, it was cleared up then, that that is a
fundamental role we play here at FERC, and it's not an easy role.

But it is a role that I think is going to get more complicated, as we make this transmission grid and system more complicated, and because we are doing things now that were never contemplated would be done on this transmission grid.

I won't go into a lot of it with you all in this industry. You know we're asking the system to do more and more every day, and the notion that we could pass a law and not have any more rolling blackouts also does not escape me as being an unreasonable notion, because like as we may want to do all we can to plan to prevent reliability problems, they're going to happen.

I want to make sure that this process leads to, as Bill said, we've done all we can reasonably do to prevent that from happening, and limit the damage for when it may happen. That's what I see as our goal. But as I said, the threats are increasing every day. In fact, I've got to relate one story.

I took my boys to the Spy Museum a couple of weeks ago, and if you haven't been through it lately, you get to the very last room. The greatest threat to America today and the SBI that threatens us the most is this. One entire room at the end is dedicated to this scary
propposition, of what bringing down the eastern or western interconnect could mean to the entire world's economy, and the threat of cyber security.

It's a little daunting. I wanted to say to my boy that we can ride back to work, but it is daunting about the scope of what we're trying to do here. As I think about it, I think about what Congress did in that law, there is no way in my mind that this gets done, our responsibility gets done without industry.

In fact, with over 200,000 miles of transmission line, and over 1,800 entities that own and operate that system, there's no way this gets done without industry taking the lead. Industry has to take the lead. We don't have the capacity here to manage 200,000 transmission lines, and operate 1,800 entities unless industry itself takes responsibility for this.

So my priority today, while we talk about vegetation management and relays and ambiguities and a list that Steve brought to our attention last July that needs to get worked out, and a process for establishing that to set priorities is so critically important, my priority today is also to have a discussion with you about roles and responsibilities.

So if you haven't contemplated that in your presentation for today, expect that as a question from me in
a follow-up. How do we sort through this, what I hope — when Mark said BES to me, it helped clear it up. But I still hear a lot of frustration out there, as I travel the countryside talking about reliability, about roles and responsibilities.

What I want to know today, and this discussion -- we have a couple of hours for this panel, and throughout the rest of the panels as well, is what can we do at FERC to empower and help industry to take the lead like I think has to take place, to get this job done?

Thanks to all of you for your travel here today, and helping us as we wrestle with these tough issues.

COMMISSIONER LeFLEUR: Thank you, Commissioner Norris. Finally, I too would like to thank all of you for coming to this important meeting. One of the first decisions I made when I joined the Commission, I guess it was seven months ago, was that I would make reliability a personal priority.

I made that decision, because I know how important it is. Obviously, keeping the lights on and everything else that stays on from electricity is why we're all in this enterprise that we're all in together. That was even before I knew it was in the International Spy Museum, so it's gone up a few notches now.

But also I just took it selfishly, because I
thought it was very interesting and would be an area that
because it's so new in the Commission's jurisdiction, would
be likely to see a lot of change and evolution, and that's
already proved to be true and I think there's more change
ahead.

While Congress has entrusted the Commission with
the responsibility for enforcing mandatory reliability
standards, as you all know the statutory scheme incorporated
elements of the previous voluntary regime that I was quite
familiar with back then, led by NERC and the regional
reliability councils.

So I guess it should be no surprise that the
transition has been somewhat difficult, to transition from a
voluntary regime to a hybrid between a voluntary and a
mandatory structure that we have now. I think it's
important to acknowledge that the transition has worked well
in many respects, and a lot has been accomplished and a lot
of standards have been written and enforced and improvements
have been made in a lot of areas.

But it's clear that there have also been growing
pains, I think, powered by disagreements among the
Commission, NERC, the industry, but also just by the volume
of work and the demands on the system in every aspect of its
operation.

Many of you have heard me say before that the
complex relationship among FERC, our Canadian counterparts, NERC, the regional entities and industry, will work best if it's grounded in mutual trust. Mutual trust, in turn, depends on a set of shared priorities that we're working to address in a timely manner.

The Commission, NERC, our Canadian counterparts in industry, must identify which standards and directives are of the highest priority based on their impact in improving reliability for customers, and that's part of what we hope today will -- not that there hasn't been a lot of thought already. I know NERC already has a process to prioritize its work.

But I hope today's discussion will help advance that high level understanding. I hope that we have a lively discussion, and I hope some consensus about where to go from here emerges.

In addition to agreeing on priorities, we also need to discuss how to update those priorities, because everyone knows nothing stands still, and how to add emerging issues that we already see or that may come forward in the future.

And our guest from the Hill and our second panel will focus on some of those emerging issues, including cyber and physical security. This past September, I was fortunate to represent the Commission at an international conference
on infrastructure security, particularly the potential vulnerability of the electric grid to solar disturbances and man-made electromagnetic disturbances. Our honored guest this morning, Congressman Franks, sponsored that conference.

So I would now like to introduce our guest from Capitol Hill, the Honorable Trent Franks, U.S. House of Representatives. Mr. Franks is serving his fourth term in the U.S. Congress, representing the 2nd District of Arizona. He serves on the Armed Services Committee and the Judiciary Committee, and has been a leader in Congress on addressing the physical and cyber security of the U.S. electric grid. Congressman Franks, thank you so much for being here.

CONGRESSMAN FRANKS: Well, thank you Commissioner LeFleur. I just can't express to you what a tremendous honor it is to be among all of you. Mr. Chairman, I'm grateful for your hospitality here. As it happens, there are a couple of people here that I consider very beloved friends. Commissioner Spitzer and I have known each other for about 25 years, and we decided earlier that if we told stories about each other, it would be mutually assured destruction.

So but I think he is a truly honorable man, and I have the greatest respect for him. Also, Joseph McClelland, Joe McClelland, I think personifies what a public servant should be. With people like this and just the general
feeling I get being in this room, it makes me think that God may not yet have despaired of mankind here. We still have a lot to hope for, and I'm really grateful to be here.

I'm especially grateful to, just to express my gratitude to all the people here for being here. I know that this is a huge issue and it's going to take a lot of people to address it, and I think you're all heroes for doing that.

It is obvious to all of us that this is one of the most pressing national security issues currently facing the United States of America, and indeed the human family today. Now I know you all have a great deal of material to cover in your conference, and so as King Henry VIII said to his fourth wife, "I promise I'm not going to keep you here long."

(Laughter.)

CONGRESSMAN FRANKS: But it's true that in our technological advancement, we have now captured the electron and transported its utility into nearly every business, home and industrial endeavor throughout the civilized world. In so doing, we've also advanced our standard of living and productivity beyond dreams, and we've also grown profoundly dependent upon electricity and its many accoutrements.

In keeping with one of humanity's most reliable hallmarks, we now find ourselves having a great strength
that also has an unsettling vulnerability, and that is EMP or electromagnetic pulse. I am probably going to repeat so many of the things that all of you know so well. I feel like a first grader before a college examination board sometimes.

But catalyzed by a major solar storm, a high altitude nuclear blast or a non-nuclear device induced intentional electromagnetic interference. This invisible force of ionized particles has the capability to overwhelm and destroy our present electrical power grid, our electrical equipment, in many cases, including electric communication networks, radio communications, integrated circuits and computers.

Now I know we all owe a great debt of gratitude to an astronomer, Richard Carrington, who first discovered this phenomenon in 1855, when he identified and chronicled a major solar storm, which intensified the Northern Lights and caused the telegraph system, the only major electrical system on earth at the time, to go down across the planet.

The National Academy of Science predicts this effect to a lesser or greater degree will recur globally approximately every 100 years. In 1962, the United States discovered that a high altitude nuclear blast could generate a more localized EMP effect of the same intensity as the Carrington Effect.
In an upper atmospheric nuclear test called Starfish Prime, an EMP occurred, causing electric lines to fuse and radio and street lights to stop working in Hawaii, nearly 900 miles away. The residual effects also disabled nearly all major satellite systems at the time.

Because of new understandings of how EMP interacts with the earth's electromagnetic field, and that it has intensified over a large land mass, we now believe that if a nuclear warhead of sufficient size were detonated at an altitude of 400 kilometers over America's heartland, the resulting damage to our electric grid and infrastructure would be catastrophic across most of the continental United States.

Such a result would of course be devastating to our electricity, our transportation, our water and food supply, our medical care, financial networks, telecommunication and broadcasting systems and our infrastructure. Under such a scenario, both military and productive capability would be indeed devastated. The immediate and eventual impact, directly and indirectly on the human population, especially in major cities, is unthinkable to all of us.

Now it should be remembered that EMP was first considered as a military weapon during the cold war, as a means of paralyzing U.S. retaliatory forces. The Soviet
Union had studied it greatly at that time.

The EMP Commission began their 70-page executive summary describing a one or two EMP attack, a one or two missile EMP attack as one of the few threats which looks as if it could potentially defeat the U.S. military. Dr. William Graham, the chairman of the EMP Commission, testified before the U.S. House Armed Services Committee.

I happened to be there at the time. He is a very articulate person. He said "EMP is one of a small number of threats that can hold our society at risk of catastrophic consequences." Continuing, "a determined adversary can achieve an EMP attack capability without having a high level of sophistication.

"For example, an adversary would not have to have a long-range missile capability to conduct an EMP attack against the United States. Such an attack could be launched from a freighter off the U.S. coast using a short or medium-range missile, to loft a nuclear warhead to high altitude. A terrorist sponsored by a rogue state could potentially execute such an attack without revealing their identity."

Now Dr. Graham has said that a major catastrophic EMP attack on the United States could cause an estimated 70 to 90 percent of the population of the United States to become unsustainable. It is impossible for me to even wrap my mind around that figure. But for terrorists, I'm afraid
that such a scenario is potentially their ultimate goal, and
I believe EMP could be their ultimate asymmetric weapon.

In 1988, Osama bin Laden called it a religious
duty for Al-Qaeda to acquire nuclear weapons. U.S. Admiral
Mike Mullen, Chairman of the Joint Chiefs of Staff has said
"My worst nightmare is terrorists with nuclear weapons. Not
only do I know that they're trying to get them, but I know
that they will use them."

This is, in my judgment, the greatest danger of
all if a rogue state like Iran steps over that nuclear
threshold. Rogue regimes and terrorists the world over will
have access to these monstrous weapons and potential EMP
capability.

We would do well to remember that Iran, the
world's leading sponsor of international terrorism, has
practiced launching a mobile ballistic missile from a vessel
in the Caspian Sea. Iran has also tested high altitude
explosions of their medium range ballistic missile, the
Shahab-3, a test mode very consistent with an EMP attack,
and described as successful. A recent Iranian journal
contained an article recommending just such a strategy. The
article noted that if western nations do not learn to defend
themselves against EMP attacks, they will be destroyed.

On June 2nd of this year, Iranian President
Mahmoud Ahmadinejad again made it clear where he stands.
Israel, he declared, "is about to die, and will soon be erased from the geographical scene." Now Jewish author Primo Levi once was asked what he had learned from the Holocaust, and he replied "When a man with a gun says he's going to kill you, believe him."

At this moment, Mahmoud Ahmadinejad, a man who in the same breath both denies the Holocaust ever occurred and then threatens to make it happen again, is arrogantly seeking a gun with which he vows to wipe the state of Israel off the map, while promising that a world without Israel and America is "possible."

He's also stated the time for the fall of the Satanic power of the United States has come, and the countdown to the annihilation of the emperor of power and wealth has started. He has said point blank the wave of Islamic revolution will soon reach the entire world. Now what a happy, cheerful fellow. He just lifts one's spirits.

But unfortunately, he talks like a man who knows something the rest of us don't. It's not enough to casually dismiss this fanatical rhetoric, because when analyzing the nature of any threat, of course we must always seriously assess two things: a potential enemy's intent and his corresponding capacity to carry out any such intent.

Mahmoud Ahmadinejad and his regime have stated very clearly that they desire to see Israel wiped off the
face of the earth and America and the west brought to their knees. Nuclear warheads could give them the capacity to proceed in that endeavor, and to ignore the incontrovertible fact that Iran is rapidly progressing towards nuclear weapons capability is to resign ourselves and our children to walk in the shadow of nuclear terrorism and potentially the devastation of EMP aftermath.

You know, ladies and gentlemen, it seems like there is usually and thankfully a moment in the life of every problem, when it is big enough to be seen by reasonable people, and still small enough to be solved. You and I live in just such a moment, and there is still time for the free world to address and mitigate the vulnerability that naturally-occurring or weaponized EMP represents to the mechanisms of our civilization.

It is my belief that the U.S. Congress should and must immediately move forward to protect our electric infrastructure from the devastation that could come from EMP. To that end, I'm introducing the Shield Act, which will address the electric grid's vulnerabilities to an EMP event by establishing mandatory procedures intended to isolate the most critical elements of the grid from an attack, and provide hardware-based solutions to actually fortify the electric infrastructure itself.

Let me just, if I could, have a little side note
here. I believe that what Commissioner Norris said is absolutely true, and also Commissioner LeFleur, that trust and common goals between industry and the recognized regulatory mechanisms are vital. I came from a small business background. I know that regulation is always something that makes it difficult for private individuals and businesses to try to assimilate in their business.

Yet I am convinced that in this case, that one of the best investments that producers of electricity can make is to make sure that they are not affected by something of this magnitude. We've also introduced and launched the EMP Caucus last year, and I will continue to chair that in the new Congress. Its purpose is to educate members and staff about the nature of the EMP threat, and steps Congress can take to defend against it.

The challenge to ultimately and fully protect our peoples and nations from all the various perils of electromagnetic pulse will be long and lingering. But the time to act to protect our nation from the most critical danger is now. The threat is real, and the implications are sobering.

Frank Lindsey put it all in stark perspective when he said "Here is the grim truth. We are only one act of madness away from a social cataclysm unlike anything our country has ever known. After a handful of such acts, who
knows what kind of civilizational breakdown might be in store."

Ladies and gentlemen, the purpose of any government or its leaders is to protect the lives and security of its innocent citizens. The failure of this responsibility renders all others meaningless.

I'm just so very grateful to every one of you for nobly engaging this indescribably important challenge, and it's my hope that we can join together in raising awareness about the nature of EMP, and doing everything in our power to ensure that, for the sake of our children and future generations, that dark day mentioned by Mr. Lindsey will never occur on our watch.

I am grateful to all of you for this opportunity to speak to you, and in Congress we say I'm now ready for questions. I don't know how you do that here, so I'm just grateful again to have the chance to talk to you, and especially appreciate your focus on this.

I've talked to so many. I've talked to Mr. Bardee here. He's a brilliant gentleman, and there are just so many people here that I have a great deal of respect for.

COMMISSIONER LeFLEUR: Thank you so much. That was certainly thought-provoking. If we had any doubt about the importance of some of the aspects of what we're involved in here, that certainly removed it, and we really appreciate
your taking the time out of your schedule to come down and
speak with us. So thank you.

I'm sure this afternoon when we talk about
emerging issues, we'll touch on a lot of what you're talking
about. Thank you.

CONGRESSMAN FRANKS: I thank you all again very
much.

COMMISSIONER Lefleur: Thank you.

(Applause.)

COMMISSIONER Lefleur: We're going to shift gears
a bit here and move to our first panel. So I would ask the
panelists from the first panel to take their seats, and this
panel will focus on how current reliability issues and
standards development issues can be prioritized, to assure
that the most important issues are addressed first.

As the panelists take their seats, I'll give them
a second before we introduce them. We truly have a great
group here this morning, led by -- I mean it's not every day
the two John Andersons are sitting at the same table here.

Led by John Q. Anderson, the Chairman of the
Board of NERC; Gerry Cauley, known to all, the president and
the CEO of NERC; Chairman Betty Ann Kane of the District of
Columbia Public Service Commission, here on behalf of her
commission and also NARUC; Kevin Burke, the Chairman,
President and CEO of Consolidated Edison, here on behalf of
ConEd and also the Edison Electric Institute; Roberta Brown, one of the founders of the Reliability First regional entity, who currently sits on the boards of ISO New England and the Independent Electric System Operator of Ontario, so we have an international presence; Mike Smith, the President and CEO of Georgia Transmission Corp, here on behalf of his company and also the National Rural Electric Cooperative Association, NRECA; the other John Anderson, John A. Anderson, the President of the Electricity Consumers Resource Council or ELCON; and Lonnie Carter, President and CEO of Santee Cooper, representing Santee Cooper and the American Public Power Association.

So we'll begin with Mr. John Q. Anderson. Thank you.

MR. JOHN Q. ANDERSON: Thank you, Commissioner LeFleur. Good morning to you and Chairman Wellinghoff and the rest of the Commissioners, also the Commission staff and my fellow panelists. We really appreciate this opportunity.

I am John Anderson, Chairman of the NERC Board. I've been on the board for about ten years and been chairman for the last two years. Before I start into the prepared remarks, I would just like to say that I very much also appreciate Commissioner Franks -- Congressman Franks' remarks, and say that we will be addressing the EMP issue in some of our remarks later.
We take it very seriously, and it's hard to hear something that sobering and that strong without responding right away to it. So I appreciate those, and Gerry and I will both be talking about those, especially this afternoon in the second panel.

Several of my colleagues on the board are in attendance today, and in fact the majority of our NERC board is here at this hearing, and we're very interested in learning from the other panelists, and also in hearing from you, the Commissioners, about the priorities that you see as being important, and the methodologies we can use to set those priorities in the future.

NERC's vision focuses on enhancing compliance with lessons learned, becoming a learning organization that's focused on improving the reliability performance through event analysis, and on fostering continuous improvement within the organization and across our industry.

My colleagues on the board and in NERC are committed to this vision. NERC's initial years were correctly focused on building the organization. Now, with mandatory and enforceable standards in place, NERC begins to focus on four things.

First, becoming a risk-informed organization, one that's able to identify and understand reliability risks, and help the industry manage those risks, and effectively
prioritize reliability initiatives based on those.

Second, on promoting a culture of reliability excellence and compliance with reliability standards. This is accomplished by NERC being a recognized and trusted leader and advocate in reliability matters, and by strong enforcement authority that's independent, without conflict of interest, objective and fair.

Third, by building a coordinate ERO enterprise that's based on effective integration and leveraging of regional and stakeholder ideas and expert resources, with a common purpose of improving reliability.

Fourth, building a constructive relationship with FERC, Congress and other federal, state and provincial authorities in the United States and Canada. Such relationships must be built through communicating expectations, and consistently delivering responsive results that demonstrate the effective mitigation of the reliability risks that we've identified.

NERC has just completed its fourth year of operating as the ERO authorized by the Energy Policy Act of 2005. It's an appropriate time to take stock of where we're heading, and two things stand out for me.

First, we collectively must focus on high priority issues. Neither NERC nor the Commission nor the industry, nor the ultimate customers, have the resources to
do everything that one can possibly imagine to support and
improve reliability.

We've learned this over these four years. We
must set priorities, and an important part of setting
priorities is also deciding what we are not going to devote
resources to that could be worthy.

The second thing that stands out to be is we
believe the best way to set those priorities is to use a
risk-based analysis in our decision-making. It will be
important to engage the expertise of the asset owners and
operators as we do that risk assessment. It will also be
important for policymakers to weigh in on the nature and
level of risk that they expect to be addressed.

A key component of that risk assessment will be
coming to a common, shared understanding of what is an
adequate level of reliability, as that term's used in
Section 215. The discussion on priority-setting and risk
assessment must include stakeholders and policymakers from
Canada as well as the U.S. The grid is an international
one, and it must operate to a common set of rules and
policies.

Given NERC's international make-up, some of those
discussions can and do take place at NERC. Others will need
to occur between the policymakers on both sides of the
border themselves. NERC would be pleased to be a resource
for those discussions.

Recently, the NERC board has approved actions to improve the pace of the standards process, while retaining the ANSI accreditation that many of us consider so important. We've established just this year a Trustee Standards Oversight and Technology Committee.

That committee will provide greater oversight to the stakeholder standards process, and one of its foremost roles is ensuring priorities are set and adequate resources are directed to the most important standards according to those priorities.

My colleagues and I also recognize NERC's public service role. As we move forward, we must also be conscious of the cost of our initiatives, both at NERC and the regions, but also impacts to the bulk power system owners, operators and users. Our inquiry must begin with the question of what is best for reliability, but we must also assure that we do is done efficiently and effectively.

Again, I appreciate this open dialogue with the Commissioners on reliability policy and priorities, and I look forward to your questions and comments for the rest of the discussion. Thank you.

COMMISSIONER LeFLEUR: Thank you very much. Mr. Cauley.

MR. CAULEY: Thank you, Commissioner LeFleur.
Good morning Chairman Wellinghoff, Commissioners, staff and fellow panelists. NERC's mission is to ensure the reliability of the bulk power systems of North America, and promote reliability excellence.

To be effective, we must understand and address risks that can lead to failures of the grid. In contrast to the emerging risks to be addressed in Panel 2, the conventional risk landscape is reasonably well understood. The generator failures, gas shortages and rolling blackouts experienced in the cold weather in Texas and the Southwest last week represent just one opportunity to improve our readiness, and to address conventional risks such as extreme weather.

However, we cannot address reliability priorities without a common understanding of the meaning and scope of an adequate level of reliability. For several decades, reliability in the NERC arena meant preventing cascading failures, preserving the integrity of the grid, avoiding equipment damage, and providing an adequate bulk power supply.

The Commission, has on several instances raised the notion of continuity of service to customers as an additional factor, and I believe this is a fair suggestion, as long as we distinguish between unintentional load loss caused by grid failures, and intentional load-shedding used
as an essential operational tool.

Because the meaning of an adequate level of reliability is so important to setting priorities, I'm directing a new NERC review of this question this year, and plan to file a proposal later in the year. I believe the reliability investment that we are promoting every day through our standards, compliance programs, alerts and other initiatives, should be driven primarily by overall value to customers and ratepayers.

It is important to achieve reliability risk mitigation in a manner that balances affordability of electricity in a competitive global market, with the need to ensure reliability and security of our North American infrastructure. Priorities must be driven by a clear understanding of risks and consequences, and the costs and benefits associated with addressing them.

In assessing priorities going forward, it is helpful to see what was accomplished looking back. Since the August 2003 blackout, not only have we stood up a mandatory compliance and enforcement program with 1,900 registered entities, we have completed a number of important reliability initiatives, including new standards on vegetation management, transmission line relay loadability, operator training, backup control center and cyber security. A few years from now, I want to be able to say we've
conquered more big issues like these.

So what are my priorities going forward with regard to conventional risk management? Each of these is a recurring theme we've seen over recent years. Ensuring relay protection systems operate as expected and faults are cleared without unnecessarily tripping other equipment; ensuring field engineers and technicians modify system configuration, including protection and control settings, only after assessment of the consequences, and after informing operating personnel when a change in configuration could temporarily set up common mode failure.

Third, ensuring operating personnel use clear, unambiguous communications when issuing directives and communicating other operational information. Finally, preventing non-random equipment outages, such as those caused by vegetation or objects within safe clearance distances from energized lines, and common mode failures of generation, such as we saw last week during the extreme cold.

In the area of reliability standards development, the setting of priorities for NERC also takes into consideration the need to be responsive to regulatory directives, such as those on frequency response, personnel training, the Planning Standard Footnote B regarding loss of load following a contingency, the definition of a bulk
electric system and dozens of other projects.

We also have an opportunity to soon close out several standards projects that have been in the works for a while, such as standards on transmission planning, reliability coordination and real-time operations.

Another opportunity in standards is to see how we can further expedite the development process. I believe that the highest priority standards we have in front of us call for a new procedure to resolve objectives and create a 90 percent draft in a very short time frame, using a team of industry experts, attorneys and compliance staff.

The ANSI consensus process then could be used for vetting and validating near the end of that process. By simply discussing priorities today, beyond simply discussing priorities today, we must ensure there's a systematic approach for analyzing risks and setting priorities going forward.

With our shift toward risk-based approaches in a learning industry, NERC is introducing quantitative measures of reliability performance and root cause analysis. We are beginning to see the benefits from our transmission and generator outage database.

We also have a new database to monitor the performance of demand side management programs. We recently formalized criteria for event analysis; we've begun to use
that process, and I think this data and trends will help us
in the future in determining priorities.

I thank you for your attention, and look forward
to your questions and comments.

COMMISSIONER LeFLEUR: Thank you so much.

Chairman Kane.

MS. KANE: Thank you, Commissioner LeFleur and
good morning to Chairman Wellinghoff, Commissioners of the
Federal Energy Regulatory Commission and other witnesses
here today. I am Betty Ann Kane. I am the chairman of the
D.C. Public Service Commission, and I'm conscious that I
believe four of the Commissioners are constituents and
customers of our electric utility, that distribution
company, I should say, that we regulate.

I'm also here, however, on behalf of the National
Association of Regulatory Utility Commissioners and my state
colleagues from all over the country. NARUC, as you know,
is the national organization of state commissions,
responsible for economic and safety regulation of the retail
operation of utilities.

Specifically, NARUC's 220 plus members have the
obligation under state law to ensure the establishment and
maintenance of such energy utility services as may be
required by the public convenience and necessity, as well as
ensuring that such services are provided at just and
reasonable rates.

NARUC's members include the government agencies in the 50 states, the District of Columbia, Puerto Rico, the Virgin Islands, charged with regulating the rates and terms and conditions of service associated with the intra-state operations of electric, natural gas, water and telephone utilities, and both Congress and the federal courts have long recognized NARUC as the proper party to represent the collective interests of state regulatory commissions.

I'm grateful for the opportunity to participate today on behalf of NARUC as well as the D.C. Public Service Commission. We care about this issue, because state utility regulators are on the front lines of reliability, and believe me as a regulator in this region, when the lights go out, we're the ones who hear about it.

We're the first to hear complaints about outages and about increased electricity prices. We are accountable directly to the public. Some of us are elected, some of us are appointed by elected officials, but we are directly accountable to the public. Our names and our numbers are in the phone book, and we're very easy to reach.

NARUC is pleased that FERC and NERC are having these dialogues to clarify NERC's priorities, and the relationship between the two organizations, and we appreciate the opportunity to participate in this important
dialogue and bring the unique perspective of state regulators to the discussion.

As everyone in this room knows, reliability is essential at every level. If we can't guarantee a reliable system, the public will lose faith, not only in their utility provider, but in the fact of regulation itself.

As I said, however, in my shoes as a regulator, I have an additional responsibility of ensuring that costs are just, reasonable and as affordable as possible. D.C., the District of Columbia is a unique example. We have some of the wealthiest and the poorest consumers in the nation, and it's my job to make sure the lights stay on at reasonable rates for everyone in the District.

Maintaining reasonable costs is an important regulatory mandate. But as you know, utility investments that are mandated by FERC are passed through as costs to consumers in retail rates, and they don't accept the explanation that they're not rates that I control, a cost that I control.

We encourage NERC and FERC, as I said, to ensure that the standards to provide reliability have benefits that justify their costs, and we encourage you to avoid creating costly compliance requirements that do not necessarily increase bulk power reliability.

State commission staff should work with NERC as
participants, or do work with NERC, excuse me, as
participants on a variety of NERC committees and task
forces. State staff engaged with NERC remark on the intense
number of standards that need to be developed under an
expedited time frame, and say that while it is important to
act quickly on standards, especially the cyber security
standards, it is also important to get those standards
right, which makes dialogue today even more important.

So the most discussed around reliability issues
among my NARUC colleagues are number one, the new
standardized definition of the bulk power system. There is
concern especially among my colleagues in the Western
interconnection and the Northeast regions, that the bright
150 kV definition will cause significant incremental costs
without equivalent benefits. I would refer you to a filing
by NARUC in March of 2010.

On vegetation management, we generally see this
as a successful standard, and on cyber security, which we
will speak about this afternoon, this is an issue that is
closely watched by NARUC's critical infrastructure
committee, and is a major topic of discussion among state
regulators, especially as communication systems and
communications capability are added to the grid at both the
wholesale, the interstate and the intrastate level.

Then in my testimony, when the staff prepared
this, they said PEPCO, question mark?

  (Laughter.)

MS. KANE: Let me say a couple of things. First of all, we are having a hearing at the District of Columbia Commission on Thursday on PEPCO's response to the latest storm. But storm situations aside, obviously the distribution system and the reliability of the distribution system is a major concern, not only in this city but across the country.

I wanted to say two things about that. My staff did a recent survey of reliability performance standards among our neighbors, and we found that while D.C. has performance standards, our neighbors in Maryland and Virginia do not have any reliability standards.

One of the things I always have to say, we regulate PEPCO in D.C. We don't regulate PEPCO in Maryland or in the other places.

Secondly, when we're talking about Reliability and we're talking about standards, both in the state and nationally, I think we have to use real facts. I'm not here to argue with the Washington Post or anyone that's been in public life knows how much public opinion gets influenced by facts or non-facts that end up in the popular press.

But I would say that on many of the standards, storm outages aside, our local distribution system actually
ranks fairly high. I'd be happy to discuss that in any
detail later, but let me just end by saying again, on behalf
of NARUC, we do look forward to working with you, that we
are very concerned about costs.

Another final D.C. example that based on the
reliability pricing model auction last year, where
reliability is very much figured into the price, our auction
price for the District of Columbia was the highest in PJM,
and that significant transmission constraints, as well as
reliability, create pricing and reliability and pricing
conscerns for customers.

We look forward to working with you as we put in
demand response, smart meters and dynamic pricing that will
also help mitigate some of the reliability concerns. Thank
you.

COMMISSIONER LeFLEUR: Thank you so much,
Chairman Kane. It's great to have you and NARUC at this
table in this debate, in this discussion. Mr. Burke.

MR. BURKE: Yes. Thank you, Commissioner LeFleur
and good morning to the Chairman, Commissioners, the staff
and all my fellow panelists. I'm Kevin Burke, the CEO of
ConEdison, and I'm here this morning representing the Edison
Electric Institute and its member companies.

I serve as the co-chair of the CEO Reliability
Task Force at EEI, and we really appreciate the Commission
holding this conference. As the CEO of the company responsible for keeping the lights on in metropolitan New York City, I am strongly aware of the importance of reliability to our customers, and therefore the importance of this topic here today.

I just want touch on a couple, which I hope you do get a chance to read at some point time. But I just did want to touch on a couple of things. I think when we talk about priorities, you have to think about a priority system that would indicate there are some issues that are a high priority, some issues that are a low priority, some issues that you might decide we are not going to do, and there are some issues that we have to decide we've been doing them for a while and we should stop.

It's those latter two categories that sometimes are a real challenge in developing a prioritization system, and I think that if we think we have a good prioritization system, we should make sure that we can produce issues in that category.

I think what should we be looking at, as some of my fellow panelists have already said, what's the likelihood, what are the consequences, you know, and what are the costs. I think with respect to, you know, the issues before with respect to FERC and NERC, we should really be focusing on the risk to the bulk power system.
I look at that more in terms of, you know, cascading outages. We have to look at balancing between the bulk power system and the distribution system. I think there's easily a tendency to combine the two, but there really is a distinction between the two. I think when we look at what NERC has to do, and NERC has its plate full, we should try and encourage NERC to focus on bulk power system and not get into the distribution system.

I think we have to be mindful of the costs that the customers are being asked to bear, and it's not just here's a cost and there is some marginal increase in reliability, but does that increase in reliability warrant the costs. Any increase in reliability or reliability at any cost is not appropriate, and I think later on today, probably in the Q and A, we'll get into some of those issues.

You know, I think we have been focusing on improving the development of standards. I think we said we're going to try and get SIP-002 out by the end of the year. We did. I know there has been some improvements in the process, and I think we need to continue to work on that.

But I do continue to have, you know, some concerns about the process. I think, you know, in some cases, there's still a lot on the plate that haven't been
prioritized. We haven't pushed some things off the plate yet. We have to continue, I think, to look at, you know, some of FERC's reliability orders, directing NERC to take some action.

There are, you know, still a couple hundred of them outstanding, and I think it's important that we prioritize those so that we do look at, you know, those issues that are important, not look at the issues that are important, because new issues are going to come to the table.

If we don't focus on what we're not going to do, what we wind up doing is not a very good job in some other areas, or some things will get inadvertently left off the table, and we won't get to them, even though we think that they are more important.

I think, you know, some of the things that the NERC has been focusing on, with the alerts. There have been over a dozen alerts issued. I think they have to be issued judiciously and perhaps prioritized, which ones are being issued, which ones are just an alert to the industry to say "take a look at this issue. You don't have to get back to us. Just take a look at it, and look at it from your own point of view. What do you think is important for your system, and how your system has to respond?"

We've been in this business a long time. We're
proud of ConEdison to come out frequently at the top of anyeviews of reliability with respect to our distribution
customers. We put a lot of effort into prioritization, and
we put a lot of effort into dealing more with the Public
Service Commission in New York State, so far, where we have
in the last year defined a level of reliability to which
we're going to try and get our networks, and not improve it
beyond that point, and they pretty much agree with us.

We've been talking to them about programs that
we've had underway for a number of years, in response to
prior events, that we've said we think we've received the
benefit of those programs, and while we said it's a long-
term program, perhaps at this point in time we should stop
implementing those programs.

We're having discussions with the staff, and I
think we're going to be in agreement, to be able to stop
some of those programs. And then, in some cases, either
reduce costs to the customers or use that money for some
other programs that we think will provide more benefits to
the customers.

So I look forward to the conversation later on,
and that concludes my remarks.

COMMISSIONER LeFLEUR: Thank you very much. Ms.

MS. BROWN: Thank you. I'd like to thank the
Commission for the opportunity to speak today on the issues related to the reliability of the bulk power system.

While Commissioner LeFleur noted that I am a member of the boards of directors of the Ontario Independent Electricity System Operator, and ISO New England, and I'm also honorary godmother of Reliability First, one of my unpaid jobs, my remarks today are on my own behalf. I'm here as an individual, which one of the other panelists said he's very envious of.

My remarks do not represent necessarily the views of any other organization, but I also am an individual who stands both in the United States and in Canada. It's always good to be back in my home town, I have to say, and I will confess that I had an apartment in the Spy Museum for a year. So I'm very familiar with the area.

My initial training is as a nuclear engineer, and I started my career as secretary of the ANS Standards Committee, the American Nuclear Society Standards Committee, which was involved in the preparation and approval of nuclear standards.

Even back then, the ANS Standards Committee and its drafting teams had representatives from experts across the industry, but also generally included representation from the Nuclear Regulatory Commission.

Now while the NRC's representatives did not
constitute, when they came in and gave input, it did not
constitute approval, it certainly did provide some guidance
eyearly in the process, and was a tremendous help in getting
things done and in priorities.

After the Institute of Nuclear Power Operations,
which I can say I predate, feedback from INPO's reviews and
mutual assistance from the industry experts, made a
significant impact on moving plant performance from
compliance to operational excellence, through collaboration
and information-sharing. Continuously we saw the bar raised
on performance.

In my remarks today, I'd like to address three
things. Collaboration, which I think Congressman Franks
very appropriately said involves stress, priorities and
process. I continue to believe very strongly that NERC is
the appropriate forum to bring together a large and diverse
group of industry experts, experts who bring both the skills
and the field experience of planning, design, construction,
operation and maintenance, but also brings in various groups
of large and small customers, who ultimately, as Chairman
Kane said, bear the cost of the actions that we take.

This group solicits public policy guidance from
provincial, state and federal regulators, including FERC, as
well as a broad array of industry groups.

However, there are several additional aspects I
think would strengthen this process. Personally, I would like to see a more comprehensive and consistent collection of reliability data for the major elements of the bulk power system. For many, many years, NERC collected data for power plants using the generating availability data system or GADS.

This data has been used extensively both by NERC and throughout the industry, and in recent years, NERC has initiated the transmission availability data system or TADS, a complimentary effort for transmission and substation equipment.

I also would like to see, get more involvement from other areas of the industry, including equipment suppliers, major engineering and construction firms. But it won't be easy, because it will have to be done in a way that protects the proprietary interests.

It's essential, though, that NERC and the industry are very clear on the purpose of data collection, and work with the industry to create a framework and schedule. There obviously has to be timely analysis of the data, with feedback to the appropriate elements of the industry. I think we had a good example in the blackout report of how that can be done. I believe that the transmission owners forum is working to do, be instrumental in that effort.
In terms of prioritization, as we've heard from several of the other panelists, NERC has to concentrate its efforts on developing results-based standards. Frankly, if everything is important, nothing is important, and nothing will get done. NERC's standards-development workload grows, and it's increasingly dominated by reworking of existing standards in response to FERC's orders.

Results-based standards have to be the best means of assuring reliability, while permitting different regional system configurations to meet different needs. As Commissioner Spitzer said, you've got to place focus on what must be done, rather than how.

I applaud NERC's efforts to adopt a risk-based approach by development results-based standards, and I encourage continued use of that model. Industry, including FERC and provincial regulators, should support the effort by providing feedback.

But I also think, though, that one additional thing that needs to happen is that NERC is a unique organization with a unique legacy. Right now, they need to take another look at their process review and update it.

NERC is performing both regulatory functions and is itself a highly regulated entity. It's entwined with policy formation in the United States and Canada. It's going through a remarkable period of transition and
scrutiny, and it's highly dependent on volunteered industry
ease and resources to conduct many of its processes.

While the structure has changed, the organization
became the ERO, many of the processes within NERC are
basically the same, and new processes were simply appended
to the existing ones. It's time for NERC to take a fresh
look at its work products and its business processes.

Developing business processes that can achieve a
workable and sustainable balance among multiple and
conflicting objectives, is simply essential. It needs a
sustainable platform to organize, maintain and manage vast
quantities of data in a timely fashion, assuring that the
most critical receives appropriate attention, both
internally and externally.

I'll be glad to address some of the specific
items later in the Q and A session. Thank you.

COMMISSIONER LeFLEUR: Thank you so much. Mr.
Smith.

MR. SMITH: Good morning. My name is Mike Smith,
and I'm President and CEO of Georgia Transmission
Corporation, a transmission-only electric cooperative
serving 4.5 million people in the state of Georgia.
Electric cooperatives, as you know, are not-for-profit
member-owned independent utilities. They serve 42 million
people across 47 states, covering nearly three-quarters of
the nation's long mass.

As customer-owned businesses, we are committed to reliable, cost-effective service for our members. Georgia Transmission strongly supports the prioritization of reliability initiatives, and the ensuring of proper focus for our industry's scarce resources.

We agree with the Commission's prior observations that when everything is a priority, nothing is a priority. You've outlined today several key questions for discussion in regard to reliability, and I would like to share our perspective on them this morning.

First, let me start by saying Gerry Cauley and NERC, in a memo to the industry on January 7th, have done an excellent job of identifying eight top priority issues for the next few years. Some of these are based on actual system events, such as relay misoperations and human error in the field.

Others are forward-looking, such as integrating new technologies and the changing resource mix of the bulk electric system. While the industry as a whole still needs to weigh in, I believe the focus on these priorities and the directly related standards work will have the greatest positive effect on the performance of the bulk electric system.

Another, perhaps much less direct risk to system
reliability, is the micro-analyzing of minuscule administrative requirements during compliance audits. The threat of being out of compliance often drives companies to spend enormous amounts of time and resources on matters that could offer little, if any, value to reliability.

These resources would be much better focused on primary duties and keeping the system as reliable as possible. To address these concerns, NERC has initiated a process to move standards from prescriptive or rules-based approaches to more risk-based and results-based over a period of time, and we strongly support this prioritization and clarity of focus.

First to undergo this transition has been the vegetation management standard, which has been changed to add information that will help end users understand the objective and rationale for each requirement. Additionally, the requirements have been tiered so that the higher risk rankings are applied to those that have the greatest impact on reliability. We applaud this effort and we believe it will allow us to make more efficient and productive use of our limited resources.

Another important area that we've touched upon, FERC, NERC and the industry must agree on a reliability objective, or what constitutes a reliable system. Is it no outages, no cascading outages or some other measure? The
transmission system we believe was not intended to be 100 percent reliable 100 percent of the time.

However, some in our industry perceive this is the regulatory expectation that we currently operate under. We feel we need agreement and clarification. We believe the performance of the bulk electric system in the United States overall has been exceptional, and that the regulatory landscape should reflect recognition of such performance.

Often, and in all candor, we feel the FERC treats this industry as the gang that couldn't shoot straight at times. Without defining what we're striving for, it is difficult for FERC, NERC and the industry to understand each other's positions and priorities. We believe by establishing an overarching reliability objective, and by communicating through standards requirements the results we want, we can truly move reliability forward.

To quote General George S. Patton, as well as Commissioner Spitzer, "don't tell people how to do things. Tell them what to do and let them surprise you with their results." We would also benefit from better communication and cooperation among FERC, NERC and the industry, to ensure that standards-drafting teams address the right risks and appropriately address FERC's concerns.

Improved collaboration would minimize the need for Commission directives, NERC alerts and other non-
standards process communications. To avoid surprise communications that divert industry attention from our responsibilities, alternatives to directives should be explored, such as these types of technical conferences, preliminary staff assessments, or issuance of advance NOPRs.

We are in the fourth year of mandatory standards, and we believe the industry-driven standards process can work and is in fact working. At the same time, there is room for improvement to ensure an effective, timely and reliability-focused process. NERC is working diligently to identify and make adjustments to this end with regards to our ERO process.

Industry groups, such as the North American Transmission Forum, are also playing a vitally important role. The Forum brings transmission entities together to share lessons learned and develop and share best practices in a confidential environment.

In October of last year, my company participated in a peer review conducted by the Transmission Forum with 24 industry experts coming in from around the country, to review our operations and compliance practices and programs. This is a valuable exercise that helps us continually strengthen our overall compliance program.

The value of the Transmission Forum is that it allows companies to assess and improve their operations and
reliability, and be open and candid during the discussions in a learning environment outside of the audit process.

That, of course, is what we are all trying to accomplish, and we believe a similar approach would be beneficial in the NERC-FERC compliance efforts. We'd like to thank the Commission for holding this conference.

The key message I would like to leave you with today is the importance of communication and cooperation among FERC, NERC and the industry, in setting a reliability objective, establishing priorities for standards work, minimizing FERC's need to issue directives, and ensuring that available resources are focused on activities that tangibly improve reliability. Thank you.

COMMISSIONER LeFLEUR: Thank you very much. Mr. Anderson.

MR. JOHN A. ANDERSON: Thank you very much, Commissioner LeFleur, Chairman Wellinghoff and the rest of the Commissioners, the FERC staff, especially Joe McClelland on the reliability issue, and my colleagues here.

A reliable supply of electricity is essential to large industrial electricity consumers, who are large end users as well as on-site generators and demand response providers. Thus, we have been and continue to be a strong advocate for the creation and operation of an ERO that is fair, balanced, open and inclusive, as required by the
legislation.

We believe that a stakeholder-driven ERO has the greatest potential to develop the processes and procedures to assure adequate reliability of the grid, while being sensitive to the trade-offs between increased reliability and consumer costs. We believe that FERC's regulations and NERC's accomplishments, to a large extent, have been commendable. However, all is not well in the reliability space.

Various actions by FERC and NERC make us question whether the overarching goal is maintaining reliability, or being obsessed with compliance for its own sake. On a positive note, the NERC Standards Committee has recognized that all standards are not created equal, and has initiated a process to prioritize standards.

This project prioritization tool hopefully provides a systematic method of assigning priorities to each standards project, by scoring each project across ten ranking criteria. This tool has been posted for industry comments. I believe the comments are due this Friday, on both the proposed criteria and the specific scores assigned to each standards process.

This tool is a significant step in the right direction, in NERC's efforts to decide which projects are most important to reliability, and to focus NERC and
industry time and resources on those projects first, even if it means deferring work on other lower priority projects. We strongly support this.

NERC also has proposed and is working hard to implement a risk-based approach to reliability standards, compliance and enforcement. The intent is to both reduce the number of requirements by eliminating requirements that are primarily administrative, and do not contribute directly to reliability, as well as number two, reduce or eliminate the lower level facilitating requirements that are already measured through other performance-based requirements.

Third, the NERC Planning Committee has recently issued a draft, "Risk-Based Reliability Compliance White Paper" for discussion. The paper sets forth 18 specific recommendations to NERC and regional entities on how to incorporate a risk-based approach.

The fundamental purpose of this risk-based reliability paper is to allow registered entities to focus more on reliability and less on administrative aspects of compliance, since most violations have little or no impact on the bulk electric system. The process recognizes that the degree of monitoring and enforcement should be commensurate with the degree of impact the standards and violation has on the BES.

Finally, as mentioned earlier, NERC's president,
Gerry Cauley, has issued his top priority issues for bulk power system reliability, which we think is very constructive. We support these efforts, and urge the Commission to do so. In my judgment, these activities at least begin a process for NERC and FERC to respond to President Obama's executive order, improving regulation and regulatory review, which is something we look forward to working with you on.

Many ELCON members appropriately are subject to at least some of the NERC standards. I also emphasize these companies have every economic incentive to implement cost-effective reliability operations and procedures, in a manner that will minimize Reliability problems, as a stable and reliable supply of electricity is critical for them to manufacture their goods and services.

Yet on a less positive note, these companies informed me that they're overwhelmed with demands for documentation and other requirements, simply to show full compliance with each and every requirement in the applicable NERC standards.

Often, they find that they are assessed rather substantial penalties for document-only violations, when the work was actually being performed but perhaps not spelled out clearly enough for a specific NERC auditor of the entity's documents.
Obviously, serious violations should come with appropriate penalties. However, all too often it seems that document-only violations are treated equal to high risk impact findings. Additionally, FERC issued a notice of proposed rulemaking last March requiring NERC to revise its definition of the bulk electric system.

The stated reason was to eliminate the regional discretion in the current definition that allowed one region to exempt from registration certain users, owners and operators of the bulk system not exempt in other regions.

FERC’s final rule gives NERC one year to develop a new standard of defining the BES. FERC did state that one, the new definition is not intended to significantly increase the scope of the present definition, as it applies to generation transmission in interconnected facilities.

Two, FERC does not seek to modify the definition of radio transmission facilities, and three, NERC should use its standards development process to develop the new definition of BES. We commend you for those points.

NERC asked for informal comments on a preliminary draft of the BES definition, and NERC staff, and I emphasize this is NERC staff; this is not NERC as an organization, submitted comments calling for the elimination of a categorical exemption to behind the meter generation if the net capacity provided to the BES does not exceed the
criteria for BES generation.

It also calls for defining BES generation to include any demand response relied on to provide contingency reserves to its balancing authority. At least in my mind, there's a serious contradiction underlying these comments.

In the spirit of "let no good deed go unpunished," NERC staff seems to be defining resources that are good for reliability as unwarranted risks to reliability that need to be controlled by heavy-handed regulation. They are simply comments that will go to the drafting team, but we urge you to look at it. We're afraid it will chill industry participation in demand response.

In conclusion, we must recognize that we will never have nor should we have 100 percent reliability. The cost would be too great, and at the outset, I recognize and understand that those folks that will be first called before Congressional committees to face the gavel, naturally will be more willing to require costs that they do not have to pay, in exchange for procedures that they believe will lead to greater reliability.

However, ELCON members that operate in very competitive worldwide markets simply cannot pay unlimited amounts for activities that provide questionable reliability benefits at best.

I leave you with two points. One, I urge that
FERC require NERC to expeditiously adopt and use a project
prioritization tool, and develop and implement risk-based
approach to the standards and compliance.

Two, understand that overreaching will bring
unintended consequences. Customers may in critical times
find that the cost of compliance exceeds the benefits that
they receive. To that extent, they may have to decide to
restrict their generation and/or demand response, to the
detriment of the bulk electric system. Thank you for the
opportunity to be with you today.

COMMISSIONER LeFLEUR: Thank you very much.
Finally, Mr. Carter.

MR. CARTER: Thank you, Commissioner LeFleur and
Mr. Chairman and Commissioners. My name is Lonnie Carter.
I'm President and Chief Executive Officer of the South
Carolina Public Service Authority, probably better known as
Santee Cooper. I'm also the chairman of the American Public
Power Association this year. The chairmanship of APPA, of
course, is a rotating position.

Santee Cooper is also a member of the Large
Public Power Council, the association that represents the
largest state municipal-owned utilities in the country, and
these comments also reflect LPPC's position. So thank you
very much for inviting me today.

I echo the comments of those who have said that
communication and trust between NERC, FERC and the industry is essential in pressing ahead towards a goal I know that we all share, a reliable electric grid upon which this nation can depend.

Nothing is more important to me in serving my customers, my communities depend on it, and the livelihoods of those with whom I work depend on it. It's good to know that reliability is a key focus for this Commission. But I want you to understand there is nothing that has a higher priority for me as Santee Cooper's president than reliability from our organization.

Perhaps more that most areas of our business, reliability gives us a lot to think about. In fact, there's too much on which to function effectively without setting priorities. So I think the Commission is wise to focus on the subject. It's no secret that the industry has been nearly overwhelmed with activity related to reliability standards development and compliance.

This is true within our organizations, where I think we have done a good job, but not a perfect job. I think that it is true at NERC. On a whole, as the Commission concluded in its three-year assessment of NERC's performance, NERC has done a good job, even a remarkable job implementing the reliability framework in a very short period of time.
But there's no doubt that there's still a lot that needs to be done, and because available resources are limited in NERC, and within the organizations like mine that contributes to NERC's work, as industry experts and manage their own compliance programs, we have to be smart about setting our priorities.

In establishing those priorities, I'd like to emphasize first that many of the most important things that my organization does, and which I think FERC is right and NERC is right to focus on, are not the sexiest, cutting-edge activities. They are the mundane things like tree-trimming, the maintenance and testing of relay protection, the control systems and training for operations and field personnel.

If you ask me what keeps me up at night when it comes to reliability risk, I'd say that it involves our ability to anticipate and respond to the threats that are pretty well defined, like summer and winter storms. On this point, it's worth saying that a relatively small number of reliability standards, perhaps 20 percent, are implicated in as much as 80 percent of the reported system incidents.

The applicable standards in most such cases are long-standing and they are generally well-understood. For this reason, it's important that organizations like mine, NERC and the Commission not lose sight of the basics, and that they are not overwhelmed with activity that has
diminishing returns with respect to improving reliability.

A risk-based approach to enforcement and standards development will help us focus on the highest risk behavior, and on the activities most likely to result in reliability improvements. As to enforcement, at NERC's technical conference in December, many spoke to the need for regional entities like NERC-FERC to focus on the attention of high risk activity, and to de-emphasize the shortcomings and documentation where activity is demonstrated to be in compliance.

The flip side of this coin is the reform of existing standards, in order to emphasize performance over documentation. I've heard folks question how you can determine whether performance is up to par without having documentation. I agree that there is an important role for documentation, and I certainly agree that where documentation does not show compliance, there indeed may be a problem.

But it seems to me that the lack of documentation is a flag, and that more important, the question is whether the practice is compliant. I think movement toward performance-based standards will assist the organization, like mine, to put that into practice and paper work a priority.

I am pleased to learn that NERC's three-year
assessment, the Commission indicated that it's receptive to this reform, and I believe it should be a high priority for the NERC standard development process. NERC is currently working on proposals to reform standards, in order to be more performance-based, and I urge the Commission to remain receptive to the proposals it will see in the coming months on this subject.

With respect to standards development and reform, I think you are aware that the NERC Standards Committee circulated for comment this month the proposed methodology for establishing a queue for standards development. Comments have yet to be filed, and the queue established, but the basic concept is a good one.

Standards will be ranked for consideration in the standards development process according to risk-based criteria. A setting of ranking criteria will be established, that will include the relationship of the proposed standards to practices affecting system stability, uncontrolled separation and cascading outages.

Consistent with the statutory scope of the Federal Power Act, the potential to improve reliability associated with the proposed standards, I think, is a concept, is a good one, and one that the Commission should endorse.

Of course, NERC must also work to respond to
Commission directives and to submit to the standard addressed on specific matters. This has been controversial, of course. However, I think we can all agree that the Commission has the authority to direct NERC to consider these matters, and NERC is obligated to respond. 

Here, I would urge you to exercise your discretion to act judiciously in issuing such directives, both with respect to the frequency of such actions and specifically with specificity to which the directives should be issued.

The Commission's September 16th, 2010 order in this matter suggested some sensitivity to this point of view on the Commission's part, and NERC recently made a compliance filing in this area that enjoys the support of nearly all of the major trade associations, including APPA, LPPC, TAPS, EEI, EPSA and ELCON.

This compliance filing reasonably addresses the Commission's concerns that NERC's ballot body may thwart a Commission directive, while it also preserves the stakeholder-based process that serves as a core principle to the ERO model. I'd like to say that I think it would be a mistake to think that standards and activities addressed to the cyber security should be treated entirely differently.

It's true that the nature of reliability is new and evolving, but it's also true that the industry is hard
at work on these matters. Through pending revisions to SIP-002, the industry is coming to grips with more prescriptive means of identifying critical assets, and I think that the SIP standards are generally on target.

But in targeting currently known vulnerabilities. Certainly, that's evolving, and I do not rule out the possibility that there will be an immediate threat requiring responses to which the standards development process is not well-suited. But I think that the actions taken outside of the standards development process should be seen as an occasional necessity and not a matter of routine.

Finally, I want to publicly express my appreciation to Gerry Cauley for his work in all of these areas. I know that Gerry has the industry support, and I also know that he can speak quite frankly when he believes that there are challenges to which we need to step up to. I thank you and look forward to your questions.

COMMISSIONER LeFLEUR: Well, thank you Mr. Carter and thank all of you. I usually say I don't speak for my colleagues, but I'm sure I speak for my colleagues when I say you gave us a lot to think about, and that we'll probably have an interesting conversation from here. That was terrific.

We only have a few minutes to lunch, but we have so much to talk about that I think we might as well start
with some questions, and so I will call on the Chairman.

CHAIRMAN WELLINGHOFF: Thank you, Cheryl. I appreciate it. The first question for each one of the panelists, and I'll start with Mr. Carter, I guess, and go around. From a substantive standpoint, just list for me, from your experience with the industry, what you would consider to be the top two priorities for NERC in maintaining reliability of the bulk power system.

If someone asked you what are the two top things they should focus on, what would those be?

MR. CARTER: The first, Mr. Chairman, that I would suggest we focus is to make sure that we communicate clearly, because ultimately whatever the Commission orders, whatever NERC standards are developed, they have to be understood in the field.

The second, I would say, is not to lose sight of making sure that we focus on the basics, that we do look at what's often referred to as a "defense indepth." Make sure that we don't overlook what's the obvious in front of us, while we're chasing paper work, which I think is one of the things we've sort of fallen into.

MR. JOHN A. ANDERSON: Mr. Chairman, that's an excellent question, and I don't want to try to guess what's going to come out of the prioritization tool from the Standards Committee. I would really rather -- they're doing
an excellent job, I believe, in trying to prioritize and focus on that sort of thing.

Comments, my understanding is comments are due later this week, and hopefully it will be before the board even next week, if the comments come in in a good way. So I'd like for us to focus on that prioritization tool, which is exactly the thing that you're doing, and not try to anticipate it. I just don't want to try to jump ahead of it. Thank you, though, for the opportunity.

CHAIRMAN WELLINGHOFF: Sure.

MR. SMITH: I think I would group my two priorities and say the first thing that we need to focus on, from a reliability perspective and Lonnie alluded to this, is blocking and tackling. It's the basics of what we do out there everyday. I believe you described it as it's not the sexiest thing, but our operations of our relays, our protection and our control, our right-of-way maintenance, keeping trained operators out in the field, dealing with all the day-to-day basics of the business.

As was alluded, that is where we continue to see outages, and it's unacceptable to those of us in industry, that we continue to see that, and that needs to be a focus for us. So focusing in on the blocking and tackling.

Then secondly, dealing with emerging issues and emerging trends. We're not in a static world. We're not in
a static environment, and we as an industry need to
appreciate that technologies are going to evolve. This
generation mix that we have, a change is being thrust on us,
whether or not we want it or want to go that fast in that
direction, and those kind of things are going to bring new
challenges for us.

Clearly, some of the things that the Congressman
talked about are not things that we have seen in the last 50
years, and they're not things that we are the most
intelligent folks in the room on. That's where we really
need this improved coordination and communication between
all of us. So it's the blocking and tackling and then the
emerging issues.

CHAIRMAN WELLINGHOFF: Thank you, Mike. Roberta?

MS. BROWN: I'd like to take a step back and look
at this a little differently, and tell you the three things
that keep me up at night, and they really demonstrate, in my
opinion, the need for industry, NERC, federal, state and
provincial regulators to work together, because they have
different objectives.

The first one that worries me is aging fossil
fuel resources. Across the country, we're seeing reduced
energy use and energy production from resources that have
been around for a long time. To give you a specific example
in New England, oil-fired resources make up about 25 percent
of New England's capacity, and in 2009 they provided one percent of the energy.

This is not a scenario that encourages investment or maintenance, but we need these things. When we do get them, we have a cost impact. That really leads me to my second item, the need for flexible resources. The generating resources, and frankly even some of the transmission and substation resources we have, were built in a different era.

Today, with the changing mix, we need resources that can respond and respond quickly. If you don't have them, maybe you can keep the lights on, but there is a huge cost impact, a huge cost impact. Clearly, as we move towards wind integration studies, they've shown how we have to have fast ramping and dispatch flexibility to balance variability. We've seen what happens when you don't. But I would ask you to look not only at reliability but at cost.

The third frankly is the integration of demand resources. It's a very, very important part of our system. It's increasingly important. It does impact both reliability and cost. But one of the issues that we have is that sometimes our rules were written in the era that you could only call on DR in emergency situations, but we need it to be like a generator.

We need it to offer a price in the market, and we
need it to respond accordingly. So we need a way to let
operators have greater access to what's a critical resource,
when it makes sense to do so from both an economic and an
operational perspective. So my apologies for answering a
little differently.

CHAIRMAN WELLINGHOFF: Oh, that was very good.
Thank you, Roberta, I appreciate it. Kevin.

MR. BURKE: You know, I want to answer your
question directly, but I'd like to divide it into some
traditional and forward-looking. Traditional, I think you
know, one of the key issues that NERC has been focusing on,
the industry has been focusing on a long time are the relay
protection systems, you know, looking at the design,
engineering, installation, making sure those are right,
because those can lead to problems on the bulk power system.

I think when we look forward, I think of the
cyber security issues, and I think, you know, there
government can play a key role, because I believe that there
are agencies and government, that I don't think it's the
people in this room.

I think it's people in other rooms and in defense
national intelligence that sort of know what our
capabilities are, and probably estimate what the other
entities' capabilities are, and could give us, I think, a
little bit more guidance than we've been getting.
So if I was looking for something, you know, from government, it would be more guidance, perhaps maybe less standards, because this is an evolving area. You know, we know how to protect the system from, you know, we've had lots of experience with hurricanes and thunderstorms and things like this.

This is a new area that I think is going to evolve quickly, and I think trying to get more guidance from some of the right people in government, who normally don't like to share their information, for good reasons.

CHAIRMAN WELLINGHOFF: Thank you. Chairman Kane?

MS. KANE: Yes. I think from the state's point of view, I repeat that it's reliability of cost, and being aware of the impact on the end users as the reliability standards, particularly are prioritized.

The second is, if I might echo Mr. Burke, is kind of being aware of what's coming down the road. I've spent a lot of time with representatives from the 39 states, spending a lot of time on the last six months on the Eastern Interconnect State Planning Council. This is a project that's been going on for several years funded by the Department of Energy.

As we look at what is coming down the road in terms of renewables, in terms of the demand response, in terms of energy efficiency and the new kind of planning that
needs to be done under various scenarios for transmission, there are different kinds of reliability concerns and needs that are going to be coming.

I think to be very aware of all those scenarios and that work that's going on, before things are imposed that may be for yesterday's problems and yesterday's needs.

CHAIRMAN WELLINGHOFF: Gerry?

MR. CAULEY: Thank you, Mr. Chairman. Sometimes the simplest questions are the hardest to answer. So I'll answer it two ways. In terms of the engineering priorities, I did outline, as a couple of people mentioned, the eight priorities in a paper that I recently issued.

But the two that really bother me of the technical priorities are the relay operations and maintenance, to make sure that they're operating correctly. They're in every event that we see, and I think the second, then, I would say is the concept of common mode failures.

It pervades a lot of things we do in vegetation. In August 2003, why multiple trees went out by vegetation, as opposed to just one random event. We looked at 50 plus generators last week that wouldn't start because of cold weather. So there are systematic common failures that we'd like to be able to resolve.

I'd like to answer your question with two suggestions from a more systematic approach. One of the
struggles we have is understanding where we are in the
process of developing a reliability regulatory framework
here, and I think the danger of this process or any
discussion of priorities is what are the instant priorities
right now? What's the most important thing?

If you look at the experience in the nuclear
arena and other areas, it took ten years, in some cases 15
years to get to the right spot in terms of priorities, and I
think we have to look at as a time over sequence over time.
What do we need to do today? We need to get certain
standards in place. We need to make sure that we focus our
compliance program on the key priorities.

It may not be the long-term answer, but I think
we need a time-sensitive road map to address the sequence of
building, I think over three, five, ten years, where do we
want to be, and build that sort of a time frame.

My other systematic priority is in standards and
the process, and making sure that we do everything we can to
evaluate options for improving that, the timeliness, focus
and making sure that we're able to produce really good
standards.

CHAIRMAN WELLINGHOFF: Thank you, Gerry. John?

MR. JOHN Q. ANDERSON: Well, I'll answer this
from a kind of policy level, NERC board level, what we do to
help Gerry as we kind of give him a policy framework and so
forth.

I think the top two priorities I would see that really could have an impact on reliability fairly quickly, one is choose where to spend all of our time and resources, the precious resources we've got, NERC, industry, as well as FERC I think, choose where to spend those resources based on the risks that we see, ad not get caught up in the flavor of the day, not get caught up in the sequence of things we've been doing for a few years and we just can't let them go.

But it's kind of what are we not going to do, and focus on those that have the highest risk. We're getting better and better at that. Gerry's got a whole new framework. So I think from a board level, we're very much seeing that as maybe the top priority that we can focus on.

The second would be a faster and clearer flow of communication among all the participants that have to get something done, to increase reliability. That means between FERC and NERC or FERC and the industry, between the NERC constituents, between the standards development teams and constituents around those.

There's all kinds of communications that have to take place, and they can result in, as you know, months and even years to get something done. So I would put that as my second. So if we could have, you know, choose where to spend all the resources based on the risks that we see, and
if we could have faster, clearer communication more quickly, those two would be my priorities.

CHAIRMAN WELLINGHOFF: Thank you, John. We're ready for lunch now.

COMMISSIONER LeFLEUR: Well, we will break for lunch. I want to give you time so everyone doesn't have to go to the Sunrise Caf to be able, to disperse among the block or two, since there's a lot of folks here. We'll resume at 12:30. Thank you.

(Whereupon, at 11:46 a.m., a luncheon recess was taken.)
AFTERNOON SESSION

(12:37 p.m.)

COMMISSIONER LaFLEUR: Okay, we are going to start again, if folks could take their seats.

(Pause.)

Okay, we are going to resume this morning's festivities. Hopefully it's not like the Super Bowl where the breaks are the best part.

(Laughter.)

COMMISSIONER LaFLEUR: So if folks could take their seats. We are going to resume where we left off, with questioning from the Commissioners, and I believe the Chairman had the floor.

Thank you.

CHAIRMAN WELLINGHOFF: Thank you, Cheryl. I've actually just got two I think probably pretty short areas to complete.

One is, Gerry, you mentioned the new procedure that NERC is developing with respect to standards' writing, where you want to try to compact that and focus it and then go to the ANSI process.

Could you expand upon that a little bit? And most importantly, tell me what is your timeline for getting to that process?

MR. CAULEY: Thank you, Mr. Chairman.
I think, myself, and I think speaking on behalf of the Board, we have a tremendous amount of respect and understanding of the value of the stakeholder process and the ANSI accreditation and the industry development of standards.

What I think has happened is a vision of how that could happen has been implemented, and it relies heavily on a Standards Committee to sort of structure the process and manage it. Also it depends on drafting teams that are formulated from a diverse range of stakeholders.

And I think what's apparent to me is that the work process and the structure of how we go about it could be improved substantially. It is not how you—if urgency, if something really important needed to be done, it is not how you would structure the workflow to get it done.

So while we think that preserving the ANSI accreditation and the balloting and the stakeholder representation and the final ballots are important, I think we could move the process along more quickly by signing a particular expert team of the best experts say on relay protection, have some attorneys on the team, some compliance people who have been in the field and experienced how the measurements are done in the field, and done some audits, and have sort of a rapid development of the draft I would say to the 90s percent level, then enter it into the
commenting and vetting process and the balloting. And I think that is consistent with the constitutional aspects of the process that we have.

Because even from day one—I was involved in the standards in my prior stint at NERC—we knew early on that if somebody walked in the door with the best standard in the world already done, that we could enter that into the process and complete the vetting and voting and approval.

So I think we are just trying to rethink the work flow, and how it is managed from sort of a cultural perspective and a management process, and I think we can—my plan, we're going to talk about this at the board next week, and also vet it with the stakeholders—but my plan would be to choose one of our highest priority standards and demonstrate it immediately.

And to me, the drafting that I'm talking about is probably in the month to two-month time frame to produce the standard. And then we can do the balloting, and voting, and making sure everybody's concerns are addressed. But I think one quickly, you know, by the spring is possible.

CHAIRMAN WELLSHOGOFF: Very good. Thank you.

And the final question really I have, Kevin, actually goes to one of your comments—and Roberta, you might want to comment as well since you mentioned your experience in the nuclear industry—but I was intrigued by
your--your comment, Kevin, about some of the things that
NERC is not going to do, or should at least not do, or think
about stopping doing.

I know one area that you've been involved in, and
we had some conversations on, was the North American
Transmission Forum. Would you talk about that a little bit,
and how you envision what things it could do that maybe NERC
shouldn't do, or would stop doing if that came about to
fruition?

MR. BURKE: I think the North American
Transmission Forum has been evolving, and I think it is
really on a road to making some significant contributions to
improving reliability in the industry.

Right now, the vast majority of the transmission
owners in the country, who represent the miles of
transmission, are members of the Transmission Forum. And
the focus of the Transmission Forum is going to be on
improving operations.

So the idea is that NERC would continue to do
standards development, compliance audits, and enforcement;
but the Transmission Forum would focus more on what are best
practices; what are the peer reviews. And, you know, I
think Mike mentioned that before. What are some of the
lessons learned? Maybe some of the metrics development.

If you can get an extensive peer review process
going on, and the Transmission Forum has been increasing the
last two years and plans to increase this year, and even
into the future, the number of peer reviews it can get done
each year, I think that will make significant contributions.
And it will be an organization that people will get
together, quickly talk about, you know, issues.

There was an Alert that NERC put out a couple of
months ago. Within days, people were on a conference call
talking about what they do. People were talking about how
they used some of the systems and technologies that are
available. I've already heard that some utilities have
changed what they do, based upon what they heard on those
calls, to improve reliability.

I think some of these things you can get done
quickly, but it is not to replace NERC. So it wouldn't be
writing standards. But it would be coming out with some
best practices, and discussing best practices and promoting
that in the industry. And I think there is a place for
both, and I think clearly--and I spent a couple of years
working at a nuclear plant that Con Edison used to own, and
I think INPO was a major contributor to the improvement in
the nuclear industry. And the operators understood that.

CHAIRMAN WELLINGHOFF: Roberta, do you have any
comments on that?

MS. BROWN: Thank you, Chairman Wellighoff. I
would really like to reinforce what Mr. Burke just said. We need to be very intentional in our language and differentiate between a "standard," which in my opinion is a minimum level of acceptable performance, and "operational excellence."

They are two different things. Chairman Kane referred to that earlier. A standard should reflect what everyone supports and is willing to pay for. Beyond that, "operational excellence," while it contributes to reliability and encourages it, is that additional work that you are going to see in some areas. Over time we may find that we raise the standard for what acceptable performance is as we can do so.

But it is very, very important here. You heard it from a number of the speakers that we addressed, that we look at cost and benefits and what people are willing to pay for.

CHAIRMAN WELLINGHOFF: Thank you.

Thank you, Commissioner LaFleur, that's all I have.

COMMISSIONER LaFLEUR: I guess we will proceed to Commissioner Moeller.

COMMISSIONER MOELLER: Thank you, Commissioner LaFleur. I want to associate my support, as well as the Chairman mentioned, for the Forum. It sounds like things
have been trending in a really nice direction lately. And who knew we would be spending so much time talking about INPO here, but it has led to I think a good trend in terms of perhaps a model that can somewhat replicate it without being identical.

A couple of individual questions, and then a general question for anyone who wants to answer it:

John A. Anderson, John, I just want to make sure I didn't hear you incorrectly, because it sounded as if you may have said ELCON members have been very supportive of a more expanded demand response compensation system and now don't want to be, kind of the flip side, have the responsibility of being registered as part of the reliability component of the system.

And I think you threw out a concern, but I want to make sure you had a chance to address that.

MR. JOHN A. ANDERSON: Thank you, Commissioner Moeller, for that opportunity. Yes, we are very, very strong supporters of demand response. Many of my members have been providing it for a considerable length of time, years ago as interruptible customers who are now, like in ERCOT, just last week when the freeze came, the load acting as a resource was triggered and really needed help keeping the system up.

We're believers in it. We think it makes sense.
We think it ought to get paid just like generators, no less no more. At the same time, what I was trying to say was: If you sweep demand responders in, individual companies like that in, and say now you have to comply with a set of standards, you have to go through audits, you have to go through all of that, that is a cost element that they're going to have to balance with the benefits that they get back.

And I'm just simply saying we need to look at that very, very carefully and make sure that we don't harm demand response in a way that is not really improving reliability.

We are beginning to wonder, is load there to serve the reliability function? Or is the Bulk Electric System there to serve the load?

But I appreciate your question, and I hope that that clarified it.

COMMISSIONER MOELLER: It does. Thank you.
MR. JOHN A. ANDERSON: Thank you.
COMMISSIONER MOELLER: It sounds like it's something we can deal with, but we have to be cognizant of the tradeoffs.

Chairman Kane, thank you for being here. I think the D.C. Public Service Commission is an outstanding NARUC member, set of members. You have a very talented set of
colleagues. I appreciate your willingness to take on a lot of issues such as Dynamic Rates that some other places don't have the courage that you have. So keep up the good work.

I will note that my PEPCO bill, though, typically less than 3 percent of it is for transmission. And you articulated your concerns of costs and how those get borne by ratepayers, but when I compare it to my co-op bill from the State of Washington where it's closer to 15 percent for transmission, it seems to me that I just will at least note that I would be happy to pay more for transmission if it lowered my commodity prices. And actually that's the first time I've been able to express that.

(Laughter.)

COMMISSIONER MOELLER: A general question for all of you who wish to answer it.

Gerry, John, I think this is great. This is what you've been referring to, the Standards Committee process. John A. Anderson said comments are due on Friday. I presume maybe you can have a presentation to the board.

I'm kind of curious about the review process, though. That's the last ID, prioritization, but monitoring. We've had such a scramble over the last few years with coming up to speed with what we have now, going from a voluntary to a mandatory system, all the standards, compliance, figuring out transparency of enforcement, but at
some point it's government's job, or in this case government
with NERC, to review what--and Kevin kind of alluded to
it--what doesn't work anymore? Or what needs to be changed?

I think you've got a reference in here to kind of
a five-year review process. Is that the right amount of
time? Is that something you're going to plan to undertake?
And if it's not the right amount of time, what is?

I will open that to anyone on the panel who wants
to address it.

MR. CAULEY: Thank you, Commissioner Moeller.

First of all, there are some requirements for
review of the process. We had a three-year initial review
of the NERC process as we started up, and now we are into a
five-year cycle. But I think as my comment this morning,
hearing all the comments today, it's sort of come to me that
we need to do this prioritization of what we will do and
what we won't do by looking out further than the hood
ornament on the front of the ERO car or bus.

We need to start thinking about where do we want
to take this in the long term? So I think it may mean in
the near term that there are some things that we are doing
that perhaps are not as important, given the large number of
really important standards and initiatives that need to be
completed. And maybe I can count them on my hands how many
are really that important that we should focus on early on,
but not lose sight of some of these enhancements we will need down the road.

So I think it's not just holding up some of the projects, but also in the emphasis of our compliance program making sure that the things we focus on today are the most immediate risks, but understanding progressively will improve over time.

So if we have this longer term roadmap beyond the hood ornament of the ERO, and figure out where do we expect to be in three years, where do we expect to be in five years, and I think even where do we want to be in ten years, then I think we can set some milestones and measure ourselves to those.

In a lot of cases what we're doing now is sort of in a reactive mode. We're trying to catch up with directives. We're trying to catch up with what we said we would do in the three-year assessment. And it's sort of like we're looking at the hood ornament and we're looking behind us, but I'm not sure we're looking down the road. And that would be my suggestion, that we work on that.

COMMISSIONER MOELLER: Well will this play into that, then? Assuming it's adopted, somewhat close to what is proposed?

MR. CAULEY: Yes. That's a part of the plan.

COMMISSIONER MOELLER: Okay. Any other comments
on the appropriate time to be looking back at standards to find out whether they were effective and whether they need changes or not?

MR. SMITH: I would just add, from my perspective, I look at this as a continual improvement exercise. That we do not go from one static system to another static system and hold it in place for three to five years. As we develop this risk-based, performance-based modeling effort to put standards through the test and identify priorities, from our perspective you learn something about the way you have set up that analysis with every new standard that you put through it.

You are not stuck with a static spreadsheet that you have to force-fit every standard through. Hopefully you will learn as every standard goes through it how to modify and improve that analysis that you're doing.

So I guess I don't look at some three-year period, or some five-year period where we're going to put a new process in place and freeze it. I would look for us to continually improve that as each new standard does through the development process.

COMMISSIONER MOELLER: Betty?

DCPSC CHAIRMAN KANE: I would note that we put standards in place five years ago, our performance standards, and we're reviewing them now.
On the other hand, the ICEPICK planning process is going out to 2030 and looking at what the transmission system is going to look like under various scenarios then. So there's a review, maybe five, six years makes sense. But also looking forward where there will be all different standards that haven't been thought up yet with the new system.

COMMISSIONER MOELLER: Good. Well going back to Gerry's comments, I have tried to be a proponent of the industry, where do we want to go 5, 10 years from now, because we can't do it all now. But when it comes to reviewing an actual standard, we've got so many of them, just reviewing them would take an enormous amount of time. But yet it is still necessary work.

John A. Anderson?

MR. JOHN A. ANDERSON: Yes. As far as this tool that the Standards Committee is working on now, as a long-standing member of the Standards Committee, I can say that, one, I am impressed with the devotion that they have put into bringing this.

I am really glad that you are looking at it as carefully as you are, and I hope the rest of the Commissioners will. I think it is a great tool. But I don't believe that there's anybody on the Standards Committee that thinks that something is going to go into
place and be locked in for five years.

I mean, that is going to be a living document and we will learn as we go. We know we have a lot to learn.

COMMISSIONER MOELLER: Yes. I meant a specific standard. You know, at some point, you know, every specific standard should be reviewed to see whether it was effective or not, whether it should stay on the books, whether it should be modified. But we have so many of them it will take an effort, a major effort to do it.

Roberta? Or Kevin?

MR. BURKE: I would just say that frequently if you have a standard or a procedure in an organization, it will get reviewed as issues come up. But I think what is important to do is, if it hasn't been reviewed in awhile, go back and take a look at it. See how it's working.

And I think either 3 or 5 years would be fine. And I think I would leave that to NERC's discretion to decide what's the appropriate period of time. But I would say, as I mentioned before, it is also important to say:

Should we tinker with it? Or should we just get rid of it?

COMMISSIONER MOELLER: Roberta?

MS. BROWN: When you go about writing standards, there are three words you learn immediately: "Should," "shall," and "may."

The word "shall" means a requirement. The word
"should" means you ought to, or a recommendation. And the word "may" means you can if you want to, it doesn't matter. And you find that over time the "shoulds" tend to become "shall"s or in particular jurisdictions, depending on local choice of a state or province or other areas, you find that they may choose to make "shoulds" "shall"s.

So I think that as you discuss this, it is important to realize that (a) there will be variation; and (b) there will be feedback based on the individual area, and the individual location and what they want.

COMMISSIONER MOELLER: Lonnie?

MR. CARTER: Thank you, Commissioner Moeller. I may be the last to weigh in on this, but I want to bring a little bit of what I would consider to be a practical perspective to this. I think you are absolutely right and on to something about how many there are, and if we had to review them on some periodic schedule just how much time that would take.

And I think that emphasizes while, what has been said here several times is important, let's develop this risk-based approach so that we make sure that we are looking at most frequently the 20 percent of those that are likely to cause 80 percent of the problems, and that we do that—and the practical part I want to add to this is what it would do at least in my organization.
It would let me take my best and brightest folks and turn their attention to looking forward, and looking at what I would say is over-the-horizon some of these threats that we have talked about today; and not tie them down so much to making sure that they are dealing with compliance and going back through the routine of reviewing standards.

So there's always a tradeoff in this, but I think where we may hurt ourself if we don't take a look at this prioritization issue, we're going to not have our best minds working on the real problems that we need to solve and make sure that they do get developed into some sort of standard.

COMMISSIONER MOELLER: All right. All good thoughts. Thank you.

COMMISSIONER LaFLEUR: Mr. Spitzer.

COMMISSIONER SPITZER: Thank you, Commissioner.

Well most of the good questions have been taken, but--

(Laughter.)

COMMISSIONER SPITZER: --there are still some out there.

COMMISSIONER LaFLEUR: Welcome to my world.

(Laughter.)

COMMISSIONER SPITZER: I know, I feel your pain.

And I know John A. Anderson wanted to hold his fire for the comments, but, you know, for a document that is concise and
to the point and lets you know what is critical and what is chasing squirrels, I found this [indicating a document] very interesting.

I just wanted to talk to maybe Chairman Kane and some of the utility folks. Is there something that should be added? I won't say a "glaring omission," but is there an addition, a concept or principle maybe not ripe for a standard that we should be attentive to? Bearing in mind, you can still file what you want.

(Laughter.)

MR. CAULEY: I think I would point out to the panelists, Commissioner, that that is the eight priorities I think, the memo that you have?

COMMISSIONER SPITZER: Yes, yes.

MR. CAULEY: The eight priorities that I had issued earlier in January.

COMMISSIONER SPITZER: Yes, I'm sorry.

MR. BURKE: I'll just state, my recollection of the eight priorities, I think they were key priorities. Like I said before, I think when you have a priority list it's useful at the same time to say, and here's what we're not focusing on. Because people will keep bringing up the same issues and they'll keep revisiting it.

And if we don't focus on what we're not going to do, we just keep tending to add more cost to the system.
without necessarily significantly increasing the
reliability. Because you do want your best and your
brightest people focusing on those issues that are going to
make a big difference to reliability.

And in response to Chairman Wellinghoff's
question before, I tried to identify what I thought were two
key areas that we needed to focus on.

COMMISSIONER SPITZER: And, Kevin, as a corollary
to that, I want you to feel free to add something you feel--
you know, John, you mentioned the DR. Is there--and I think
you alluded to this--there are some issues that need to go
bye-bye.

MR. BURKE: Right.

COMMISSIONER SPITZER: And not simply limited to
a reliability standard that you may either feel needs to be
de-emphasized or eliminated, is there an issue that you
think at this point has been resolved that we can move on
and would be in the chasing-squirrels concept?

MR. BURKE: I think if there's any issue that
comes to mind, I think it's the issue that was brought up by
a couple of the panelists on the paperwork that is required
in some of the audits. I think it is important to have
documentation of compliance, but in some cases that issue
has risen to the point where it's I think driving some of
the audits and driving some of the responses in the
preparation for the audits, as opposed to what we're trying
to do with the Transmission Forum of getting operators
together and talking about what are really the best
practices.

And I think if we had a better, you know, risk-
based approach, and performance approach, I think some of
the NERC reviews would be more effective in terms of
enhancing reliability.

I think after that, some of the things that I
think maybe NERC might have gotten into in the past in some
cases like, you know, the Avian Flu alert. We all have
business continuity plans. That shouldn't be something that
I think NERC should be focusing on. Let's put that one
aside.

COMMISSIONER SPITZER: Okay.

MR. BURKE: And I think what they have to think
about is, what is really critical to the Bulk-Power System?
And focus on those issues.

COMMISSIONER SPITZER: And bearing in mind that
those additional matters detract time and attention from--

MR. BURKE: Because we all have a certain amount
of, you know, key people who can really focus on these
issues and make a significant improvement. And if you put
too many things on the plate, they're going to be spread
thin and they won't get to the really important issues.
MR. SMITH: I think if everybody aligned behind this list, we would be successful at all levels of this process, this ERO process. From our perspective, when we look at what needs to go by the wayside, immediately our attention turns to the administrative minutia that is examined during audits.

For example, you know, obviously one of the key issues here is human errors by field personnel. And you look for people to have good, solid training and development programs, how to be certified engineers, things like that. That is all relevant and meaningful to this risk. But whether or not your ABC training manual has a cover page that says "ABC Training Manual," and if it doesn't you're written up for that even though it is an ABC Training Manual, that is where you're getting into things that border on ridiculous.

And those are the kinds of things where you say: I've got the training materials here. It does what we're trying to do here to prevent a risk. Why am I getting written up because the cover page was not appropriately formatted? These are real examples. And I'm sure everybody who has been through an audit has their own administrative stories of where they thought that they were being written up for something that really didn't have anything to do with keeping a reliable system.
And I think that's what the Transmission Forum does through these peer reviews. They don't come in and do a big paper chase. They come in and talk to you about these, especially the first four areas. They have program experts that come in to you and talk to you about not what are you doing to comply with standards, but as was earlier mentioned what are you doing to take this to a best-practice level?

And those are true learning exercises, and you feel some level of satisfaction in going through that, that you are stronger as an organization because of what you learned in that exercise. And that is why I may sound like a commercial for the Transmission Forum, but I really, after being a part of it and being peer reviewed through that, I can't endorse that strongly enough to others who may not be members that it is a way to take your organization forward with regards to these items.

I did not feel that way after the NERC audit. Even though we successfully completed the NERC audit and were proud of that, we still felt like there was a bunch of paper chase there that you really just want to see drop by the wayside.

So from my perspective, when we say what things should we be focusing in on, you know, if it's administrative and it's deemed important, let's go to that
traffic ticket and get past it kind of thing. But we're
still not where we need to be with regards to that.

    COMMISSIONER SPITZER: A few reactions, and then
I want to take further comment. One is, with regard to the
INPO model, in my state role I became acutely aware that at
the CEO level, Bill Post was very involved in INPO. And you
saw the corporate culture when the CEO was involved, and
that's an analogy. You're going to have to get CEO level
participation to filter down I think to make it the same
success as INPO.

    Secondly, you talked about the cover page on the
manual. That to me is one of those issues that Commissioner
Moeller was alluding to, that the forward looking--the first
iteration of this requirement to get people's focus on it,
you may want the cover page to highlight the significance of
the issue. But there's a point at which it goes away.

    MR. SMITH: And I'm saying those are the kinds of
things that need to drop.

    COMMISSIONER SPITZER: You have to be flexible,
and to have issues go away I guess is a good thing.

    The final point is--and I hear the frustration
about the paperwork. I had a prior career. You probably
heard back in July when we talked about the paperwork issue,
it became quite irritating to deal with tax workpapers, and
tax workpapers being the be-all and end-all, when that was
not really what the IRS was auditing or the taxpayer was proving to determine the return. It became a source of irritation and a lot of time and money frankly was wasted chasing squirrels.

On the other hand, the taxpayers that I've represented over the years that had bad workpapers tended to have issues in their return. It was not a coincidence.

MR. SMITH: And I guess I'm not saying documentation is a bad thing. You have to have your programs documented. You have to be able to survive the human element of this where you're going to have people retiring and new people coming in and there needs to be compliance programs, and documented processes and procedures.

I'm saying there's a difference between documentation and what we call "administrative minutiae." There is a difference there. And I'm not standing here saying we shouldn't have to write any of this down. If we do it, we do it; and if we don't, we don't. I'm just saying, when you're looking for documentation, I think there's a line that is often crossed into what frustrates the auditee.

COMMISSIONER SPITZER: Now, John A. Anderson, you must have a lot of rules, regulations, and standards that you'd like to dispense with?
(Laughter.)

COMMISSIONER SPITZER: You just named me three.

MR. JOHN A. ANDERSON: Yes, sir, Commissioner, I certainly would.

I would like to back up a little bit and first of all compliment what Gerry Cauley did with his list. I think that's a tremendous thing. He came up with a list, and then he published it, and he asked people to give comments on it. And I'm sure that this is the kind of thing that will continue into the future and the list will be different.

COMMISSIONER SPITZER: It's three pages.

MR. JOHN A. ANDERSON: Absolutely.

COMMISSIONER SPITZER: Even I can read it.

(Laughter.)

MR. JOHN A. ANDERSON: Absolutely, Commissioner, even I was able to read that, yes, sir.

I would also like to underscore what Mike has been saying about the documentation. What our people say sometimes is, why can't you just--some of these really minor things, why can't we just fix them there and then move on?

Now if it's a repeating problem, if it goes on and on, then that's something different. But they've been complaining that they can't even--if it's just a lack of a phone number, or a lack of whatever it is, fix it and do it right there and then move on. And it's extremely
frustrating for an industrial company, you know, to have to
go through all the hoops they have to go through on this.

But I appreciate your concern. I appreciate you
bringing that up, and like I said I think what Gerry has
done is really important to try to highlight it, and then
seek comments on what he came up with.

COMMISSIONER SPITZER: But are there issues that
you think we could--

MR. JOHN A. ANDERSON: Well the main issue that I
keep hearing over and over--

COMMISSIONER SPITZER: It doesn't have to be a
standard, it could be just a concept.

MR. JOHN A. ANDERSON: I don't know. I'll have
to go back and find out about specific standards. The main
thing that I got back from them was there was the
documentation only kind of thing just kept coming up, and
that seems to be what they got hit with more. That was the
main thing.

I have not asked my members about which
standards--oh, they got very concerned when they thought
that the netting behind the meter. I mean, one of my
companies has a 300 megawatt generator, and they consumed
290 megawatts of it on a regular basis, and hardly ever put
any through the meter. And yet, if a proposal says then
you've got to be treated as a generator owner and a
generator operator because it's 300 megawatts and not 10, that's of great concern. Those kinds of things are of great concern to us.

The demand response, which I mentioned.

COMMISSIONER SPITZER: Mike?

MR. CARTER: Commissioner Spitzer, first of all I think Gerry's list is the right list.

COMMISSIONER SPITZER: Okay.

MR. CARTER: But you alluded to something that I think can't be put into necessarily this list, but it sort of goes at your issue about the tax records.

It's not just about documentation. It is about the culture that a CEO establishes in his organization, just like it is in relationship to safety. And so just because we have a training program doesn't mean that we have an effective training program. Just because we have a document doesn't mean that we did effectively whatever it was that we said.

And I think that in these audits, if we have the right people coming in, I think it is much like what INPO does. They know whether the culture is right in an organization. I certainly know it as a CEO that we have to create that culture.

So if there's anything that--I don't know how NERC actually does this, but I think it is incumbent upon
the CEOs that operate transmission systems to make sure that they make this a priority in the organizations. And I can assure you that my folks know it is a priority.

COMMISSIONER SPITZER: Any other comments?

DCPSC CHAIRMAN KANE: Yes. Looking at the list from the point of view of the state regulator, I think those eight priorities almost parallel the kinds of things that a state regulator looks at in terms of the distribution system in the intrastate arena.

I think one of the things, however, that we struggle with—and it may be the context in which all of this comes up—is that there are so many other players now that are putting requirements, putting standards, putting other kinds of things in that are going to affect reliability. I'm thinking about the EPA regulations that are coming in, the increasing number of Smart Grid deployments, which is mentioned here. You know, state RPS requirements. The distributed generation and the push for distributed generation particularly at the local and at the urban level, and the impact of that.

And then the NIST standards, the Department of Energy Cyber Security Standards, and the kinds of standards that states are coming up with for the operation of local. Some recognition of both coordination and consistency, and avoiding conflicts between standards so that the utilities
and the customers don't get caught in the middle.

MR. CAULEY: Commissioner, I would like to just
follow up on Mike Smith's comment because I think it is
really an important one to note.

The difficulty we've had to this point is there
are so many things that have to get done, sort of moving
this very broad front that's inclusive of a lot of
activities. So what he points out is an example of an
opportunity to be more efficient, or skinny down to
something that is not providing as much value.

I would note in the November Compliance
Conference, Chairman Wellinghoff asked me when we would have
the administrative citation done, and I said January. And
he wanted to know which year. But we did get the first
batch in in January, and we think that is an opportunity to
sort of skinny down the administrative portion of this.

But I think more to Mike's point, if we feel like
a lot of administrative paper checking is not helping
reliability, then it's an example of something that we can
kind of funnel down while we figure out which of the things
we're doing that we need to run ahead of the pack.

It's sort of we can't do all 50 things at once.
We need to figure out which wind down, and maybe not go
away; we're not going to stop doing audits. We're not going
to stop checking procedures. And in fact, from what we
heard today, I hear it on the other side about checking
details and making sure the documentation is there.

So as sort of NERC being in the middle, we're
hearing it from our need to be rigorous in our audits, and
make sure we don't leave ourself exposed to any assurance
risk; at the same time, we're hearing this is not helpful
for reliability. And what we've got to do is find the right
spot in that middle to make sure we are checking things that
are important but don't undermine our obligation to doing
the checking.

So I think that's an example he's pointed out of
an area that we should go back and look at some of the other
areas and say is something marginally not helping with
reliability as much? Can we skinny that down, while we take
the front runners, the things that really can lead the pack
here in the next couple of years, and promote them as a more
accelerated process?

So it is more of a management process than
anything else.

COMMISSIONER SPITZER: One last point. And,
Mike, you raised this about what is the right number for
reliability, how many 9s, we know we can't get to 100.
Chairman Kane, you said that the District has
reliability metrics?

DCPSC CHAIRMAN KANE: We do.
COMMISSIONER SPITZER: And that is based on SADE?

DCPSC CHAIRMAN KANE: Yes, we do. They were establishing our electric quality of standards in 2005 in our rules, and they were based on sort of where the company was at that time and what kind of increased improvement we were looking for.

We have recently, last fall, set up a working group to review those standards, number one; to review both which standards should be used, or are there other standards besides SADE, KADE, that are consistent in the industry; what the benchmarks should be; and should we measure it in a different way?

And so that is all undergoing review now with this working group. They will report to us in May. We also had--our staff did a report on what performance standards many of our neighboring states, about a dozen states in the area, were using. And then some comparison of the performance of our company against some of those standards.

COMMISSIONER SPITZER: We had a similar docket in Arizona. You might not be surprised that, due to the geography, they're somewhat different. And we had cooperatives that sought and received waivers to pursue their own reliability, based on their resource mix and costs and benefits, in a different manner, which was accepted.

So I guess my question, starting with Mike, and
maybe anyone else, with the SADE, SAFTE, AND KATEY, you had numbers. Is it possible to create numbers and then have a regime where you come in at the right number, and you use your resources, and you know your customers, you get to those numbers in the way that is most efficient for your utility and for your customers.

MR. SMITH: I mean the way I look at it is, I look at what we're trying to do here with the Bulk Electric System is to prevent cascading outages. And of course you're going to say: Well what's a cascading outage? Or what level of outage is that?

Well I think, you know, even in this simple three-page report that Gerry is giving to us, there's an illusion to a definition there where we look at the Bulk Electric System as a series of dominoes. And if you have a fault in one domino, it's better not to kick into the neighboring dominoes and start a triggering of the totality of the dominoes falling. And it's about our ability to quickly isolate incidents in what's call here, in parenthetical phrases, a "zone of the Bulk-Power System" and prevent it form faulting or transferring into adjoining facilities.

I think those are the kind of things that we need to be measuring. And I'm not sure that we're going to be able to get to a SADE or SAFFE definition that's good and
populous areas of New York City and other places that have
the same standards for rural parts of Iowa, or Idaho, or
something. I think you need to look at have we done things
to protect the Bulk Electric System? And are we isolating
that outage?

And to me, that's the definition of what we
should be striving to do. We are going to have outages. It
is not going to be 100 percent. But where you have that
outage, did you control it? And did you isolate it? And
those would be the things that I would be looking for. And
probably the simplest definition to me is: Let's keep
ourselves off the CNN, or the Drudge Report.

(Laughter.)

MR. SMITH: If we're hitting that, we've got a
problem.

COMMISSIONER SPITZER: Gerry, and then Lonnie,
and then Kevin.

MR. CAULEY: I think NERC is coming into a new
era in terms of our ability to collect and analyze data. I
think one of the speakers earlier mentioned the generator
availability database that's been around a long time. We've
just introduced a transmission availability database, and
the demand side.

And so what it will do is give us hard data on
performance: number of outages; it will give us key words
on what caused it. We've also introduced a system of five categories of Bulk-Power System outages 1 through 5, depending on the magnitude of that impact, and we have criteria about what defines each of those.

So I am a little more optimistic that we can start scoring ourselves in terms of Bulk-Power System reliability performance. Maybe not at the same--it's not measured in customer outage hours, but there are other tangible measures, and I am hopeful that we are going to be able to derive those, beginning in 2011.

And the interesting thing about having those measures is when you see higher scores in some regions, or some issues, we can say: Why are those happening? What's the cluster of reasons and causes we're seeing those things happen? And that can drive the priorities in our programs going forward.

So I think we're going to get better at that. I anticipate a year from now, if we have a similar conference like this, I want to be able to come in and give a historic trending and scorecard about how well we're doing in Bulk-Power reliability. We're just now starting to get the data that we can do that kind of analysis.

COMMISSIONER SPITZER: Lonnie?

MR. CARTER: Commissioner Spitzer, I think there's a--first I want to make clear that I think having a
specific model or standard to determine what cost is reasonable to make sure you have a reliable system is probably not the best way for us to look at this, because it implies to me that we're going to take judgment out of the equation. And I believe that we're going to have to use judgment in making this determination.

To be specific, what do I mean by that, we on our system have a number of large industrial customers. Some are willing to pay more than others to make sure that they have additional equipment to serve them, either dual fees, a backup transformer, a different scheme of relaying, and so that's an example of where we need to let--you know, in some cases we're going to need to let the customer make the judgment about how much money gets spent on that item.

At the same time, I would point out that we, this group, FERC and NERC, may come to the conclusion that there's a certain threat that's out there that we have to address. We just don't have a choice in addressing it because it's so critical to the infrastructure of the system.

So I am a little bit reluctant for us to sit here and think we can find this happy standard that we can all live with in all parts of the country. So I believe we're going to have to use some judgment and trust the judgment of all of us that are involved.
MR. BURKE: I think I would just be reiterating something that's been said already, but even in Con Edison we have different standards with our Public Service Commission between our underground network system and our overhead, more radial systems, but even they're not quite "radial." And we also own Orange and Rockland Utilities, and the standards there are different.

And they have been set over the years by the Public Service Commission and the utilities by looking at what the customers have been paying, and what level of reliability is satisfactory to them.

So I think even when we look at the Bulk-Power System I think it is important to include a reference to what are the customers willing to pay? We have more transmission in Manhattan than we have in the Bronx, for example. So there's levels of reliability that you would see that would be different, even just within New York City. And I think it will take some work across the country, but I think that we can develop some standards, and then measure people against those standards.

I think it is going to be more difficult at the distribution level where there are a number of outages, so you can really look at, well, how did you do this year compared to the standard?

I think for the transmission standard it might be
more—you might have to look at it over the course of a
decade because we rarely have problems where we lose
customers because of problems on the Bulk-Power System.

COMMISSIONER LaFLEUR: Thank you. Commissioner
Norris?

COMMISSIONER NORRIS: To have five minutes of
question is a little bit anti-climatic.

(Laughter.)

COMMISSIONER NORRIS: But I'll go forward. Let
me push a couple of things to this afternoon's session so we
can get to the next panel. A couple I'd like to be
answered, though.

Let me ask, maybe I'll start with you, Gerry.

It's in follow up to the discussion that Marc led you on
with regards to these priorities. And then we'll have some
discussion about, as Kevin said, how you take stuff off the
list.

Is there a process that would be helpful for you,
NERC and the industry, to sign off on this? And also ask
for a similar list of things that would be tabled? Because
I know since No. 693 and other Orders that we have put out
the list of standards developed is getting onerous.

What I don't know is how much. I mean, I know
Alan and the Standards Development team are constantly under
pressure to get all of these things done, but what's the
Does it need to be some form of sign-off on the top priorities, and a list of things that we're okay with you tabling for a year?

Now I know there are risks in that, because then as soon as we table one of those, sure as heck that's what causes an outage. But we've got to make those decisions. If we don't make priority decisions and make cost and value decisions, then we are not doing our job.

So I ask you, Gerry, is there a process by which we can be helpful to free you up to do the most important work?

MR. CAULEY: Well, Commissioner, I think you have suggested the outline for that. I do want to repeat a comment I heard from a couple of others that that set of eight priorities, or that memo is a snapshot. And I think to be really effective we have to be able to have an adaptive and situational ability to set priorities, so something may come in as we go forward.

But that aside, I think your suggestion would be helpful. I think if we were able to propose a timeline other than at an instant in time here's our priorities and we should stop doing this, and we should start doing more of this, I think if we could submit a proposed plan several years out in terms of how can we get all of these really
important things done, but we want to do these first, and we
want to put less emphasis on these now until we get some of
these early things done, I think that would be a good
approach.

And I think to the extent that the Commission
could give us some leniency on some of those things that
are--maybe even some things that are out there now that
we're working on, and track these top issues, I think that
would be very helpful. Because right now I can tell you the
industry and NERC, we're trying to do too many things at
once and I think we're running the risk of not doing many of
them very well. And I think that would be a helpful
approach.

COMMISSIONER NORRIS: Okay. Good. Well I would
be amenable to seeing that list of what we can work on
setting aside for you and get the important work done.

I was going to ask this of Gerry and John Q.--
yes, John, go ahead.

MR. JOHN A. ANDERSON: One thing I think that
would be helpful is for you all--and I mean both you and the
staff--to look very carefully at the prioritization tool,
and give your very candid opinions back. But hopefully
you're going to come out then and support it.

And what that's going to show is some are of much
higher priority than others, and I think we can start moving
in that direction. So I really think it's important for you all to do whatever you have to do to where you can feel comfortable buying into this concept, and I think it's a very positive move.

COMMISSIONER NORRIS: Good. Thank you, John, that's kind of what I was alluding to. I think we need to give you feedback on this, not just from the people that are reporting to you but from us as well.

Now I'll ask, since we have several sectors of public and co-op and investor-owned power and consumers here, I was going to ask this of Gerry and John Q., but maybe I'll do it of you first and give them a chance to respond.

I'm sure in the back rooms of NERC meetings and other meetings you all have that occasionally the word "FERC" is taken in vain--

(Laughter.)

COMMISSIONER NORRIS: --so I'm asking you to tell me today, what is it we do that is helpful, you can share that, too, or what are the most important things, changes that we might make that would enable this relationship to work better, and standards to develop more judiciously and expeditiously?

And then also, from your standpoint as industry, you can tell this to Gerry and John, or you can tell it to
us, what maybe perhaps you can do that would make this
process work better. So this is kind of getting to that
role question I talked about in my comments this morning.

MR. SMITH: I think from my perspective, I think
we could all come at this with a more positive attitude
about what role we all play in this, and the value that each
of us bring.

My inclination—and maybe it's just me—but my
inclination is to believe that when Gerry starts putting
these standards through this performance-based, risk-based
approach and starts streamlining those standards, that he's
going to be challenged on that.

We're going to try to support that, but I just
feel like FERC is going to challenge: Why are you
streamlining this out? Why are you streamlining that out?
And I need to get away from that perception of that's what's
going to happen, yet that's what I feel is going to happen.
And I hope it doesn't, but I think it will.

And if we can do this and not have that happen, I
would be very happy. So I think I echo some of John's
comments about we hope that ya'll come at this and support
it. It has to happen. We've got to get this streamlined
prioritization.

And I also am a little bit concerned as to
earlier we were talking about this effort to streamline
these, what I call "parking ticket violations." And there was a little bit of comedic levity there about what year are we going to get to that; we're not laughing about that.

I mean, I don't know why that has taken so long, and why it continues to take so long. And it's something that has to happen. And there is a frustration that that seems to be just the way it is. So I think if we can break through those, this will be much more successful.

Now from our perspective as an industry, we need to appreciate the differences that you bring up between—you know, documentation is important. You can't be cowboys out there doing it and saying I'm not going to write. We don't need to do in that direction where we fight all documentation. What we're trying to do is get to the relevant documentation.

And then back to Gerry's comments earlier about somehow insinuating that there's an aversion to audits, we're not—I'm not averse to audits. I think audits are good things to occur to make sure entities are doing what they need to do. Yet there's some perception that we as an industry are going to try to do whatever we can do to avoid audits. I don't think we need, as an industry, to be giving that perception, either.

You need to have a culture of compliance, and you need to be able to go through audits successfully. And that
MR. BURKE: I would think one of the things that FERC should continue to do is focus on the national standards for reliability. If I think back in my time on the planet, I can think of three times when there were basically system-wide blackouts in New York City—you know, '65, '77, and the most recent one.

One was caused by Con Edison, but the other two were caused by people elsewhere. We're all in this together. Our systems are interconnected. An issue in one area can spread to another area. So I think it is important to have system-wide standards.

We are talking today about how you prioritize those standards, and I think reasonable people can differ on those issues. But I think that is one thing that I would encourage FERC to continue to focus on, and you have been focusing on that, because I think we all know the importance of reliability.

If I would think about what FERC could do a little bit differently that might be helpful, I think perhaps maybe a little bit more deference to NERC's decisions. Now when NERC takes some positions, we'll disagree, right? But I think anybody who has managed, you know, larger organizations as they've moved up in their career, they realize that at some point in time you have to
let the people who are reporting to you, doing things for you, exercise some judgment.

And I think in some cases we just have to be careful that we don't try and replace NERC's judgments with our own individual judgments, or with the judgment of FERC. There might be a couple of reasonable ways of approaching that standard. And I think if any of those reasonable approaches came before FERC, I would encourage FERC to say: We'll approve that and see how it works out. It might have to be adjusted later on.

As opposed to then saying, well, I think we can change this little provision in it and make it a little better, and make this provision a little bit better.

So I think a little bit more deference to the expertise that resides in NERC. We have the same issue. I know sometimes in our organization people say, well, gee, we didn't like this decision. But they considered it, very professional people, industry-wide, and let's move on.

MS. BROWN: If I was going to pick any single word, I think it would be "collaboration." I strongly urge you to set the tone to facilitate the opportunities for collaboration between federal, state, and provincial regulators.

Conferences like today, and the people that you've invited to speak, and the topics that you've
selected, are important. Let's be realistic. FERC is the big guy on the block here. You all will set the tone for others. And you have the ability to facilitate those conversations occurring.

MR. JOHN A. ANDERSON: I was going to pick up on what Roberta said. You had the conference in July. You have one now. I would really encourage you all to do this kind of thing right here--different people on it. You don't need to have the same people. But do it at least a couple of times a year.

I think it will bring--and I'm going to go back to Commissioner LaFleur's saying about the breaks. You know, the breaks are important time periods, the hall conversations and that sort of thing, but I think many times they become a more true way of trusting things.

So I also commend you all for going to NERC meetings. You've been very good at that. I encourage you to continue that. All of these things help the dialogue, help the ability to understand what is going on.

I am pretty impressed with what NERC is doing overall, and I think you will be as you get more and more involved with them.

COMMISSIONER NORRIS: I think most of you are on the third panel, so I will follow up on some of the cost questions you had this morning. But just a quick follow up
with you, Kevin.

Order No. 693 says that if we propose something, FERC, in terms of a standard, that we will accept something that is equally efficient or effective. You just mentioned cost. Does cost come into that analysis?

MR. BURKE: I think cost comes into everything we do. We are asking our customers to pay for a certain service, and my first boss told me we deliver power in megawatts, energy and megawatt hours. And third was the knowledge that when you flick the light switch, the lights are going to come on—you know, the reliability.

But I think we can't focus on cost and reliability independent of each other. We have to look at where do we get the most bang for the buck? And as I said before, we've been working with the Public Service Commission in New York and looking at programs that we instituted in response to issues that we had that didn't meet our customers' standards of expectations, and saying that we agree that we shouldn't be doing these things anymore. We've gotten most of the benefit out of it, and perhaps we should stop doing them. And that's cost based.

COMMISSIONER NORRIS: Do you think in the standards development, is cost part of the discussion of meeting that efficient and effective standard?

MR. CAULEY: Well I think historically there's
been an implicit cost consideration by saying we operate the
grid to an n minus 1 situation. So there's sort of a long-
standing, for decades, acceptance that that's the standard
for balance between cost and reliability, and also the once-
in-10-year loss of load for supply of generation.

I think beyond that we don't have specific cost
analysis. But I can assure you, if I propose something
that's sort of unreasonable with regard to cost, and we'll
take the Alert on right-of-way clearances, we hear about it
a lot. So I think implicit in the comment, discussions, and
the feedback, if we're doing something out of line with
respect to cost, that we do hear about it.

There may be--I think if we can better quantify
our reliability performance in the future, as I've
suggested, I think we should also be able to get broader
understanding of the value and the benefits that we're
producing from that information.

What I would hope we don't get into a situation
of doing is trying to do the accounting style project
justification that's typically done on a, you know, do you
add a line or do you not add a line? Because I think that
would really frustrate our process.

But in terms of incrementally what's the greatest
value of the next thing we could do for reliability? What's
the next greatest benefit? I think we should have those
discussions and try to align our cost impacts with benefit as best we can, yes.

DCPSC CHAIRMAN KANE: I think the states would feel more comfortable if there was more of a cost/benefit analysis in that standards' setting process. Perhaps not in the explicitly--trying to put a value on reliability, but I know at the state level when we have a project, or in our case a continuous improvement plan, a reliability plan that comes in from the utility, that there is an actual cost/benefit analysis done.

We did it with our Smart Grid, our Smart Meter installation for example. It had to hit 1.0 or more to be federal funds. So that did it. But I think that there would be some more objectivity in it in terms of weighing the cost versus the benefit.

And the other is a results-oriented approach, which I think gets into the benefit, too. When we look at standards, it's not did you meet the standards? But what caused the problem? And what are you going to do to prevent it in the future? And how will this standard help prevent it in the future, rather than just meeting the numbers.

And I think that that could build some better confidence and acceptance of what the standards are, and the necessity for them.

MR. BURKE: I would just like to add one thing to
what Gerry said about the N minus 1 design. Well generally we have a N minus 1 design for supplier to distribution substations in our service territory, except in Manhattan and parts of downtown Brooklyn where it is N minus 2. Because the customers expect that level of reliability, and I think they value that reliability. And the cost would be higher if we were to extend that route to the rest of New York City. And I think that that's one of the things that, you know, we would have to consider if we were to change that, and we haven't proposed changing that. And I think, you know, cost is a factor.

Would it enhance reliability? It would, to a very small amount. We lose our network customers a handful per thousand every year. They wouldn't see much of a benefit for it. And those are the kinds of ways we would take cost into account.

MR. JOHN Q. ANDERSON: Commissioner Norris, I don't think you got an answer from Gerry or me, but on your question of the FERC relationship, what can FERC do and so forth, I had just a couple of thoughts.

I think from a Board point of view, looking at the relationship with FERC and what you all do that affects us and so forth, I'll start out by saying I think it has been a really dramatic process going through the learning between FERC and NERC over the last three years, let's say.
It started out very rocky I think because we just, neither
of us knew the roles. Neither of us particular--I'll be
honest with you, I don't think either of us particularly
liked the framework when it first started out; it just
didn't seem natural, and we really evolved into that. And I
have really appreciated both you as Commissioners becoming
more involved, and knowledgeable, and willing to engage with
us, and the staff, too. Staff has been tremendous to work
with.

And so two things I would say.

First, is directives. And the second will be
kind of a trust or collaboration.

In the directives area, in general I think that
you know this, and you've heard this from us before, but I
think you and the staff need to recognize they are very
powerful. In fact they are, because they are law to us
basically, and we have to do them. And second, they are
very powerful just because we know that to not do them, or
to fight against them would be all kinds of problems.

And so I would just urge you to continue being
very thoughtful about using that tool as a way to
communicate to us. It is necessary sometimes I'm sure, and
you'll have to use it, but I think we're starting to find
that there are other very effective ways that are less
formal that you can affect us and have an influence on us,
and get your point of view into the process well.

And so I would encourage you there to be very cautious in using the directives; that when you use them, it's necessary. And the way they're written, they are right and the unintended consequences are minimized.

The second point goes to what I think Kevin said, and a couple of others, about trusting the NERC process and so forth. Part of this I think has to do with remembering that the industry, or the stakeholders that we talk about, it's not just the utilities, and it isn't just the engineers that work, and the people that have to spend the money, for example.

Our stakeholder process involves all of the sectors that are affected by this industry. So there's a big, natural check-and-balance process built in. When we say we've got industry buy-in, or when you say we're going to kind of delegate this, or we're going to trust industry or the stakeholders to do this, again it's not just trusting the utilities, do they want to spend money on something, because that sometimes seems like a conflict of interest. But we've got users that are very small. We've got users that are large. We've got transmission owners and operators. And then we've got the generators. We have the marketers, and we have regulators.

All of them have full power to be involved in our
process of determining the priorities, working on standards, working on the approval process that we go through. And so I would urge you to be as trusting as you can. And if you don't trust enough yet, figure out what it's going to take to get more trust. Because we're going to be very open to foster that collaboration.

So those are the two areas I would say that form a FERC point of view it's been getting much better. And I think we can continue together to make it much more productive in terms of reliability.

COMMISSIONER LaFLEUR: Thank you, Commissioner Norris.

I have a specific question that I think picks up on Commissioner Norris's question, and also what John Q. Anderson just said.

I also read last night the draft new standard process, which I think is a good proposal, and I note--and of course I understood why--that there's a very high adder for any regulatory directive that comes from FERC. I believe 100 points if it's within 12 months, which of course I think it appropriate. But it does strike me that with the hundreds of projects that you have pending, a lot of the FERC directives are going to get to the top of the list.

And I guess in the spirit of open communication, my question is: Do they all deserve to edge out what
they're going to edge out in terms of improving reliability?
Or should there be a process where, as John Norris was
teasing out, you--not without a discussion and approval--but
can say here's the ones we're going to do first because we
think they have the highest impact on the Bulk Electric
System, and here's a timeline we propose for the others, and
would you approve that?

Because we live in a very iterative world, where
we look at an Order, we look at the standard we're looking
at, and we might feel those directives are important, and
presumably they were all felt to be important at some time
when they were voted out. But we don't necessarily see the
pile of them that's then accumulated and whatever is being
prioritized out by working on them.

So I just want to throw this out for thoughts.
And I would welcome some sort of process, if we need to take
a snapshot as you go into this process of what the backlog
is in what's there, and what we should be doing. I'll throw
that out for thoughts.

MR. CAULEY: Thank you, Commissioner LaFleur.
I did want to kind of go back to Commissioner
Moeller's question earlier: Is this the process we're using
for prioritizing?

I did want to clarify that the document that
you're referring to is something that came out of our
Standards Committee. It's a method for weighing a number of
different factors in terms of what we should proceed with in
the standards. I don't think, in and of itself, it is the
decision tool that NERC is going to use. I think it is a
good input; it's a good analysis tool; but I think at the
end that input, and among other inputs in terms of
discussions with the Commission, what really are the
priorities, and how do we sequence them, I think is more of
the organic leadership decision. It's not like a tool pops
out and says this is the answer, that's it.

    But I think John had mentioned that the
collaboration and consultation I think really is the secret
to that. I've had a number of discussions with senior staff
in the past in terms of, yes, you have hundreds of
directives in front of you, but really you should focus on
the ones that are most important. And I think we appreciate
that.

    But I think we could go that one step further and
just say: Before we do a really big directive on
initiative, do we all agree on what the priorities are? I
mean, because we will have our list, and mine is driven more
by known, existing gaps in our real operations every day
that cause customers to go out. I'm really worried about
that. And some day when we've solved those problems, there
will be other priorities that we can go after.
But if the Commission then has priorities that maybe don't line up with that, I think the way to resolve that is to have the conversation and really try to understand that. And I think that is the approach that I would suggest. Is it leadership and consultation that I think is the answer.

MR. SMITH: I would just say, and add to what Gerry said, I think there is an expectation that there is some level of transparency that is going to come from this process, as well as to when we do look at things from a performance basis, or a risk basis.

I think you would be interested if a FERC directive was not rising to the top, what was it about that FERC directive that is holding it down? And would be very open to that, and not just say, dang it, it's a FERC directive, go do it. You'd want to know why--how is that being displaced? And what's displacing it?

So I think the transparency of this process is really going to be beneficial to everybody.

COMMISSIONER LaFLEUR: Well I think that's right. And just as you have said, your resources are not unlimited. We also want to be working on the things that are going to help reliability the most, obviously. And that's why I think some sort of planning process where you know what the big things are that we're trying to accomplish together over
the next couple of years, where it's not just kind of
reacting to the deadlines of each filing I think is as, not
this document but the other document, the eight items, sort
of begins to tease out that sort of prioritization.

The last question I will ask, I have still been
thinking a lot about the relationship between "adequate
performance" and "excellence," that I think Roberta first
mentioned. And I think--I know there's something really
intrinsic in the standard writing process. If you're
writing a standard to which you're going to be bound and be
penalized if you don't meet it, there's a tendency to write
that differently than a goal, you know, an aspirational
objective. I mean that's just natural.

And I think you might see some of that reflected
back in some of our review of the standards where you see a
lowest-common-denominator, or kind of pushing. And I am
just asking, beyond the standards' process, which should be
a minimum to which people are willing to be held, and there
should be real consequences if they don't meet that, and it
should evolve over time, just as distribution standards
evolve over time as new things come up, and as performance
hopefully improves over time. Are there other ways to bring
out the excellence that I think we all aspire to, or should
aspire to?

I mean, some forms of state regulation that I've
been familiar with have a penalty and a bonus system. Or you look at J.D. Power where they rank the top quadrant in customer service in the industry. Or different levels of LEEDs certification. I don't know if this is something the Forum might do, or is there another way we can get at this?

MS. BROWN: If I can volunteer, I think one of the most important things that you can do, and other regulators--I mean, who sets public policy are state, provincial, and federal regulators--be very clear about what is the minimum baseline level of performance. And that permits us to be more granular in particular areas.

You heard my colleagues refer to it, where in urban areas you may choose to have, and pay for, a higher level of performance. John Anderson talked about, and Lonnie Carter talked about industrial customers making economic choices about redundant feeds, about automatic switchover. They make a value judgment.

Over time, public policy tends to increase as society has changed. But if you are very granular about it, you all are the reflection of public policy in your area and direction for us. Be clear and then customers can make choices there.

Reading The Washington Post, one sees that some customers in this area have made choices about generators. That's a granular choice a customer made about where it was
worth it to spend money.

So if you set a baseline, customers will make choices. Listen to them.

MR. BURKE: I think the issue of the standards shouldn't be set at the limit at which we are comfortable being measured, because I think that's too low. So I wouldn't want to get a sense that that's where--because people would set a limit where they'll never get a penalty.

What I think we want to set the limit to is so people on a national basis get the level of reliability that the customers need and expect. And I think so that one region does not affect, have an adverse impact on adjacent region. Like I said before, our customers are willing to pay for and expect more reliability than perhaps in other parts of our service territory, and I think it is very logical. We have subways, we have high rises in some parts, and in other parts it's one-family homes. Levels of reliability should be different if people are willing to pay different things for that.

So I think that implication I think might be a little bit low, but I do think, you know, that the Transmission Forum will help raise the level of reliability. When people get together and they are open-minded, and we were talking before about the peer reviews, and Mike was talking about how, you know, they came to his utility, well
not only did he benefit from it, but the people who were on
the peer review teams from other utilities benefited from it
because they wound up talking to other experts from other
utilities in a way that they're not being defensive at all.
They're not trying to explain what they did.

So I think there is a lot going on that we can
improve, but I think the standard should not be viewed as
the lowest-common-denominator. It may be appropriate at
some point in time to say, well, gee, here's the standard
we're going to set. If there are some people who
traditionally have not been there, maybe give them some time
to get there before it becomes a violation. I think that
might be--

COMMISSIONER LaFLEUR: I don't think the lowest-
common-denominator was the goal.

MR. BURKE: Right.

COMMISSIONER LaFLEUR: I think that's been a
criticism of standards sometimes coming back that, without
the kind of metrics that Gerry was talking about, it's not
intuitively obvious except from your judgment where it fell
on that standard of lowest-common-denominator to challenge
standard.

DCPSC CHAIRMAN KANE: Looking at the analogy in
distribution, our statute in the District says that it is
our responsibility, and this was enacted by Congress in
1913, that there's "adequate" electric service.

And yet we've just issued an Order, well over a year ago now, for our distribution company to come in with a plan to move their performance to the top quartile. You've got a big gap between what's adequate and top quartile. And how do you define "adequate."

We had an undergrounding study done, because everybody said, well, that's the solution. Put it all underground. $6 billion to put the less than half of the District system that's still above ground under ground.

And then we did the cost/benefit analysis of doing say the parts of the primary, parts of the secondary, and you could really get it down to, to put everything underground is $240,000 like per household to do it, because that's where it is.

But if you wanted to get a better standard where you maybe had prevented 50 percent of the outages, or 60 percent of the outages that were caused by over-ground, excuse me, above-ground, you could get the cost down to like $35,000.

So it's not a simple answer saying you've got "adequate" and you've got "excellence," but setting that standard, the "adequate" standard at a level that's acceptable and reliable and affordable.

MR. JOHN A. ANDERSON: Just--I'll be brief. I
know we're over time, but I really think this is a critical part of the discussion right now. And I missed Chairman Wellinghoff's question just before we broke for lunch. He said, what are the most important things?

I think this kind of a discussion coming up to what is an adequate level of reliability that we all can agree to? Is extremely important. But also the tradeoff with cost. And as both Lonnie and several others have mentioned, my members vary all over the place on that.

I have some members—I have one member, Intel, that can't stand a single outage at all. They have dual feeds. They have dual substations. They have a room full of batteries. They've got backup generation. They've got the whole thing.

I've got other members that are perfectly willing to shut down hundreds of megawatts in a matter of two minutes, you know, this kind of thing. You've got to let the customers decide what level they're willing to pay for. And I think that is the critical one.

But we first need to get down and get some agreement about what is adequate across the board. And I can sympathize with your idea that you don't want it to be the least-common-denominator, but at the same time every time you go off of the least-common-denominator you're incurring cost. And those things could be, as was just
heard by Chairman Kane, that can be a very, very big cost very quickly.

MR. CAULEY: It's a very good question, Commissioner. We just completed a strategic planning process involving the Regions, and staff and the Board, and one of the conclusions we came out with is we need to go back and re-look at the issue of what is an adequate level of reliability for the Bulk-Power System.

I thought I was going to have to have a hard time selling it around, but it seems like it seems to be getting some traction. But I think part of the answer to your question is: If we keep trying to creep up performance through the standards, I think we are going to get some pushback from the industry. You alluded to that.

So if I write this in here this way, then I am going to be under compliance later on. I think we need a solid foundation of a description of what is an adequate level of reliability, and drive our standards to that.

I think the ERO, whether it includes work by the Transmission Forum or not, but I think just as a general principle we can strive for excellence in reliability at the same time as we provide assurance that we will have compliance with the minimum standards.

I think those rules are compatible, and I think they are complementary. We just sent seven goals for the
next few years to the Board to look at our business planning and strategic planning. And within those goals are, to develop concepts such as you suggested of recognizing best practices and publishing them out.

I think there needs to be some kind of process, not just to find the bad behavior and the bad actors that we want to correct and incent that through penalties, but if somebody is going above board and delivering value not just to their own stakeholders but to the whole industry of a breakthrough in reliability, why not give them some kind of credit that they're doing something beneficial for reliability?

So I think that's got to be integral with what we are as the ERO.

COMMISSIONER LaFLEUR: Thank you so much. You have been a great panel. We are going to take, not really a break but to change panels and move to panel two. Thank you so much.

(Pause.)

We are going to bring this back into session. We are trying to resume here with panel two. Good afternoon, everyone. We will now move to our second panel where a group of panelists will address views regarding the emerging issues of the Bulk-Power System that we should address.

I just wanted to clarify on the agenda for this
conference a long list of questions that we've put out. We did ask about electromagnetic pulse. I wanted to explain, because there have been a couple of questions about that. We certainly intended geomagnetic disturbances caused by the sun, as well as the manmade disturbances of the type that Congressman Franks spoke about this morning.

I want to start by introducing our panelists, another great group. I'll go from right to left. First, Randy Vickers, who is the Director of the United States Computer Emergency Readiness Team, or CERT, which is in the National Cyber Security Division of the Department of Homeland Security. Welcome.

Avi Schnurr, the President of the Electric Infrastructure Security Council.

Ron Litzinger, the President of Southern California Edison, who is here on behalf of SoCal Edison, as well as EEI.

Steve Wright of Bonneville Power. He is the Administrator and Chief Executive Officer there.

Steve Whitley, the President and CEO of New York ISO.

Ed Tymofichuk, who is the Vice-President of Transmission at Manitoba Hydro. Thank you. I don't know whether you or Mr. Litzinger win the--I guess Ron probably traveled further, but you both traveled quite a way to be
here. Ed is also the outgoing Chair of the NERC Members Representative Committee.

And our returning guests, Gerry and John are still with us.

We will start with Mr. Vickers.

MR. VICKERS: Good afternoon. I would like to thank you for this honor to speak with the Commission today. Some of the things that I will definitely talk about is definitely the emerging threat. And I choose that word very carefully, but the emerging threats to our critical infrastructure.

Threats to the private sector and private infrastructure are a very serious matter, and DHS as well as many others in government and industry take it very seriously. So let's talk about some of the things that we see.

This morning in our daily update there was a non-energy sector organization that had an event where an adversary through their remote access to a SCADA system actually was able to authenticate, change the language on that system to a non-English language, create accounts, and potentially manage that system. And it wasn't a Stuxnet or any other thing, it was just a simple system.

And initial reports from this organization say they're still running Legacy Windows system, a Windows 3.X
system that had basic modules that allowed them to Internet
work this capability for remote access, and then allowed
them to be able to use simple authentication, user name and
password, and authenticate.

    So the threat is very real. It's not just about
the large threats like Stuxnet that bring in a large-scale,
zero day against more robust Windows system, more modern
Windows systems, and then are able to then have different
types of payloads and actually talk to the PCIs of the
various systems.

    And then we have things where it may not be
directed directly at control systems, but because of the
interconnectedness that we are facing with our systems, both
control system and admin networks at our plants and other
industry organizations, but things like conficker that
happened approximately two years ago that had multiple
payloads, that can be transmitted not just through actual
wire-to-wire connection, but thumb drives.

    We have--anything that allows for automated
startup, or auto run, a CD--we don't think about CDs. We
understand thumb drives, but we don't think about CDs being
put in a system to transfer data and potentially having a
file, a writable CD.

    So those are critical things that we need to
understand that not only affect our administrative networks
and those types of nonoperational networks, but affect our
control system networks, and our operational networks.

So how does DHS, and what is the role that DHS
plays in support? We are not a regulator. We will never
attest to be any substitution, or anything over a body such
as this. But through relationships set up in Homeland
Security Presidential Directive No. 7, where we work with
sector-specific agencies and other regulatory bodies in
helping mitigate threats and activities.

So in 2004, DHS set up the Control System
Security Program which was designed to protect critical
infrastructure, providing expertise, tools, and leadership
to owners and operators of control systems to help reduce
the cyber risk.

And in doing so, they also created the Industrial
Control System Cyber Emergency Response Team. They work in
parallel and in partnership with the US-CERT. They have a
lab out at Idaho National Labs that looks for
vulnerabilities related to control systems and SCADA
systems. They can test certain configurations against
certain vulnerabilities and develop mitigation strategies to
help do that.

Well we don't focus on just one sector. But to
enable a large--the ability to share information broadly, we
support things like the Cross-Sector Cyber Security Working
Group, the Information Sharing and Analysis Centers, and the National Council of ISACs, all tied back to the National Infrastructure Protection Plan and the National Response Plan that are associated with that.

So to defend our networks, not just our government networks, it is critical that coming together in groups like this and sharing information and understanding and looking at the different standards that have been discussed today on helping establish cyber security as a very prime aspect in conversation in day to day activities. It should not be a second thought, but a primary thought.

Thank you.

COMMISSIONER LaFLEUR: Thank you, Mr. Vickers.

Mr. Schnurr.

MR. SCHNURR: Yes. Thank you.

First of all, let me say that I think events like this are extremely important. Of all the different agencies, regulatory groups in the U.S. Government, what you're doing and what FERC is doing is probably the most critical across the board to everything that happens in the United States. We cannot really get anything done without a reliable energy supply.

So I think this is a very important conference, and I wanted to thank you, Chairman Wellinghoff, and thank you, Commissioner LaFleur, all the Commissioners, and
Commission staff for inviting me to be part of this important conference.

I would like to spend the few minutes I have here today talking about EMP. I hope I can add a few perspectives beyond what Congressman Franks discussed this morning. But let me begin by trying to characterize the problem.

As Congressman Franks said, EMP comes in two categories. There is natural, and malicious EMP. And in 1859 there was a massive solar flare. What happened was that there were brilliant Northern Lights that went all the way to the Equator. The telegraph network was burned out all over the world.

There was a similar event that was nearly as large that occurred again in 1921. Now based on the recent National Academy of Sciences work—it was a study that was sponsored by NASA—they concluded that events like this happen at least once per century, based on the research that has been done.

Given that, if we try to get some kind of idea of what that means probabilistically what we're going to face, what that means is it is very unlikely that we will go more than a handful of decades without experiencing this kind of very severe space weather.

It's less than a 50 percent chance that we will
experience—that we will not experience this kind of an event over the next say 30 years. The conclusion of the study was particularly unsettling, and the conclusion of the study was that the result of these kinds of large coronal mass ejections are severe ground-induced currents at a level which significantly exceed the design margins of the large transformers that are used to distribute power in the grid.

What that means is that many of these transformers, if they're not protected, will fail. They will be destroyed. The other aspect of this, natural EMP, so in upper atmosphere—I'm sorry, malicious EMP—in upper atmosphere tests in 1962, both the United States and also the Soviet Union found that by setting off a nuclear warhead above the atmosphere they could create an effect that was very similar.

Actually, the Soviet Union did their testing over their own land mass, over Kazakhstan. So as you can imagine, they had some very dramatic effects.

Since that time, what has happened is that our Electric Grid has become many orders of magnitude more sensitive than it was during the times of those early tests. The consequence of that of course, I think as most people here know, in the United States and in the Soviet Union, and eventually in other countries as well, certainly here in the U.S., many billions of dollars, hundreds of billions of
dollars were spent on this subject, protecting U.S. weapons systems against such threats.

And in fact what eventually happened is there became a profession in its own right, EMP Protection. Now where are we today? Where do we go from here?

I thought it might be useful to step up and try to take a very high-level perspective here. What will it take to solve this problem? And I think just to introduce this idea, whenever you deal with a predicted crisis there's always two kinds of approaches. You can either be proactive or reactive.

And in the political world where decisions are made, it is almost always easier to simply wait. Once disaster strikes, it brings with it the energy and urgency to drive a massive recovery. Recovery is the easy choice. In the real world of course, recovery from a major disaster is complex, difficult, and expensive. In the real world, it is always easier to be proactive. Prevention is easier.

So I would say this: EMP is a game changer. If we don't learn to merge these two worlds, life as we know it will be over. We have built all the infrastructures that support our lives and our society on the same vulnerable electric foundation. If we don't protect this foundation and it breaks, our lives and our society will be shattered. This time, recovery will not be possible.
The next severe space weather event, when it comes, if we have not protected the Electric Grid, will destroy between 300 and 1,000 transformers. That will leave approximately 130 million people without power. And I think it's important to be clear here. If either natural or malicious EMP destroys or disables a substantial portion of the U.S. Electric Grid, replacement of most of the transformers will take up to 10 years or longer.

We cannot survive even weeks without the Electric Grid, and without the food, the water, the transportation, communication, medical care, and all of the other infrastructures that depend on it.

In the entire history of the United States, I believe this situation is completely unprecedented. And I believe that's the reason why Congressman Franks actually came this morning to speak. We have at this point two Congressional Commissions, the Department of Energy, the Department of Homeland Security, NASA, the National Academy of Sciences, and FERC all now predicting a disaster of breath-taking proportions. And unless the Pentagon, the former Soviet Union, and all of these government agencies got this wrong, if we do not take basic steps to protect ourselves in time, it will be the end of our society as we have come to know it.

Now let me be very specific. Based on the work
of six different U.S. Government agencies, vulnerabilities of our electric infrastructure have made natural and malicious EMP an existential threat.

Nations that prepare in advance will survive without catastrophic destruction. Nations that do not, will not.

On a more positive note, I am happy to report that the United States is no longer alone in dealing with this in addressing these issues. The work that was done here in the United States really over the last five or six decades, but especially in the last 10 years, on infrastructures is beginning to have international impact. And as a result, for example, the United Kingdom has now built concerns and efforts to address severe electromagnetic threats into their basic new security plan, and in fact the new national security strategy that has been published by the new government in the United Kingdom now includes severe space weather and severe electromagnetic threats.

The context in which that occurred was in the United Kingdom. In London there was a summit meeting that occurred on September 20th. The secretary of state for defense in the United Kingdom spoke, and this has kicked off a new international framework which will now continue into a summit meeting that will occur on April 11th this year in Washington, D.C.
I think that may be an opportunity to begin transferring some of the information. There were several discussions this morning, several comments about the need to begin providing some of the emerging threat information to private industry. And I think, although this is a government summit, there will be provision for industry to be involved.

So I would like to finish with just a few words on the practical aspects of infrastructure protection against this threat, or this set of threats. The process will certainly require close cooperation between government and industry, there's no question, as everything we've talked about today.

Beyond that, all the different government stakeholders and regulators. There will be specific hardware that can be implemented to deal with part of this problem, including blocking devices to put on ground lines of transformers. But in addition to that, there will be training programs that will be necessary to help make it possible for existing teams at energy providers to know what can be done to protect their facilities and their systems.

The process will likely begin with prototyping and testing, and then move on to phased prioritized implementation. But with all the work that has been done, we can now begin defining that process, and it is unlikely
to be more than cents per kilowatt hour.

One last thing I think that should be said. I said at the beginning that in the political world recovery almost always trumps prevention. This is not true in private industry. Private industry, in order to be profitable, in order to be reliable, inevitably finds ways to find experts who can predict events in advance and takes those into account in their work plan and in their business.

And I think there is a tremendous opportunity for private industry here in the United States which really has become a model to the world in its inventiveness and the reliability of the systems that have been established to take this on as an important issue. And I think we saw that in some of the comments from the panel this morning, discussions of anticipating and preventing known risks is business as usual in the power industry already in looking for guidance and help with emerging threats.

So with that comment, I would like to thank the Commission once again.

COMMISSIONER LaFLEUR: Thanks very much, Avi, and I should have thanked you also. I don't know whether you came from Israel or Los Angeles, but I know you came a long way to be here, and thank you for your championship.

Mr. Litzinger, whether on that or another emerging threat, we look forward to your comments.
MR. LITZINGER: First of all, I would like to thank the Commission for holding this conference on reliability issues, and also for inviting me to speak.

Our company shares what I know is your commitment and the industry's commitment to reliability for our customers. My remarks today focus on the emerging challenges to the reliability of the Bulk-Power System that we see we will face in the next decade. I will highlight four:

The need for holistic regulation;

The integration of significant penetration levels of renewable resources;

The cyber security issues posed by deployment of the Smart Grid; and

Wide-area situational awareness.

I will cut my remarks a little short, and then I will add a couple of comments on the EMP issue as well.

With regard to holistic regulation, I will use potential EPA regulations in an illustrative manner to touch on that key issue.

There are many environmental regulations that are out there that pose potential reliability impacts on the Bulk-Power System. First and foremost, a concern for us is Section 316(b) of the Clean Water Act, which could mandate cooling towers. And then we also recognize, though not as
big of an issue in California, the Clean Air Transport Rule, the maximum available control technology rule for hazardous air pollutants and coal ash designations.

As we recognize, these can potentially change the fuel mix. And any time you're changing the fuel or the resource mix, that can have an impact on grid reliability. There is a wide range of variability on these regulations, and our concern is that they're acted upon in a piecemeal fashion.

A good example of this is, as California examines the one-through cooling technologies, it could potentially shut down a significant portion of gas generation, which we're going to need even more so now that we are faced with the integration of a large number of renewable resources. And so that I think is one of the clear examples that we think regulators need to holistically assess the collective impacts on the electric grid and the compatibility with other policy objectives, rather than going one regulation at a time.

At our company, like you heard from the first panel, we focus on that balance between rates, reliability, and policy. And we encourage FERC to play an essential role in this process, working with the other agencies to ensure that that holistic analysis takes place.

Renewable resources are being developed on a
large scale in California. We are under a mandate to obtain
33 percent of the energy we sell from renewable resources.
That presents two major challenges. First, you are all
familiar with the need to streamline transmission siting and
licensing. And then second, the output of renewable
generation is often variable, and that will require large-
scale investment in devices to stabilize voltage, improve
ride-through capability, and also the importance of backup
resources to match the variable output with the variable
load. These can include fossil generation and energy
storage and demand response programs.

Again, we need to coordinate all of this through
the policy-making process. We also see technology as a key
player. And we are looking to using Smart Grid technologies
to help us be able to deliver more of that renewable energy
to our customers with improved reliability.

With Smart Grid, we are greatly expanding the
communications between intelligent devices, and this
increased reliance puts ever more focus on the important
area of cyber physical security as well as data privacy
threats.

We encourage continued development of the SIPs
standards to help us in this regard. We would also note,
because the cyber threats are sophisticated and rapidly
evolving, there is no single technology or set of standards
that can guarantee our response. And so we encourage that policies be flexible and adaptive.

With regards to situational awareness, we think technology again will help us and we are actively doing work with the Phaser Measurement Units to improve wide-area monitoring and wide-area control to aid with the broader interconnection issues.

On EMP, I will touch on that. Our focus is primarily on the natural. Our view is, the malicious that was mentioned earlier, the industry is going to need the help of other agencies such as Homeland Security, or Defense to aid us in that. But with regards to natural, it is real. There have been events recently even in California where it is less susceptible to those types of events.

We have had a transformer hum in 1991 as a result of a solar flare. So we are sensitive to it. We are participating in the NERC task forces on that issue. And this year we are going to be examining what we can do with regards to shielding and installing the by-passable capacitors on the grounding legs of our transformers in response. Again, keeping that balance between rates, reliability, and policy in mind.

Thank you.

COMMISSIONER LaFLEUR: Thank you very much. Mr. Wright?
MR. WRIGHT: Thank you for the invitation to share my views today. I was here in July, and I've described the need for at least what I thought was a need for a more collaborative approach from a FERC, NERC, and BES participants, and offered you some suggestions.

I will say that since that time we're encouraged by the progress. We have seen a fair amount of good work done by FERC and NERC in particular, but we also believe that much more needs to be done.

With the time I have today I am going to focus on three issues that I raised in July: Setting priorities; encouraging excellence; and improving communication.

I believe this responds to the Chairman's question earlier about what are the highest priority things that we should be focused on.

From our perspective, the area that most cries out for attention is defining a framework that will allow priorities to be set in a more transparent manner. Current discussion tends to be about the specifics of standards and the occasional focus on high consequence events through things like the NERC Alerts.

Yet there has always been, and there will always be, tradeoffs between risks to reliability and cost. We lack a conceptual framework that allows a cogent comparison of the level of cost and reliability risk that would be
extremely useful for establishing priorities.

Such a conceptual framework would also aid in engaging the public in a discussion about the level of reliability that they are willing to pay for.

It sometimes seems that everything that could create a reliability event is a priority when customers would, we think, be better served if we used explicit criteria to identify and then focus on the highest risk, highest consequence events first. But we must have an evaluation methodology that allows us to make such a comparison.

Lacking such a methodology, there are less sophisticated methods which could be better utilized to guide us for now. For example, simple evaluations to identify matters that create a high risk of a cascading outage would help to separate wheat from chafe for establishing near-term priorities.

This reflects the facts that drove the law: that an event on a neighboring system can have devastating reliability consequences for a party that is not in control of its destiny.

The translation of a known problem, the hurried adoption of vague standards a few years ago, into more specific standards is another area where progress is being made but much more is needed.
Even with expert help and good intentions, BES participants continue to find themselves attempting to interpret the standards and can find themselves at risk of sanctionable determinations despite the best of intentions.

This problem is exacerbated by a lack of priorities within the standards relating to level of risk to reliability, leaving audit teams likely to pursue any and all perceived violations with equal vigor.

Let me now turn to the establishment of an institutional structure that encourages this drive for excellence rather than mere compliance with standards culture that has been discussed earlier today.

I think due to industry's interest in this opportunity and the encouragement of the FERC Chair, the North American Transmission Forum is now up to participation representing about 85 percent of the peak load within its footprint. But there are very significant issues on the horizon as the Forum is now formulating its strategic plan.

Addressing the issues of the Forum's scope and function, and particularly its relationship with FERC and NERC, will be critical to the ultimate success of the Forum. I cannot understate the importance of the need for a dialogue that assures FERC, NERC, and the Forum are on the same page.

For example, standards can be developed in a
manner that makes it more likely the Forum will be
successful in its goal of striving for excellence, or vice
versa. And, Commissioner LaFleur, I think that gets to the
specific question that you asked earlier.

With respect to communications, we would note
that there is a greater engagement of FERC with NERC, and
vice versa, and this technical forum is also an example of
improved dialogue that's occurred since last July.

And while there has been progress since the July
conference, the trust level among FERC, NERC, and BES
participants we believe continues to make it difficult to
get to a good public policy outcome. An extraordinary
amount of collaboration, comity, communication, and trust
among regulators, quasi-regulators, and industry is key to
establishing the unique regulatory structure put in place by
the Congress.

Today there appears to be an inordinate focus on
who will be held accountable for a reliability event, rather
than a sense of working collaboratively and progressively to
improve reliability in a cost-effective fashion.

Getting to the right culture is going to take a
commitment from the top. We believe something out of the
ordinary will be needed to successfully pull this off. We
have filed a proposal with the Commission suggesting a forum
to increase strategic, high-level communication. We would
not argue that this specific proposal is the perfect answer
and would be pleased to work to refine the proposal with any
party that is interested in improving collaboration,
communication, and trust.

I am certainly prepared to discuss this further
as part of the third panel, or wherever it would be
appropriate today.

Let me just say that we all share responsibility
for a reliable electric power system, and we must work
together to find an integrated strategic solution to these
critical public policy issues. And again, I really welcome
the opportunity to be here today, and I applaud you for
continuing this dialogue.

If I could add one other quick comment, I just
want to apologize because it was my cell phone that went off
earlier. So I apologize to the Commission and to John
Anderson because it went off during his presentation, and I
will just tell you that I think it may be the cell phone
gods exacting retribution because I've chaired a lot of
public meetings and certainly felt an intolerance for cell
phones going off in the middle of meetings I was chairing.

So my retribution has now been served. Thank
you.

(Laughter.)

COMMISSIONER LaFLEUR: Well thank you, very much.
Mr. Whitley?

MR. WHITLEY: Thank you, Commissioner LaFleur, and I want to thank the Commission for the opportunity to be here today to discuss the important issues before us here.

Reliability is the core of what we do at the New York ISO, and all of the ISOs, and we welcome the opportunity to discuss emerging issues that we see that the FERC, the NERC, the Regional Reliability Organizations, the ISOs, the other reliability authorities, asset owners, and other stakeholders can work on collectively to identify and address.

This is really an exciting time in our industry.

How we address these many issues before us, while maintaining our top reliability priorities, will require a commitment for all of us to continue to communicate well and learn from each other. And today’s forum is a great way to do that.

I certainly want to echo and say that I appreciate the comments provided by the first panel today. I think you saw really a common theme by what folks had to say, and we certainly support the NERC's efforts to establish this prioritization process that they're doing right now. We think that is fundamentally important, and we totally support it.

Now getting to the issues that keep me up at
night as I look forward down the road. We already have a lot of wind resources in New York, about 1300 megawatts, and another 7000 megawatts in our queue. So the integration of intermittent resources, energy storage technologies, and the role of demand response are challenges that the NYISO is addressing today and will continue to address as technology is developed.

The NYISO's competitive market structures are designed to encourage innovation. We have seen this happen in the robustness of our demand response programs which have developed really tremendously over the past 8 to 10 years.

Also the development of new technologies such as the flywheel projects on the battery storage projects that are being put on our system today. And internally with the innovative integration of wind generation and our own dispatch process, using the software that we have.

And then tomorrow, looking at integration of electric vehicles while meeting our requirements to balance control area performance.

These are the issues that are coming right at us. In particular, we are concerned with the ability of balancing areas to integrate wind and these other technologies while maintaining existing and improved control performance and frequency responsiveness.

In New York, like California and many other
regions of the country, we also see challenges from potential unit retirements and aging infrastructure. In New York we're closely monitoring the issue of nuclear relicensing and emerging environmental regulations and how those both impact operation of the system, but also planning the system for the future.

We are doing a 20-year study of New York today of the infrastructure. By the middle to the end of this study most of the transmission assets in New York will be nearing 90 years of age. So pretty much you're looking at replacement of the grid. And so we're working with the transmission owners to see how can we do that wisely? How can we look for ways to upgrade the capability of that grid on existing right-of-ways to integrate the wind on our system to the load centers and eliminate congestion on the system, while always maintaining reliability.

Current critical infrastructure protection standards form a good basis for cyber protection programs, but like other speakers have said this alone isn't adequate. This is a dynamic area, and we need to be fast on our feet in communicating emerging requirements and our response to those. I think the industry has done a really good job on that to date.

How Smart Grid applications impact residential and commercial consumer behavior will have to be closely
analyzed as those technologies evolve. We need to develop better tools to understand and accurately forecast these behaviors as we modify our planning and operating processes. Certainly I believe that all resources that serve a reliability function must comply with appropriate standards, the appropriate standards. So that means demand response and other assets that we begin to use to balance the system need to meet certain standards.

We support the work that NERC, FERC, and the industry have done in the areas we have discussed today. While we don't see emerging concerns that aren't being addressed, we do encourage all the parties to continue to work together to coordinate the efforts to identify threats to reliability and promote best practices.

The Events Analysis Working Group is a very positive attribute that we have at NERC to do that sort of thing, and we are very encouraged by the work of the North American Transmission Forum, as discussed today, that's providing a much needed service here.

So, bottom line, those are the things that are keeping me up at night. I really appreciate the opportunity to participate and look forward to working together with you all to improve reliability. Thank you.

COMMISSIONER LaFLEUR: Thank you very much.

Mr. Tymofichuk?
MR. TYMOFICHUK: Good afternoon, Chairman Wellinghoff, Commissioners, staff, and all:

Some of my message has been stated many times over today, so please bear with me. My name is Ed Tymofichuk and I am Vice President of Transmission at Manitoba Hydro.

Manitoba Hydro is a Canadian Crown Corporation utility that owns and operates electric generation, mostly hydro, transmission, and distribution facilities in Manitoba. I am appearing today on behalf of the Canadian Electricity Association whose members account for most of Canada's generating capacity and high-voltage transmission.

I am the outgoing Chairman of the NERC Member Representatives Committee, and currently the Board Chair for the Midwest Reliability Organization.

In February, 2010, if you had asked how I pictured my term at the helm of the MRC, I could not have predicted the significant developments which were to follow. However, I am encouraged by the progress made since last March in strengthening cooperation and collaboration in the setting of and addressing the most critical priorities for the Bulk-Power Electric System.

I am also encouraged by FERC continuing to facilitate this kind of discussion. These discussions help build respect and reinforce trust within the reliability
community. I thank the Commission for ensuring that the Canadian industry is represented at this forum, as the integration of the North American Grid means that reliability and security cannot be achieved in isolation.

Moreover, CEA welcomes FERC's reaffirmation in a September 2010 Order of its commitment to work together with governmental authorities in Canada and Mexico so that the ERO can truly operate on an international basis.

CEA remains supportive of the standards setting model envisioned in the Federal Power Act and in the agreements that NERC has entered into with governmental authorities in Canada. At the heart of these frameworks is the key principle of active, effective participation by North American industry experts and stakeholders in the standards' process.

Canadian governmental authorities rely heavily on this model in accepting NERC's standards. We must always look to improve the timeliness and flexibility of the process, and NERC continues to make good progress with the support of FERC, authorities in Canada, and industry.

NERC's two recent examples of a quality review process and the forthcoming standards prioritization tool are excellent advancements. But CEA remains concerned at FERC's hands-on approach, which we believe impedes the ability of NERC and industry to address reliability
priorities in the most effective manner.

More standards is not a measure of more reliability. Instead, we must focus on core standards that are most critical to reliability. Solutions should be developed in a collaborative and coordinated manner, but also in deference to the established principles behind standards development approval.

We encourage forbearance by FERC to be a pillar in this oversight role. While CEA strongly supports NERC, we recognize that many challenges remain. I would like to provide a quick Canadian perspective on several of these emerging issues.

As others have noted, integrating renewable resources and Smart Grid technologies will present challenges over the coming decade and beyond. Utilities in Canada continue to invest in addressing these challenges.

For example, many CEA members are working to improve the accuracy of forecasting for intermittent generation, and many remain proactive in supporting the integration of national and international standardization on Smart Grid technology.

Other challenges going forward include obtaining regulatory approvals for new rights-of-way to build infrastructure necessary for reliability, as well as training a future workforce to operate and maintain a much
more sophisticated grid.

Cyber security is another issue. While strong SIP standards are important for ensuring the cyber security of the grid, robust protection will entail a host of other requirements. For example, the sharing of actionable information between government and industry regarding imminent cyber threats is critical.

Because our grid is international, information sharing and close coordination must occur between government authorities in Canada and the U.S. Along with robust SIPs standards, this will go a long way in strengthening protection against cyber threats and vulnerabilities.

While threats from deliberate electromagnetic pulse attacks raise complex questions, CEA members are not certain that such threats represent a reliability concern, per se, given that an EMP attack could inflict damage well beyond the scope of electric reliability.

Industry needs government to take leadership and to provide guidance. The consensus, and an international one at that, needs to be reached on the tradeoffs in making massive investments to achieve system resilience against an EMP attack and addressing other pressing priorities.

I would distinguish this aspect of EMP from geomagnetic disturbances whose effects are seen in the reliability domain. On this, I echo other panelists
thoughts on NERC's critical infrastructure strategic roadmap, and concur that it represents an aggressive plan to understand GMD risks and to develop effective solutions to manage them.

I applaud NERC's recent Severe Impact Resiliency Task Force. I believe it will pay big dividends.

Finally, with respect to other emerging issues, CEA would draw attention to the long-term potential effects of climate change. Mitigating the future effects of shifting weather patterns on factors ranging from lake temperatures to annual rainfalls and water levels may be a significant challenge for many Canadian utilities. We believe it may soon be necessary to begin assessing the potential reliability impacts of climate change itself.

In conclusion, CEA looks forward to continuing to work with NERC, FERC, Canadian regulators and authorities, and other industry stakeholders in pursuing mutually beneficial solutions for addressing risks and achieving priority goals. A good dose of discipline will be necessary to stay the course, and continued communication and collaboration should be viewed like mortar between bricks, which provide strength and confidence.

I thank the Commission for its attention and would be happy to answer any questions.

COMMISSIONER LaFLEUR: Thank you, Mr. Tymofichuk.
Back to Mr. Cauley.

MR. CAULEY: Thank you, Commissioner LaFleur.

As I mentioned this morning on the first panel, there are major distinctions between conventional risks to the Bulk-Power System where we can measure actual performance and determine opportunities to improve, and emerging risks where we are left to imagine scenarios that might occur and prepare to avoid or mitigate the consequences.

I would like to discuss several of the categories of such emerging risks, and how I believe they should be prioritized.

The first category, and the one I assign the greatest priority to, among the emerging risks includes coordinated physical and cyber attacks intended to disable elements of the power grid or deny electric service to specific targets such as government or business centers, military installations, and other infrastructures.

These threats differ from conventional risks in that they result from intentional action by adversaries and are not simply random failures or acts of Nature.

It is difficult to address such risks through a traditional regulatory model that relies mainly on mandatory standards, regulations, and directives. The defensive barriers mandated by our standards will make it more
difficult for those seeking to cause harm to the grid, frustrating ordinary hackers and copper thieves, but may not be completely effective in stopping the determined efforts of adaptable adversaries supported by nation states and more sophisticated terrorist organizations.

The most effective approach against such adversaries is to apply resiliency principles as outlined in the National Infrastructure Advisory Council, or NIAC, Report on the grid delivered to the White House on October 2010. I was fortunate to serve on that Council, along with a number of industry CEOs. Resiliency requires proactive readiness for whatever may come our way.

It includes robustness--some would say redundancy; the ability to minimize consequences in real time; the ability to restore essential services; and the ability to adapt and learn.

Examples of the NIAC team's recommendations include:

A national response plan that clarifies the roles and responsibilities between government and industry;

Improving sharing of actionable information by government regarding threats and vulnerabilities;

Cost recovery for security investments that are driven by national policy;

And a strategy on spare equipment with long lead
times such as electric power transformers.

NERC is moving forward with a number of actions to complement our mandatory SIPs standards and provide enhanced resilience for the grid, including a joint partnership announced last week with the Department of Energy and NIST to develop comprehensive cyber security risk management guidelines for the entire grid from the meter to the Bulk-Power System.

Continuing our proactive outreach with government agencies to translate classified threat information into unclassified actionable information for industry, such as Alerts we issued in 2010 on Aurora mitigation, Stuxnet malware, and a VPN tunneling vulnerability.

In 2010 we successfully piloted a program to conduct on-site cyber security sufficiency reviews and will continue that program in 2011.

We are developing a North American Cyber Security Exercise to prepare for and test a national response plan. We are working with the Department of Defense to assess worst-case scenarios and ensure that the essential requirements for national security can be addressed.

We are working with vendors and industry to demonstrate enhanced physical security systems to be applied at our substations and power plants.

Let me turn now to a second category of emerging
risks which has been discussed today that I also consider urgent because of potential consequences to physically damaging power system equipment and controls, that of geomagnetic disturbances caused by solar flares.

We will be convening, NERC will be convening a panel of industry experts at a conference in April this year to validate some near-term cost-effective actions that we can take to better prepare the North American Grid for large-scale interference with the Earth's magnetic field. We will be leveraging on our experience mitigation strategies completed in Canada and the Northeast to mitigate these risks after the 1989 Quebec disturbance.

NERC will issue an alert with a specific set of near-term actions and a timetable for responses.

I would digress from my prepared remarks just briefly after Congressman Franks' comments this morning, and some of the other panelists talking about other aspects of EMP, some of the intentional aspects. I think they raise important questions for us.

In terms of a nuclear blast at 400 kilometers over our homeland, it raises really questions about the roles and responsibilities between government and industry. I don't believe that that is a defensible threat from a civil industry perspective.

The other intentional EMP event, such as
interference at local substations and so on, could be raised as a reasonable credible threat. But then again it raises the question of priorities relative to cyber security and physical attacks. I think physical attacks, in my view, are much more likely and promising. If I was going to go out and do some serious damage, that's the approach that I would use, so I think it raises questions about priorities.

I think certainly the GMD, the solar flare, issue is important and ahead of us, but I think we need to better understand the other issues. So I will close there and look forward to your questions.

COMMISSIONER LaFLEUR: Thank you, Gerry. Mr. Anderson?

MR. JOHN Q. ANDERSON: Thank you, Commissioner.

Well there's no doubt that form a NERC Board point of view we are looking out at the 10-year horizon. And over that horizon, the North American electric industry will face a number of significant emerging reliability issues. We're sure of that.

Many of these issues will stem from changes to our bulk electric and distribution system that provide many potential benefits to users, owners, and operators. But they change the system in ways that will require new reliability thinking, standards, and analysis.

We also face emerging issues that aren't new but
have taken on newly elevated significance as the risks and consequences are deemed to be higher than previously. Geomagnetic disturbances is an example of that.

Now the NERC Board strives to provide a balanced policy approach to guide NERC management and industry participants. Considering the level of risk that the new issues represent, gauging the speed of emergence for the new risks, and setting the general criteria to be used in developing the options for ensuring reliability in the face of these emerging issues. But in order to provide the right level and direction of policy guidance, the emerging issues need to be well researched and understood.

The NERC Board each year directs that a long-term reliability assessment, including emerging issues, be developed. For example, the following emerging issues were identified in NERC's 2010 long-term reliability assessment: A changing resource mix; integration of new technologies; and preparedness for high-impact, low frequency events.

At the Board level we also direct that more detailed and specific assessments be developed for the highest risk issue areas. Each of the three areas I just mentioned has been the subject of a special NERC study, reviewed and approved by the Board to give a factual, analytical basis for addressing emerging issues that will impact reliability. An example is NERC's report on high-
impact, low frequency event risk to the North American Bulk-
Power System.

Although there is a wide range of threats labeled
"high impact/low frequency," the greatest effort is being
directed to possible events that could debilitating the Bulk-
Power System for extended periods, such as widespread
coordinated physical cyber attacks or geomagnetic
disturbances.

From a Board level, we strongly support not only
the effort but the timing for addressing the GMD issue. On
the broader topic of cyber security, the Board approved the
Critical Infrastructure Strategic Roadmap and the Critical
Infrastructure Strategic Initiatives Coordinated Action
Plan.

The Roadmap gives a prioritized framework to
develop protective and mitigating solutions that will
enhance the resilience of the Bulk-Power System. The Action
Plan details the technical committee action to address these
priorities.

In summary, the NERC Board is actively providing
guidance and support for the many ways in which NERC must
react to emerging issues. We believe that the ongoing
dialogue we have with the Commission and with our Canadian
counterparts is greatly assisting the entire effort to focus
on the right emerging issues.
Through these dialogue, we believe that practical and timely new standards or other approaches can be developed in time to maintain reliability as the impacts from the emerging issues become real.

Thank you.

COMMISSIONER LaFLEUR: Thank you, Mr. Anderson. I will now turn to my colleagues for questions and discussions on any of the topics that were raised by this panel. Mr. Chairman?

CHAIRMAN WELLINGHOFF: Thank you, Commissioner LaFleur. Now I get to apologize for my cell phone. (Laughter.)

CHAIRMAN WELLINGHOFF: I had it off in the morning. I don't know how it got on, but, Mr. Tymofichuk, I apologize during your presentation that that went off.

Let me see if I can first understand something, because I heard the Congressman's presentation this morning, and I understand he was I guess primarily focusing on this event of a high atmosphere detonation that could cause an EMP event.

But my understanding—and this is what I want to get from the panel here—is that the same type of effect could be produced by these geomagnetic disturbances, depending again—they could be equally widespread depending on how big the geomagnetic disturbance is versus I guess how
big the bomb is. I mean, am I wrong? Are they identical?
I got some sense that there seems to be some sentiment on
the panel that they're different things that should be
treated and addressed differently.

So if I could have whoever would like to address
that and clarify that for me? Avi?

MR. SCHNURR: Yes, thank you, Chairman.

There are similarities and differences. So if
there is a nuclear EMP, a malicious nuclear EMP attack,
there are three different kinds of pulses that emerge. The
two that are most relevant people refer to as E-1 and E-3.
E-1 is a very prompt, very, very fast pulse, a very high
spike. E-3 is a much longer term pulse.

The E-3 pulse is basically the same kind of
ground-induced currents that you see from a geomagnetic
disturbance. So in this regard, what you could say is,
basically half of the problem from a malicious attack would
be resolved by anything that's done to resolve the natural
solar event.

The other half of the attack, which would be this
very prompt, very sudden pulse, is different. Incidentally,
it's not only a nuclear EMP attack. Non-nuclear devices,
circuits which are designed to do this, which are available
that are actually catalogue items--I could show you
pictures; people sell them for various reasons, testing and
so forth--could do something similar.

But this is a very prompt pulse. And for that, I think mostly what would have to be done is training. Because you would have to go through and power substations, and there would have to be a plan for how to minimize the impact on a substation by making some changes in the configuration. So there would be different approaches to deal with these two different effects.

CHAIRMAN WELLINGHOFF: Okay. Anyone else on the panel have any comment on that?

MR. CAULEY: Mr. Chairman, I think there are, as was mentioned, some similarities in the effects. And I think that's why we think there's also benefit by focusing on the phenomenon that we know will occur from time to time to varying degrees, which is the solar magnetic disturbances. Because taking actions to protect transformer equipment and some of the control systems will get inherent benefit for some of the malicious types of attacks.

So I don't discredit the possibility of these other attacks taking place. I mean the nuclear blast one, I wake up every day and assume there's not going to be a nuclear blast in the United States, and I hope that doesn't happen in my lifetime. So we have to say what is the role of government to deal with that kind of an attack? And if that happens, we're in a worse situation.
But I think pragmatically there will be benefit I think from taking an aggressive position on the solar magnetic disturbance, to harden our controls, and harden the transformers and equipment that might be susceptible, to have some ancillary benefits on some of the more malicious attacks.

CHAIRMAN WELLINGHOFF: And, Gerry, I got the impression from your testimony, and I don't disagree with it, I think you are correct here, but at least in the cyber attack side you seem to indicate that the regulatory model is not necessarily the best one to address those issues. And I assume you'd probably have the same position with respect to the EMP?

MR. CAULEY: No, I guess, even as I was thinking about those words I was fearful that it might come across the wrong way. So I'm not saying that the regulatory model is not helpful. I think the standards provide a solid base, and they give us a lot of benefit.

But the problem is, it's a moving adversary. It's a changing and adapting adversary, and we can keep coming out with better and better standards, but as long as we're sitting there taking the shots, that's what I meant by the limitation.

So what I meant was, it doesn't take us all the way. And I think to get the rest of the way we need to
We need to understand what the enemy is thinking and doing, what kind of threats are emerging on a month-to-month basis, how do we prepare if we find new information? How do we get it out to the industry? So it was more than the traditional operating and planning standards where we're talking about sort of a static situation. We have to have this additional layer of operational response capability that goes above the standard.

So I just meant that they're limited in how far they can take us, not that they are inadequate.

CHAIRMAN WELLINGHOFF: Go ahead, Steve.

MR. WHITLEY: I certainly agree with Gerry's comments there about government's role and the industry's role. We do things in the control room when we know things are coming at us to posture the system to get ready for them. And solar magnetic disturbances are one of those. We're exposed to those in the Northeast. We have procedures to basically go off of economic dispatch and unload the transformers by picking up generation on the low side of all the transformers across the system to have more margin.

When we have a big thunderstorm coming in New York City, we do a very similar thing to unload the system so that there's more local resources and have more margin. So we can do those things for something that we can have a
forecast and information that things are coming.

But on the other area, on these terrorist kind of attacks, that's a different story and I think some of the techniques will be helpful, but I think we need guidance from the government on how to protect beyond that.

CHAIRMAN WELLINGHOFF: In that regard, as to the role of industry and the role of government and the respective ways to address these issues, I guess I would like to then ask questions of the three asset owners here, Mr. Tymofichuk, Steve Wright, and Mr. Litzinger.

What now are you doing beyond either NERC standards or rules in the area of cyber and this EMP in general? And then secondly, how would you see the role of an entity such as the one that's now formed and moving ahead, the North American Transmission Forum, in helping you further be able to address those two issues of cyber and EMP?

Mr. Tymofichuk?

MR. TYMOFICHUK: Thank you, Mr. Chairman.

In Manitoba Hydro we have in our system a two bifold HVDC system that terminates at a Alberta station just outside the City of Winnipeg.

Quite a number of years ago we collaborated with the University of Minnesota to actually measure GIC currents in the neutrals of transformers. That was done for a number
of years, and has provided a lot of data for research and academics to study and deal with.

I don't believe it's being monitored currently but there's no reason that some other collaboration to go back to that and refresh the data and gather new data could happen. Thank you, Mr. Chairman.

CHAIRMAN WELLINGHOFF: Mr. Wright?

MR. WRIGHT: I think basically at this point what we're trying to do is learn as much as we can from as many people as we can. And so are actively involved in the NERC process on GMP in particular and trying to get as much information from others about what risks are and risk mitigation mechanisms there are.

I think the Forum is a great example of it. Because what will happen in that process is there will always be a concern about how far do we go with a standard. We're dealing with a lot of standards coming at us, and a lot of cost. And so there's always this concern about how far are these standards going to go, and how much will it cost us?

Whereas the Forum is a more open conversation. It's one in which people are less worried about, well, if we have this conversation, is immediately going to translate into a new standard and a new cost for us? And it's more of what are the right things to do across all the way from
protection to resilience strategies that one can adopt.

CHAIRMAN WELLINGHOFF: Thank you. Ron?

MR. LITZINGER: I think I'd like to emphasize sort of two points, or re-emphasize points made earlier. One is the need to be flexible and agile in these types of situations, set aside sort of operating and technical and engineering concerns, just general business resiliency which at our company we're spending a lot of time on.

We realize that you cannot be prescriptive and deal with every situation. Even for the earthquake, which in California we consider ourselves very prepared for, we recognize that you've got to give managers and executives and operators the flexibility to react to the situation as is. And I think there's a lot of analogies carrying over from those natural types of disasters to what we're talking about today.

The second point I would like to emphasize is just the need to learn as much from your colleagues as possible and adopt best practices and, you know, sort of rob shamelessly.

On the cyber security issue, AEP and Lockheed Martin have the partnership with the Cyber Security Operations Center. And Lockheed Martin was brought in as a partner because they bring a lot of expertise of the defense industry into the cyber security field. And so we are
members of that—have joined, and are supporting that effort such that we can learn from it as well.

And then with the GMD issue, as I had mentioned earlier, we are actively involved with NERC task forces on that to learn what we can, see what we can do, and just learn as much about, you know, these new areas that come up and challenge us all of the time.

And then we also belong to the North American Transmission Forum. We're very supportive of that effort because when we get beyond standards and you go for operational excellence, as you were discussing in the first panel, the fact that NATF has adopted the INPO model, and you look at what INPO has done for the nuclear industry, it is a great model to follow. And that is why we are very engaged in that forum as well.

CHAIRMAN WELLINGHOFF: Thank you. Thank you, gentlemen, I appreciate it. That's all the questions I have.

COMMISSIONER LaFLEUR: Commissioner Moeller?

COMMISSIONER MOELLER: Thank you, Commissioner LaFleur. In the interests of time, I will condense myself to one statement and then one question.

The statement is: If there are things that we need to be doing on this general subject of looking forward, let us know. Let the five Commission offices know. It kind
of builds on John Norris's question from earlier. But it
sees to me that I was quite heartened by a lot of your
testimony that you are looking out at the kind of
issues--there still are a lot of things to grapple with, but
that you are cognizant of them and we will be hearing more
about a 10-year outlook, and the immediate threats.

The question is a little more challenging. It
strikes me that, outside of the cyber and the EMP threats,
and Mr. Litzinger hit on it, we've got two sets of issues
coming at us. Eight or nine significant rulemakings
targeted at fossil fuel plants that primarily hit coal, but
as you mentioned I think 20 percent of the baseload capacity
in California is at risk through 316(b). That's coming on
us.

It's probably going to be harder than people at
EPA realize to maintain reliability.

The second is that it's not insurmountable, but
the challenges of variable generation are hitting just about
every part of this country, with the exception of the
Southeast. You're dealing with it in New York. Steve's
dealing with it in my home in the Pacific Northwest.

And there are engineering solutions to some of
these problems, but I guess what I would like to ask Gerry
and John is, is there a proper role for market solutions to
some of these problems?
It's no secret that we at the Commission considered perhaps creating markets for new types of products that enhance the reliability of the system. And since this world is driven largely by engineers, and those of us who are more economists rather than engineers always try and I think want to make sure that there's an opportunity for market solutions to be considered as well. I would just like your reaction to that, and if the rest of the panel wants to comment, they're welcome to.

MR. CAULEY: Thank you, Commissioner Moeller. That was part of the topic I lopped off so I could spend more time on EMP.

I think NERC's role is one of assessing the future impacts of the shifting resource mix and integration of renewables and new technologies. And the point I wanted to make was, I think it is just part of our business. This should not be anything that is new, or shocking, or any sort of urgent crisis that's upon us.

I just see this as a long-term prospect of integration of new technologies and renewable resources. And that's how we take it. And we've done a number of studies sort of looking forward. If we have some of this, the new resources and technologies, what do we have to do as an industry? What has to be done to prepare that? What plans have to change? How do we deal with reliability
issues?

I view our role really as two pieces--and then I'll get to your final question. One is, as we change the generation and load mix and its characteristics, we need to make sure that we have it modeled well, we understand it, we know how it behaves, and it fits within our reliability models and we can determine that reliability will continue to be assured.

The second thing we need to do as NERC gets more to your question. And I recall back, because I was involved with Open Access, creation of OASIS, and we asked ourselves how do we deal with all these ancillary services, of voltage control, and regulation, and things like that, when we no longer have a bundled control area that's managing all of that sort of internally?

And we figured out these definitions of terms of "ancillary services," and we figured out how they could be bought and sold. And I think we're just entering the next frontier for that. So now we have different kinds of resources, different characteristics that we're looking for, and I think the markets will provide the solution. And what we need to do is define the reliability requirements to make that happen. What are the essential services for these new resources? How do we define the terms? And how do we define how to model and measure that?
And I think the markets will deliver on those services.

MR. JOHN Q. ANDERSON: Commissioner, I think it is a very timely question because we're facing a lot of challenges in introducing things like variable generation in, and there will be a lot of costs associated, and they'll fall one way or the other depending on decisions that are made about the standards.

You mentioned economists and engineers. But I think I would also add politicians to that. Because if it were just economists and engineers, we could get to some what you might call logical, or economic--

(Laughter.)

MR. JOHN Q. ANDERSON: --or technical answer using logic only economists and engineers would decide. But if you put political logic in, then we've got a different logical outcome that will come. And so from a NERC point of view, I think you asked could economics, for example, supplement engineering solutions to handle emerging issues, like let's say variable generation? And I think the answer would definitely be yes, absolutely, economics could.

The problem is, if you start introducing economics in and don't consider the political and policy decisions that are basically--ultimately will be taken as a given, you will be off trying to again go toward logic and
economists and engineers would get toward.

I think that would be very feasible, and in some ways it would be easier and would be more familiar for a lot of the people in the industry who deal with that.

What we at NERC try and do is remain very neutral, if you will, on the political or policy questions. So that we—as a Board I try and make sure that we consciously don't let ourselves drift into personal beliefs of Board members, and so forth, so that we're trying to slant toward one answer, or give Gerry guidance that would move it toward one answer that might be influenced by political beliefs. But we really would prefer to take a given, a requirement that renewable resources be introduced at a certain level. Now how do we address the reliability issues?

And there, economics to me have to be part of the political answer. Because engineering and economics, left to their own devices, will reach answers that I'll bet wouldn't get to the policy questions that certain politicians want to have as the outcome.

So that's my point. We can't really address that and won't be prepared to. Should economics be introduced, we can say, yes, it could be a tool, but we need that policy given so we don't start substituting our own politics in, if you will.
MR. WHITLEY: I just wanted to comment from the ISO's perspective. I think all the ISOs have been very proactive in trying to address some of these emerging issues coming at us, like the renewables, the transmission issues, and the balancing of storage and ramping issues that are coming at us.

I mentioned the innovative products we've put into our market to attract storage resources. And we're also working with all of our neighbors around New York's borders and throughout the Northeast and Midwest to address seams issues, scheduling on our interfaces through much faster ramping on schedules to better enable the balancing of the system to meet some of these emerging issues that we have coming at us.

MR. TYMOFICHUK: Mr. Chairman, may I go back to solar-induced currents? I may have inferred by referencing our DC system the measurements and the study done between Manitoba Hydro and the University of Minnesota was on the DC side. In fact, it was measurements taken on the neutral of downstream power transformers. GICs are DC in nature, and too much of DC current entering a transformer is like a fox entering a hen house, not very good things happen. The core becomes saturated. Heating occurs. It creates harmonic currents, and all of these things add to the overall heating and possible ultimate destruction of the transformer.
In fact, the harmonic currents can flow into the grid and cause further anxiety and problems.

Thank you.

COMMISSIONER MOELLER: Steve, I guess, has the last word.

MR. WRIGHT: Very quickly, there was a lot of conversation on the last panel about reliability versus cost, so clearly there is a reliability/economics tradeoff here. And many of the panelists spoke to different customers wanting different levels of reliability, and I can add to that and say with a lot of wind in our system and a lot of it being exported we also see a lot of generators who want different levels of reliability.

And in fact in our last rate case, we gave them a choice: How much reliability would you like to have? Higher quality of service, means higher rate. Lower quality of service, lower rate. Which would you prefer here?

So clearly there is an economics tradeoff there in a commercial transaction. I do think--because we've been thinking about this a lot, at least recently with respect to variable energy resources--there is a base level of reliability that needs to be mandatory to make sure that you don't have an impact on your neighboring balancing authority, because we do have this interconnection problem.

So it's the importance of preventing the
cascading outage. That part should be guaranteed, and that becomes a mandate. And then from there you have the opportunity to use markets to be able to allow customers and generators to decide the level of service that they want to receive.

COMMISSIONER LaFLEUR: Thank you--

MR. LITZING: I'm sorry, I was just going to add, going back to my role a year ago as the president of our competitive generation company, that tried to look at investing in ways to provide renewable power and firm it up, that the markets for ancillary services are in their infancy and really don't support that investment.

We tried and tried, and struggled, and so I encourage you all to work on that.

And the other caution I would throw out, on the conventional generation I think we probably can get to market type solutions fairly quickly. But on some of the more advanced technology, I think it is going to be a struggle for people to develop that under a market-based approach because of the costs involved.

COMMISSIONER LaFLEUR: Thank you. Commissioner Spitzer?

COMMISSIONER SPITZER: I'll just have one question. I know we're running a little bit behind.

It was reflected in the EMP discussion. You had
the protocols with regard to the solar flare, and then a
determination that with regard to the malicious the solution
required a more broad-based governmental approach,
government taking the lead.

From a process point of view, given that we don't
know what the next challenge is going to be, is it a good
thing? Is it wise that we have a formalized process where
the NERC Board might consider, you know, malicious versus
solar flare, other threats? The degree to which NERC takes
action or declines, should that be a formalized process?

Maybe starting you guys, and then whoever else
wishes to comment.

MR. CAULEY: I think it could be. I mean, in
terms of we talked about communication and consultation. I
think it goes two ways. So I think it would be important.
I know Joe and some of his folks place a high degree of
value on intentional EMP acts, and I think we have made a
conscious choice in the last six months to focus on GMD and
not on intentional EMP.

So I think your--I don't know how far we need to
go in terms of formalizing, but I think certainly
communicating, putting on the table other than hearsay or
something like this verbally in a meeting, that we probably
should do a better job of informing you of things we have
chosen not to do.
But I think if we get back to the earlier panel, we had a discussion I think in response to Commissioner Norris's, if we had this sort of let's work out what the priorities are and lay out a multi-year progressive plan regarding that, I think we could put that on the table that, yes, it may be important, but we're not going to immediately respond to that.

MR. JOHN Q. ANDERSON: I would just add that I think that's a very provocative idea. Because I think it's kind of a mutual roles there. I think we would have the role to provide the information, which we would do through our studies about what are the likelihoods, what are the impacts, how much is the overlap; and then maybe have a recommendation on where NERC ought to focus its resources, to the extent we could choose one or the other.

And that ought to, as Gerry said, maybe informally be brought for Commission input so we understand. Because you all then have policy considerations that we may not have taken into account that are important, or may be more important from a national policy point of view, and we need to be responsive to that.

COMMISSIONER SPITZER: And there may be bilateral communications with the stakeholders.

MR. JOHN Q. ANDERSON: Absolutely.

COMMISSIONER SPITZER: You would have input, one
way or the other.

MR. SCHNURR: Yes. I'd also like to comment briefly. I think some of the comments that have been made point out something very important here. Which is, that when it comes to malicious EMP it's going to be important to have some government input into the process. And in this case some regulatory input into the process.

I think the same is true on cyber security. When it comes to natural effects, we understand that of course industry has an obligation to try to understand what the natural environment is and deal with it.

When it comes to cyber security, we have the rather unusual reality that we're asking private industry to take on a responsibility which normally we would say is say the Defense Department, a national security responsibility.

The reason industry is doing it is because that's where the action is. That's the only place that you can really effectively provide that defense. If we talk about non-nuclear EMP for example from trucks that are driven up and down highways near power plants, it's hard for me to understand where that differs in a strategic sense from say a cyber attack.

It would be in many ways easier than a cyber attack. It could be far more devastating. So how do we deal with these areas where, from a state point of view, or
a federal point of view we say, well, we certainly don't want to risk the American population if something like this occurs. On the other hand, it's normally a government responsibility but an area that we would expect the real work would have to be done down in industry.

So it does seem like an area that dialogue is going to be required. And I would say a good area for input from the government into the process.

MR. VICKERS: I would agree. Now I'm going to come at it from the cyber security, more of the cyber security perspective than the GMD perspective.

One of the things, I think it's a mutual responsibility. It's not--even within the Federal Government, DHS doesn't manage Department of Energy, or Department of Education, Department of Justice networks; but we do provide actual information so they can now decide where their risk is, and how they want to apply that.

And that would apply to the critical infrastructure and private industry. And one of the things that we are actively pursuing and actively doing is ways to share that information. And I will use a real-world example.

As many of you know, the Wall Street Journal article from the weekend regarding the financial sector, as part of that, and part of the analysis, and part of the
understanding of what's occurred in that investigation, is
there are indicators and other type of information that
hopefully is actually across greater sectors in the
financial sector.

So as a matter of fact, as of today we are
sending out those types of indicators across the critical
infrastructure, through the Information Sharing Analysis
Centers, and other forums that can be used to share
information. And I believe it was one of the key points
that was brought up earlier, that the government, as well as
industry, has to find mutual ways to share information.

It's not about just the government collecting all this
information through its defense mechanisms, through its law
enforcement mechanisms, or other type of mechanisms, intel,
and sharing that. It's also about what the critical
infrastructure and what industry can learn and share back.

Because we're all susceptible. We're all interconnected.

And so I think the key aspect ties back to how do we share
information?

And some of that can be pushed through regulatory
processes, and the enforcement of those regulatory
processes, but we also know that they have to be worked
across the whole sector, and all the constituents.

If you look at something like FISMA for the
Federal Government, the initial FISMA failed miserably
because there wasn't that mutual discussion on how it was
developed and how those things came about.

So I think from a regulatory perspective we have
to--I have to agree with Mr. Litzinger, we have to be
flexible and agile because cyber security is an asymmetric
environment. It's not a conventional environment, and we
have to be able to allow the organizations to understand
their own risk and minimize that risk with the oversight of
whether it's regulatory bodies or some other body to ensure
that they are protecting themselves, which then in turn
protects others, which then in turn protects the national
security.

So I think there's got to be a lot of dialogue,
as well as potential regulatory oversight and policy.

COMMISSIONER LaFLEUR: Thank you very much.

Commissioner Norris?

COMMISSIONER NORRIS: Thanks. Since you've all
volunteered to be cyber security experts today, I will ask
you a cyber security question.

We hear two different design philosophies. One
appears to be the defense-in-depth, which is the upfront,
prevent cyber attacks from happening. The other appears to
be building up resiliency and the ability for a quick
recovery.

Are those a one-or-the-other? Both? Is one more
dominant, or have a greater impact? I want to get your
sense on how we should look at those as proposed solutions.

MR. VICKERS: I'll take a stab at that from the
outside, not as actual execution. So defense-in-depth I
think is critical because it allows for the ability of
multiple groups to make this a strategic issue, meaning it's
not relying on one organization or one group to be able to
do it because it becomes cost prohibitive.

If you can share that across, whether it's the
government providing a certain level of parameter type
activity within like what we do in the Federal Government,
or a way to share information so we can get information and
share it back and vice versa, but I don't think you can
eliminate the resiliency piece because those things go hand
in hand.

There are aspects of the information that can be
shared that's done to that dense-in-depth that can then also
be tied back to, once again I keep harping on that risk
management issue of where you can invest and what you can do
to maintain that stable environment to be preventative.
Because sometimes defense-in-depth tends to be reactive.

We put things in place after we know about
something. Resiliency will allow you to be preventative to
the greatest extent you can. And you even have to add back
the recovery piece. As mentioned earlier, the long lead
time for those--you know, having in stock the long lead time
items, and things like that.

So all of those things go hand in hand, and that
is the perspective--at least Randy Vickers' perspective, on
that, where I don't think you can eliminate one; you've got
to figure out--one might be more important, but I don't
think you can eliminate any of those.

MR. CAULEY: Commissioner, I think in the
conventional world that we've been in, I think the defense-
in-depth approach should be dominant, because the risks are
known and understood and we can architect barriers to things
happening that we know, and can anticipate, and we can
design that.

I think in the cyber and other malicious type
activities, physical attacks, I think we have to use both.
So you don't want to completely lay down and say, well,
we're only going to be responsive once we see what happens.
I think we need to elevate the barriers sufficiently so we
don't end up with the day-to-day intrusions and just routine
stuff.

We want to make the barriers high enough so that
we're not just dealing with the ordinary run-of-the-mill
issues. Somebody has actually gone to an extraordinary
effort to make something happen, but can we design and
anticipate every bad thing that might happen? The answer
is: No. Because some people are willing to put in much
more resources into making that happen.

So that's where the resiliency piece comes in.
We have to not say, whoops, you got me, and now we don't
know what to do; I think we have to prepare for that. So I
would say in the emerging area of intentional attacks, it's
got to be a blended approach.

In the traditional engineering and operating
world, I think defense-in-depth against known risks is the
effective approach.

MR. TYMOFICHIUK: I would like to go back to the
flood of the century in 1997 in early April. From Fargo,
North Dakota, Grand Forks northwards into Manitoba, into
Lake Winnipeg, and so on.

What really aggravated that flood was a late
blizzard snow storm, ice storm in North Dakota that took
down Mancota Power's transmission lines to a large extent,
distribution systems. But in addition to that, it knocked
down public and private radio and television transmitters.
And this lasted for days.

So the customers and the people in the region did
not know how extensive the damage was, when's the power
going to come back on, and there's a flood on our back side.
So there are many lessons to be learned from that, and I
certainly from experience would speak a bit to taking those
lessons and building them into resiliency that can work.

And the way it can work is mutual aid agreements between utilities that help each other. This has gone on for years, and I'm sure there are many utilities that have formal agreements for that.

One of the things that we need to work on is to have an agreement that people can cross borders with equipment, construction equipment, and materials unimpeded, or literally in real time. A hold up at the border can cause a lot of devastating consequences that we really don't want.

Thank you, Mr. Chairman.

MR. WHITLEY: I also want to agree with the other speakers that you need both because you've got to assume that, because cyber security is ever changing, you're just not going to be 100 percent protected. There's always the chance that some way something's going to happen. So you have to build in redundancy and resiliency in your planning and your infrastructure to do that.

MR. LITZINGER: We make a slight distinction. Our defense-in-depth really focuses in four areas, and a portion I guess you would characterize as resiliency.

We've got our perimeter defenses, both physical and the network. And then the interior defense, which you can think about as a portion of your resiliency, that if
something gets in can you isolate it and mitigate it and keep it contained?

And then we have a data protection element that I won't go into. But once you've done that, which is what we're calling defense-in-depth, we go to our broader business resiliency and recovery. So I almost liken this to a natural disaster where you get it stabilized, and then you switch more to a process where you're very flexible in how you're going to recover.

MR. WRIGHT: I'm going to give a little different answer than other folks. So you might have noticed that my statement was a little different than others, and that it really didn't say specifically here are the emerging issues; it was more about how do you address the emerging issues that are coming on.

It wasn't because we don't have them; we have a whole bunch of variable energy resource issues in the Northwest. But I think my bigger concern is, it is very difficult for any of us to develop the expertise around all of these issues, around cyber security, around GMD, EMP, et cetera. At least I will admit I'm not smart enough to develop that expertise in all those areas.

The thing that I worry about more is, are we creating a structure so that we can understand where to set our priorities? And those priorities should be based on a
simple evaluation of likelihood of event times consequence
of event, and an evaluation of mitigation alternatives,
using the best expertise that's out there in the country.

And if you've got that kind of structure, then it allows you as these emerging issues come up to be able to place them.

I think one of the problems that at least I face with capital allocation in my own organization is sometimes if you don't have a really strong structure, the people who come forward with the most passion are the ones that get the money, as opposed to maybe it being allocated in the most objective fashion.

So that's the reason why my comments were more focused on what's the structure that we have here in order to be able to address these issues? And let's make sure that we've got that set up in the most objective way possible so that we can deal with these issues. Because they're going to come up. Gerry's list of the seven or eight issues is the right ones for today; it might be different a year from now. How do we deal with those things as they come in?

COMMISSIONER LaFLEUR: Thank you. In the interests of time, I just have one rather narrow question for Mr. Cauley with all this very broad discussion.

You talked about the work that NERC is doing
specifically on GMD that you'll be pulling some things
together in April and probably putting out an Alert. I
guess my question is: Looking first of all specifically to
adding capacitors, resistors, to transformers, some of the
first steps that you might take against any of these
threats, it strikes me that, would that not be a good
subject for a standard when we look at hurricane standards,
and fire prevention codes, this almost seems more standard
friendly than a lot of the other behavior standards that we
try to write. Because we're really looking at what kind of
engineering requirements do you put?

And I know there's been a lot of discussion on
what's an Alert, what's a standard, so I wonder your
thoughts on that.

MR. CAULEY: I think it could be the subject of a
standard. I think, as you suggest, it does lend itself to
setting certain requirements.

When we came through our planning process and
identified this as a key priority for us, one of the things
we started assigning people and resourcing it, and the
natural tendency is to go off and do this engineering study
that takes a year to figure out, you know, what's the right
thing to do. And I think there is a long-term perspective
on this, when you start talking about spending millions of
dollars. We need to really assess how best to do that
upgrade of equipment, and whether there should be a standard
applied as well.

I think what I was trying to do is grasp some
early victories in terms of some low-cost, quick-hitting
things that we can do in the early stages of months in terms
of being prepared if 2012 is a peak storm year, that we have
done some reasonable low-cost, low-hanging fruit type
action.

So I think initially that is our approach, to
find the low-hanging fruit and put that out through a heads-
up to the industry. But I think in the longer term, it's a
fair question. My answer, if I had to do it today, would be
I think it is suitable for a standard.

COMMISSIONER LaFLEUR: Well thank you. Thanks
for that perspective, and I think you are right that there's
both short term and long term elements.

One of the things I read on this topic was one of
the studies that came out in 2004 that I've talked about
that said if we start now we can really make progress in
three years to harden our system.

Well now it is four years since it would have
been three years after that. So if we start now, you can
fill in the rest.

Thank you very much to this panel. We are going
to go to our third panel and move forward. Thank you, very
All right, we are going to try to ask people to take their seats. All right, we are going to welcome back our--we are now going to go to a blended panel of some of the folks who have been with us for panels one and two. Welcome back everyone.

Obviously this is a final panel of the day. We do know that we are running behind schedule, but we may go over. We won't go past 5:30, but just to make sure we give this the time, or as much of the time as it deserves as we can.

The purpose of this panel is really to be more of just a discussion to discuss what steps we should take going forward to act on what we have talked about so far today, and what processes are necessary from here on to address the discussions of priorities and the emerging issues we've talked about.

We hope to get your insights on the next steps that you recommend that we take, and whether NERC or other participants in the system have the necessary resources to address the things we have talked about, or adjustments we need to make; whether the processes that NERC, the Commission, and others have in place are adequate or need to be addressed to address the reliability issues and
priorities that we've talked about today.

And we are going to dispense with going down and making statements and go right into the discussion. And, mixing it up, I will go to my colleague, Commissioner Norris.

COMMISSIONER NORRIS: Thank you, Commissioner. I will ask a couple, to make sure we all get a round here and we'll see how long we last.

Let me first, John Q., follow up with you. You made a comment earlier about directives, there could be different ways of doing that. And I also learned from this reliability discussion over the last year that, surprisingly enough, engineers have different opinions on what is the right approach or not.

And so how do we get the value of the FERC and the FERC engineers' perspective in your process if it isn't through a directive or an Order? What are some other avenues by which we can share in the expertise and the development of the standards process?

MR. JOHN Q. ANDERSON: Well I doubt there's an exact answer for that, or a set process. Because I think it's going to vary a lot depending on the type of standard we're dealing with and the situation.

I think in general that what we have seen is that the process works smoothest, and I think fairest, to all the
parties, but also deals with that issue that there will be

differences of opinion, and we need to get to one standard
eventually.

And so some of the mechanisms are, and Joe has
been very good working with NERC on this, has been the, what
I would call the predirective steps that can be taken. In
other words, the pre-standard steps. FERC has the means to
participate early on. Joe and his office send people to be
part of that process.

We have worked--it was bumpy at first in fact
because some of the industry participants saw a FERC person
walk in the room and thought, oh, shoot, everything they say
is going to be it, because, you know, that's what they're
telling us, if you don't do it my way then the Commission
will slam you down. Well we've really worked on that. I
think Joe has worked with his people, and we've gotten our
industry participants to understand that that is just not
the case. That is really not the way it is supposed to be.

So that is one step, is that early input as a
participant and letting us know where the concerns are. And
believe it or not, even though we have worked on those
misperceptions, it still is given heavy weight when the FERC
staff and engineers come in.

Secondly, I think that the orders or directives
that come out may need to reflect input that wasn't accepted
in the drafting process, but the directive itself can be, as I said earlier, the directive is a powerful tool. And I'm not advocating don't use it, but when it is used try and be very thoughtful. And I think the engineers can help you to not prescribe. And we have already talked a lot about that. But to raise the concern in the directive, and to say this doesn't look complete enough to us. We don't accept this exactly the way it is; add more consideration of these factors in.

So I think that is where you've got to get working with the Office of Reliability to be crafting the role that those engineers play so it's not directive in telling us how to.

So I don't know if that answers your question. I don't think there is any easy way here to do it.

And the final thing I would say, Commissioner, is that I think it is going to take judgment on the Commission's part to react to your engineers. Because the votes are never 100 percent. And when you defer to your engineers and let that be reflected in a directive, it essentially overlays or almost countermands the weight of the industry's engineers. And that may have been 50 engineers or specialists there.

So it is a delicate balance, because we don't want to be saying you can't listen to them because there's
only two of them, and we have 50 that know, so we always
win. But on the other hand, you do have to realize as a
Commission I think, even with passionate fighting by some
engineers in the Reliability Office, they still are only
ingineers like the many engineers that have already been
over this and the vast majority voted, two-thirds or more
voted in favor of the standard.

So you have to be careful about countermanding or
overriding that, because some engineers in the NERC staff--
so it's a delicate balance; no obvious answer that. That's
my view on it.

COMMISSIONER NORRIS: Anybody else want to add?
I appreciate it. All I would do is just encourage the
conversation up front.

MR. JOHN Q. ANDERSON: Absolutely.

COMMISSIONER NORRIS: Like you have mentioned.

MR. JOHN Q. ANDERSON: That's the answer, yes.

COMMISSIONER NORRIS: And give everyone a seat at
the table and make it a good, robust discussion at that
level. I think that can hopefully reduce some of the
conflicts down the road. Yes?

MR. SMITH: I guess I would maybe jump into this
with a question to your question, as opposed to an answer.
And that is: If we talk about where we're heading with this
ERO model and into a better prioritized analysis of what are
truly the objectives with regards to reliability, and what
are the highest priorities that we should be focusing in on
with regards to our standards efforts, whether they be
looking at existing operations, or emerging trends, and we
do that successfully, where would these directives be coming
from that are not concurrent with that?

Because what you would be saying with those
directives is, while you're doing all this prioritization
and while you're identifying all of these things to improve
reliability, you're missing something that you need to move
to the front of your efforts. And we as the FERC are
directing you to do that.

That's the way I understand "directives," and I
just want to know why our process at NERC is missing that;
why you have identified something here that we as a
collaborative entity across all aspects of industry are
missing in our work. I don't--I guess if we're going to be
successful, I would hope there's not a lot of that. And if
there is, I'm confused as to what it is and why we are
missing it.

COMMISSIONER NORRIS: Let me speak to that,
because I think John Q. was trying to narrow the frequency
of those happenings. Gerry?

MR. CAULEY: I was just going to help you,
Commissioner, by trying to answer a little bit.
(Laughter.)

COMMISSIONER NORRIS: I'm always willing to defer to help.

MR. CAULEY: I think there will always be room for directives. I think the Commission has a different mission than us. It has a common focus on reliability, but it has a regulatory oversight role. And we are the implementers in the ERO.

So I can imagine from time to time the Commission would, from a policy perspective, or a set of priorities, give us an objective, or an issue to deal with. And when we ask ourselves, you know, what are the priorities, I have hundreds of stakeholders I ask the question of, and they're not all--they're not all of the same opinion.

I'm looking at the other John Anderson--

(Laughter.)

MR. CAULEY: They're not all of the same opinion, and I think sometimes we need this sort of kick in the butt to have some charge that we have to take after. So I think to John's point, if we can have the dialogue on priorities, what it is we think we need to do next, and what we think we need to tone down for now, once in a while we will not have an agreement. And if we need a directive to resolve that, I think that's the role of the Reliability oversight.

COMMISSIONER NORRIS: Thanks. Yes, I think it is
to break logjams, but I think there's different levels.
There's a directive to develop a standard, but then there
are also directives of what the standards should be. And
drawing some distinction between those I think is I think
where you were going, John A.

MR. JOHN A. ANDERSON: And I would really like to
look forward, rather than looking back as much. To me
there's been a significant change, a very positive change in
the relationship between FERC and NERC from the July
conference that we had here. Perhaps starting in March,
let's go back in to look at that, but I mean I think we all
know that, and I think we are working together.

And I at least have a very positive attitude that
we are moving in the right direction. That doesn't mean
there aren't going to be bumps. Of course there will be. I
agree with everything that Gerry and John Q. just said
about, you know, if you need to do a directive, you do.

But I think Joe and his people have bent over
backwards recently trying to find out what is going on with
us, what the stakeholders are doing, and responding in very
positive ways. I really commend him that way.

COMMISSIONER NORRIS: Steve Wright, I want to
follow up because I think you raised I think the overarching
point here in your notes, and that is: Do we have adequate
processes in place to empower people to do the work they
want to do? And that is, to develop these standards and make the system more reliable.

You work in that first panel, so I want to give you a chance. Did we talk about a process enough? What would you identify as the top process that remains to be kind of discussed here, or figured out?

MR. WRIGHT: Well, so first of all I agree with John's comment from a moment ago, that a lot of progress has been made in the last six, eight months. Again, lawyers compliments to FERC and NERC for that progress that has been made.

In July I suggested I thought it would be good to create some kind of a forum that created a smaller group, maybe more at the CEO level. And in December we actually filed a proposal to say this is what we're talking about when we put that together.

Maybe I'll just take a second to describe why I think that might add value here. Again, I want to be clear that I'm not convinced, myself, this is the perfect proposal; it's just a sense that there's a need that's out there.

Number one, this is a really unusual structure. I am not a big believer in shared accountability. To be honest with you, in my organization I tell people that shared accountability is no accountability. But honestly,
what happened here is we set up a structure that has shared accountability. And so we're trying to figure out how to make that work.

And we did it that way because it actually made sense. Reliability is an expertise that's spread around the country. It's a lot of people who know a lot of different things, and it really is probably the best model. But this takes a different way of thinking about how you accomplish a mission when you have that shared accountability.

I think that a concern for me right now is that it almost appears to me as if we think about standards as the only tool in the toolbox. And I don't think it is. I mean, I think this whole discussion that has gone on about the North American Transmission Forum, and trying to get the Strive for Excellence, there are ways to accomplish the reliability mission that we all want that don't just rely on standards.

Now that mission, the Strive for Excellence mission, is one that really is driven by the industry. And so there is a role here for industry in terms of moving the Forum together. There's a role here for NERC in terms of identifying key issues, standards; and there's a role here for FERC ultimately in a regulatory.

But I think there would be value in having a discussion in which--a discussion takes place in which the
parties come to the table as peers, as opposed to a FERC

table, or an MRC table, or some other table.

The folks would come to the table as peers and
talk about, so how are we going to accomplish this
reliability mission and get--again, this is my perspective,
and if others disagree that's fine--but get away from the
worrying about who is going to be held accountable for the
next outage. And is my organization going to be held
accountable? And focus more on how are we going to
accomplish this together? How are we going to get this
reliability mission accomplished, and make these tradeoffs
and these balances between costs, et cetera.

The final point I'll make is just, I said it in
July and I still feel it today. I don't think there has
been enough conversation nationally about the tradeoff
between reliability and cost, so that consumers understand.
Because there is a tradeoff there. And ultimately we are
talking about accomplishing a public service mission.

The only way you can do that is if the public
understands that tradeoff and buys into it. And I think
getting these three parties together to talk about how are
we going to have this conversation--with customers,
consumers, ratepayers, voters--about that reliability/cost
tradeoff and an understanding of that is something that we
need to do together, as opposed to one group taking the lead
on that.

So that is the thought.

COMMISSIONER NORRIS: Good, because the cost is my last question I wanted to get out on the table. You set it up, Steve. That is, we have accountability comments and it is hard because everyone feels responsibility but there is lack of singular accountability, and we all worry about making the wrong decision.

And I think that has created an uneasiness with talking about costs. How do you analyze that? I think Betty Ann made some comments earlier, but I think your detail on costs in my mind is probably not achievable in this construct. Yet, if we don't have an open, public discussion about costs, then sure enough the one thing we decide not to do, even though it made sense, then goes wrong and we'll be back to square one in terms of this lack of accountability.

So how does cost enter the equation? Right now in my mind cost enters the equation when I see a standard rejected at NERC. So, okay, there are some costs involved here, but is the rationale filtering up? Are we table to decipher what the cost analysis was? Because it really isn't presented. No one wants to talk about we're not going to do it because it costs too much.

How do we get that on the table? And how do we
make good, general judgments about cost without burdening ourselves with the kind of level of cost specificity I don't think we can get into in this sector?

DCPSC CHAIRMAN KANE: Right, because you're not conducting a rate case. You're not looking at it in that same kind of almost formulaic way, although I must say, even for a state commission we get into things like Smart Grid, like Smart Meters, like some of the other newer things that are coming, two-way communication, those standard old cost/benefit analyses don't work, and how do you put a price on increased notification of outages, which you'll get with Smart Meters?

You're guessing. How do you put a price on what you are going to achieve with energy efficiency by having better information to a customer about their usage on an hourly basis? So you have to do some estimates and some guesses. It's not the same thing as if--you know, we can say, you put in a Smart Meter and you could eliminate X meter readers. There is a dollar value to that. But there are a lot of judgments, and social judgments called, so that's--but I think there is some, I'll use the word "expertise" among the state commissions that could help in this, too.

And I wanted to make two suggestions. I know that FERC has had technical conferences in conjunction with
NARUC on other issues. And because really the interaction
and the intersection with the consumer is with the state
regulatory commissions, perhaps at one of our NARUC
meetings, committee meetings or annual meetings, a
collaborative kind of technical conference where you have a
lot of commissioners there and you could really get into
more of a discussion of, you know, how do you value? How do
you do cost/benefit analyses when you're not talking about
things that have really quantifiable price tags all the
time? There are social benefits. There are societal
benefits that have to be in there, too.

The other thing I was going to say earlier is, in
terms of accountability, one of the things it's hard to
wrestle with too is, from what I see, and one of the things,
it's not just FERC and NERC. You've got the Department of
Energy, which has now started a collaborative process on
cyber security, which includes NIST, which includes some
others. You've got Homeland Security. You've got a lot
more players in there that are also going to say this is the
standard you should have, this is what the reliability
should be.

And so it makes it harder even to quantify it.
But we would be very happy to help in that process.

COMMISSIONER NORRIS: Kevin.

MR. BURKE: I think some of the quantification
is difficult. In some cases we've been able to do it by, if we can compare here are some changes we want to make to the system, with here's the relative benefit in terms of reliability and either customer outages or risk to a particular part of the system.

Where we can do that, then we can look at, okay, how much do we invest in a program? And what benefit is that going to give? And maybe I say I'll install 100 devices. What's the benefit for the first 20? What's the benefit of the last 20? And we actually try and develop curves and look at the marginal benefit with the marginal cost, and then compare that to different projects.

I don't even know how I would start that on a national basis. I mean, it's challenging enough within one company. And then trying to balance that, as the Chair said, with respect to the impact on customers.

But at some point in time you can say, well, gee, here's a program, like I was saying before, that maybe we should stop because the marginal cost compared to the marginal benefit is not proportional to another project I have underway. Or, that I think my distribution system reliability is adequate and the customers are reasonably happy with that level of reliability, so we should try and maintain that level of reliability and not continue to drive the reliability, or number of outages lower and lower.
MR. CAULEY: I think, just following up on Kevin's remarks, I think it is difficult in the Bulk-Power System to do that. But I had an MBA professor once who said the real world is messy, to make sense of it. And I think that's what we need to try to do.

If nothing else, I think there's inherent value in just describing the reliability benefits of the work that we do. Why should we just take it for granted that we have an assignment, we're going to go do some work; it's just because we have to do it. I think we should do a better job of describing, communicating the value that we have.

Now if we've done a sufficient job in describing the benefit of a more rigorous program that we might do in cyber security, then why can't we lay these proposals side by side and just do a subjective but competitive bidding on which is going to give us the most benefit for the amount of effort and cost that it's going to take.

So I think we can get part way there. I think the reliability performance data that we're going to be working on in the coming years will also give us more concrete data in terms of the amount of outages that we're seeing caused by certain factors, and can we eliminate those factors as common causes that we're seeing and get a little more quantified.

So I don't think we'll ever get to the threshold
value that's done at the retail level of here's what it
costs, here's the benefit, and do a zero sum sort of benefit
analysis, but I think if we have 30 things to do, and these
5 seem to give us greater value for the effort, I think we
can do that kind of analysis.

COMMISSIONER NORRIS: John?

MR. JOHN A. ANDERSON: I have two things on it.
One, I think that you're exactly right on looking at some of
the votes, that some of the votes have to do with people
thinking that it costs, or whatever. I can assure you that
when a standard is under development people look at it and,
at least my companies look at it and say what is this going
to cost me? And it's going to get their attention, and they
are going to be much more involved for ones that cost them
something than for ones that don't.

I mean, the definition of the "Bulk Electric
System" right now has really gotten the attention, and we've
got not only one on a drafting team, but several people
going to the meetings. I mean, you see the active
participation.

But that's not a very good way of doing it,
either. I think Gerry really hit it right. I mean, if NERC
can go down and try to help on that, it will be of great
benefit. And I think that NERC will. I think that's
something that's important to do.
My second thing that I really wanted to comment on started with, and I can't help but comment a little bit on my good friend Steve's proposal. Since July 8th was when I think we had it before, and I believe, Mr. Chairman, you and I had a couple of exchanges on that.

What I'd like to do first is to thank Steve very much for changing the way I heard it in July and the way I read his filing in December. It is quite different. And he did listen to the concerns that I had and made significant changes, and I thank him for that very much.

What it is now, though, it looks like is just almost a subsector of the MRC. And it seems to me that the first thing we ought to be trying to do is get the MRC to deal with some questions that Steve has raised, which are very good questions, before we set up with a new organization.

And if the MRC is incapable of doing that, then I think we ought to look very seriously at whatever else we need. But I just respectfully will disagree that the MRC--i think the MRC can do that, and I just think we need to put it on the table and try to go that route first.

MR. SMITH: And I will second that. As an MRC participant and hearing the description of what we were looking for there, that's my intention for the MRC. And if we're not doing that, then we need to get to where we need
to get to with regards to that organization.

I think that is an ideal forum for the participation of all of the various segments of industry that have representation there. We have the entire NERC Board of Directors at those meetings. We have tremendous FERC participation. It is supposed to be a strategic committee talking about strategic and emerging issues at NERC. It is not a check-the-box kind of basic business kind of committee. It is dealing with real issues.

And if the sense is, no, it doesn't, then something is wrong with the MRC, and that's where it needs to be addressed. If we create something else, I don't know what the purpose of the MRC is. And I believe it would wither up and go away.

MR. TYMOFICHUK: Thank you. I'm not making these remarks as the outgoing Chairman of the MRC, I'm making them as my experience as the vice chair and chair in the past two years. I believe we've made tremendous strides at the MRC with the quality of membership around the table, the policy discussions, particularly those on request from the Board of Trustees, and other topics.

So I have a great deal of concern that another venue, another direction could undo some of the good work in the last little while. And I have a lot of faith in the incoming vice chair and chair as we go forward.
Thank you.

COMMISSIONER LaFLEUR: I guess the Chairman is going to close, so we will go next to Commissioner Moeller.

COMMISSIONER MOELLER: I just wondered if anybody--

MR. TYMOFICHUK: If we're closing, I would like to make a couple of short--

COMMISSIONER LaFLEUR: Sorry, no, we're not closing yet, I'm sorry.

MR. TYMOFICHUK: Oh--

COMMISSIONER LaFLEUR: I was just explaining why my order, but we will thank you. Sorry.

COMMISSIONER MOELLER: I would just offer to any panelist if they have another question of another panelist. And if not, then I will yield my time.

(Laughter.)

MR. CAULEY: I won't do that, but there was a good question I think that is unanswered in terms of how do we proceed going forward here, and I would like to just offer some thoughts there and touch on a couple of points.

I think you say how do we, after three or four years, get to the point where we seem to have this confusion over priorities, and sort of are we driving in the right direction?

I think we have a lot of well intentioned people
who have done exactly what they thought was the right thing for reliability. We have a lot of directives that came from staff that are very specific, around specific changes to the standards.

We have a lot of issues that we're trying to deal with in parallel, and I think everyone is trying to do the right thing.

I think on the NERC side, we probably have taken in the last few years, while everything that's in front of us is the ERO, we're obligated to do. So we have to do it. And we have to figure out how to do that. And I think we have kind of built that into our planning process.

And I think what's happened through this enhanced dialogue that we've had in the past six to nine months is really maybe a maturation of the discussion and the dialogue that perhaps we can actually break free of we have to do it because that was our understanding of our job to say, well, what really is going to be important for reliability?

And I think we have to have a meaningful process to do that. One is the one that's discussed here by Steve. Another suggestion I would put on the table is the opportunity to continue this kind of a conference but maybe in a little bit of a different style.

I'm sure that if we had a year from now an assessment of what have we achieved, what are the big things
we have accomplished in reliability, and what are the big
issues ahead of us that NERC could come and make a
presentation along those lines. And I think the Office of
Electric Reliability, with an independent assessment using
their resources could do a similar assessment, and have that
as part of the conference. And then discussion on
priorities.

And I think what we would see is some different
alignments on the priorities, but an opportunity to discuss
and maybe get alignment.

I think in our business planning process--what's
ahead in the business planning process, I think if we can
have that annual opportunity, but maybe other opportunities
to just discuss the priorities and issues, and we could
communicate things that we don't think we can get done, or
diluting our efforts on more important things, if we had
that dialogue as we go through the year I think that would
be beneficial.

But I think then we need to look at our business
model and make sure that when we do our business planning
it's not, you know, can we do 80 things that we think we're
obligated to do? But what would be a smaller number of
things that we would have a meaningful impact on? And make
this really more a successful business enterprise that can
have more effective planning.
And I think we have reached that level of maturation. When we submit a business plan, it is not just a rubber stamp, yeah, NERC said they'll do all these things; but we actually have some meaningful thought put into prioritizing how we best spend our resources.

So I would put that on the table as maybe a plan for going forward.

COMMISSIONER MOELLER: I just might point out again, Ed, we particularly appreciate all the effort everybody has put into here, but, you know, Ed, I think maybe those of us maybe who grew up in the North are a little more cognizant of our North American relationship, and the North-South element. Certainly we are in the Pacific Northwest. And the North-South nature of the provinces, and how it impacts our grid.

So to all our friends in Canada, we are very aware of it. Thank you for your participation. And regarding your cross-border challenges earlier, I think we would welcome Manitoba as the 51st State, if you--

(Laughter.)

DCPSC CHAIRMAN KANE: No, no, the District is the 51st State; 52nd State.

(Laughter.)

MR. TYMOFICHUK: When I see the language in the future referring to "the State of Manitoba."
COMMISSIONER LaFLEUR: Commissioner Spitzer.

COMMISSIONER SPITZER: I am always quiet with Manitobans because I don't know whether they're angry about the Phoenix Coyotes, or not, but we'll get to that over drinks some other time.

(Laughter.)

COMMISSIONER SPITZER: You know the discussion, Gerry was talking about the formats and appropriateness of gatherings, and I recognize the need for bilateral discussions. And then adding other entities has the risk, though, of making it ungainly.

But I had a little bit of a light go off. When I got out to the elevator, I saw the leadership from FRCC, and I had a very valuable meeting. I went down to Tampa, I think it was in '07, and then they came up just recently, and I always get very valuable input. Because I think, Lonnie, you used the word "blocking and tackling." We get an awful lot of very valuable insight from an oversight role from the Regional Entities. But it's not formalized.

Nor has the relationship between FERC and NERC been formalized. In fact, that was one of the problems. There wasn't enough communication and, well, I'll just take responsibility myself. Recent events caused an elevation of importance, and I think that is true of all the
Commissioners. There had been a perception that this was not a significant issue on the 11th floor, and I think we have worked hard to change that perception by working hard. And this is a manifestation of that.

The challenge is, you bring Regional Entities in, they add to the discussion, it makes it more formalistic, as we have formalized through conferences such as this NERC and FERC. At a certain point, though, you get too many people in the room and you don't want to replicate an MRC where you've got the Regional Entities participating.

So what is the appropriate balance? And this I guess goes into the question about how many times do we meet a year? Who are the invitees? The dilemma of getting granular without being so diffuse that we don't degrade value and that people have to fly in from--I don't want FRCC to come in from Tampa at great expense to talk for two minutes. How do we handle that?

Maybe start with Gerry, and I'd certainly love to hear from industry.

MR. CAULEY: Well I think, first off I think the informal dialogues that have occurred in the last nine months have been very beneficial, so I think to lose that opportunity would be sort of sending us back a bit. Because I think it's a lot of the individual conversations that a lot of the insights develop from over time, and I don't know
the frequency but I would encourage us to continue valuing opportunities to come in and speak with individual Commissioners. And I think not just the NERC staff and leadership, but also representatives from industry and so on.

I think we should have a continuing dialogue on reliability. So I think there's a place for that to provide the insights needed.

I think the annual forum that I've proposed--I think the workshops that we've had, the conferences we've had, July, November, and now in February, have been extremely beneficial. But I don't know that we necessarily sustain the pace of doing one of these every three months.

I mean, we could do it. I'm in D.C. quite a bit, so we can keep doing it. We need to be able to create the value from these events, because they are a significant investment of your time and industry's and everybody's.

So I think to me the timing on this kind of event, looking at broad reliability priorities, is on the once- or twice-a-year at most type of a level. And there's a lot of work going on behind the scenes between me and Joe and others to sort of work out, to see if we can get 90 percent of the way there on agreement on the priorities, and then bring those in.

So that would be my response, Commissioner.
COMMISSIONER SPITZER: I know you want more meetings.

(Laughter.)

MR. JOHN A. ANDERSON: Oh, yes, I want more meetings. I really think these are very valuable, and I think twice a year is a good number to pick. I agree with Gerry that four times a year is kind of overdoing it. I think twice a year. Because there's an awful lot going on else--you know, other kinds of things that are going on also.

And again, I mentioned earlier before, and I'll say it again, I really thing that the participation of not only FERC Commissioners but the FERC staff also at the NERC meetings is extremely important. I haven't counted numbers, but just my sense is that that's been picking up. There have been more there. I think that is very, very valuable.

So you're getting that. And then on top of that, each of us in our own ways, I mean, poor consumers can't get anywhere near like the big utilities do, you know--

(Laughter.)

MR. JOHN A. ANDERSON: --but we all come in and see you. And I think a blend of those kind of things gets the kind of communication that is good, and so I recommend about twice a year for this.

MR. TYMOFICHUK: I will ditto John Anderson's
COMMISSIONER SPITZER: And you're not angry about the Coyotes?

MR. TYMOFICHUK: No.

(Laughter.)

MR. BURKE: Twice a year sounds good to me, as long as it's also supplemented with a lot of more informal discussions. Because I think that's where you really get better communications, and better understanding of what some of the issues are on both sides.

It's always difficult to do that, you know, with Orders and papers being filed, and things like that. So better communications is useful.

MR. CARTER: I really can't add anything to what's already been said. I wouldn't do it more than twice a year. And I think this has been very helpful. You can't beat good communications when you're trying to tackle the kind of problems that we're trying to address. And we all have a role in it.

MR. WHITLEY: I agree. This is Steve. I agree with the same comments, about twice a year. But I think at maybe that second meeting about a year from now it would be good to have a progress report brought back up on, okay, here were the top 8 buckets of things we were going to work on. Here is what we accomplished. And here are the bottom
20 things that we have pulled out of the hopper and put on
the side.

And if we are all aiming toward that, I think we
can start making some progress. So just following Gerry's
leadership.

MR. WRIGHT: Well, so as the lone dissenting
voice, so we did file a different proposal. And I would
just say that our view was that, it's not that the MRC isn't
valuable; we think the MRC is valuable. We think that,
first of all, there would be value in a smaller table.

There's an awful lot of people at the table at
the MRC, and it's just hard to have a real dialogue when you
have a lot of people at the table.

Second, so we think there are some higher order
things with respect to, for example, not just what standards
are coming forward, but what is the relationship of the
Forum to standards? Where is that we're going to rely on a
Strive for Excellence and building that kind of culture
approach, as opposed to a standards approach?

And as I said in my earlier comments, standards
can be written in a fashion that it will eviscerate the
Forum; or it can be structured in a way, and actually really
support the Forum. It will make a difference in terms of
the way the standards are put together. And so a thoughtful
approach to having a conversation about that is needed.
And the concept of developing a strategy for how we approach the public I think is necessary, as well. So I heard my friend, John Anderson, say well those are good tasks for the MRC to take on. And if there is not an appetite for doing the Forum that we've suggested, then I would hope at least that those issues would not get lost, although I have to admit I still continue to think there would be value in putting together a group like that.

COMMISSIONER LaFLEUR: Well, thank you very much. I'm just trying to think of how we can get some of the benefits that Steve Wright is talking about of the smaller forum, because the problem is when you do try to--it's all well and good to talk about just coming together like a couple folks, but then pretty soon you're, if you invite this one, you have to invite this one, and invite that one. And I do think perhaps not a total answer, in addition to the meetings everyone seems to think we should have a couple of times a year, continuing to go to more of the meetings of the REs, and pop in here and there where you really can be like a peer because it's not at a table with microphones and all, is one answer. But I'm not pretending that that's responsive to your whole question. But I think we should keep trying to be present in other ways.

I wanted to just talk a little bit about how we, or invite comment on how we capture some of the progress we
have made today, in addition to having future meetings. Because I think there was a lot of useful discussion about the list that NERC had put together of the four standards issues, and four emerging issues, as well as here and there on the panels we talked about the standards development process, if there's a way for you to propose a prioritization of some of the outstanding directives, if that would be useful.

I think I was one of the first to start talking about priorities, and I want to just pick up on something Gerry said. It certainly was not my perception that you were driving in the wrong direction, but maybe that we were trying to drive in too many directions and we didn't have a clear, agreed upon list that we would come back to and say here's what success looks like.

So I think in the comment period after this, if people have process ideas, or ideas for even just writing down some of the priorities, that would be useful. I mean, you don't have to write down what you've already said, but we know there's a lot of people on the video, in the audience, and otherwise that we don't want to lose some of the thoughts that came forward today so we can build on those and not wait for six months.

With that, I just--I know Mr. Tymofichuk has something he would like to say, and I want to ask anyone if
there is anything they want to add that hasn't been
captured, and then we will give it to the Chairman to close.
But if anyone--

CHAIRMAN WELLINGHOFF: Actually, before you
close, let me just go into something.

COMMISSIONER LaFLEUR: Okay, I'm sorry.

CHAIRMAN WELLINGHOFF: Thank you. This follows
up on Steve and the ongoing debate between Steve Wright's
idea and the discussion that John Anderson and Mike Smith
had.

I saw earlier, or heard earlier from many people
that some of the things that we're trying to do here is
foster best practices in industry education, operational
excellence, flexibility, peer review, and reliability.
These are things we all want to encourage and foster in the
industry.

I think John Q. was saying that these are a
number of things that NERC is taking up. And Kevin is
telling me that we are working, hopefully successfully,
towards formulating and creating a robust North American
Transmission Forum.

Without Steve's group that he's proposing, I'd
like to ask you all how you propose to clearly set forth
process, and delineation of functions between NERC and the
NATF? Because I think if we don't figure out how to do
that, we are going to have problems here, because we're
going to have one organization vying to do what the other
organization is doing, or both organizations doing the same
ting, and I think we ultimately have to figure out, if we
want to do all of this, you know, again it's accountability.

You know, if you don't have the accountability of
who is going to do something, then nobody is accountable,
and ultimately everybody is out trying to do it but nobody
is really responsible for doing it.

So if we could comment on that in relationship to
Steve's idea, which I think was a way to get there to
delineate those functions and set forth those separate
processes. If somebody has another idea? Because I don't
see one on the table before me right now, I'd like to hear
about it.

Gerry?

MR. CAULEY: Chairman Wellinghoff, I think I see
the questions separately but somewhat related, but
separately to start with.

As we've done our strategic planning the last few
months, we have come out with the need to not just be a
compliance organization and standards as our only business,
but to encourage operational excellence and be able to
recognize best practices and those kinds of things.

And what I'm very committed to is that those
things will help reliability. They will improve the
dereliability performance of the entire industry, if we can
create this learning culture across the industry.

And the question is, is that a NERC role? Is
that a North American Transmission Forum? And in my view,
it doesn't really matter. I'm committed that it's going to
happen. And if we have to do it, we will do it. But I
really want to see the North American Transmission Forum
succeed and take on some of these responsibilities and
develop some of the best practices. Because I think
anything they can do to elevate the reliability performance,
the reliability game within the industry, I think that is
going to make our job easier and help us get more focused on
some issues.

So I don't see it as a competition. I see it as
really a role that needs to be filled and we need to sort
that out. So how do we do that?

We need to have the leadership of NERC, including
myself and the Board and other leaders, working with the
leadership of the Forum. There are some very senior folks
involved in the Forum. I know Billy Ball is very active. I
know Kevin, and some others, Terry Boston and others, are
very actively involved in that. And I think it is a
question of dialogue, of setting up the priorities.

So I don't think the success of the North
American Transmission Forum in taking on some of these reliability improvement--Reliability Excellence initiatives depends on forming another group.

I think it is really incumbent upon the NERC organization and the Forum organization to deal with that coordination. I don't want that to be translated as I oppose Steve's proposal, because I think dialogue is good. In fact, if we had another venue for dialogue, that would be great. So I'm not making my comment--that's why I separate the two. I think the dialogue and seeing us together is a good thing, but in terms of the problem of the Forum and NERC communicating and achieving the goals of Operational Excellence, I think that's a leadership issue between the two organizations.

MR. BURKE: I would tend to agree with what Gerry said. I think, you know, in the past, and even earlier this morning I laid out some of the differences between NERC and the Transmission Forum, and I think that is going to evolve over time as the two groups clarify what they're doing.

But I think at least for now, I don't see any concern between the Transmission Forum trying to do what I see as the core NERC role with respect to compliance standards or issues. I haven't seen anything like that, and I haven't seen anything that Gerry is saying that, you know, we're going to be doing--the Forum is not doing audits.
They're not looking at it in terms of a compliance, and check off the list, are you doing this, are you doing this; but get in, bring some experts in, you know, talk to the operators, what are you doing on different aspects. And then also getting people together who can talk in a pretty open forum about what are the issues that they're facing. How do they address certain issues. And help develop some best practices.

If at the same time NERC is out doing a series of evaluations and comes across something that they think is a best practice and should share throughout the industry, I view that as a positive.

But I think it's going to have to evolve, as Gerry said, between the leaderships of the two organizations. I don't think we need a document at this point in time specifying what those roles are. I think in some cases we've had these conversations already, and I think we'll see how it evolves. The Forum is continuing to evolve.

CHAIRMAN WELLINGHOFF: Mike, you look troubled.

MR. SMITH: Well I'm perplexed at this concern that somehow there's conflict or a challenge between the Transmission Forum and NERC.

We are actively involved in both of those organizations and are very proud of that involvement, and
feel that we get a lot out of our involvement in both of
those organizations. I've never had anybody in my company
or myself ever feel like, well, at some point we're going to
have to resolve this issue of who does that.

   I mean, it was very--NERC championed the
development of the Transmission Owners and Operators Forum.
It was originally developed under your wing. And when that
baby was born and nurtured, you let it go, and now it's
maturing on its own. And I would hate to see us believe
now that it's out there that somehow there is a conflict
that we've got to resolve. That's the first I've ever heard
of it, and I don't think there is one.

CHAIRMAN WELLINGHOFF: Maybe I didn't hear
right, but I thought I heard John Anderson this morning talk
about functions, it sounded like functions that I thought
NATF was going to be doing.

MR. CAULEY: I think, just to clarify,
Mr. Chairman, we do anticipate that success of getting to
where we want to in five years or beyond really is achieving
a culture of reliability excellence, getting beyond the
minimum threshold of adequate reliability according to the
standards.

   So we support that. We endorse that. to the
extent that NERC needs to take on activities to promote
that, we will. But I think to the extent that the Forum can
pick up those activities and run with them, that is all the
better for us.

So we are committed to the success of the Forum, and it's not a subsidiary of NERC's. We can't tell them specific things to do and a time line, but I don't think there's any greater fan of success of the Transmission Forum than us.

And I think when John was outlining some things we hope to accomplish, it's more globally as the whole enterprise, as the industry, we do believe in incenting reliability excellence and positive behaviors. And the question earlier about, you know, if people do good things above and beyond, should they be getting credits, I think that is going to be the success. Because running along behind and whacking somebody with a stick once in awhile is not going to get us to the level of reliability that we contemplate we can get to.

So I think it is a shared role between the two organizations. I think it is still not mature, so in terms of exactly how much and what I think we still have to work out, but I think that is a coordination issue.

CHAIRMAN WELLINGHOFF: Well we fully endorse and agree that these activities need to be undertaken. I just want to understand who is going to undertake them, and who is going to be--
MR. JOHN Q. ANDERSON: Yes, I think you're right. And Gerry is right, when I made those comments it was in general we need from--from NERC's point of view, we are going to make sure that there is a culture of excellence, that there is a focus on how things are done, and not always the stick, and so forth.

There is going to be I think a natural evolution and a split to--I agree with what Mike said and with what Kevin said, because the Transmission Forum, somewhat like INPO is a private institution. It can be quiet. It can be very open among themselves because it's not open to the public.

At NERC we have pretty strict guidelines and rules to be open to the public, and they're not exactly Sunshine laws like you might have, but they're close. And so there's that natural division of things that can be done best on either side, and we are 100 percent supportive of the Forum. As they said, we started it. It was under NERC's wing.

And so I think my view would be that we let it evolve. I see the potential for conflict or problems being nil at this stage, and we let it evolve and see how it goes and continue the informal discussions we have.

And then if anyone sees problems emerging, or feels like there are crevices that aren't being worked on,
then we ought to raise those up right away and see what to
do about them.

CHAIRMAN WELLINGHOFF: So you don't anticipate
then the things that the Forum is intending to do to be part
of your business model at NERC?

MR. JOHN Q. ANDERSON: The things that the Forum
will do will be very crafted for what they can do best
inside there.

CHAIRMAN WELLINGHOFF: Right.

MR. JOHN Q. ANDERSON: To the extent we start
doing something that may overlap, informal discussion will
take place and we'll make sure we don't step on toes or
anything like that. So that's a good caution to raise, though.

CHAIRMAN WELLINGHOFF: I'm not worried about
toes so much as budgets. I'm worried about costs and
efficiency for consumers, and to go to Chairman Kane's
point, to make sure that we can drive down costs for
consumers to do what we need to do to make sure that
reliability is functioning.

John?

MR. JOHN A. ANDERSON: I think Steve was before
me.

CHAIRMAN WELLINGHOFF: Yes, but he gets the last
words.
MR. JOHN A. ANDERSON: Oh, okay.

(Laughter.)

MR. JOHN A. ANDERSON: Well this isn't my last word, I hope.

(Laughter.)

MR. JOHN A. ANDERSON: I think that John really raised a point that is so true. We fought long and hard for the legislation to make sure that it created a balanced—fair, balanced, open, and inclusive organization, and we have been very pleased with how most of that has come out. And we want to make sure that it stays that way.

My members were somewhat concerned when the Forum was first created, and it was in NERC. That was taken care of completely when it was spun out. It started. That was fine. I could see the need to start it, and it was spun out. But to me the Transmission Forum is doing great work, and we're supporting it, but it's not a fair, balanced, open, and inclusive organization.

So what we see is a very bright line. For things that are mandatory standards, that's a NERC job. For things that are trying to do what the Forum is doing, that is their job. And I don't see a conflict on that at all.

CHAIRMAN WELLINGHOFF: I see a similar bright line. I just want to make sure we all understand what the line is.
MR. JOHN A. ANDERSON: Okay.

CHAIRMAN WELLINGHOFF: Steve.

MR. WRIGHT: To the extent that my comments started this, let me try to get it back on what I think is the right level.

The concern I've got is not a Forum versus NERC issue. Actually there are three parties here. It's FERC, NERC, and the Forum. And I'll give you an example.

So the Vegetation Management Standard is one that basically relies on what the practices are of the individual utility, and that is what you are held to. So you develop your standard and you go forward.

If that becomes the standard, then it's not necessarily in the utility's interest to go define best practice as their standard. So the way that a standard gets written can have an impact with respect to whether in fact you are encouraged to go off and adopt best practices.

That problem I think is a resolvable problem, so I wouldn't say let's all go off and fix that problem. All I'm saying is there's an interaction here with the way standards are developed, and ultimately whether the Forum will be successful and consequently it's three parties that are involved in this conversation--FERC, NERC, and the Forum--and it's thinking about those issues and how it will evolve through time as this strategic plan is being written.
for the Forum, and just the whole setup for this institutional structure that I think is worthy of some consideration.

CHAIRMAN WELLINGHOFF: I don't have anything else, Cheryl. Thank you.

COMMISSIONER LaFLEUR: I wanted to ask folks on the panel, I know that Mr. Tymofichuk had some things he wanted to add, but to give folks a chance for anything that hasn't been said, for any closing comments.

MR. CARTER: Thank you.

MR. BURKE: Thanks for your good discussion. We've had a discussion on a lot of issues, and I think it would probably be useful if in the informal discussions in the past people could get back to NERC and indicate, you know, acceptance of the priorities.

As I indicated before, when I ask our engineers are these good priorities, they said yes. If I had asked them to give me eight priorities, I might have gotten one or two different. If I asked three engineers, I'd probably get some slightly different sets. But I think it is important that we move forward with what I think is a pretty good list. And to get that sense back I think would be useful. Maybe not in a formal process, but just in a sense of this is a good list of priorities to move forward on.

COMMISSIONER LaFLEUR: As I said, I think we are
going to be taking comments—we will be taking comments afterward, and we'll consider with staff whether there are any questions we want to put out specifically.

MR. TYMOFICHUK: Two quick comments.

Earlier today Commissioner Norris asked a question: Do we need a formal signoff process on the priorities? Or for that matter, future priorities.

Whether it's a formal or informal signoff, I believe NERC and FERC need to engage Canadian Governmental authorities to sign on, if we're going to stay the course. And if there's a course correction, another sign on.

And the other comment I want to make is really for NERC. We heard Gerry Cauley today say that he's looking at a 90 percent draft in short order, and I think that is very commendable. I have spent time in my career in standards in the CSA, Canadian Standards Association, the IEC, and the NERC as well, and human nature is a funny thing. When a first document comes out for comment, people tend to not pay too much attention to it. You know, they say, we'll wait for draft number two.

And then they might even wait for draft number three, or the final ballot document. It's the same through all those organizations, and others. So the challenge is how can we get a document out at the first stage and people start to chime in and buy in early. That would be more
efficient. It will get the process shortened, and we can get to the races a lot faster.

Thank you very much.

MR. JOHN A. ANDERSON: I would like to make one final comment. To me at least, NERC and FERC together have plenty of resources, and tools, and procedures, and processes to deal with the kind of issues that we've been facing in the past. I call them traditional reliability issues, for lack of a better term.

And it was just emphasized on the last panel, I think we face some daunting tasks coming up. The integration of renewables can have tremendous impacts on reliability. And in fact I dig down into that thing and I find that in one interconnection a loss of just 3 percent of power can cause frequency to go down to 59.51 Hertz, and at 59.5 Hertz load-shedding comes and my members immediately start getting—so we've got a big gulf of difference between how much we can have out there.

The EPA regulations were mentioned, and that causes real concern, especially if we lose a lot of generators. The attempts to make the Grid smarter can cause all kinds of privacy and cyber concerns. And who knows what EMP and the other kinds of things like that are going to bring.

What my concern is is that FERC and NERC may not
be the main players on some of these things. The debate up on the Hill now is should Homeland Security be there, or should Energy, or FERC be the kind of people that overlook it. And I guess what I'd say is, we need to a good job of making sure people know that the job being done is a good job so that the responsibility isn't taken away.

And I don't think I'm just overly concerned. I mean, I see a real debate on the Hill over say cyber security over who is going to have jurisdiction. And I just think that we can build on the kinds of things we are doing here to make sure that the folks on the Hill know that what's going on is a good job, and that you're up to the tasks that are facing us. Because I think that there are some people who don't think that we are up to the task. And I think that would be a real disaster for all of us.

MR. WRIGHT: I guess the quick thought I would leave is just I think we were given a huge responsibility by the law in terms of trying to figure out how to make this work. And the two places that I hope we will make significant progress in the next year or two is being able to explain the cost versus reliability tradeoff to the public, and being able to develop a culture of excellence across all of these organizations, between FERC, NERC, and with the EES participants that focuses on trying to make that happen.
I think if we are good at that, then we will be viewed as being successful in implementing the law.

DCPSC CHAIRMAN KANE: Thank you. Well on behalf of the States I want to thank you for the opportunity to participate. Although our average consumer has no idea about FERC or NERC, they think everything is done by their local utility and that everything is our responsibility. We certainly hope that this process does work, and that all of the issues addressed can be worked out.

I will say also that NARUC does not support--does not want to see a lot of new legislation, giving a lot of new responsibility to other agencies, but does believe that NERC and FERC and the industry should work together to develop a national plan on electric reliability, including cyber security vulnerabilities under existing authority under the Federal Power Act, which I think does fairly clearly also delineate what the role of the States are.

And so the only other thing I want to say is, Commissioner Moeller, we're just about to announce that for the second year in a row our commodity price under the Standard Offer Service is going down.

(Laughter.)

COMMISSIONER MOELLER: Thank you.

MR. CAULEY: I just want to thank the Commission for having the session today. I think each of the three now
that we've gone through in the past months, I've learned
quite a bit at each one of these, and today is no
exception.

I think we have at least the threads of ideas in
terms of process-wise how do we work better together in
terms of setting priorities, and we will take these back and
work on these.

We had planned to submit an updated standards
plan with priorities coming up soon in a few weeks in early
March. I think it is appropriate after this conversation
today to maybe broaden that to other issues and priorities,
and maybe take a bigger look at all the things that we're
doing in terms of prioritizing. But certainly today has
been very helpful in that light.

MR. JOHN Q. ANDERSON: Well just on behalf of
NERC, the NERC Board and staff and the whole organization, I
would really like to thank all of you for doing this.

Chairman Wellinghoff, we have over the months had
a lot of good contact with you. I know you were a supporter
of this, the first one, in putting this on. And
Commissioner LaFleur, the chair of this one, and working on
all the agendas and so forth, and have your staff available
to do that has been a big plus.

I also would like to thank you for the personal
time and involvement you have had in reliability and what
you've done through NERC. Each of you have been to our meetings. Some of you multiple times. I think just about everyone else from FERC around this table has been at meetings, again multiple times in many cases. We really appreciate that.

I think I can even turn behind me and, whatever you call yourselves, back benchers, or--

(Laughter.)

MR. JOHN Q. ANDERSON: --puppeteers, maybe--

(Laughter.)

MR. JOHN Q. ANDERSON: Oh, sorry. You all have been, many of you have been there, and so you have your staff--I almost said your brains, but your staff there observing and helping us.

But I know this takes personal commitment. You all have your own priorities to set, and you've got a long list of things, and reliability seems to have risen. We appreciate that because we think it is important. It is what we do. And your personal commitment to it means a tremendous amount to us, and it has helped the working relationship immensely. So thank you very much for this day and for all the time and effort. And going forward I know we're going to continue scaling the heights and doing a good job.

Thank you.
COMMISSIONER LaFLEUR: Well thank you so much for all those comments. We will think about Ed's comment about how to involve the Canadian Government, the provincial authorities at a future forum, or in other ways. So thank you.

I'll ask my colleagues if they have anything to add, or close?

COMMISSIONER NORRIS: I just had one thing that I think falls from the questions you had, and just to reiterate I think what John Q. said.

In the Forum and in the NERC discussions and the FERC discussions, I too, Steve, think the Forum sounds like a great venue for the transmission owners and operators to get together and develop a culture and vet things in the privacy of your own home. But I do think it is critically important that the discussions about the standards development process and our involvement at the NERC level, and our involvement at the FERC level, be open, an incredibly open process.

We are going to be about making choices. I think we're going to take into consideration costs, and weighing reliability, and benefits, and I just think for the value of that process to reach the best decision, and in the self interest the value of us being able to explain why we did what we did, is very critical that this be done in a very
open fashion. So that it's a good, robust public record of
how we arrive at the decisions that we did.

Thank you all for your conversation today.

(Applause.)

COMMISSIONER LaFLEUR: Thanks to staff who did
all the work to put this together--Joe McClelland and his
team, but also Chris Young, Julie Greenison, Sarah McKinley,
and Jamal Hudson for making today happen.

And I don't know if you have anything to add?

CHAIRMAN WELLINGHOFF: I have no closing
remarks, other than again to thank you all. And, Cheryl,
you can close the workshop, please.

COMMISSIONER LaFLEUR: Thank you very much. We
will stand adjourned and look forward to your comments at
our future meetings.

(Whereupon, at 4:52 p.m., Tuesday, February 8,
2011, the technical conference in the above-entitled matter
was adjourned.)