Cyber Security Incident Reporting Reliability Standards
(RM18-200, AD17-9-000)

Fast-Start Pricing in Markets Operated by Regional
Transmission Organizations and Independent System Operators
(RM17-3-000)

1038th COMMISSION MEETING

Thursday, December 21, 2017
Commission Meeting Room
Federal Energy Regulatory Commission
888 First Street, NE
Washington, D.C. 20426
The Commission met in open session at 10:05 a.m.,
when were present:

CHAIRMAN KEVIN MCINTYRE
COMMISSIONER CHERYL LaFLEUR
COMMISSIONER NEIL CHATTERJEE
COMMISSIONER ROBERT POWELSON
COMMISSIONER RICHARD GLICK
SECRETARY KIMBERLY D. BOSE

PRESENTERS:

E-1, Margaret Scott, Office of Electric Reliability, accompanied by: Kevin Ryan, Office of General Counsel
E-2. E-3, E-4, E-5: Daniel Kheloussi, Office of Energy Policy and Innovation, accompanied by:
Elizabeth Topping, Office of Energy Policy and Innovation
Kaleb Lockwood, Office of General Counsel
Angela Amos, Office of Energy Market Regulation
SECRETARY BOSE: Thank you, Mark. The purpose of the Federal Energy Regulatory Commission's open meeting is for the Commission to consider the matters that have been duly posted in accordance with the Government in the Sunshine Act.

Members of the public are invited to observe, which includes attending, listening, and taking notes, but does not include participating in the meeting or addressing the Commission.

Actions that purposely interfere or attempt to interfere with the commencement or conducting of the meeting, or inhibit the audience's ability to observe or listen to the meeting, including attempts by audience members to address the Commission while the meeting is in progress, are not permitted. Any persons engaging in such behavior will be asked to leave the building. Anyone who refuses to leave voluntarily will be escorted from the building.

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If you wish to comment on an ongoing proceeding before the Commission, please visit our website for more information.

Thank you for your cooperation.

CHAIRMAN McINTYRE: Thank you, Madam Secretary.

And with that, we are ready to begin our meeting.

SECRETARY BOSE: Good morning, Mr. Chairman. Good morning, Commissioners. This is the time and place that has been noticed for the open meeting of the Federal Energy Regulatory Commission to consider the matters that have been duly posted in accordance with the Government in the Sunshine Act.

Please join us in the Pledge of Allegiance.

(Pledge of Allegiance recited.)

SECRETARY BOSE: Mr. Chairman, Commissioners, since the November open meeting the Commission has issued 69 Notational Orders.

Thank you, Mr. Chairman.

CHAIRMAN McINTYRE: Thank you, Madam Secretary.

And good morning to all. This being my first open meeting as Chairman, I want to take a couple of minutes to say some thank-yous and make some opening remarks that I hope will be reasonably brief.

I want to begin by thanking the President of the United States for the confirmation--for the nomination that
has landed me here in this position, and likewise would like
to thank the United States Senate--particularly the Senate
Energy and Natural Resources Committee and its Chairman
Murkowski and Ranking Member Cantwell. I am humbled by the
confidence placed in me by the President and by the
confirming Members of the Senate, and I pledge to do my
utmost every day in this job to do my best for the American
people and for the stakeholders served by this Commission.

Next I would like to give thanks to my
predecessor, seated right next to me, the man for whom I
have this wonderful new gavel--

(Laughter.)

CHAIRMAN McINTYRE: --to thank you very much for
that. But more important, I want to thank him for his
gracious welcome he has extended to me, and the path he
blazed for me, and his leadership and faithful stewardship
of the Chairmanship of this agency for many months. And I
think we all owe him a debt of gratitude. So thank you very
much, Commissioner Chatterjee.

(Applause.)

CHAIRMAN McINTYRE: I also want to personally
thank his staff--Andrew, Eric, Robin, Mindy--they have been
working so hard to keep the trains running on time and doing
a very effective job, particularly as I come into this
without a staff, and they have just been tremendously
helpful. So thank you to you, Commissioner, and to your
entire team.

I also want to thank Commissioner Rich Glick, my
fellow traveler through the Senate confirmation process. We
grew through it together. It was enormously helpful to me
to have someone by my side who really understood and
understands the institution of the United States Senate. As
you know, that was his day job at the time, working for
Ranking Member Cantwell on the Energy and Natural Resources
Committee, and it really was invaluable to understand at
every stage what was going on and why, and we developed a
great friendship and working relationship at that time that
I think already is getting us off on a good footing.

So thank you very much for all of that, Rich, and
I am already enjoying working with you and looking forward
to doing more of the same.

And of course I must thank Commissioner Rob
Powelson, also one of my early--one of my predecessors,
along with Commissioner Chatterjee, in getting the place
restored to a quorum, getting the place back up and running.

I have already benefitted from his helpful
counsel, particularly the emphasis he brings in his breadth
of experience on issues from a state perspective, something
that we all have a little bit of here but nowhere near I
think to the measure that you bring, and the passion that
you bring with it is just tremendous as well. As they say in baseball, you can't teach that. So, thank you. So thank you, very much. I am looking forward to our continued good work.

And as for the indefatigable Commissioner Cheryl LaFleur--

(Laughter.)

CHAIRMAN McINTYRE: --where can I begin? Where can any of us begin? I can't say enough how appreciative I am, and indeed as you know and should know our Nation is so appreciative of particularly the time when you were here not only without a quorum but for a good period of it you were the one member of leadership here at this agency. It was unprecedented. It was of course challenging, as you know better than anyone, and no one could have pulled it off with more grace and commitment to continued productivity than you did.

So we all owe an enormous debt of gratitude to you for that.

(Applause.)

CHAIRMAN McINTYRE: And since then, you have been so helpful to me in reaching out with both practical tidbits, which are greatly appreciated, please keep them coming, and also policy thoughts, inputs, and a genuine commitment to work together. So I appreciate all of the
above. Thank you.

I also need to thank Len Tow, John Peshki, and the other terrific staff in the Office of External Affairs. They also got me through the Senate confirmation process. I couldn't have done it without them. They were just terrific. They worked tirelessly and with a positive attitude. I can't thank them enough. So I look forward to their continued good work.

Now I mentioned the notion of getting staffed up. It has been very tricky and tough, and a late-breaking development here is that we have just taken some steps to actually hire some staff. So hooray for that.

(Laughter.)

CHAIRMAN McIntyre: And I would like to take a quick moment to introduce them, if I may, in alphabetical order so don't read anything into it--

(Laughter.)

CHAIRMAN McIntyre: I'll just ask them to briefly stand, and I'll make some brief description of each.

First, Angela Amos. Angela has been a financial analyst in the FERC's Office of Energy Markets and Rates since 2015 where she mainly has worked on electric matters. She holds a B.A. and M.B.A. degree from Harvard, and we will not hold that against her.

(Laughter.)
CHAIRMAN McINTYRE: Thank you, Angela.

Next, Carolyn Clarken. Carolyn is an attorney with FERC's General Counsel's office. She has been with that office since 2012 where she's been focusing principally on natural gas and hydroelectric matters. So energy projects' focus. She is a 2011 graduate of the University of Virginia Law School.

Next is Nick Gladd. Nick joined the Commission as an attorney in the General Counsel's Office in 2012. He served a brief stint as a legal and policy advisor for Commissioner Tony Clark last year, and he has most recently been a lawyer in the FERC's Office of the Solicitor. He is a 2011 graduate of the Vermont Law School.

And finally, Laura Sweat. Laura is an attorney with the Commission's Office of Enforcement. She has been with the Commission since 2014, and before that she was in private practice. She is a 2011 graduate of Georgetown Law, an alma mater she shares with me and Commissioner Glick.

So I ask all of the FERC staffers here to do their best to assist in the transition to these four folks I've just introduced, and thank you in advance for your help in that regard.

And I have to also give enormous thanks to the front office staff that I inherited, so to speak, on day one, Tracy Danski and Michelle Brown. Are they here, any
chance? Well, it's a shame because they're-- and it's probably because they're working for me right now.

(Laughter.)

CHAIRMAN McINTYRE: They have just been wonderful to me from the very beginning when I came in, not knowing how to turn on the computer, not know how to do anything, and they have been there to almost literally hold my hand and be sure that I'm pointing in the right direction. So big thanks to Tracy and Michelle for all the help that they continue to offer every day.

I have been a member of this Commission for all of 15 days now--starting to feel like a veteran. Every day I come in I have been terribly impressed with the staff I've met, the warm welcomes, the friendly hellos, and just the clear signs of people going about their work in a very conscientious fashion.

And so I have been very impressed. I know I have met only a tiny fraction of the hard-working people who work here at this Commission. I am looking forward to getting to meet as many as I possibly can in coming days, weeks, and months. But in the meantime, I just wanted to share my genuine reaction. What an impressive place. I had that view prior to coming here, but since coming here in my official capacity it has been cemented and reinforced.

So thank you for all that you do, and I ask you
to continue doing it. Together we can get a lot done here
at the FERC, and I'm looking forward to it.

With that, I would like to turn to colleagues
here for any opening remarks.

COMMISSIONER LaFLEUR: Well thank you very much,
Chairman McIntyre. Thanks for your kind words, and I'm
extremely excited to welcome you and Commissioner Glick to
the Commission. We are happy to have you. We will really
benefit from your expertise and experience, and it is
wonderful to have the whole table filled, and the whole
couch filled, or the bench, whatever you call it, for the
first time in a long time.

I would like to welcome your team. You have
chosen well. It is nice to have Nick and Michelle back on
the floor, but also welcome Tracy, Angela, Carolyn, and
Laura, and look forward to working with you in this new
capacity, and am excited about the future.

I also want to welcome Rich's terrific team, but
I won't steal his thunder because I assume he is going to
introduce them.

I want to take a second to congratulate everyone
at the Commission for the Commission being named the number
one place to work in the Federal Government for agencies our
size. That is a credit to many, many people. I especially
want to recognize senior staff and the team in each office
for the work that you all did to learn from the lessons of past surveys and learning places we could improve. And I want to recognize Shabi and Eddie in the Office of Human Resources for their work on helping us learn from the survey. We are waiting for the subcomponent results, which must be good because, right, I mean I'm not a math major but you can't have good total results unless your subcomponent results are good. So there may be more late-breaking news in January.

And finally I would also like to thank Commissioner Chatterjee for leading the Commission for the past four months, and for all the work that you and your team did to help us work through the backlog and reestablish quorum. And I really thought at lot about what do you get for the man who has everything? But fortunately I found something--I actually found something right in my office, "made in Kentucky" that I thought was near and dear to your heart.

(Presenting a gift.)

(Off-the-microphone comments.)

COMMISSIONER CHATTERJEE: Thank you.

(Applause.)

CHAIRMAN McINTYRE: A resilient gift.

(Laughter.)

COMMISSIONER CHATTERJEE: Thank you. It's the
gift that keeps on giving.

(Laughter.)

COMMISSIONER CHATTERJEE: Thank you for the gracious gift. I want to take a moment to welcome the new Chairman, my good friend Chairman McIntyre. This is an important moment for the Commission. It marks the very first open meeting to have this full complement of Commissioners seated, and I believe this is the first time in more than two years that we've had a full complement of five here at the Commission, and I for one am very optimistic about this collective group, not just the five of us here at the table but the staffs that you all have put together to work with the talented folks in the building. I think we can do great things together, and I very much look forward to it.

I look forward to getting to know and work with your staff and Commissioner Glick's staff. And I also want to take a moment to recognize one of my new staffers, Lashawn Dickens, who I hope is down here. She came down here with me. There she is. She's been gracious enough to join my team in the past couple of weeks and has been invaluable to me and I look forward to working with her and with you all moving forward.

I will be brief in my remarks. I know staff has prepared two presentations for us today. The first is on
Cyber Security Incident reporting, and the second is on fast-start pricing.

As I have stated numerous times over the past several months, looking at ways that we can bolster defenses against cyber security threats will be among my top priorities while I'm at the Commission.

The Commission has taken on a number of cyber related initiatives already, and today will mark another step in the right direction. So I look forward to hearing staff's presentation on E-1, Cyber Security Incident Reporting Reliability Standards, and will have more to say on that front then.

And with that, I will turn it back to the Chairman.

CHAIRMAN McINTYRE: Commissioner Powelson?

COMMISSIONER POWELSON: I will be very brief, Mr. Chairman. First again to welcome you to the agency, and commend your fine team that you've put together. I particularly want to thank Martin Kirkwood, who was, I'll call it, an executive on loan. Martin was doing the Lord's work, and I enjoyed really interfacing with him.

Let me also take this opportunity--I see Anton Porter in the back. Anton, thank you for your leadership. I was humbled to kick off this year the CFC campaign, and proud to report year-to-date we've raised about $170,000. I
will be taking, as a good Catholic parishioner, I will be
taking up a collection in my office today.

(Laughter.)

COMMISSIONER POWELSON: Come once, drink often,
but I'll have a cup if you'd like to give.

On a serious note, again, Anton, I want to
commend you and your team for your leadership. It speaks to
what Commissioner LaFleur mentioned, the workforce here, the
people that make up this wonderful agency. And I would be
remiss in not thanking you all for helping me onboard.

I said to my wife the other day, when you come
into this building and you get off the train, there's a lot
of esprit d'corps in what we do, and it is the people that
represent this agency, and I'm just honored to be part of
it.

Now, Commissioner Chatterjee, I would offer you a
natural resource from Pennsylvania, but you can't bring gas
into a room.

(Laughter.)

COMMISSIONER POWELSON: Although you did come from
an organization that had a lot of hot air--

(Moans and laughter.)

COMMISSIONER POWELSON: It's only a term of
endearment, my friend. But I too want to applaud you the
leadership that you displayed. And you and I were a band of
brothers through our nomination process. I don't encourage anybody to go through that process, by the way. But I commend you again for your leadership, and working with your team, your staff, the professionals around you, a great group and I look forward to a continued great working relationship with you.

And lastly, I just want to take this opportunity. I do have a new staff member, Kathleen Benard from Brooklyn, New York. We tried to get someone from Philadelphia. It just didn't work out. I want to welcome Kathleen. She joins us--in her prior life she was at the National Institute of Health, NIH, and I just want to welcome her here today.

And lastly, I'm looking out in the audience. I want to recognize a former colleague from the Great State of Missouri, former commissioner Robert Kenny is in the room. And, Robert, it is always good to see you. I have no idea why he is here--

(Laughter.)

COMMISSIONER POWELSON: I'm getting a little nervous, Mr. Chairman, but he is one good guy and I want to recognize him here for what he's done on behalf of our regulatory compact known as NARUC. So, Robert, good to see you, my friend.

Thank you, Mr. Chairman.
CHAIRMAN McINTYRE: Thank you, Commissioner.

Commissioner Glick, do you have any opening remarks?

COMMISSIONER GLICK: Thank you, Mr. Chairman. I am very glad to be here with the full five-member Commission. I look forward to working with each of you.

As you mentioned, Mr. Chairman, we went through the confirmation process together and I got to know you a little bit, and I am very confident that you are going to make an excellent Chairman. So I look forward to working with you and everyone else on the Commission.

I also want to commend—as I think everyone else has already said this, already, but I want to commend Commissioners Chatterjee and LaFleur and Powelson for dealing with the backlog that arose after the Commission lost its quorum earlier in the year.

They definitely did yeoman's work in getting a lot of the Orders out, and certainly it was very helpful. But certainly under then-Chairman Chatterjee's leadership it moved very quickly.

You know it was interesting, when Commissioner Chatterjee was confirmed we spoke by phone I think the Senate voted to confirm you, and I said, Please get all the hard orders out and leave the easy ones for Chairman McIntyre and myself when we get there.
COMMISSIONER GLICK: But unfortunately he didn't succeed on that.

COMMISSIONER GLICK: But we'll get to them at some point. I would certainly be remiss if I failed to mention Commissioner LaFleur's leadership, as I think Chairman McIntyre and others have already mentioned, when the quorum was lost, not only her leadership but her staff but also the entire Commission really worked hard in making sure everything was ready to go when the quorum was restored. So that is very much appreciated.

And as Chairman McIntyre did, I also want to recognize the Office of External Affairs which was incredibly helpful during our confirmation process, and I'm sure everyone else's confirmation process as well. I want to particularly mention Len Tow, and Andrea Spring who has moved on back there now, and also John Peshki for guiding us through the process. It was extremely, extremely helpful.

I am very excited to be joining the Commission today, at the first Commission meeting today. Obviously we're in the middle of a very interesting time. The energy industry is in--as everyone in this room knows, the Energy industry is in a transition that has substantial potential benefits for consumers, the economy, and the environment.
And FERC is in the middle of many of those issues and I look forward to working on those issues as we go forward.

And again, just to note—and everyone has already mentioned all these issues already—but I very much look forward to working with the Commission staff. I already knew how dedicated and talented everyone was, but I really didn't know how many people loved working here. That's something that was mentioned earlier about the number one ranking, but people really like working here and it really shows in their enthusiasm and their dedication, and I really look forward to working with all them as time goes on.

I am extremely fortunate to have an amazing team, and I want to introduce them today behind me. I've got Matt Christensen and Erica Hoke. Do you want to stand up, please? They are my legal advisers. They both came from the Office of General Counsel. And Pamela Quinlin. She's my technical advisor. And Pamela came from the Office of Energy Market Regulation. Finally, Benjamin Williams, who is my Senior Director of Operations and Communications.

(Laughter.)

COMMISSIONER GLICK: Make up your minds. Well, Benjamin previously served in that role with Commissioners Honorable and Bay, but also I want to note that today is Benjamin's birthday. So let's--

(Applause.)
COMMISSIONER GLICK: All four of them bring a significant amount of experience from other floors at the Commission, and I really look forward to working with them as we move forward. It has really enabled me to really hit the ground running and it's been a great experience.

Chairman McIntyre mentioned he's been here 15 days. I've actually been here 22 days, so I outrank him at least by that.

(Laughter.)

COMMISSIONER GLICK: So thank you much, Mr. Chairman.

CHAIRMAN McINTYRE: Thank you, Commissioner. And with that, Madam Secretary, I think we're ready to proceed to our Content Agenda.

SECRETARY BOSE: Thank you, Mr. Chairman. Since the issuance of the Sunshine Act Notice on December 14th, 2017, no items have been struck from this morning's agenda. Your Consent Agenda is as follows:

Electric Items: E-6, E-7, E-8, E-9, E-10, E-11, E-12, E-13, and E-14.


Certificate Items: C-1, C-2, and C-3.

We are now ready to take a vote on this morning's
Consent Agenda. The vote begins with Commissioner Glick.

ONMISSIONER GLICK: Aye.
SECRETARY BOSE: Commissioner Powelson.
COMMISSIONER POWELSON: Aye.
SECRETARY BOSE: Commissioner Chatterjee.
COMMISSIONER CHATTERJEE: Aye.
SECRETARY BOSE: Commissioner LaFleur.
COMMISSIONER LaFLEUR: Aye.
SECRETARY BOSE: And Chairman McIntyre.
CHAIRMAN McINTYRE: I also vote aye.
SECRETARY BOSE: We are now ready to move on to
the discussion and presentation items for this morning. The
presentation items for this morning, the first one is E-1
concerning the Draft Notice of Proposed Rulemaking on Cyber
Security Incident Reporting Reliability Standards. There
will be a presentation by Margaret Scott from the Office of
Electric Reliability, and she is accompanied by Kevin Ryan
from the Office of the General Counsel.

CHAIRMAN McINTYRE: Good morning.
MS. SCOTT: Hi. Good morning. Good morning, Mr.
Chairman and Commissioners.
Item E-1 is a Draft Notice of Proposed
Rulemaking, NOPR, that proposes, pursuant to Section
215(d)(5) of the Federal Power Act, directing the North
American Electric Reliability Corporation, NERC, to develop
and submit modifications to the NERC Critical Infrastructure Protections CIP reliability standards to improve the mandatory reporting of cyber security incidents.

The Draft NOPR is based on a concern that the current reporting threshold for cyber security incidents in the CIP Reliability Standards may understate the true scope of cyber-related threats facing the bulk electric system.

As noted in the Draft NOPR, the lack of any reported cyber security incidents in either 2015 or 2016 suggests a gap in the current mandatory reporting requirements.

This gap was highlighted in NERC's 2017 State of Reliability Report which noted that: While there were no reportable cyber security incidents during 2016 and therefore none that caused a loss of load, this does not necessarily suggest that the risk of a cyber security incident is low.

The Draft NOPR notes that the Department of Homeland Security, DHS, Industrial Control Systems Cyber Emergency Response Team, ICS CERT, responded to 59 cyber security incidents in the energy sector, which includes the electric subsector, in 2016.

In order to address this gap and provide more timely awareness of cyber threats facing the bulk electric system, the Draft NOPR proposes to direct NERC to develop
modifications to the CIP Reliability Standards to include the mandatory reporting of cyber security incidents that compromise or attempt to compromise a responsible entity's electronic security parameter, the ESP, or associated electronic access control or monitoring systems, EACMS.

In addition, the Draft NOPR proposes to direct NERC to modify the CIP Reliability Standards to specify the required information in Cyber Security Incident Reports to improve the quality of reporting, and to allow for ease of comparison and analysis, by ensuring that each report includes certain key information regarding the incident.

The Draft NOPR also proposes to direct NERC to modify the CIP Reliability Standards to establish a deadline for filing a report with the Electricity Information Sharing and Analysis Center, the EISAC, and ICS CERT, once a compromise or disruption to reliable bulk electric system operation or an attempted compromise of disruption is identified by a responsible entity.

Finally, the Draft NOPR proposes to direct NERC to file annually an anonymized report providing an aggregated summary of the reported information with the Commission.

As discussed in the Draft NOPR, the proposed modifications will enhance awareness for NERC, industry, the Commission, other federal and state entities, and interested
This concludes our presentation. We are happy to answer any questions you may have.

CHAIRMAN McINTYRE: Thank you very much, Ms. Scott, Ryan, and thank you to your broader teams that were involved in this. I know it's an effort that extended well beyond just the two of you. So please convey our thanks for all the hard work that went into this.

I do have a couple of questions, and my colleagues may as well. I will kick us off, if I may.

You described this additional type of reporting that is envisioned as going forth. How would you compare that to the reporting that goes on today in the area of the cyber compromises, et cetera?

MS. SCOTT: Good question. Thank you.

So depending on the agency, depending on the entity, there's different jurisdiction, different authority. What we're proposing would be a mandatory reporting of a cyber security incident, a compromise, or an attempted compromise.

When critical infrastructure entities report cyber security incidents with DHS through ICS CERT, those are typical voluntary reports. There's no minimum threshold of information that is requested. They're voluntary.
There is a similar type of reporting to the Department of Energy through their Electric Disturbance Events—it's a form called the OE-417. And those are required. Those are mandatory. It is required for the entire electric sector, transmission down to distribution, of attempted cyber security events and actual cyber security events.

Do you have anything to add?

MR. RYAN: I will just add one point. The current CIP Reliability Standards do have a mandatory reporting requirement, but it only kicks in when operations have been affected. So the proposal here is now to try and get ahead of that, and if there are attempts we want those reported as well.

CHAIRMAN McINTYRE: I see. Thank you.

And also I learned a cool new acronym this week that I heard you use in your presentation, EACMS—I sound cool already, don't I?

(Laughter.)

CHAIRMAN McINTYRE: Electronic Access--

MS. SCOTT: Control--

CHAIRMAN McINTYRE: --and Monitoring Systems.

MS. SCOTT: Or Monitoring Systems, right.

CHAIRMAN McINTYRE: It diminishes the coolness if you lose the words.
Laughter.)

CHAIRMAN McINTYRE: So you're adding in the EACMS component of this to the reporting. How is that important? Just help us get a sense for the importance of that.

MR. RYAN: Well the proposal in the NOPR establishes kind of a trigger for reporting, which would be the electronic security parameter, which is kind of the protection that surrounds medium- and high-impact BES cyber systems. And then in addition to that, it would be the EACMS, which are the systems that control access to the ESP. So they're not actually within the ESP, but they are associated with it. So you could consider it being the doorway.

And this kind of limits the proposal to high- and medium-impact BES Cyber Systems, so we can kind of see what happens in the future, but we're not touching on "low" at this point.

CHAIRMAN McINTYRE: Very good. Thank you. Do my colleagues have questions?

COMMISSIONER LaFLEUR: Yes. I don't have any questions, but I have a couple of comments.

Thank you, Margaret and Kevin and the teams. I am happy to support this draft order because I think it identifies and attempts to address--proposes to address an important data gap in our understanding of cyber security
And one thing that has been observed and studied across many industries—not just electricity but in aviation, medicine, and other industries—is a well-established over decades statistical correlation between minor issues, or near-misses that are far more frequent, and then up at the top of the pyramid rare major events.

And in the safety world they call that the safety pyramid, but you need to learn from the things that don't happen but that could have happened in order to prevent the big thing that you're afraid of happening.

And I think in cyber security the reporting has been more on when something actually gets through the parameter. I think it is important that we identify and track attempted incursions into the grid cyber defenses to help us learn from them, study the trends, and see what we might need to do to standards, or what an industry might need to do so we can prevent a more serious incident. And this is exactly what the proposal today would do.

I also want to call out the fact that the proposal would require NERC to file annual public, but anonymized summaries so that I think that you all, the team did a great job in balancing the need for transparency so we understand what is going on, but the need for security so
you don't know where the breaches were.

I really appreciate your work on it, and I look
forward, as always, to receiving comments on the proposal.
Thank you.

COMMISSIONER CHATTERJEE: Thank you to the team
for that informative presentation. I really believe that
tackling the continuously evolving nature of cyber threats
is a top priority for this Commission. That is why I think
that the NOPR we are proposing today is an important step
forward to make sure that NERC and other government agencies
have accurate, up-to-date information on these quickly
evolving cyber threats.

While I believe the action we are proposing today
is necessary, I am also cognizant of the additional burden
on industry to collect and report this information. I think
it is critical that we strike an efficient balance on this
issue, so I would really encourage everyone in the industry
to roll up their sleeves, dig in on the NOPR, and give us
your suggestions on how the proposal can be improved.

One question for the team: So my understanding is
that the NOPR doesn't require reporting of every attempted
intrusion into an entity's network. Could you elaborate a
little bit on what types of company systems would be subject
to the proposed rule, and what type of systems would not be
subject to the proposed rule?
MR. RYAN: Certainly, Commissioner. In this situation we are focusing on the operational systems, and more specifically the medium and the high-impact BES cyber systems that facilitate operation of the bulk electric system.

What we're not getting into are the kind of business enterprise IT systems, email, things along those lines. So we're not looking for say a report on every time you have a phishing attack. What we're looking for are true penetrations into the operational systems. So we're talking, you know, kind of control center.

COMMISSIONER CHATTERJEE: Not Nigerian princes looking for--

MR. RYAN: Unless you're looking for an investment.

(Laughter.)

COMMISSIONER CHATTERJEE: Thank you for that clarification.

COMMISSIONER POWELSON: Mr. Chairman?

CHAIRMAN McINTYRE: Commissioner.

COMMISSIONER POWELSON: Thank you. I want to also take this opportunity to thank Margaret and Kevin and your teams for this, putting together this draft order. And I would echo Commissioner LaFleur's point. I'm not going to ask you a question, but I am going to make an observation
and you can get back to me on it.

So as we're kind of I'll say putting more rigor behind this preparedness in this reporting requirement--I'm wearing my prior-life hat, as states are really spending a lot of time, state commissions, working on their cyber preparedness, my observation is we're going to have to find a way to socialize. And, General McClellan, your work has been instrumental in that. How do we socialize these new data points back to the states?

To use my example, in Pennsylvania if you had told me a decade ago that we'd have a staff personnel sitting in a state police fusion center analyzing data, or looking at physical assets--and when you brought up this number of 59 reported events last year, some would say that's 59 too many. Luckily we didn't have any disruptions to the bulk power system, but with that being said, I just want to express my support, but more importantly in thinking down the road here how do we really bring this down to a state level? Because, granted some states don't really manage the bulk power system, but they have these assets in their jurisdictions, and that sharing of information is so important.

So again I applaud you and look forward to working with you and the team members and NERC staff on this, as well.
Thank you, Mr. Chairman.

CHAIRMAN McINTYRE: Commissioner Glick?

COMMISSIONER GLICK: Thanks, Mr. Chairman. I don't have any questions, but I do want to make a few brief comments.

I agree with Commissioner Chatterjee. Cyber security may be our most important responsibility here at the Commission, and so I applaud what you all are doing and very much appreciate your presentation.

As we all know, cyber threats are evolving and it is critical that we take the steps necessary to not only play defense but also increase awareness among industry participants.

It is difficult to turn on the newspaper or open—or turn on the, I should say, turn on the TV or open up the newspaper these days without hearing about some cyber security threat someplace or another. And we've been pretty lucky in the United States so far, at least on the electric side, not having any significant consequences from cyber efforts.

But we have seen it around the world already. We've obviously seen it in the Ukraine in both 2015 and 2016. But also just yesterday there was a media report that hackers in the Middle East attacked, or breached a facility that used the control system that as I understand it power
plants around the world use developed by Schneider Electric. So it is something that is clearly coming and we need to be prepared and we need to do as much as we can. And we need to know as much as we can, which is why I think this particular proposed rule is so important.

I very much also want to applaud NERC for their 2017 State of Reliability Report that actually raised this issue for us, that the current mandatory reporting requirements are insufficient. So I am interested in hearing other parties' comments on this, but I think it is very important that we make sure that the information is out there, and the information is out there especially for the utilities and other players in the industry so they can take action when they need to.

So again I look forward to working with you all as we go forward in trying to address this very important issue.

CHAIRMAN McINTYRE: Thank you again for the presentation and for your help in answering our questions. We appreciate it very much.

SECRETARY BOSE: We are now ready to take a vote on this item, on Item E-1. The vote begins with Commissioner Glick.

COMMISSIONER GLICK: Aye.

SECRETARY BOSE: Commissioner Powelson.
COMMISSIONER POWELSON: Aye.
SECRETARY BOSE: Commissioner Chatterjee.
COMMISSIONER CHATTERJEE: Aye.
SECRETARY BOSE: Commissioner LaFleur.
COMMISSIONER LaFLEUR: Aye.
SECRETARY BOSE: And Chairman McIntyre.
CHAIRMAN McINTYRE: Aye.
SECRETARY BOSE: The last item for discussion and presentation this morning is a joint presentation on Items E-2, E-3, E-4, and E-5, concerning Fast-Start Pricing in Markets Operated by Regional Transmission Organizations and Independent System Operators.

There will be a presentation by Daniel Kheloussi from the Office of Energy Policy and Innovation. He is accompanied by Elizabeth Topping from the Office of Energy Policy and Innovation, Kaleb Lockwood from the Office of the General Counsel. And Angela Amos from the Office of Energy Market Regulation.

CHAIRMAN McINTYRE: Thank you all for being here to present to us.

Ms. Amos, don't you have work you're supposed to be doing?

(Laughter.)

CHAIRMAN McINTYRE: I'll leave it up to you, Mr. Kheloussi.
MR. KHELOUSSI: Good morning, Mr. Chairman, Commissioners. On December 15th, 2016, the Commission issued a Notice of Proposed Rulemaking, or NOPR, proposing certain requirements for Regional Transmission Organizations and Independent System Operators, or RTOs and ISOs, to incorporate the offers of fast-start resources into the prices for energy and ancillary services, commonly referred to as fast-start pricing.

Fast-start resources are resources that are able to start quickly. They are often able to respond to unforeseen short-term real-time system needs. Without some form of fast-start pricing, most fast-start resources are not eligible to set prices, even when they are the marginal resource.

Further, even when the fast-start resources can set prices, they may not be able to recover their commitment costs such as start-up and no-load costs through prices. As a result, prices may not reflect the marginal costs of serving load, meeting price signals for efficient investments.

Several RTOs and ISOs have already developed pricing that is generally designed to address these issues in this class of resources.

In the NOPR, which is the third in the Commission's ongoing price formation initiative, the
Commission preliminarily found that some existing fast-start pricing practices may not result in rates that are just and reasonable, and propose to require that each RTO and ISO establish certain requirements for its fast-start pricing.

The Commission received over 30 comments in response to the NOPR. Upon further consideration of comments that questioned whether the proposed rule would provide sufficient value in all RTOs and ISOs, and that argued for regional flexibility, in a set of draft orders the Commission would not apply a uniform set of fast-start pricing requirements to all RTOs and ISOs.

Thus, Item E-2 proposes to withdraw the NOPR and terminate the rulemaking proceeding.

Instead, the Commission is proposing to pursue the goals of the fast-start pricing NOPR through three draft orders. These orders would focus on specific concerns with the implementation of fast-start pricing in each of three RTOs and ISOs.

These orders, Items E-3, E-4, and E-5, involve New York ISO, PJM, and SPP. Each of these three orders would initiate investigations pursuant to Section 206 of the Federal Power Act to determine whether certain fast-start pricing practices of these RTOs and ISOs lead to rates that are unjust and unreasonable.

Because New York ISO, PJM, and SPP implement
fast-start pricing in different ways, these three orders
address different aspects of fast-start pricing that are
specific to each RTO or ISO.

The three orders also address some common issues.
For each of the RTOs and ISOs, the orders would generally
address, one, whether the RTO and ISO tariffs should be
revised to include fast-start resources' commitment costs in
fast-start pricing. And, two, whether to allow the
relaxation of fast-start resources economic minimum
operating limits by up to 100 percent for purposes of
setting prices.

For two of the RTOs and ISOs, PJM and SPP, the
orders would also address other specifics such as whether
fast-start resources are being dispatched in a manner that
minimizes production costs. Details differ for each RTO and
ISO because their fast-start pricing implementation differs.

Interested parties may file initial briefs on
these matters no later than 45 days after publication in the
Federal Register, with reply briefs due 30 days thereafter.

Thank you. I would also like to thank the team.
This concludes our presentation and we are happy to answer
any questions you may have.

CHAIRMAN McINTYRE: Thank you, Mr. Kheloussi, and
we also thank the team. Thank you to all of you and to
those who aren't here at the table today. It's a complex area, needless to say, as is reflected in your presentation, and there are a lot of moving parts here in this package of orders. So thanks for your work on all of it.

I do have a couple of questions I'd like to start with, and then we will turn to my colleagues for any issues they may care to raise.

First, the fast-start pricing. Help us to get a sense from a consumer benefit standpoint of how consumers benefit from fast-start pricing.

MR. KHELOUSSI: Thanks for the question. I'm going to let my esteemed colleague, Angela, take it.

(Laughter.)

MS. AMOS: Yes. Thank you, Mr. Chairman, for your question. Improved fast-start pricing can improve price signals, especially during tight or unexpected system conditions when the need for fast-start resources is the greatest.

In turn, this could support efficient investments in facilities and equipment and could also reduce uplift costs. Overall, in the long run, improved fast-start pricing could result in a more efficient electric delivery system.

CHAIRMAN McINTYRE: Very good. Thank you. Did you have something to add? I'm sorry?
MR. KHELOUSSI: No, she nailed it.

(Laughter.)

CHAIRMAN McINTYRE: As to the Section 206 Orders, the Section 206 Directives, how do they advance the Commission's overall goals in the price formation matter?

MR. KHELOUSSI: Thank you for that question, and I'm going to let Elizabeth take that one.

MS. TOPPING: Thank you, Mr. Chairman. So consistent with the goals of price formation, the three 206 Orders initiate proceedings on fast-start practices in NYSO, in PJM, and in SPP. Accurately pricing fast-start resources can advance the Commission's price formation goals by more transparently reflecting the marginal costs of serving load.

So by more accurately reflecting the cost of fast-start resources in prices, improved fast-start pricing may reduce the need for out-of-market compensation for uplift. It can increase transparency, and it can also provide longer term incentives for investment in the grid.

CHAIRMAN McINTYRE: Very good. Thank you.

Price formation of course is a big topic unto itself and an area of a lot of ongoing FERC activity. I would like to get a sense of this team as to kind of how-- where we are in the overall price formation effort, and where these orders fit into that.

MR. KHELOUSSI: Thanks. Elizabeth has been
coordinating the price formation efforts, so I'm going to let her take that one, as well.

MS. TOPPING: Sure. So right now we have final rules that were issued in both the Offer Cap proceeding and in the Settlement Interval in Shortage Pricing proceeding. The Offer Cap proceeding is in the compliance phase. As to the Settlement Interval in Shortage Pricing Rule, that I think we have issued orders on all of those compliance filings for most of the RTOs except the PJM compliance filing is pending before us.

On another topic, we also earlier this year, back in January, the Commission issued a NOPR on Uplift Allocation and Transparency. And the Commission continues to review the record on that NOPR.

CHAIRMAN McINTYRE: Terrific. Thank you very much.

Do my colleagues have questions?

COMMISSIONER LaFLEUR: Well thank you, Mr. Chairman, and thank you to the team for that presentation. I am very happy to support the latest installment in our price formation saga. It hasn't been around as long as Star Wars--

(Laughter.)

COMMISSIONER LaFLEUR: --although it's been around longer than the current Trilogy because we started
this batch in 2014. And I think this is an important step
today because fast-start pricing is an important element of
price formation, ensuring that prices fully reflect marginal
actions taken to serve load and send the right price signals
of the cost of meeting unexpected short-term needs.
And as we see more and more dynamism in our
supply stack, I think the need to make sure that we can
properly compensate fast-start resources is ever more
important.
I believe it is a very sensible outcome to close
out the Notice of Proposed Rulemaking and focus on the
Section 206 Orders in the three RTOs you mentioned where we
think there are reasons why their existing practices might
not be just and reasonable.
I want to mention the fact that New York has been
an early leader in fast-start pricing, and has been doing
this for a long time. But we still see--I still see the
possibility through targeted reform to improve certain
aspects of their tariff that may not be just and reasonable.
With PJM and SPP, I see potential room for
improvement to conform their pricing methods to the best
practices that are outlined in the 206s to reflect the
characteristics of fast-start resources.
I want to note the fact that we're letting the
other three ISOs off the hook. That's not just because we
were feeling charitable around the holidays; MISO and ISO
New England have largely already implemented the best
practices that are outlined in the 206s for fast-start
pricing. They've done a lot of work on that in the last
couple of years.

And with respect to the California ISO, I at
least was persuaded based on what they filed in the docket
that this line of reforms would provide limited benefit for
them relative to their other priorities that are going on
right now.

So I look forward to the next installment in the
saga, the ever-fascinating Uplift chapter. And thank you
very much.

CHAIRMAN McINTYRE: Thank you, Commissioner.

Commissioner Chatterjee?

COMMISSIONER CHATTERJEE: Thank you for the
presentation. I don't have any questions. It was a
fantastic presentation. I just wanted to take my time to
just again acknowledge the incredible staff here at the
Commission, and say what an honor it has been to come to the
Commission to work alongside such great colleagues and see
important progress being made here at FERC.

We have a good deal of work ahead of us in the
new year, but working alongside our fellow Commissioners and
dedicated staff I am confident that we will be successful in
tackling the various issue facing the Commission.

With that, I would like to wish everyone a happy holiday season and a blessed New Year. And before I turn it back over to my colleagues, I have been feeling guilty, Commissioner LaFleur, that you got me a present and I didn't get you anything, but then I realized you got your present on Sunday from the NFL replay booth.

(Laughter.)

COMMISSIONER CHATTERJEE: Which I also appreciated and enjoyed.

COMMISSIONER LaFLEUR: Better to be lucky, and good.

(Laughter and side comments.)

CHAIRMAN McINTYRE: Commissioner Powelson.

COMMISSIONER POWELSON: Well I never said the union of NFL referees were above reproach, but--

(Laughter.)

COMMISSIONER POWELSON: Commissioner Chatterjee, thank you for reminding our esteemed colleague from the great New England state about that little hiccup.

(Laughter.)

COMMISSIONER POWELSON: The ball did cross the goal line.

(Laughter.)

COMMISSIONER POWELSON: You actually argued with
me, too, so I got it on both sides.

First, staff, thank you so much for your work on this. As Commissioner LaFleur said, the epic saga, as the Chairman also alluded to, this whole conversation around price formation.

I just want to--you know, there's a lot of people using this thing called "the polar vortex" around this town, and I kind of encapsulate what we are doing here today as part of another positive outcome in terms of we talk about grid resiliency.

And as I heard you mention earlier, efficient investment, accurate pricing for forecasting load, and potential reductions in uplift are all great outcomes to the organized markets. But more importantly, back on the resiliency side, with these kinds of resources providing--you know, being able to be dispatched during, whether it's a polar vortex, or a CAT-5 hurricane, this kind of speaks to these assets and the value they do provide the grid.

And I think in your presentations I think you all kind of drove home that message to us. So I applaud you there.

I also, again Commissioner LaFleur, I guess, regional flexibility does matter. And I do like the fact that I think we did strike the appropriate balance of this 206 looking at PJM, SPP, and the New York ISO, and I think
that is a good outcome here this morning.

I also look forward to working with the Chairman and my colleagues and staff here to continue this important work on price formation, whether it's an epic saga with many iterations, but as I was quoted yesterday, in my prior life I was an in-patient regulator, but you look at the steps we've taken, Offer Cap rule, today's action, Capacity Performance, Uplift Allocation, this is all part of the work—or, Commissioner Chatterjee, don't quote me again, using my quote, "doing the boring good,"--I got wind of that, by the way.

(Laughter.)

COMMISSIONER POWELSON: This is all part of doing the boring good to sustain the long-term viability of organized markets. And I applaud you for your work product here this morning. Thank you.

CHAIRMAN McINTYRE: Thank you, Commissioner.

Commissioner Glick?

COMMISSIONER GLICK: I'd actually rather debate the NFL replay rule than fast-start pricing, but--

(Laughter.)

COMMISSIONER GLICK: --but fast-start pricing is also important I think, too.

First, I just want to commend the staff for their presentation. It was very helpful and very interesting
issue. I do also want to commend the Commission today for
the position on withdrawing the NOPR. I think certainly a
one-size-fits-all approach in this particular instance is
not warranted, and I think we need to figure out what's best
for each RTO, given their specific circumstances.

But I also want to stress that today's order
isn't the final word on the subject, and I look forward to
reviewing all the information filed by the RTOs and ISOs and
other stakeholders to determine whether the three RTOs we're
talking about, whether changes are warranted to their
fast-start pricing approaches.

CHAIRMAN McINTYRE: Thank you, Commissioner.

Madam Secretary?

SECRETARY BOSE: We will now take a vote on these
items together. The vote begins with Commissioner Glick.

COMMISSIONER GLICK: Aye.

SECRETARY BOSE: Commissioner Powelson.

COMMISSIONER POWELSON: Aye.

SECRETARY BOSE: Commissioner Chatterjee.

COMMISSIONER CHATTERJEE: Aye.

SECRETARY BOSE: Commissioner LaFleur.

COMMISSIONER LaFLEUR: Aye.

SECRETARY BOSE: And Chairman McIntyre.

CHAIRMAN McINTYRE: Aye.

SECRETARY BOSE: Thank you. Thank you for your
Mr. Chairman, that is the last item for discussion and presentation this morning.

CHAIRMAN McINTYRE: Thank you, Madam. I have some closing remarks, and I will invite any of my colleagues that care to offer additional remarks to do so as well.

First we have some retirements of some key personnel to note. It is important to take note of big moments like this, and these are some people who have been making key contributions here that deserve to be recognized. So I would like to begin with that.

First, from OEPi, Scott Miller. Scott Miller started his second stint with the Commission in August 2008. He was a founding member of the Policy Office when it was created in 2009. His time at the Commission started just as the financial crisis was starting, and Scott was integral in understanding how the financial crisis affected the markets that the Commission regulates.

To that end, he was on the team—he was the team lead on the Commission's ISO Credit Policy Reform Rulemaking, and he has remained the Policy Office's credit policy expert ever since.

More broadly, Scott has brought a unique perspective, often grounding policy discussions with historical context and commercial experience from his time
in the private sector. He is leaving the Commission at the end of this month to become the Executive Director of the Western Power Trading Forum.

Please join me in thanking Scott Miller for his many contributions.

(Applause.)

CHAIRMAN McINTYRE: Thank you, and congratulations.

Leanne Watson is retiring at the end of this month, also, after serving 15 years in FERC's Office of Enforcement, first as senior counsel, then deputy director of investigations, director of analytics and surveillance, and deputy director of the Office of Enforcement.

I know from my time in the private sector she takes her job very seriously.

(Laughter.)

CHAIRMAN McINTYRE: And as an institution, FERC owes her a debt of gratitude. So with that, we wish Leanne Watson the best in her retirement and tremendous thanks for everything she has done her in her time at the Commission.

(Applause.)

CHAIRMAN McINTYRE: And finally, Brian Craig, an institution within an institution. He is retiring after 37 years of public service, including 30 here at FERC. He has long served as FERC's chief accountant and director of the
Division of Audits and Accounting.

Brian Craig, thank you so much and we wish you all the best.

(Applause.)

CHAIRMAN McINTYRE: And finally I'd like to close just by giving all kind of an advanced heads-up on a forthcoming policy initiative.

We are still feeling our way forward in terms of--I'm going to say "we" in this context to mean I and my own team, my staff--in terms of what our policy priorities are going to be for the coming months and years.

Certainly there's no shortage of choices. Reliability is really important to me. Certainly cyber is a key component of that. Being sure we get markets right, and so on.

But process wise, and governance philosophy wise, one thing we have made clear from the beginning, and one thing that I emphasized throughout the Senate confirmation process, was my belief that we as government officials, and we collectively as a government institution, owe it to all concerned to take a look at our processes and policies from time to time and say: As to this specific area of policy and process, is there any way we can improve it? Let's dust off the existing playbook, take a fresh look at it, and ask ourselves the really hard questions around is there any way...
we can improve this?

And we have decided, for better or worse, to begin with a fresh look at the long-standing 1999 policy statement on the Commission's issuance of pipeline certificate orders.

Obviously 1999 is some time ago. Much has changed in the industry, including particularly in the natural gas and natural gas pipeline industry, and so without prejudging anything, and without intending to forecast a policy direction--indeed that is not the case--rather, it's a matter we believe of good governance to take a fresh look at this area and to give all stakeholders and the public an opportunity to weigh in on what they believe should be any changes to our existing policy, any broad changes in direction, any minute refinements to policy steps, to procedural steps that are required, and to give us the benefit of candid advice.

We have an excellent staff here in the Office of Energy Projects here. They're up to their eyeballs in work, and that's not a problem. Indeed, they're not complaining about it. They of course will bring their own expertise to bear in this effort, so I am very much looking forward to working with them and getting their candid views both in advance of public input and to help us figure out, of the various pieces of public input which are perhaps more
deserving of attention than others.

We are still evaluating what the format will be of this effort. We're not ready to make an announcement on that with what the format and precise scope is of it, but I guarantee whatever it is, it will be open and transparent and thorough and we'll invite the views of all stakeholders to ensure that we are going everything that we can to accurately and efficiently assess the pipeline applications that we receive and process, and to be sure that we are doing it in the right way and the most sensible way.

I am approaching this topic with an open mind. I want the staff and the Commission to take a fresh look at all aspects of the issue. I have had some early discussions on the matter with my fellow Commissioner and am delighted by their enthusiasm on the topic. I look forward to working with all of them, with our expert staff, and with the other Commissioners' advisors and staff as well on all of this.

So with that, I would like to turn to my colleagues for anything they would care to add on the matter.

COMMISSIONER LaFLEUR: Well thank you very much, Mr. Chairman.

I first want to briefly give a shout-out to the three esteemed colleagues who are retiring, Scott, Leanne, and Brian. I think they collectively represent both the
breadth of our work across credit, policy, enforcement, and
all of its ramifications, and our accounting--talk about the
boring good, I'm sorry, trademark--I'm sorry--
(Laughter.)

COMMISSIONER LaFLEUR: Copywrite, but the
accounting and audit work of the Commission that is like at
its very heart. But they also I think collectively
represent the inability--excuse me, the ability of a person
who really cares to work hard to kind of change the arc of
the Commission's work. And there's no question that each of
these individuals have done that in different ways, and
they're leaving the Commission a different place than they
found it and a better place. And so we will miss you.

I want to thank you, Kevin, for your announcement
of a review of our pipeline work. And for the larger
commitment that it reflects to good government, continuing
improvement, and collegial collaboration on these things.

1999 seems like just yesterday to me, but in fact a lot has
changed, particularly in the natural gas world with the
tremendous growth in domestic natural gas that's led to
major changes in the way gas is used and it's tremendous
growth for electric generation.

I mean when I first got in the industry we were
just--it had just been turned on as being allowed. It was
once unlawful to use under the Fuel Use Act. And now of
course there has been a tremendous growth in generation
fired by natural gas as well as export applications, and
they have led to a large growth in our pipeline work, a
large demand for new pipelines, often numerous pipelines in
a particular geographic region that are each reviewed
independently.

I am confident that we will have a wide range of
opinions on how we can do our work differently, probably
just around the table, around the building, and definitely
around the energy community. But for my view, I think
there's a couple of things I'd like to--I would hope the
review would bore in on.

One is how we determine economic needs for
proposed pipelines. The policy statement, if you go back
and read it, actually holds up quite well. It outlined a
very broad range of factors we could look at to review need.

Over time our practice has coalesced around a
reliance on precedent agreements as the determiner of market
need. And as I recently stated in dissents in Atlantic
Coast and Mountain Valley Pipelines, I think that our review
of pipeline applications would benefit from a broader
consideration of need. And that is something hopefully we
will have a chance to talk about.

Secondly, I think it is appropriate for us to
consider how we do our environmental reviews of proposed
pipeline projects, and this is in some way interrelated to need. Because as you develop a clearer idea of who is getting the gas and where the gas is going that's driving the construction of the pipeline, it also gives you a better idea of the downstream impacts on greenhouse gases or other downstream impacts.

And so I think those issues go hand in hand. But I was already looking forward to 2018 with all you fine folks, and I now am even more. So thank you very much, and this is probably my last time at the mike and I want to wish everyone a wonderful holiday and a happy healthy new year, to all our audience regulars and those in the web world.

Thank you.

CHAIRMAN McINTYRE: Thank you, Commissioner.

Commissioner Chatterjee?

COMMISSIONER CHATTERJEE: Thank you. I also want to briefly recognize our retirees. I first met Leanne while going through the Senate confirmation process, and she was so patient and understanding in walking me through the complexities and history and detail of the enforcement process, and I will be forever grateful for your stewardship in helping me get through that process.

Fortunately, during my time at the Commission here I have had nothing to do with accounting audits, but I did get to briefly meet Brian socially and I feel saddened
that I didn't have greater opportunity to interact with you because I've heard many wonderful things. You've had a tremendous impact on this institution during your time here.

To my fellow Kentuckian, I've actually known Scott for some time now, and I wish him well in his travels West. And I'm actually going to transfer the gift that Commissioner LaFleur--

(Laughter.)

COMMISSIONER CHATTERJEE: --gave to me. You may not see a lot of this where you're moving to, so please take that with you.

In regards to revisiting the Commission's certificate policy statement, I very much look forward to working with my fellow Commissioners and FERC staff on reviewing elements of the Commission's certificate policy statement. Although I am supportive of our current policies, I wholeheartedly agree with the Chairman that it is important the Commission takes a look at how it exercises its statutory obligations.

I believe we should identify not only opportunities for potential improvement and greater efficiencies, but also what the Commission is currently doing right so we can continue our existing approach where appropriate.

Lastly, I want to echo the Chairman's promise
that the Commission will engage the entire spectrum of stakeholders on this important issue. I for one am committed to ensuring that my door will be open, as always, to all stakeholders on this issue no matter where they sit on the political spectrum, what interests they represent, or what part of the country they come from.

I particularly want to speak to those who feel frustrated that their voices are not heard throughout this process. I want you to know that I emphasize with that frustration, and you have my word that you have an audience with me and that I will seriously consider the issues you bring to bear.

And with that, I will turn it back over to my colleagues.

CHAIRMAN McIntyre: Thank you, Commissioner Chatterjee. Commissioner Powelson?

COMMISSIONER POWELSON: Thank you, Chairman McIntyre.

Let me first take this opportunity to commend you for this opportunity for us all to work collectively around a very big issue. I agree with you. It's about good governance. It's about transparency. But it's also about, as I like to coin the phrase, value engineering and good public policy outcomes.

So, yes, 1999 was a few--over a few decades ago,
and I think we all remember where we were in 1999. But that
being said, I have embedded in me DNA from my prior life
experience. I served on Governor Corbett's Marcellus Shale
Commission where we updated our Oil and Gas Act, and I also
served on a very successful initiative run by current
Governor Tom Wolf around pipeline safety.

So this is for me, coming from the second largest
natural gas production state in the country, this is
important. Because Pennsylvania is the epicenter for FERC
touch with these pipelines being sited. And Commissioner
Chatterjee is right. There's a lot of impacted constituents
and some of them have been heard loud and clear, and some of
them need to be heard.

I will also, though, go on record here this
morning, I've said it time and time again, that we don't
rubberstamp interstate pipelines here. I look over to my
good friend, Terry Turpen. I call him 'Mister
Infrastructure." But the work that his team have done,
whether it's collaboration with other federal agencies,
working with public input sessions, behind that is, for the
bad actors that can't get with our 12-Step program on how to
do a pipeline properly, our enforcement efforts.

So people should have peace of mind that, one, we
don't site pipelines on speculation here at the FERC. There
is due diligence. Some may argue that maybe we need to
apply more rigor to it. I don't want to prejudge that outcome, Mr. Chairman, and I don't think you do, and I don't think any of us do.

And I also don't want to sit here and kowtow to a certain constituency that might want to drive outcomes here. This is about giving everybody a opportunity to be heard, and we will develop a record. And hopefully at the end of the day, I see, you see, we all see some value engineering in updating this document.

But in the interim, we have a job to do. That job is to move forward with getting this infrastructure built in a timely manner. Make sure it's done safely. Make sure it adheres to state and federal environmental compacts. And I think if we continue to do that, again doing the boring good, I think this country will be well served.

And, Terry, I commend you. I am new to this agency. You don't have an easy job. But the work that you do I am thoroughly impressed with the way you go about this with your team, and I look forward to working with you.

I will lean on you for input throughout this process, and, Mr. Chairman, again I commend you for taking this issue up, and I commend my colleagues. We're not approaching this in any partisan light. I think we're just having a conversation and a long, probably overdue conversation, as Commissioner LaFleur would agree with. So
thank you.

CHAIRMAN McINTYRE: Thank you, Commissioner.

Commissioner Glick?

COMMISSIONER GLICK: Thanks. I realize I'm the last person standing between this meeting and the Christmas party--

(Laughter.)

COMMISSIONER GLICK: I know there are some important issues to talk about, so I do have a bit of a statement.

First I want to congratulate Scott, Leanne and Brian for their--on their retirements, and I want to echo what Commissioner Chatterjee said about Leanne. She has been extremely helpful in getting to understand the very, very important work that the Office of Enforcement does. I definitely have benefitted from her knowledge. So I very much appreciate that.

With regard to this particular issue, I wanted to thank Chairman McIntyre for announcing that the Commission is going to consider how it carries out its responsibilities in reviewing proposals for certificates of public convenience and necessity pursuant to the Natural Gas Act. I also want to recognize Commissioner LaFleur. She has led on this issue for awhile now, and she has been raising a number of concerns that I agree with, and I think
we need to take a good look at.

Over the last six years, the amount of new pipeline capacity granted certificates by the Commission has grown by over 500 percent. This year alone, FERC has certificated 23.5 bcf per day of new pipeline capacity despite being without a quorum for much of the year. That's a 62 percent increase over the entire year last year when the Commission had a quorum for the entire year.

It's not just that we're approving a lot of pipeline capacity, that may be okay, it's that these pipelines are increasingly traversing populated areas. And thus there are potentially greater impacts on individuals and communities in addition to their impacts on the environment.

I believe the time has come for the Commission to review its current approach to considering the applications for natural gas pipeline certificates, whether they adequately address the public interest. I anticipate that this inquiry will examine numerous issues, but I want to highlight three today that I hope are considered as part of this review process.

First, I believe the Commission should take a careful look at how it evaluates the need for a new pipeline under its 1999 Certificate Policy Statement. The policy statement identified a number of
factors that should be considered as part of this inquiry, but the Commission has relied primarily on the existence of precedent agreements for evaluating need.

The Commission should examine whether to more broadly consider evidence of need, including those factors that Commissioner LaFleur mentioned that were included in the policy statement originally in 1999.

Second, I believe the Commission should assess whether its current approach for evaluating the environmental impacts of a proposed gas pipeline, including potential greenhouse gas emissions, requires modification. And third, I believe that the Commission should examine its practice of issuing certificates of public convenience and necessity subject to the submission of additional information and ongoing consultation.

It is important that the Commission have the information bearing on whether a project is in the public interest before it grants a certificate.

I come to this process with an open mind and intend to closely review the comments of the stakeholders on these and other very important matters, and I look forward to working and sharing ideas with the Commissioners and obviously with the staff of the Commission as well.

So thank you again, Mr. Chairman, and happy holidays to everybody.
CHAIRMAN McINTYRE: Thank you, Commissioner. I thank all of my colleagues for their thoughtful contributions thus far and look forward to working on this important matter with all of you.

Thank you to all for being here, for your attention to the important work of this Commission, whether you're here in person or whether you're following us online. I thank you all, and I also join my colleagues in wishing happy holidays to all of you and the best for 2018.

Madam Secretary?

SECRETARY BOSE: Nothing more.

CHAIRMAN McINTYRE: With that, we are adjourned.

(Whereupon, at 11:22 a.m., Thursday, December 21, 2017, the meeting of the Commissioners of the United States Federal Energy Regulatory Commission was adjourned.)
CERTIFICATE OF OFFICIAL REPORTER

This is to certify that the attached proceeding before the FEDERAL ENERGY REGULATORY COMMISSION in the Matter of:

Name of Proceeding:
Cyber Security Incident Reporting Reliability Standards
Fast-Start Pricing in Markets Operated by Regional Transmission Organizations and Independent System Operators

1038th COMMISSION MEETING

Docket No.: RM18-2-000, AD17-9-000 and RM17-3-000
Place: Washington, DC
Date: Thursday, December 21, 2017

were held as herein appears, and that this is the original transcript thereof for the file of the Federal Energy Regulatory Commission, and is a full correct transcription of the proceedings.

Larry Flowers
Official Reporter