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UNITED STATES OF AMERICA  
FEDERAL ENERGY REGULATORY COMMISSION

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

1           The Commission met in open session at 10:05 a.m.,  
2 when were present:

3           CHAIRMAN KEVIN MCINTYRE

4           COMMISSIONER CHERYL LaFLEUR

5           COMMISSIONER NEIL CHATTERJEE

6           COMMISSIONER ROBERT POWELSON

7           COMMISSIONER RICHARD GLICK

8           SECRETARY KIMBERLY D. BOSE

9

10          PRESENTERS:

11                 E-1, Margaret Scott, Office of Electric  
12 Reliability, accompanied by: Kevin Ryan, Office of General  
13 Counsel

14                 E-2. E-3, E-4, E-5: Daniel Kheloussi, Office of  
15 Energy Policy and Innovation, accompanied by:  
16 Elizabeth Topping, Office of Energy Policy and Innovation  
17 Kaleb Lockwood, Office of General Counsel  
18 Angela Amos, Office of Energy Market Regulation

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

2                   (10:05 a.m.)

3                   SECRETARY BOSE: Thank you, Mark. The purpose of  
4 the Federal Energy Regulatory Commission's open meeting is  
5 for the Commission to consider the matters that have been  
6 duly posted in accordance with the Government in the  
7 Sunshine Act.

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

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

21                   Additionally, documents presented to the  
22 Chairman, Commissioners, or staff during the meeting will  
23 not become part of the official record of any Commission  
24 proceeding, nor will they require further action by the  
25 Commission.

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

4           Thank you for your cooperation.

5           CHAIRMAN McINTYRE: Thank you, Madam Secretary.  
6 And with that, we are ready to begin our meeting.

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

13           Please join us in the Pledge of Allegiance.

14           (Pledge of Allegiance recited.)

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

18           Thank you, Mr. Chairman.

19           CHAIRMAN McINTYRE: Thank you, Madam Secretary.  
20 And good morning to all. This being my first open meeting  
21 as Chairman, I want to take a couple of minutes to say some  
22 thank-yous and make some opening remarks that I hope will be  
23 reasonably brief.

24           I want to begin by thanking the President of the  
25 United States for the confirmation--for the nomination that

1 has landed me here in this position, and likewise would like  
2 to thank the United States Senate--particularly the Senate  
3 Energy and Natural Resources Committee and its Chairman  
4 Murkowski and Ranking Member Cantwell. I am humbled by the  
5 confidence placed in me by the President and by the  
6 confirming Members of the Senate, and I pledge to do my  
7 utmost every day in this job to do my best for the American  
8 people and for the stakeholders served by this Commission.

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

12           (Laughter.)

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

20           (Applause.)

21           CHAIRMAN McINTYRE: I also want to personally  
22 thank his staff--Andrew, Eric, Robin, Mindy--they have been  
23 working so hard to keep the trains running on time and doing  
24 a very effective job, particularly as I come into this  
25 without a staff, and they have just been tremendously

1 helpful. So thank you to you, Commissioner, and to your  
2 entire team.

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

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

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

21 I have already benefitted from his helpful  
22 counsel, particularly the emphasis he brings in his breadth  
23 of experience on issues from a state perspective, something  
24 that we all have a little bit of here but nowhere near I  
25 think to the measure that you bring, and the passion that

1 you bring with it is just tremendous as well. As they say  
2 in baseball, you can't teach that. So, thank you. So thank  
3 you, very much. I am looking forward to our continued good  
4 work.

5 And as for the indefatigable Commissioner Cheryl  
6 LaFleur--

7 (Laughter.)

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

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

20 (Applause.)

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

1 above. Thank you.

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

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

13 (Laughter.)

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

17 (Laughter.)

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

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

25 (Laughter.)



1           CHAIRMAN McINTYRE: Thank you, Angela.

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

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

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

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

23           And I have to also give enormous thanks to the  
24 front office staff that I inherited, so to speak, on day  
25 one, Tracy Danski and Michelle Brown. Are they here, any

1 chance? Well, it's a shame because they're-- and it's  
2 probably because they're working for me right now.

3 (Laughter.)

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

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

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

25 So thank you for all that you do, and I ask you

1 to continue doing it. Together we can get a lot done here  
2 at the FERC, and I'm looking forward to it.

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

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

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

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

21 I want to take a second to congratulate everyone  
22 at the Commission for the Commission being named the number  
23 one place to work in the Federal Government for agencies our  
24 size. That is a credit to many, many people. I especially  
25 want to recognize senior staff and the team in each office

1 for the work that you all did to learn from the lessons of  
2 past surveys and learning places we could improve. And I  
3 want to recognize Shabi and Eddie in the Office of Human  
4 Resources for their work on helping us learn from the  
5 survey. We are waiting for the subcomponent results, which  
6 must be good because, right, I mean I'm not a math major but  
7 you can't have good total results unless your subcomponent  
8 results are good. So there may be more late-breaking news  
9 in January.

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

19                   (Presenting a gift.)

20                   (Off-the-microphone comments.)

21                   COMMISSIONER CHATTERJEE: Thank you.

22                   (Applause.)

23                   CHAIRMAN McINTYRE: A resilient gift.

24                   (Laughter.)

25                   COMMISSIONER CHATTERJEE: Thank you. It's the

1 gift that keeps on giving.

2 (Laughter.)

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

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

24 I will be brief in my remarks. I know staff has  
25 prepared two presentations for us today. The first is on

1 Cyber Security Incident reporting, and the second is on  
2 fast-start pricing.

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

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

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

15 CHAIRMAN McINTYRE: Commissioner Powelson?

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

22 Let me also take this opportunity--I see Anton  
23 Porter in the back. Anton, thank you for your leadership.  
24 I was humbled to kick off this year the CFC campaign, and  
25 proud to report year-to-date we've raised about \$170,000. I

1 will be taking, as a good Catholic parishioner, I will be  
2 taking up a collection in my office today.

3 (Laughter.)

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

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

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

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

19 (Laughter.)

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

22 (Moans and laughter.)

23 COMMISSIONER POWELSON: It's only a term of  
24 endearment, my friend. But I too want to applaud you the  
25 leadership that you displayed. And you and I were a band of

1 brothers through our nomination process. I don't encourage  
2 anybody to go through that process, by the way. But I  
3 commend you again for your leadership, and working with your  
4 team, your staff, the professionals around you, a great  
5 group and I look forward to a continued great working  
6 relationship with you.

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

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

19           (Laughter.)

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

25           Thank you, Mr. Chairman.



1                   CHAIRMAN McINTYRE: Thank you, Commissioner.  
2                   Commissioner Glick, do you have any opening  
3 remarks?

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

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

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

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

21                   You know it was interesting, when Commissioner  
22 Chatterjee was confirmed we spoke by phone I think the  
23 Senate voted to confirm you, and I said, Please get all the  
24 hard orders out and leave the easy ones for Chairman  
25 McIntyre and myself when we get there.

1 (Laughter.)

2 COMMISSIONER GLICK: But unfortunately he didn't  
3 succeed on that.

4 (Laughter.)

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

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

20 I am very excited to be joining the Commission  
21 today, at the first Commission meeting today. Obviously  
22 we're in the middle of a very interesting time. The energy  
23 industry is in--as everyone in this room knows, the Energy  
24 industry is in a transition that has substantial potential  
25 benefits for consumers, the economy, and the environment.

1 And FERC is in the middle of many of those issues and I look  
2 forward to working on those issues as we go forward.

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

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

20 (Laughter.)

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

25 (Applause.)

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

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

9                   (Laughter.)

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

12                  CHAIRMAN McINTYRE: Thank you, Commissioner.

13                  And with that, Madam Secretary, I think we're  
14 ready to proceed to our Content Agenda.

15                  SECRETARY BOSE: Thank you, Mr. Chairman. Since  
16 the issuance of the Sunshine Act Notice on December 14th,  
17 2017, no items have been struck from this morning's agenda.  
18 Your Consent Agenda is as follows:

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

21                  Gas Items; G-1, G-2, G-3, G-4, G-5, G-6, G-7, and  
22 G-8.

23                  Hydro Items: H-1, H-2, H-3, H-4, H-5, and H-6.

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

25                  We are now ready to take a vote on this morning's

1 Consent Agenda. The vote begins with Commissioner Glick.

2 COMMISSIONER GLICK: Aye.

3 SECRETARY BOSE: Commissioner Powelson.

4 COMMISSIONER POWELSON: Aye.

5 SECRETARY BOSE: Commissioner Chatterjee.

6 COMMISSIONER CHATTERJEE: Aye.

7 SECRETARY BOSE: Commissioner LaFleur.

8 COMMISSIONER LaFLEUR: Aye.

9 SECRETARY BOSE: And Chairman McIntyre.

10 CHAIRMAN McINTYRE: I also vote aye.

11 SECRETARY BOSE: We are now ready to move on to  
12 the discussion and presentation items for this morning. The  
13 presentation items for this morning, the first one is E-1  
14 concerning the Draft Notice of Proposed Rulemaking on Cyber  
15 Security Incident Reporting Reliability Standards. There  
16 will be a presentation by Margaret Scott from the Office of  
17 Electric Reliability, and she is accompanied by Kevin Ryan  
18 from the Office of the General Counsel.

19 CHAIRMAN McINTYRE: Good morning.

20 MS. SCOTT: Hi. Good morning. Good morning, Mr.  
21 Chairman and Commissioners.

22 Item E-1 is a Draft Notice of Proposed  
23 Rulemaking, NOPR, that proposes, pursuant to Section  
24 215(d)(5) of the Federal Power Act, directing the North  
25 American Electric Reliability Corporation, NERC, to develop

1 and submit modifications to the NERC Critical  
2 Infrastructure Protections CIP reliability standards to  
3 improve the mandatory reporting of cyber security incidents.

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

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

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

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

23           In order to address this gap and provide more  
24 timely awareness of cyber threats facing the bulk electric  
25 system, the Draft NOPR proposes to direct NERC to develop

1 modifications to the CIP Reliability Standards to include  
2 the mandatory reporting of cyber security incidents that  
3 compromise or attempt to compromise a responsible entity's  
4 electronic security parameter, the ESP, or associated  
5 electronic access control or monitoring systems, EACMS.

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

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

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

23           As discussed in the Draft NOPR, the proposed  
24 modifications will enhance awareness for NERC, industry, the  
25 Commission, other federal and state entities, and interested

1 stakeholders regarding existing and developing cyber  
2 security threats.

3 This concludes our presentation. We are happy to  
4 answer any questions you may have.

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

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

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

16 MS. SCOTT: Good question. Thank you.

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

22 When critical infrastructure entities report  
23 cyber security incidents with DHS through ICS CERT, those  
24 are typical voluntary reports. There's no minimum threshold  
25 of information that is requested. They're voluntary.



1           There is a similar type of reporting to the  
2 Department of Energy through their Electric Disturbance  
3 Events--it's a form called the OE-417. And those are  
4 required. Those are mandatory. It is required for the  
5 entire electric sector, transmission down to distribution,  
6 of attempted cyber security events and actual cyber  
7 security events.

8           Do you have anything to add?

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

15           CHAIRMAN McINTYRE: I see. Thank you.

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

19           (Laughter.)

20           CHAIRMAN McINTYRE: Electronic Access--

21           MS. SCOTT: Control--

22           CHAIRMAN McINTYRE: --and Monitoring Systems.

23           MS. SCOTT: Or Monitoring Systems, right.

24           CHAIRMAN McINTYRE: It diminishes the coolness if  
25 you lose the words.

1 (Laughter.)

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

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

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

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

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

22 Thank you, Margaret and Kevin and the teams. I  
23 am happy to support this draft order because I think it  
24 identifies and attempts to address--proposes to address an  
25 important data gap in our understanding of cyber security

1 threats to the grid.

2           And one thing that has been observed and studied  
3 across many industries--not just electricity but in  
4 aviation, medicine, and other industries--is a  
5 well-established over decades statistical correlation  
6 between minor issues, or near-misses that are far more  
7 frequent, and then up at the top of the pyramid rare major  
8 events.

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

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

21           I also want to call out the fact that the  
22 proposal would require NERC to file annual public, but  
23 anonymized summaries so that I think that you all, the team  
24 did a great job in balancing the need for transparency so we  
25 understand what is going on, but the need for security so

1 you don't know where the breaches were.

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

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

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

20 One question for the team: So my understanding is  
21 that the NOPR doesn't require reporting of every attempted  
22 intrusion into an entity's network. Could you elaborate a  
23 little bit on what types of company systems would be subject  
24 to the proposed rule, and what type of systems would not be  
25 subject to the proposed rule?

1           MR. RYAN: Certainly, Commissioner. In this  
2 situation we are focusing on the operational systems, and  
3 more specifically the medium and the high-impact BES cyber  
4 systems that facilitate operation of the bulk electric  
5 system.

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

12           COMMISSIONER CHATTERJEE: Not Nigerian princes  
13 looking for--

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

16           (Laughter.)

17           COMMISSIONER CHATTERJEE: Thank you for that  
18 clarification.

19           COMMISSIONER POWELSON: Mr. Chairman?

20           CHAIRMAN McINTYRE: Commissioner.

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

1 and you can get back to me on it.

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

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

23           So again I applaud you and look forward to  
24 working with you and the team members and NERC staff on  
25 this, as well.

1 Thank you, Mr. Chairman.

2 CHAIRMAN McINTYRE: Commissioner Glick?

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

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

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

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

21 But we have seen it around the world already.  
22 We've obviously seen it in the Ukraine in both 2015 and  
23 2016. But also just yesterday there was a media report that  
24 hackers in the Middle East attacked, or breached a facility  
25 that used the control system that as I understand it power

1 plants around the world use developed by Schneider Electric.  
2 So it is something that is clearly coming and we need to be  
3 prepared and we need to do as much as we can. And we need  
4 to know as much as we can, which is why I think this  
5 particular proposed rule is so important.

6 I very much also want to applaud NERC for their  
7 2017 State of Reliability Report that actually raised this  
8 issue for us, that the current mandatory reporting  
9 requirements are insufficient. So I am interested in  
10 hearing other parties' comments on this, but I think it is  
11 very important that we make sure that the information is out  
12 there, and the information is out there especially for the  
13 utilities and other players in the industry so they can take  
14 action when they need to.

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

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

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

24 COMMISSIONER GLICK: Aye.

25 SECRETARY BOSE: Commissioner Powelson.



1 COMMISSIONER POWELSON: Aye.

2 SECRETARY BOSE: Commissioner Chatterjee.

3 COMMISSIONER CHATTERJEE: Aye.

4 SECRETARY BOSE: Commissioner LaFleur.

5 COMMISSIONER LaFLEUR: Aye.

6 SECRETARY BOSE: And Chairman McIntyre.

7 CHAIRMAN McINTYRE: Aye.

8 SECRETARY BOSE: The last item for discussion and  
9 presentation this morning is a joint presentation on Items  
10 E-2, E-3, E-4, and E-5, concerning Fast-Start Pricing in  
11 Markets Operated by Regional Transmission Organizations and  
12 Independent System Operators.

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

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

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

23 (Laughter.)

24 CHAIRMAN McINTYRE: I'll leave it up to you, Mr.  
25 Kheloussi.

1           MR. KHELOUSSI: Good morning, Mr. Chairman,  
2 Commissioners. On December 15th, 2016, the Commission  
3 issued a Notice of Proposed Rulemaking, or NOPR, proposing  
4 certain requirements for Regional Transmission Organizations  
5 and Independent System Operators, or RTOs and ISOs, to  
6 incorporate the offers of fast-start resources into the  
7 prices for energy and ancillary services, commonly referred  
8 to as fast-start pricing.

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

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

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

24           In the NOPR, which is the third in the  
25 Commission's ongoing price formation initiative, the

1 Commission preliminarily found that some existing fast-start  
2 pricing practices may not result in rates that are just and  
3 reasonable, and propose to require that each RTO and ISO  
4 establish certain requirements for its fast-start pricing.

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

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

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

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

25           Because New York ISO, PJM, and SPP implement

1 fast-start pricing in different ways, these three orders  
2 address different aspects of fast-start pricing that are  
3 specific to each RTO or ISO.

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

12           For two of the RTOs and ISOs, PJM and SPP, the  
13 orders would also address other specifics such as whether  
14 fast-start resources are being dispatched in a manner that  
15 minimizes production costs. Details differ for each RTO and  
16 ISO because their fast-start pricing implementation differs.  
17

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

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

24           CHAIRMAN McINTYRE: Thank you, Mr. Kheloussi, and  
25 we also thank the team. Thank you to all of you and to

1 those who aren't here at the table today. It's a complex  
2 area, needless to say, as is reflected in your presentation,  
3 and there are a lot of moving parts here in this package of  
4 orders. So thanks for your work on all of it.

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

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

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

13 (Laughter.)

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

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

24 CHAIRMAN McINTYRE: Very good. Thank you. Did  
25 you have something to add? I'm sorry?

1 MR. KHELOUSSI: No, she nailed it.

2 (Laughter.)

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

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

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

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

19 CHAIRMAN McINTYRE: Very good. Thank you.

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

25 MR. KHELOUSSI: Thanks. Elizabeth has been

1 coordinating the price formation efforts, so I'm going to  
2 let her take that one, as well.

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

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

15 CHAIRMAN McINTYRE: Terrific. Thank you very  
16 much.

17 Do my colleagues have questions?

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

23 (Laughter.)

24 COMMISSIONER LaFLEUR: --although it's been  
25 around longer than the current Trilogy because we started

1 this batch in 2014. And I think this is an important step  
2 today because fast-start pricing is an important element of  
3 price formation, ensuring that prices fully reflect marginal  
4 actions taken to serve load and send the right price signals  
5 of the cost of meeting unexpected short-term needs.

6 And as we see more and more dynamism in our  
7 supply stack, I think the need to make sure that we can  
8 properly compensate fast-start resources is ever more  
9 important.

10 I believe it is a very sensible outcome to close  
11 out the Notice of Proposed Rulemaking and focus on the  
12 Section 206 Orders in the three RTOs you mentioned where we  
13 think there are reasons why their existing practices might  
14 not be just and reasonable.

15 I want to mention the fact that New York has been  
16 an early leader in fast-start pricing, and has been doing  
17 this for a long time. But we still see--I still see the  
18 possibility through targeted reform to improve certain  
19 aspects of their tariff that may not be just and reasonable.

20 With PJM and SPP, I see potential room for  
21 improvement to conform their pricing methods to the best  
22 practices that are outlined in the 206s to reflect the  
23 characteristics of fast-start resources.

24 I want to note the fact that we're letting the  
25 other three ISOs off the hook. That's not just because we



1 were feeling charitable around the holidays; MISO and ISO  
2 New England have largely already implemented the best  
3 practices that are outlined in the 206s for fast-start  
4 pricing. They've done a lot of work on that in the last  
5 couple of years.

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

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

14           CHAIRMAN McINTYRE: Thank you, Commissioner.  
15 Commissioner Chatterjee?

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

23           We have a good deal of work ahead of us in the  
24 new year, but working alongside our fellow Commissioners and  
25 dedicated staff I am confident that we will be successful in

1 tackling the various issue facing the Commission.

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

8 (Laughter.)

9 COMMISSIONER CHATTERJEE: Which I also appreciated  
10 and enjoyed.

11 COMMISSIONER LaFLEUR: Better to be lucky, and  
12 good.

13 (Laughter and side comments.)

14 CHAIRMAN McINTYRE: Commissioner Powelson.

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

17 (Laughter.)

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

21 (Laughter.)

22 COMMISSIONER POWELSON: The ball did cross the  
23 goal line.

24 (Laughter.)

25 COMMISSIONER POWELSON: You actually argued with

1 me, too, so I got it on both sides.

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

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

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

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

22 I also, again Commissioner LaFleur, I guess,  
23 regional flexibility does matter. And I do like the fact  
24 that I think we did strike the appropriate balance of this  
25 206 looking at PJM, SPP, and the New York ISO, and I think

1 that is a good outcome here this morning.

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

12 (Laughter.)

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

17 CHAIRMAN McINTYRE: Thank you, Commissioner.  
18 Commissioner Glick?

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

21 (Laughter.)

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

24 First, I just want to commend the staff for their  
25 presentation. It was very helpful and very interesting

1 issue. I do also want to commend the Commission today for  
2 the position on withdrawing the NOPR. I think certainly a  
3 one-size-fits-all approach in this particular instance is  
4 not warranted, and I think we need to figure out what's best  
5 for each RTO, given their specific circumstances.

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

12 CHAIRMAN McINTYRE: Thank you, Commissioner.  
13 Madam Secretary?

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

16 COMMISSIONER GLICK: Aye.

17 SECRETARY BOSE: Commissioner Powelson.

18 COMMISSIONER POWELSON: Aye.

19 SECRETARY BOSE: Commissioner Chatterjee.

20 COMMISSIONER CHATTERJEE: Aye.

21 SECRETARY BOSE: Commissioner LaFleur.

22 COMMISSIONER LaFLEUR: Aye.

23 SECRETARY BOSE: And Chairman McIntyre.

24 CHAIRMAN McINTYRE: Aye.

25 SECRETARY BOSE: Thank you. Thank you for your

1 presentations.

2           Mr. Chairman, that is the last item for  
3 discussion and presentation this morning.

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

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

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

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

23           More broadly, Scott has brought a unique  
24 perspective, often grounding policy discussions with  
25 historical context and commercial experience from his time

1 in the private sector. He is leaving the Commission at the  
2 end of this month to become the Executive Director of the  
3 Western Power Trading Forum.

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

6 (Applause.)

7 CHAIRMAN McINTYRE: Thank you, and  
8 congratulations.

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

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

16 (Laughter.)

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

21 (Applause.)

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

1 Division of Audits and Accounting.

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

4 (Applause.)

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

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

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

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



1 we can improve this?

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

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

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

1 deserving of attention than others.

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

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

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

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

23           I first want to briefly give a shout-out to the  
24 three esteemed colleagues who are retiring, Scott, Leanne,  
25 and Brian. I think they collectively represent both the

1 breadth of our work across credit, policy, enforcement, and  
2 all of its ramifications, and our accounting--talk about the  
3 boring good, I'm sorry, trademark--I'm sorry--

4 (Laughter.)

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

14 I want to thank you, Kevin, for your announcement  
15 of a review of our pipeline work. And for the larger  
16 commitment that it reflects to good government, continuing  
17 improvement, and collegial collaboration on these things.  
18 1999 seems like just yesterday to me, but in fact a lot has  
19 changed, particularly in the natural gas world with the  
20 tremendous growth in domestic natural gas that's led to  
21 major changes in the way gas is used and it's tremendous  
22 growth for electric generation.

23 I mean when I first got in the industry we were  
24 just--it had just been turned on as being allowed. It was  
25 once unlawful to use under the Fuel Use Act. And now of

1 course there has been a tremendous growth in generation  
2 fired by natural gas as well as export applications, and  
3 they have led to a large growth in our pipeline work, a  
4 large demand for new pipelines, often numerous pipelines in  
5 a particular geographic region that are each reviewed  
6 independently.

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

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

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

24 Secondly, I think it is appropriate for us to  
25 consider how we do our environmental reviews of proposed

1 pipeline projects, and this is in some way interrelated to  
2 need. Because as you develop a clearer idea of who is  
3 getting the gas and where the gas is going that's driving  
4 the construction of the pipeline, it also gives you a better  
5 idea of the downstream impacts on greenhouse gases or other  
6 downstream impacts.

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

14           CHAIRMAN McINTYRE: Thank you, Commissioner.  
15 Commissioner Chatterjee?

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

23           Fortunately, during my time at the Commission  
24 here I have had nothing to do with accounting audits, but I  
25 did get to briefly meet Brian socially and I feel saddened

1 that I didn't have greater opportunity to interact with you  
2 because I've heard many wonderful things. You've had a  
3 tremendous impact on this institution during your time here.

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

8 (Laughter.)

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

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

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

25 Lastly, I want to echo the Chairman's promise

1 that the Commission will engage the entire spectrum of  
2 stakeholders on this important issue. I for one am  
3 committed to ensuring that my door will be open, as always,  
4 to all stakeholders on this issue no matter where they sit  
5 on the political spectrum, what interests they represent, or  
6 what part of the country they come from.

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

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

15 CHAIRMAN McINTYRE: Thank you, Commissioner  
16 Chatterjee. Commissioner Powelson?

17 COMMISSIONER POWELSON: Thank you, Chairman  
18 McIntyre.

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

25 So, yes, 1999 was a few--over a few decades ago,

1 and I think we all remember where we were in 1999. But that  
2 being said, I have embedded in me DNA from my prior life  
3 experience. I served on Governor Corbett's Marcellus Shale  
4 Commission where we updated our Oil and Gas Act, and I also  
5 served on a very successful initiative run by current  
6 Governor Tom Wolf around pipeline safety.

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

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

23           So people should have peace of mind that, one, we  
24 don't site pipelines on speculation here at the FERC. There  
25 is due diligence. Some may argue that maybe we need to



1 apply more rigor to it. I don't want to prejudge that  
2 outcome, Mr. Chairman, and I don't think you do, and I don't  
3 think any of us do.

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

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

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

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

1 thank you.

2 CHAIRMAN McINTYRE: Thank you, Commissioner.

3 Commissioner Glick?

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

7 (Laughter.)

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

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

18 With regard to this particular issue, I wanted to  
19 thank Chairman McIntyre for announcing that the Commission  
20 is going to consider how it carries out its responsibilities  
21 in reviewing proposals for certificates of public  
22 convenience and necessity pursuant to the Natural Gas Act.

23 I also want to recognize Commissioner LaFleur.  
24 She has led on this issue for awhile now, and she has been  
25 raising a number of concerns that I agree with, and I think

1 we need to take a good look at.

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

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

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

22 First, I believe the Commission should take a  
23 careful look at how it evaluates the need for a new pipeline  
24 under its 1999 Certificate Policy Statement.

25 The policy statement identified a number of

1 factors that should be considered as part of this inquiry,  
2 but the Commission has relied primarily on the existence of  
3 precedent agreements for evaluating need.

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

8           Second, I believe the Commission should assess  
9 whether its current approach for evaluating the  
10 environmental impacts of a proposed gas pipeline, including  
11 potential greenhouse gas emissions, requires modification.

12           And third, I believe that the Commission should  
13 examine its practice of issuing certificates of public  
14 convenience and necessity subject to the submission of  
15 additional information and ongoing consultation.

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

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

24           So thank you again, Mr. Chairman, and happy  
25 holidays to every body.

1                   CHAIRMAN McINTYRE: Thank you, Commissioner. I  
2 thank all of my colleagues for their thoughtful  
3 contributions thus far and look forward to working on this  
4 important matter with all of you.

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

10                   Madam Secretary?

11                   SECRETARY BOSE: Nothing more.

12                   CHAIRMAN McINTYRE: With that, we are adjourned.

13                   (Whereupon, at 11:22 a.m., Thursday, December 21,  
14 2017, the meeting of the Commissioners of the United States  
15 Federal Energy Regulatory Commission was adjourned.)

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## 1 CERTIFICATE OF OFFICIAL REPORTER

2

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

5

6 Name of Proceeding:

7 Cyber Security Incident Reporting Reliability Standards  
8 Fast-Start Pricing in Markets Operated by Regional  
9 Transmission Organizations and Independent System  
10 Operators

11

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14 1038th COMMISSION MEETING

15

16

17 Docket No.: RM18-2-000, AD17-9-000 and RM17-3-000

18 Place: Washington, DC

19 Date: Thursday, December 21, 2017

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

24 Larry Flowers

25 Official Reporter