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UNITED STATES OF AMERICA  
FEDERAL ENERGY REGULATORY COMMISSION

CONSENT ELECTRIC, CONSENT GAS,  
CONSENT HYDRO, CONSENT CERTIFICATES,  
DISCUSSION ITEMS, STRUCK ITEMS

1065th COMMISSION MEETING

Thursday, February 20, 2020  
Commission Meeting Room  
Federal Energy Regulatory Commission  
888 First Street, NE  
Washington, D.C. 20426

The Commission met in open session at 10:22 a.m.,  
when were present:

CHAIRMAN NEIL CHATTERJEE  
COMMISSIONER RICHARD GLICK  
COMMISSIONER BERNARD McNAMEE  
SECRETARY KIMBERLY D. BOSE

1 Agenda Items:

2 Consent-Electric

3 E-1, E-2, E-3, E-4, E-5.E-6, E-7 E-8, E-9, E-10, E-11, E-12,

4 E-13, E-14, E-15, E-16, E-17, E-18, E-20, E-21, E-23, E-24,

5 E-26, and E-27

6

7 Consent-Gas

8 G-1 and G-2

9

10 Consent-Hydro

11 H-1, H-2, and H-3

12

13 Consent-Certificates

14 C-1, C-2, C-4, C-5, C-6, C-7, C-8, C-9, C-10, C-11, and C-12

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16 Discussion Items

17 E-19 and E-22

18

19 Struck Items

20 None

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1 Commissioner Statements for February 20, 2020

2 E-8 - Commissioner Glick concurring with a separate  
3 statement

4 E-9 - Commissioner Glick dissenting with a separate  
5 statement

6 E-10 - Commissioner Glick dissenting with a separate  
7 statement

8 E-11 - Commissioner Glick dissenting with a separate  
9 statement

10 E-21 - Commissioner Glick dissenting in part with a  
11 separate statement

12 E-27 - Commissioner Glick dissenting with a separate  
13 statement

14 G-2 - Commissioner Glick dissenting with a separate  
15 statement

16 C-2 - Commissioner Glick dissenting with a separate  
17 statement

18 C-4 - Commissioner Glick dissenting with a separate  
19 statement

20 C-4 - Commissioner McNamee concurring with a separate  
21 statement

22 C-5 - Commissioner Glick dissenting with a separate  
23 statement

24 C-5 - Commissioner McNamee concurring with a separate  
25 statement

1 C-7 - Commissioner Glick dissenting with a separate  
2 statement

3 C-9 - Commissioner Glick dissenting with a separate  
4 statement

5 C-10 - Commissioner Glick dissenting in part with a  
6 separate statement

7 C-10 - Commissioner McNamee concurring with a separate  
8 statement

9 C-11 - Commissioner Glick dissenting in part with a  
10 separate statement

11 C-11 - Commissioner McNamee concurring with a separate  
12 statement

13 C-12 - Commissioner Glick dissenting in part with a  
14 separate statement

15 C-12 - Commissioner McNamee concurring with a separate  
16 statement

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1 Discussion and/or Presentations

2 E-19 - Presentation by Kevin Ryan (OGC) and Patricia

3 Ephraim Eke (OER)

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5 Struck Items

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

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(10:22 a.m.)

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SECRETARY BOSE: Thank you. Good morning. 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.

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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 the conducting of the meeting, or inhibits the audience's ability to observe or listen to the meeting, including an attempt by audience members to address the Commission while the meeting is in progress, are not permitted.

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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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Additionally, documents presented to the Chairman, Commissioners, or staff during the meeting will not become part of the official record of any Commission proceeding, nor will they require further action by the Commission. If you wish to comment on an ongoing proceeding before the Commission, please visit our website for more

1 information.

2 Thank you for your cooperation.

3 CHAIRMAN CHATTERJEE: Madam Secretary, we are  
4 ready to begin.

5 (Protesters speaking off-microphone.)

6 CHAIRMAN CHATTERJEE: Thank you, sir. Please  
7 follow the officer outside --

8 (Protesters speaking off-microphone.)

9 CHAIRMAN CHATTERJEE: Thank you, sir.

10 (Protesters speaking off-microphone.)

11 (Pause.)

12 (Protesters speaking off-microphone.)

13 (Pause.)

14 SECRETARY BOSE: Thank you, Mr. Chairman. This  
15 is the time and the place that have been noticed for the  
16 Open Meeting of the Federal Energy Regulatory Commission to  
17 consider the matters that have been duly posted by the  
18 Commission.

19 Please join us in the Pledge of Allegiance.

20 (Pledge of Allegiance recited.)

21 SECRETARY BOSE: Commissioners, since the January  
22 Open Meeting, the Commission has issued 41 notational  
23 orders.

24 Thank you, Mr. Chairman.

25 CHAIRMAN CHATTERJEE: Thank you, Madam Secretary.

1 (Protesters speaking off-microphone.)

2 CHAIRMAN CHATTERJEE: I would like to start off  
3 the meeting by highlighting Item E-19 on today's agenda.  
4 This Notice of Inquiry, or NOI, seeks comments regarding the  
5 potential benefits and risks associated with the use of --

6 (More protesting voices.)

7 CHAIRMAN CHATTERJEE: Thank you, Madam. Please  
8 speak with CMR.

9 (Pause.)

10 E-19 is a Notice of Inquiry that seeks comments  
11 regarding the potential benefits and risks associated with  
12 the use of virtualization and cloud computing services in  
13 association with bulk --

14 (More protesting voices.)

15 CHAIRMAN CHATTERJEE: Thank you, Madam, please  
16 leave the --

17 (Protest voice continues.)

18 CHAIRMAN CHATTERJEE: Thank you, Madam. Please  
19 call the Office of CMR.

20 (Protest voice continues.)

21 CHAIRMAN CHATTERJEE: We will be seeking comments  
22 regarding the potential benefits and risks associated with  
23 the use of virtualization and cloud computing services in --

24

25 (Protest voice continues.)

1           CHAIRMAN CHATTERJEE: Thank you, Madam. Please  
2 see the CMR.

3           (Protest voice continues.)

4           CHAIRMAN CHATTERJEE: Some of the benefits of the  
5 cloud include cost reductions as well as increased  
6 efficiencies, flexibility, and scalability of services.

7           However, before moving sensitive data and  
8 critical systems to the cloud --

9           (Another protest voice continues.)

10          CHAIRMAN CHATTERJEE: Before moving sensitive  
11 data and critical systems to the cloud, we need to better  
12 understand the vulnerabilities and how to develop solutions  
13 to mitigate them. I am very pleased with the team's work on  
14 this NOI and look forward to their joint presentation on  
15 Item E-19 and related Item E-22.

16          Next, I would like to turn to Items E-1 through  
17 E-7. This is our fourth set of Order 845 compliance orders.  
18 In these orders, we find that seven more transmission  
19 providers partially comply with the Commission's final rule,  
20 and we direct each of them to submit a further compliance  
21 filing.

22          With this month's items, we have now acted on a  
23 total of 29 compliance filings, including our fourth and  
24 fifth RTOs: California ISO and New York ISO. Thanks again  
25 to staff for all the hard work on these important orders.

1           We are also acting today on a package of orders  
2 that relate to New York ISO's buyer-side mitigation, or BSM,  
3 rules. We're taking action to narrow the scope of  
4 exemptions from the BSM rules, thereby broadening the  
5 market's protections against price distortion. I've been  
6 saying this nearly everywhere I go, and it bears repeating  
7 today: Consumers benefit when our organized markets remain  
8 competitive and send the right price signals.

9           I've heard speculation that in these orders we  
10 are taking the same action in New York that we took with PJM  
11 in December. I think it's important to highlight that these  
12 two markets' footprints and capacity constructs are very  
13 different, and our orders today are shaped by the unique  
14 issues that arise in New York ISO and the particular  
15 complaints brought by parties in these proceedings.  
16 However, the underlying principles for both actions are  
17 similar: We are working to make sure that capacity markets  
18 provide accurate price signals to ensure adequate supply  
19 where it is needed.

20           The orders address several specific applications  
21 of New York ISO's BSM rules, including their application to  
22 Special Case Resources, renewables, storage and self-supply.  
23 Collectively, today's orders maintain application of BSM  
24 rules to new resources and narrow the exemptions from the  
25 GSM rules.

1           For example, we deny a complaint arguing that New  
2   York ISO should not apply the BSM rules to electric storage  
3   resources, and reject a request for a blanket exemption from  
4   the BSM rules for new electric storage resources. We also  
5   accept, subject to condition, New York ISO's eligibility  
6   criteria for the renewable resources exemption, but reject  
7   New York ISO's proposed 1000 megawatt exemption cap, and  
8   also reject New York ISO's proposal to allow state entities  
9   to be eligible for the self-supply exemption.

10           It is our responsibility to ensure that the  
11   wholesale markets we oversee remain competitive, and I am  
12   pleased with the action that we are taking today.

13           Today we are considering the Jordan Cove LNG  
14   project which I support. This project planned to be located  
15   in Coos Bay, Oregon, and will be the first export terminal  
16   the Commission has certificated on the West Coast in the  
17   Lower 48.

18           With that, I will conclude my remarks and turn to  
19   my colleagues for any additional opening statements or  
20   announcements they may have.

21           I would like to note that I am not keeping a  
22   distance from Commissioner Glick due to any substantive  
23   disagreement, but I have recently seen the movie "Parasite"  
24   and I --

25           (Laughter.)

1 CHAIRMAN CHATTERJEE: Commissioner Glick?

2 COMMISSIONER GLICK: I thought about coming in  
3 with a mask.

4 (Laughter.)

5 COMMISSIONER GLICK: Just so you know, I have 36  
6 hours without a fever. My family has just concluded this  
7 past week, so...

8 (Laughter.)

9 COMMISSIONER GLICK: But I think we are all good.  
10 And I am going to start out by saying I am going  
11 to be dissenting on 15 orders today, 15 and concurring in  
12 another one. I am very disappointed we have gotten to this  
13 place, and I am saddened with this agency who used to be  
14 known for nonpartisanship and compromise, but, you know, it  
15 is what it is. I still cannot vote in good conscience for  
16 orders that violate the law and come nowhere close to  
17 reasonable decisionmaking.

18 Mr. Chairman, I was originally going to read all  
19 of my dissent into the record, but I figured you had this  
20 room booked for tonight for some other event.

21 (Laughter.)

22 COMMISSIONER GLICK: I am going to scare everyone  
23 now, but I am only going to talk about a couple matters, a  
24 couple of pipeline and LNG projects, and buyer-side  
25 mitigation in New York that the Chairman mentioned.

1           But I do urge everyone to read my dissent,  
2 because I think people need to know what the Commission is  
3 doing. With regard to the pipeline certificate, I am not  
4 going to reiterate in any great specificity my continued  
5 discussions that I have had with my fellow Commissioners  
6 about greenhouse gas emissions associated with pipelines and  
7 LNG facilities. Suffice it to say that I continue to think  
8 that the Commission is violating what the D.C. Circuit has  
9 told it to do on numerous occasions.

10           But I do want to talk about two specific  
11 projects, two specific orders that we are issuing today, one  
12 of which is in the Algonquin proceeding regarding the  
13 extension of time to complete the Atlantic Bridge Pipeline.

14           Now this case is a poster child for what I think  
15 is wrong with what is going on with the Commission's review  
16 process here. Let me go through the facts very quickly.

17           So several years ago the Commission issued a  
18 certificate approving this particular project, the Atlantic  
19 Bridge Pipeline Project in the Northeast, and the order, as  
20 every order does, it says you have to start and complete  
21 construction of the project by a date certain. And for a  
22 variety of reasons, Algonquin realized they were not going  
23 to achieve that deadline, construction deadline.

24           So on December 26, 2018, the day after Christmas,  
25 Algonquin filed an application for a two-year extension of

1 time. It is not unprecedented. Companies do file for  
2 extensions of time. What happened after that is  
3 unprecedented. Again, the day after Christmas. In the  
4 morning they filed the application. The application gets  
5 noticed a couple of hours later. And it goes up on, you  
6 know, the FERC website. And 39 minutes after that, staff  
7 issued an order approving the extension -- 39 minutes.

8           Now maybe on a typical day, maybe the day after  
9 Christmas, 39 minutes, you can actually read the order, and  
10 some of the comments were that I was being facetious about  
11 that, but it does seem a little strange. But the day after  
12 Christmas, 39 minutes and no one of course filed anything  
13 because they couldn't. They didn't have time. They didn't  
14 know about it.

15           Now you might say no one would know that anybody  
16 would oppose the extension of this particular, the  
17 construction deadline of this particular facility. Well,  
18 earlier in that year Congressman Lynch, who represents part  
19 of the district that is affected by this project, wrote a  
20 letter to then-Chairman McIntyre, saying please don't extend  
21 this project's extension deadline for this project. My  
22 constituents don't support it. Please don't do that.

23           But nonetheless, Commission staff went forward  
24 and approved it. Now I have to concerns with this  
25 particular order. First of all, obviously the interested

1 parties -- and there were plenty of them that were not happy  
2 with the Commission's order -- didn't have a chance to weigh  
3 in and didn't have a chance to file comments.

4           And then secondly, and I've said this numerous  
5 times, the Commissioners are sent here, you know, approved  
6 by the Senate, nominated by the President, confirmed by the  
7 Senate, we're sent here to make decisions. And I know there  
8 are a lot of administrative functions that we -- there would  
9 be too many. We would be spending all day voting on orders  
10 and a whole bunch of issues that are really not that  
11 significant.

12           But this is significant. And I just don't  
13 understand why the Commissioners who were sent here to do  
14 the voting don't do it and we delegate it to staff.

15           Now to the Commission's credit -- and you'll see  
16 it in the order when it comes out -- the actual order does  
17 provide kind of a path forward to handle situations like  
18 this in the future, which helps in providing notice and  
19 opportunity for intervention.

20           That does not eliminate the injustice that  
21 occurred in this case. In 39 minutes, we issued the order.  
22 I think at the very least we could have granted rehearing  
23 and reconsidered the request here by Atlantic Pipeline --  
24 Atlantic Bridge Pipeline to be extended.

25           Now with regard to the Jordan Cove project that

1 Chairman Chatterjee mentioned, and by the way, Jordan Cove  
2 is one of the two projects referred to earlier where the  
3 Commission did reach out at one point, but they are back and  
4 actually the Commission is approving it this time, Jordan  
5 Cove's LNG project.

6           And I don't want to go into too much -- I said I  
7 wasn't going to talk about greenhouse gases too much today  
8 because I usually do that, but I do want to talk a little  
9 bit about that today, and something Coos Point became aware  
10 of.

11           So in many orders we say we can't consider the  
12 significance of greenhouse gas. It's too difficult to  
13 consider the emissions associated with the pipeline,  
14 especially as it relates to the impact of those emissions on  
15 climate change. And a lot of times we say, well, you know  
16 what? There's no Federal-State standard. So how can we  
17 possibly measure the amount of emissions associated with  
18 the project with a Federal or State standard.

19           Well in this case, actually -- ironically, Oregon  
20 has a standard. So we don't say that anymore. We just  
21 don't address the matter at all. Oregon passed a law, I  
22 think it was in 2007, that limits emissions to I think 14  
23 million metric tons a year by 2050. Now this particular  
24 project is going to emit 2 million metric tons a year. So  
25 it is one-seventh, 15 percent or so, of the project's

1 emissions.

2           This is significant. This is going to really  
3 make it difficult for Oregon to meet its standard. So we  
4 are just ignoring that. We are just going forward. And so  
5 we are going to make excuses about why we are not  
6 considering a project's greenhouse gas emissions and the  
7 impact on climate change, but we are going to run out of  
8 excuses at some point and just do it. It just makes a lot  
9 more sense.

10           Now in this particular case, it is not just the  
11 greenhouse gas emissions that the Commission fails to  
12 adequately review. There are a lot of other significant  
13 impacts -- 20 different threatened and endangered species,  
14 historic property, short-term impact on short-term housing,  
15 impact on noise, impact on visibility, a whole bunch of  
16 other issues.

17           Now in some of those cases, we were able, the  
18 Commission was able through the order, through the  
19 requirements and through agreements with the project  
20 developer, to mitigate some of those conditions. But some  
21 of them we haven't been able to mitigate at least below what  
22 the Commission defines as significant, or sets as  
23 significant standards.

24           So that means in this particular project there  
25 are impacts that the Commission does deem significant that

1 we haven't been able to ameliorate, so to speak, through  
2 conditions.

3           And so I used to think what the Natural Gas Act  
4 requires is that you consider the benefits of a project, but  
5 you have to consider how that impacts the public interest.  
6 And in defining "public interest," you consider the benefits  
7 of the project and you weigh that against the adverse  
8 impacts of the project.

9           But we don't actually do that. I think this  
10 order, if we were actually honest, if the Commission were  
11 being honest, we'd say we don't really do that. We just  
12 look at the adverse impact on landowners, and we weigh that  
13 against the economic benefits of the project, and then later  
14 on we're going to talk about the environmental impacts but  
15 we really don't consider or include those environmental  
16 impacts in our decisionmaking process.

17           Something is really rotten about that. Now my  
18 colleagues try to assure us that they can perform that type  
19 of analysis, do that type of balancing in their head, which  
20 is great if they did. But we need to do it in the order,  
21 not in our head. We refuse to say that we are actually  
22 weighing these costs against the benefits. The Commission  
23 may very well find -- a majority of the Commission may well  
24 find that the benefits to the costs, but we need to do  
25 that. We're not doing that in this particular case.

1           That is why I think this Commission has earned  
2 its reputation as being a rubber stamp for these type of  
3 pipeline and LNG projects.

4           Now turning to the New York Buyers-side  
5 mitigation proceeding that Chairman Chatterjee also  
6 referenced, I want to start out by saying I think the  
7 Commission has a very important role to play in ensuring  
8 that market power, whether it be on the seller's side or on  
9 the buyer's side, is addressed. That we shouldn't allow  
10 entities that have market power to abuse their market power  
11 by either raising prices too high, or bringing prices too  
12 low.

13           In a capacity market, there can be buyers that  
14 set market power when a large buyer acts in a way to affect  
15 the clearing price to bring it lower than it would other  
16 wise be, because that large buyer has that kind of market  
17 power. So we need to address that. But I think it is  
18 really kind of comical to suggest that what we are doing  
19 here in New York, what this whole proceeding is about, has  
20 anything to do with buyer-side market power.

21           It doesn't. It is not buyer-side mitigation.  
22 Most of the resources affected by today's order aren't even  
23 buyers. And those that are, very few of them -- some of  
24 them may -- but very few of them actually have market power.  
25 Yet the Commission has decided to subject them all to

1 mitigation, a mitigation regime that's going to increase  
2 prices and make renewables, demand response, and energy  
3 storage less likely to clear in the market.

4           Now in today's orders now the Commission has now  
5 spoken in the three regions that have miniature capacity  
6 markets. New England, New York, and PJM. And I would  
7 challenge anyone, once they've had a chance to read the  
8 order, I would challenge anyone to find a common theme here,  
9 to find what the Commission's theory is, except where we  
10 want to raise prices to benefit existing generators, and  
11 stunt the development of new clean energy resources where so  
12 many states are eager to promote them.

13           The fact is that we have created one big mess on  
14 the Eastern Capacity Market, and I don't think my colleagues  
15 have plans for getting us out of this. Meanwhile, the  
16 states are going -- the New York -- I think everyone knows  
17 the New York Public Service Commission has already initiated  
18 a proceeding to examine resource adequacy, and whether they  
19 should take back resource adequacy from the market.

20           And then we see other states, primarily in PJM  
21 and reacting to the recent PJM orders, but also in New  
22 England, saying we need to think about doing something  
23 similar, or even something more drastic, getting our  
24 utilities out of the RTO altogether, or maybe at least  
25 getting them out of the capacity market, as we currently

1 know it.

2           And, you know, I think we can react to that in  
3 several ways. One, we can be patronizing and say, well, the  
4 states don't really mean it. Or the RTOs, they complained  
5 about our order, but it's just all political, they didn't  
6 really mean it.

7           You know, we're from Washington. We know better  
8 than they do. Well we can say the states -- well, we need  
9 to ignore state policies and the roles the states have, that  
10 the Federal Power Act gave the states in terms of making  
11 resource decisionmaking decisions, we could just ignore that  
12 because we want to save the markets; that we think that  
13 markets are very important, and they are all essential  
14 markets, even though the record conclusively demonstrates  
15 otherwise.

16           The fact is, there is real data about the future  
17 of our regional markets. Everyone knows this. The capacity  
18 market is really in doubt right now, and we need to really  
19 act to get some control over it again and figure this out.  
20 And hopefully we do in the future, because today's orders  
21 are not going to help.

22           Thank you very much, Mr. Chairman.

23           CHAIRMAN CHATTERJEE: Commissioner McNamee.

24           COMMISSIONER McNAMEE: Thank you. I first want  
25 to start by thanking the members of the team, and Natalie

1 Chin who joined my staff after Jim Cunningham --

2 (Knocking on the glass.)

3 (Protesters speaking off-microphone.)

4 COMMISSIONER McNAMEE: Oh, sorry. Thanks for the  
5 knock on the glass.

6 (Laughter.)

7 COMMISSIONER McNAMEE: I wanted to welcome  
8 Natalie Chin to the team. She is joining me after Jim  
9 Cunningham has returned to the General Counsel's office.  
10 Jim did a fantastic job in assisting me, and I thank him for  
11 all of his work.

12 Natalie is already proving herself. A little bit  
13 about her background. She has been at the Commission since  
14 2015. She has been in a variety of different areas in the  
15 Commission. She went to Purdue University, has a Master's  
16 from Johns Hopkins. And she is getting her Master's at the  
17 United States Naval War College. So I am glad to have that  
18 strategic and technical advice being given to me, as well.  
19 She happens to be a marathon runner, and we are just  
20 grateful to have her. And she is already hitting the ground  
21 running.

22 I want to talk about a couple of items today. We  
23 are dealing with a lot of orders today, and many of them are  
24 very important. In fact, as I often say, even the orders  
25 that nobody talks about are important to the parties. And I

1 know we focus on the ones that kind of are the high-profile  
2 ones, but I think it is important for everybody to know that  
3 we are paying attention to the details in all of the orders,  
4 because it is important to everybody who is in those cases  
5 who is worried about how they will affect their businesses,  
6 or their land, or their individual lives that we are paying  
7 attention to it.

8           So by saying that, I will address some of the  
9 higher-level ones. In terms of Algonquin that Commissioner  
10 Glick pointed out, the reason that we are establishing a new  
11 procedure is because, as he points out, it does not look  
12 good. Though there were rational reasons why the extension  
13 to Algonquin was provided, and that the 34, 36 minutes were  
14 not just a snap judgment, as discussed in the order. There  
15 was significant discussion beforehand at least with the  
16 project manager.

17           There probably should have been more of an  
18 opportunity, and so we are establishing a new process to  
19 encourage that at least 120 days before the extension is  
20 needed that it is filed with the Commission. That seven  
21 days' notice is provided, that within seven days notice is  
22 given to the public. That there is at least 15 days for  
23 interventions and comments to be made. And, that the  
24 Commission needs to act within 45 days.

25           And that, hopefully -- that is in contested

1 proceedings, and hopefully that will provide a more open and  
2 transparent opportunity for people to know what the  
3 Commission is doing, and what the project -- the project  
4 owners are doing.

5           In regard to issues involving the New York ISO  
6 and DSM, not all, but many of the orders are dealing with  
7 compliance issues that started in 2015. And we are  
8 addressing those proposals that were already either  
9 challenging complaints or orders that we had issued in  
10 trying to make sure that we're dealing with up-to-date  
11 information, and that we're making sure that the DSM, the  
12 Fireside Market process is addressing the issues  
13 appropriately.

14           I think that is what we should be doing. Now,  
15 Commissioner, my colleague, laments that we don't seem to  
16 have any common theme. My view has always been that each  
17 ISO and each RTO's obligation is not to impose a world view  
18 on those different RTOs and ISOs. Instead, it is to look at  
19 how are they developed? Where are the resources that area  
20 available to them? How does their load work? How was the  
21 market developed? And trying to look at the actual facts  
22 that apply to those and made these decisions based on the  
23 facts in the record, based on the facts in those markets,  
24 and make the decisions.

25           My goal is not to give some over-arching theme,

1 but instead to address the issues that are before us, and to  
2 try and do it in a reasoned manner.

3           And that goes to a fundamental issue that also we  
4 need to think about, because my colleague has expressed  
5 concern, as have others, you know, are the RTOs over? Are  
6 the capacity markets over? What's happening?

7           My general view is that we can't be wedded to the  
8 past and how things were always done. We need to be able to  
9 look at and understand that when these were formed, the  
10 premises under which they were formed, and the paradigm used  
11 to implement those premises, has changed.

12           We have seen a dramatic change from when these  
13 markets were formed, when you used to have just the standard  
14 load curve by the day, or by the year, that here it goes up,  
15 it goes down, and we have what is know as the term for  
16 baseload, units that just chug along all the time 24/7. And  
17 then your intermediate, usually gas plants and your CG gas  
18 plants, to hit peak. That is how the paradigm was designed  
19 for many of these markets.

20           Things have changed. We've seen the growth of  
21 renewables. We are seeing the growth of storage. We are  
22 seeing a change in how these markets perform and how things  
23 are operated, and how the loads stack, the duration mix, and  
24 how customers needs for energy are being met.

25           And so we need to make sure that we are trying to

1 address those needs. But the key thing that we have to also  
2 do is recognize that we have the tariffs before us, the RTOs  
3 before us, and that they were designed under a certain  
4 framework, certain promises. And that paradigm has not been  
5 offered by any of these -- any of these RTOs or ISOs to  
6 change or be reorganized.

7           And so our obligation is to ensure under the  
8 Federal Power Act that everybody is able to have just and  
9 reasonable rates, and that they are nondiscriminatory. And  
10 that means providing a level playing field, so everybody has  
11 an opportunity to compete and for every resource to show  
12 that they are the most cost effective. They are the ones  
13 that are going to be able to serve the load.

14           And so I think that in that sense that we do have  
15 one common theme. That is, following the Federal Power Act.  
16 Otherwise, each RTO, each ISO, they are different. The  
17 California ISO is very different than PJM, very different  
18 from New York, very different from New England.

19           And that is one of the things, I will say, that I  
20 have enjoyed most in this job; that I have gotten to learn  
21 about how different each of these ISOs and RTOs are. And so  
22 one thing that I have enjoyed, and I will continue enjoying,  
23 I learn from Commissioner Glick, from Chairman-- from the  
24 Chairman, and from some of the great staff here, is the  
25 different nuances. And I think that is something that we

1 should celebrate and that we should embrace, but we still  
2 have to do our job.

3           Now there is one final thing that I want to  
4 discuss, and that is Jordan Cove. I am going to be voting  
5 nay today on Jordan Cove, but that is not a hard "nay."  
6 That is merely my recognition that yesterday that the State  
7 of Oregon provided a letter, apparently, to the applicant  
8 regarding its permit. I want to see what the State of  
9 Oregon said, and I need that information to inform my  
10 decision about whether I am ultimately going to vote for or  
11 against Jordan Cove.

12           Now I applaud the fact that Jordan Cove is on  
13 today's agenda. Congress passed FAST-41 in order to ensure  
14 that projects move quickly, because time is money and that  
15 we need to be able to start making decisions in a reasoned  
16 but quick fashion. And so the Chairman has been very good  
17 about making sure that we are complying with our FAST-41  
18 obligation that was imposed on us by Congress.

19           Of course as a Commission we are also obligated  
20 to make substantive decisions about whether or not an LNG  
21 facility is in the public interest, and whether the pipeline  
22 is in the public convenience and necessity.

23           I had to balance what our procedural obligations  
24 are under FAST-41 versus what I believe my obligation is to  
25 consider seriously the information that is being presented

1 to us. This is a complex project, and it is one that has  
2 come to the Commission multiple times, and it needs to be  
3 considered carefully. There are many people who are for it,  
4 and there are many people against it, and it needs to be  
5 considered. In my opinion, for me personally, I need to  
6 look at it in more detail and I need to understand what the  
7 State of Oregon said.

8 So I expect that I will be able to vote on this  
9 project next week, and I not sure if it is going to be a yea  
10 or a nay. I need to look at what has been presented. But  
11 for the time being, my vote is a nay in order to give myself  
12 more time to see what the project -- what the information is  
13 to form my decision on the project.

14 And with that, thank you, Mr. Chairman.

15 CHAIRMAN CHATTERJEE: Madam Secretary, we are  
16 ready to go to the Consent Agenda.

17 SECRETARY BOSE: Since the issuance of the  
18 Sunshine Act Notice on February 13th, 2020, no items have  
19 been struck from this morning's agenda. Your Consent Agenda  
20 is as follows:

21 Electric Items: E-1, E-2, E-3, E-4, E-5, E-6,  
22 E-7, E-8, E-9, E-10, E-11, E-12, E-13, E-14, E-15, E-16,  
23 E-17, E-18, E-20, E-21, E-23, E-24, E-26, and E-27.

24 Gas Items: G-1 and G-2.

25 Hydro Items: H-1, H-2, and H-3.

1           Certificate Items: C-1, C-2, C-4, C-5, C-6, C-7,  
2 C-8, C-9, C-10, C-11, and C-12.

3           As to E-8, Commissioner Glick is concurring with  
4 a separate statement. As to E-9, Commissioner Glick is  
5 dissenting with a separate statement. As to E-10,  
6 Commissioner Glick is dissenting with a separate statement.  
7 As to E-11, Commissioner Glick is dissenting with a separate  
8 statement. As to E-21, Commissioner Glick is dissenting in  
9 part with a separate statement. As to E-27, Commissioner  
10 Glick is dissenting with a separate statement.

11           As to G-2, Commissioner Glick is dissenting with  
12 a separate statement. As to C-2, Commissioner Glick is  
13 dissenting with a separate statement. As to C-4,  
14 Commissioner Glick is dissenting with a separate statement.  
15 And Commissioner McNamee is concurring with a separate  
16 statement.

17           As to C-5, Commissioner Glick is dissenting with  
18 a separate statement. And Commissioner McNamee is  
19 concurring with a separate statement. As to C-7,  
20 Commissioner Glick is dissenting with a separate statement.  
21 As to C-8, Commissioner Glick is dissenting with a separate  
22 statement. And Commissioner McNamee is voting nay on this  
23 item. As to C-9, Commissioner Glick is dissenting with a  
24 separate statement. As to C-10, Commissioner Glick is  
25 dissenting in part with a separate statement. And

1 Commissioner McNamee is concurring with a separate  
2 statement. As to C-11, Commissioner Glick is dissenting in  
3 part with a separate statement. And Commissioner McNamee is  
4 concurring with a separate statement. As to C-12,  
5 Commissioner Glick is dissenting in part with a separate  
6 statement, and Commissioner McNamee is concurring with a  
7 separate statement.

8           You are now ready to take a vote on this  
9 morning's Consent Agenda. The vote begins with -- and I  
10 would encourage you to read your statements when you vote  
11 into the record. The vote begins with Commission McNamee.

12           COMMISSIONER McNAMEE: Thank you. On Item C-8, I  
13 vote nay. On all other items, I vote aye and note my  
14 concurrences on C-4, C-5, C-10, C-11, and C-12.

15           SECRETARY BOSE: Commissioner Glick.

16           COMMISSIONER GLICK: On item C-8, I am also  
17 voting nay. And then noting my dissents in E-9, E-10, E-11,  
18 E-27, G-2, C-2, C-4, C-5, C-7, and C-9. I am noting my  
19 partial dissent in E-21, C-10, C-11, and C-12, and noting my  
20 concurrence in E-8 I vote aye.

21           SECRETARY BOSE: And Chairman Chatterjee.

22           CHAIRMAN CHATTERJEE: I think I just got Bingo.

23           (Laughter.)

24           CHAIRMAN CHATTERJEE: I vote aye.

25           Madam Secretary, before we move on to the

1 discussion items, I just want to thank my colleague. I  
2 would say I am disappointed that we were not able to vote  
3 out Jordan Cove today, but I respect my colleague's need for  
4 more time. I want to reassure people that today's vote is  
5 not a denial of Jordan Cove's application. The application  
6 remains pending before the Commission, and we will vote on  
7 this matter when we are ready.

8           With that, Madam Secretary, if we could please  
9 move on to the discussion.

10           (Protester speaking.)

11           CHAIRMAN CHATTERJEE: Madam Secretary, if we  
12 could please move to the items on the discussion agenda.

13           SECRETARY BOSE: The presentation and discussion  
14 items for this morning is a joint presentation of Items E-19  
15 and E-22 concerning matters relating to the use of  
16 virtualization and cloud computing services in association  
17 with the bulk electric system operations.

18           There will be a presentation by Kevin Ryan from  
19 the Office of the General Counsel, and Patricia Ephraim Eke  
20 from the Office of Electric Reliability.

21           MR. RYAN: Good morning, Chairman and  
22 Commissioners. Item E-19 is a draft Notice of Inquiry, NOI,  
23 seeking comments on the potential benefits and risks  
24 associated with the use of virtualization and cloud  
25 computing services in association with bulk electric system

1 operations, as well as whether barriers exist in the  
2 Commission-approved Critical Infrastructure Protection, CIP,  
3 Reliability Standards that impede the voluntary adoption of  
4 virtualization or cloud computing services.

5           The draft NOI seeks to build on the record  
6 concerning the potential benefits and risks associated with  
7 the adoption of virtualization and cloud computing service  
8 for bulk electric system operations that were raised in  
9 discussions at the Commission's June 27, 2019, Reliability  
10 Technical Conference and the March 28, 2019, Joint  
11 Commission/Department of Energy Security Investments for  
12 Energy Infrastructure Technical Conference.

13           The draft NOI seeks comments on four general  
14 topics: the scope of the potential use of virtualization and  
15 cloud computing services; the potential benefits and risks  
16 associated with virtualization and cloud computing services;  
17 the potential impediments to adopting virtualization and  
18 cloud computing services result from the CIP Reliability  
19 Standards; and potential new and emerging technologies  
20 beyond virtualization and cloud computing that responsible  
21 entities may be interested in adopting in the future.

22           Item E-22 is a draft Order directing the North  
23 American Electric Reliability Corporation, NERC, to submit  
24 an informational filing describing the activity of two NERC  
25 CIP standards drafting projects pertaining to virtualization

1 and cloud computing services. Specifically, the draft Order  
2 directs NERC to submit a schedule for Project 2016-02  
3 addressing modifications to the CIP Standards, and Project  
4 2019-02 addressing BES Cyber System Information Access  
5 Management.

6 The draft Order further directs that each  
7 schedule should include the current status of the project,  
8 interim target dates, and the anticipated filing date for  
9 new or modified Reliability Standards.

10 The draft Order requires NERC to submit the  
11 informational filing within 30 days of the date of issuance  
12 of this Order, as well as quarterly status updates -- on an  
13 informational basis -- until such time as new or modified  
14 Reliability Standards are filed with the Commission.

15 This concludes our presentation, and we would be  
16 happy to address any questions.

17 CHAIRMAN CHATTERJEE: Thank you very much for the  
18 informative presentation on these important matters. I just  
19 have a couple of questions for the team.

20 Could you briefly describe how virtualization and  
21 cloud computing could be used for bulk electric system  
22 operations?

23 MS. EKE: Thank you for that question, Mr.  
24 Chairman. Virtualization is the process of creating  
25 virtual, as opposed to physical, versions of computer

1 hardware to minimize the amount of physical computer  
2 hardware resources required to perform various functions.

3           Virtualization can be used on a stand-alone basis  
4 in a bulk electric system control center environment to  
5 reduce capital operating costs, increase the efficiency of  
6 existing computing assets, and improve incident recovery --  
7 improve incident recovery and amount of revisions.

8           Virtualization is also a necessary technical  
9 enabler in the functions of moving to the cloud computing  
10 environment. Specifically, a customer choosing to migrate  
11 one or more of their systems to the cloud will need to  
12 virtualize those systems in order to use them in the cloud  
13 environment.

14           Cloud computing services offer the opportunity to  
15 more efficiently manage bulk electric system data by  
16 utilizing powerful processing and storage capabilities  
17 designed in online infrastructure investment. Potential  
18 applications for cloud computing include but are not limited  
19 to running long-term system planning and day-ahead studies,  
20 performing asset management, conducting analysis of best  
21 practices, and managing solutions for system applications.

22           CHAIRMAN CHATTERJEE: Do the current CIP  
23 Reliability Standards address virtualization or cloud  
24 computing?

25           MS. EKE: The current CIP Reliability Standards

1 were developed in an era where registered entities would  
2 procure, manage, and use their own computer systems to  
3 facilitate reliable bulk electric system operation. But the  
4 development of Reliability Standards did not contemplate  
5 explicitly how such computing systems could be deployed in a  
6 cloud computing environment.

7           The CIP Reliability Standards did not  
8 specifically restrict the use of virtualization, but they  
9 also do not address its use.

10           With respect to cloud computing, while Standards  
11 do not restrict the use of cloud computing services for  
12 certain functions relating to certain systems and best  
13 system information or BPSI, they could limit more extensive  
14 use of the technology.

15           CHAIRMAN CHATTERJEE: Thank you. Could you  
16 please give a brief explanation of the two standard drafting  
17 projects referenced in Item E-22?

18           MS. EKE: So the initiated project 2016-02 in  
19 2016 to address a directive in Order No. 822 regarding the  
20 protection of transient electronic devices used as  
21 low-impact assistance. The standard authorization request  
22 for the project that defines the drafting project includes  
23 matters beyond Order No. 822 directives, including  
24 industry-requested revisions to support the use of  
25 virtualization technologies by registered entities as

1 compatible with the CIP Reliability Standard.

2           The second project referenced in E-22 is an  
3 industry-driven project, 2019-02 for cyber system  
4 information access management, which was initiated in 2019.  
5 The goal of this project is to enhance bulk electric system  
6 reliability by facilitating increased choice, greater  
7 flexibility, higher availability, and reduced cost options  
8 for responsible entities to manage the BPSI by providing a  
9 secure path towards utilization of modern third-party data  
10 storage and analysis systems.

11           In addition, the project would clarify the  
12 protections expected when utilizing third-party data  
13 solutions, including cloud computing services. Furthermore,  
14 Project 2019-02 is an effort to clarify the CIP requirements  
15 related to BPSI access to allow for alternative methods such  
16 as encryption to be utilized in the protection of the BPSI.

17           CHAIRMAN CHATTERJEE: Thank you so much for the  
18 presentation and for your answers, and for your work on  
19 these two matters. I will turn it over to my colleagues for  
20 any comments they may have.

21           COMMISSIONER GLICK: I want to thank you for the  
22 presentation, but even more importantly the hard work that  
23 you are putting in on this very important issue.

24           I want to call out Chairman Chatterjee. He has  
25 actually been the leader on this issue of cloud computing

1 and so on. It is pretty clear from the two technical  
2 conferences that we had on this issue that this is where the  
3 industry is headed, to more cloud computing, more  
4 virtualization, and I think it is important from our  
5 perspective to ensure that this transition is done in a safe  
6 and secure and reliable manner. And so I think that is what  
7 we are learning today, and so I want to commend the Chairman  
8 for coming forward with this. So, thanks very much.

9 CHAIRMAN CHATTERJEE: Commissioner McNamee.

10 COMMISSIONER McNAMEE: Likewise I appreciate the  
11 hard work on this. I am not going to repeat everything. It  
12 is obvious where things are going, and that integrity is  
13 vitally important.

14 We read in the papers that there are a lot of  
15 people trying to get into our system, et cetera, and we need  
16 to make sure that we do this in a responsible way which is  
17 very important. Thanks.

18 SECRETARY BOSE: We are now ready to take a vote  
19 on these items together. The vote begins with Commissioner  
20 McNamee.

21 COMMISSIONER McNAMEE: I vote aye.

22 SECRETARY BOSE: Commissioner Glick.

23 COMMISSIONER GLICK: Aye.

24 SECRETARY BOSE: And Chairman Chatterjee.

25 CHAIRMAN CHATTERJEE: Aye.

1           Thank you, Madam Secretary. I want to close  
2 today by sharing my sympathies over the loss of our former  
3 FERC colleague and friend, Lee Ann Watson. Lee Ann had a  
4 lengthy and successful as a litigator, both in private  
5 practice and federal service.

6           For the first 20 years of her career, Lee Ann was  
7 a litigation partner at a large Chicago law firm where she  
8 handled complex commercial litigation, including securities,  
9 antitrust, commodities, and class action proceedings.

10           She began her federal career in 1997 in the  
11 Office of Professional Responsibility at the Department of  
12 Justice, where she conducted investigations of allegations  
13 of professional misconduct against DOJ attorneys. Lee Ann  
14 joined FERC in 2002 as an Attorney-Advisor in the Office of  
15 Market Oversight and Investigations, where she was  
16 instrumental in forging numerous settlements in response to  
17 the California Energy Crisis.

18           She was appointed to the Senior Executive Service  
19 in 2004, and during her 15 years at the Commission she held  
20 a number of senior management positions. She played a  
21 critical role in the Commission's implementation of EPAct  
22 '05's provisions prohibiting energy market manipulation.

23           In 2012, she became the first Director of the new  
24 Division of Analytics and Surveillance in OE where she  
25 championed the use of data analytics to support market

1 surveillance and investigations. Lee Ann was selected as  
2 the Deputy Director of OE in 2015, and she retired from that  
3 position in December of 2017.

4 Lee Ann loved Indiana basketball and college  
5 basketball in general, and enthusiastically participated in  
6 the annual DAS March Madness tournament bracket every year -  
7 - even after her retirement. I assume it was --

8 (Laughter.)

9 CHAIRMAN CHATTERJEE: She felt a strong sense of  
10 duty to use her legal skills to give back to others. Lee  
11 Ann volunteered with the D.C. > Bar Pro Bono Center's  
12 Advocacy and Justice Clinic, where she represented clients  
13 in Social Security Disability cases. She also volunteered  
14 with her beloved cat, Harper, to bring pet therapy to the  
15 elderly and to college students in the D.C. area.

16 Lee Ann was personally instrumental in helping me  
17 through the confirmation process. Her kindness and  
18 competence were evident from the first time that we met. I  
19 will be forever grateful for her support in navigating that  
20 process and my first days here at the Commission.

21 Those who knew Lee Ann would agree with me that  
22 she was a force of nature and a tireless advocate, and she  
23 was responsible for many significant Commission  
24 accomplishments over the last two decades.

25 My sympathies are extended to her family,

1 friends, and FERC colleagues. She will be missed.

2 Before we conclude, I'd like to turn it over to  
3 my colleagues for any comments they might have.

4 COMMISSIONER GLICK: Thank you, Mr. Chairman. I  
5 also want to extend my condolences to Lee Ann's family, and  
6 friends and colleagues as well.

7 You know, I think from the first Commission  
8 meeting that I was at until Lee Ann retired, I think of many  
9 of the great contributions she made. She, too, was helpful  
10 in my confirmation process in getting me up to speed on what  
11 the Office of Enforcement does, and various laws that the  
12 agency runs and operates under.

13 And so I am very grateful for her and for all the  
14 things she did, but also a lot of great things she did for  
15 this country. So thank you very much.

16 COMMISSIONER McNAMEE: I also offer my  
17 condolences to her family. What is interesting is being  
18 here and not having worked her because I was not on the  
19 Commission, but knowing and hearing her story. It is just  
20 so representative of the quality of people that serve here  
21 at FERC. I wish I had known her. I wish I had gotten to  
22 work with her. But it is apparent to me that many of the  
23 good things she did, and many of her great qualities, are  
24 here in this room and here in this building in our FERC  
25 staff. And so we are just fortunate to have so many people

1 that are dedicated public servants. Thank you.

2 CHAIRMAN CHATTERJEE: With that, Madam Secretary,  
3 this meeting is adjourned.

4 (Whereupon, at 11:13 a.m., Thursday, February 20,  
5 2020, the Open Meeting of the Commissioners of the United  
6 States 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

4 before the FEDERAL ENERGY REGULATORY COMMISSION in the

5 Matter of:

6 Name of Proceeding:

7 1065th Commission Meeting

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16 Docket No.:

17 Place: Washington, DC

18 Date: Thursday, February 20, 2020

19 were held as herein appears, and that this is the original

20 transcript thereof for the file of the Federal Energy

21 Regulatory Commission, and is a full correct transcription

22 of the proceedings.

23

24 Larry Flowers

25 Official Reporter