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United States of America

FEDERAL ENERGY REGULATORY COMMISSION

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CONSENT MARKETS, TARIFFS AND RATES - ELECTRIC :  
 CONSENT MISCELLANEOUS ITEMS :  
 CONSENT MARKETS, TARIFFS AND RATES - GAS :  
 CONSENT ENERGY PROJECTS - HYDRO :  
 CONSENT ENERGY PROJECTS - CERTIFICATES :  
 DISCUSSION ITEMS :  
 STRUCK ITEMS :

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1,028th COMMISSION MEETING

Thursday, June 16, 2016

Commission Meeting Room

Federal Energy Regulatory Commission

888 First Street, NE

Washington, DC 20426

The Commission met in open session at 10:02 a.m., when were present:

- CHAIRMAN NORMAN BAY
- COMMISSIONER CHERYL LaFLEUR
- COMMISSIONER TONY CLARK
- COMMISSIONER COLETTE HONORABLE

1       FERC STAFF:

2       KIMBERLY D. BOSE, SECRETARY

3       ANN MILES, OFFICE OF ENERGY PROJECTS

4       JAMIE SIMLER, OFFICE OF ENERGY MARKET REGULATION

5       MIKE BARDEE, OFFICE OF ELECTRIC RELIABILITY

6       JOE MCCLELLAND, OFFICE OF ENERGY INFRASTRUCTURE SECURITY

7       MAX MINZNER, OFFICE OF GENERAL COUNSEL

8       ARNOLD QUINN, OFFICE OF ENERGY POLICY AND INNOVATION

9       LARRY PARKINSON, OFFICE OF ENFORCEMENT

10

11

12       PRESENTERS:

13       E-1, BRIAN BAK, OFFICE OF ENERGY POLICY AND INNOVATION

14                GRETCHEN KERSHAW, OFFICE OF GENERAL COUNSEL

15

16       E-2, STANLEY WOLF, OFFICE OF ENERGY POLICY AND INNOVATION

17                ALICIA COBB, OFFICE OF GENERAL COUNSEL

18                PAMELA QUINLAN, OFFICE OF ENERGY MARKET REGULATION

19

20       E-3, NNEKA FRYE, OFFICE OF GENERAL COUNSEL

21                MARCOS ARAUS, OFFICE OF GENERAL COUNSEL

22                JULIE GREENISEN, OFFICE OF GENERAL COUNSEL

23                RAYMOND OROCCO-JOHN, OFFICE OF ELECTRIC RELIABILITY

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1 for more information.

2 Thank you for your cooperation.

3 CHAIRMAN BAY: Good morning. This is the time  
4 and place that has been noticed for the open meeting of the  
5 Federal Energy Regulatory Commission to consider the  
6 matters that have been duly posted in accordance with the  
7 Government in the Sunshine Act.

8 Please join us in the Pledge of Allegiance.

9 (Pledge of Allegiance recited.)

10 CHAIRMAN BAY: Since the May 19th meeting, the  
11 Commission has had a very busy month. We've issued 63  
12 notational orders since the May Open Meeting.

13 I have two announcements to make. First, one of  
14 my advisors, Bethany Duke, who's just been an outstanding  
15 advisor to my team and who I will be missing as an advisor,  
16 is having her last day in my office on June 24th. She'll  
17 be leaving my office to go to the rehearings branch of the  
18 solicitors office in the Office of General Counsel where  
19 I'm confident she will continue to do great work on behalf  
20 of the Commission. Her replacement is Rama Zakaria, who's  
21 with the Office of Enforcement, but currently on a detail  
22 to the CEQ.

23 I also wish to recognize our summer intern  
24 class. If the members of that class could stand so that we  
25 can acknowledge them. Great. Let's give them a round of



1 who we'll miss on the floor, and welcome back Rama, who I  
2 know has been on a detail at the White House for the CEQ,  
3 and it will be great to have her back. I think there are  
4 other announcements coming, but I won't steal the thunder  
5 of my other colleagues on that.

6 In my own office, I wanted to welcome Samantha  
7 Walter, who -- picking up on the intern theme. Sami is an  
8 intern in my office this summer. For several years, I've  
9 had interns through the Princeton interns and civic service  
10 program, which pays for their summer. She's a senior and a  
11 chemical engineer, concentrating in sustainable energy, and  
12 she'll be doing projects in my office and otherwise around  
13 the Commission.

14 I just want to give a shout out to two other  
15 PICS interns that I am the alumni sponsor for, Julian Mee  
16 and Matthew Edelstein, who are in the Office of Energy  
17 Policy.

18 And welcome all of the interns who are working  
19 at offices around the Commission. I say all the time that  
20 I don't think the challenges we have of moving forward on  
21 energy and environmental policy are going to be solved by  
22 the brains and the baby boom generation exclusively. In  
23 fact, I'm quite certain of that. So I'm excited to see  
24 bright young people entering the energy field and encourage  
25 you to use this summer as a platform to go further.

1                   Finally, I want to mention that I'm wearing  
2 these lovely chili pepper beads because I lost a bet to my  
3 assistant Andrew Holman. His alma mater, University of  
4 Louisiana at Lafayette, played and beat Princeton in the  
5 NCAA Division I baseball tournament. So I'm honoring the  
6 Ragin' Cajuns, and they also have an awesome name, today.  
7 Thank you.

8                   CHAIRMAN BAY: Thank you, Cheryl.

9                   Those chili peppers, I thought that was a  
10 reference to New Mexico.

11                  COMMISSIONER LA FLEUR: Perhaps I should pass it  
12 along to you.

13                  CHAIRMAN BAY: Tony?

14                  COMMISSIONER CLARK: Thanks, Mr. Chairman.

15                  And let me add my welcome to all of the folks  
16 who are interning here at FERC as well. Thank you for your  
17 service.

18                  I do have a few announcements today. First of  
19 all, just reporting on a few of my travels over the last  
20 month. I've had an opportunity to network with a lot of  
21 our state colleagues, as I know a number of us have through  
22 the state regional meetings that have been taking place  
23 over the course of June, was able to have a lot of good  
24 talks with both folks from the New England Council of  
25 Public Utilities Commissioners, NECPUC, and I just returned

1 yesterday from my home city of Bismarck, which hosted MARC,  
2 the Mid-America Regulatory Conference, and spent a few days  
3 there, and it was good to catch up with a lot of good  
4 friends at that.

5           It was also only appropriate that I was there  
6 yesterday when I was giving my speech was the four-year  
7 anniversary to the date that I was sworn in just a few  
8 blocks away from where I was talking yesterday at the state  
9 capital in Bismarck.

10           One of the nice things about working here is you  
11 do have the opportunity to see people that work for us and  
12 with us go on to do really some pretty neat things and  
13 great things. I have a number of staff changes that are  
14 taking place, either just have taken place in my office or  
15 soon will be. So I will make a number of staff change  
16 announcements. This is in order of tenure, how long they  
17 were in the office.

18           John Miller -- I think John is here. John, can  
19 you stand up.

20           Okay. John Miller is in the back. John, as  
21 many of you know, for the last a little over a year has  
22 been my technical advisor. An opportunity opened up back  
23 in the office that he came from, Division of Analytics and  
24 Surveillance within the Office of Enforcement, to be a  
25 branch manager, and he accepted that position. So

1       congratulations to John on that, and thank you for all the  
2       work that you -- excellent work that you did in my office.

3                 Replacing him on a detail basis is Chris  
4       Fitzpatrick. Chris is behind me. Chris comes from OEMR,  
5       Office of Energy Market Regulation. He will be serving as  
6       my technical advisor, handling PJM, Cal ISO, western  
7       electricity markets, western hydro and certificates. He is  
8       a graduate, undergraduate at the University of Miami and  
9       received his graduate degree from Duke.

10                Next, Jesse Fonkert, where is Jesse? Jesse is  
11       in back there. Many of you who have been through my office  
12       have had an opportunity to meet Jesse over the past a  
13       little over a year and a half now. Jesse is one of my  
14       administrative aides. He is leaving to return home to his  
15       home state of South Dakota. He is going to be leading the  
16       Chamber of Commerce Economic Development Corporation for  
17       the city of Hartford, South Dakota, which is a small  
18       community that's on the outskirts of Sioux Falls, in the  
19       eastern part of the state.

20                So congratulations to you, Jesse, and thank you  
21       for all the work that you've put in over the time in my  
22       office. Jesse's position is going to be unfilled for the  
23       time being.

24                Last but certainly not least, Robin Meidhof,  
25       Robin is behind me here. Robin is one of the three

1 original advisors that I hired way back when. In fact, we  
2 were probably interviewing about now, four years ago. So  
3 she's one of the -- my first three advisors, and she stuck  
4 with me all four years that I've been here in the office,  
5 which is a pretty good accomplishment when you look at the  
6 average tenure of advisors and just being able to stick  
7 with me for four years. She is exceptionally smart,  
8 exceptionally diligent, and for those of you who have had  
9 an opportunity to work with her know that she has as big a  
10 heart as anyone that, I think, any of us know. She's also  
11 a lot of fun to be around, which is helpful when you spend  
12 as much time together as all of us who work in the agency  
13 do.

14           So Robin, thank you for your time at the  
15 Commission and everything that she's done for the agency.  
16 I know those who write footnotes in orders will long  
17 remember Robin Meidhof and her attention to detail.

18           Robin is actually going to be leaving the East  
19 Coast as well. She's accepted a job offer on the West  
20 Coast in the private sector and will be moving there with  
21 her husband, Jason, who I know is in the audience, too. So  
22 I may as well embarrass Jason. He is in the back there.

23           Robin is being replaced by Nicholas Glad.

24           Nick, if you could raise your hand.

25           Nick is coming from the Office of General

1 Counsel. He will be serving on a detail basis as well. He  
2 will be working on issues related to MISO, SPP,  
3 reliability, various hydro and certificate matters. He is  
4 a graduate of Bowdoin and got his law degree from Vermont.

5 As for me, I'm still here every day, and I check  
6 my badge. I put it up next to the card reader, and it  
7 turns green and beeps, and it lets me in.

8 Thank you very much.

9 CHAIRMAN BAY: Thank you, Tony.

10 I also wish to thank John, Robin, and Jesse for  
11 their outstanding service on behalf of the Commission.  
12 John and Robin have just been outstanding advisors on  
13 behalf of Team Clark. And also wish to welcome Chris  
14 Fitzpatrick.

15 Colette?

16 COMMISSIONER HONORABLE: Thank you,  
17 Mr. Chairman.

18 Good morning, everyone.

19 I want to start with the energy in the room, the  
20 interns. Thank you for saying yes to participating in an  
21 internship here with us at FERC. All of the things you've  
22 heard about us and how wonderful we are, they are true.  
23 And I learned about how great the internship program was  
24 when I met our executive director who started here as an  
25 intern. The world is yours. You can do anything you want

1 here at FERC.

2 I actually took a course recently on  
3 communicating with millenials. So you guys have to be  
4 really special if there's a course about communicating with  
5 you. But I learned a lot, and I learned about the  
6 importance of being positive, about embracing the greater  
7 goals that we can share in common, and that sort of thing.  
8 I was personally interested because I live with a  
9 millennial with my teenager.

10 So let me get onto some other remarks. I, too,  
11 had the pleasure of attending a couple of the regional  
12 meetings for NARUC. I started out in Bismarck and was  
13 there with my colleague Tony and witnessed him receiving  
14 the Distinguished Eagle Scout award in North Dakota. Only  
15 10 have been given out there. So that was an honor. And I  
16 attempted to post a video clip on Twitter. It's very  
17 short, but it's there, and it works.

18 I also went to SEARUC, and I managed to get from  
19 Bismarck to Florida in a day. It was actually the next  
20 day, but I think it still counted as the same day. It  
21 could be done, and I was delighted to be at both meetings.

22 I also want to thank all of the folks who are  
23 coming and going. I see a number of you. Jesse, I'm going  
24 to miss yelling in there good morning, Jesse, hey, Jesse,  
25 and now Tony is not going to fill the seat. But I am

1 especially pleased that I've had the opportunity to work  
2 with a number of you, and you really have made us better.

3 Who is going to handle the footnote issue?  
4 That's an issue for me, too. Okay. Mindy -- and  
5 "irregardless," who is going to handle that?

6 So I also have some news to announce, and it's  
7 bittersweet. The first advisor that I hired is leaving the  
8 nest. Fred Wilson is going into the private sector. He's  
9 brought so much to my team. Not only is he so smart and he  
10 writes well, he communicates well, he's confident, if you  
11 know Fred, but he made us better, and we also enjoyed the  
12 ride. So I hate to admit that with Fred sitting right back  
13 here, but we're going to miss him.

14 And I've gotten Max's blessing, I'm pleased to  
15 welcome Anna Fernandez to my team. Anna works in OGC as an  
16 attorney advisor in energy markets, and a particular  
17 strength that she embraces is her work on gas/electric  
18 coordination. I sat at this table a number of months ago  
19 and said that I would still be committed to that, and I  
20 hope that in hiring Anna that I've certainly demonstrated  
21 that I will do my part to ensure we are holding up the  
22 mantle for our focus on gas/electric coordination going  
23 forward. I hope that you will help me welcome her and wish  
24 Fred farewell.

25 Thank you.

1           CHAIRMAN BAY: Thank you, Colette.

2           And Fred, thank you as well for your service and  
3 your dedication. You've been a great advisor, and we've  
4 enjoyed working with you. Let me also welcome Anna  
5 Fernandez as one of Commissioner Honorable's advisors.

6           Cheryl?

7           COMMISSIONER LA FLEUR: Well, I'll just keep  
8 this round robin going too long. I also wanted to wish  
9 John, Jesse, Robin, and Fred Godspeed as they go on. It's  
10 been an honor to have you all on the floor.

11           And welcome, Chris, Nick, and Anna, whom, in  
12 some cases, I am already working with and look forward to  
13 working with.

14           To Mr. Boy Scout, I'm glad you're still here.

15           CHAIRMAN BAY: I agree.

16           Madam Secretary, I think we're ready to proceed  
17 to the consent agenda.

18           SECRETARY BOSE: Good morning, Mr. Chairman.  
19 Good morning, Commissioners.

20           Since the issuance of the Sunshine Act on  
21 June 9, 2016, no items have been struck from this morning's  
22 agenda.

23           The consent agenda is as follows: Electric  
24 items, E-5, E-6, E-7, E-8, E-9, E-10, E-12, E-13, E-14,  
25 E-15, E-16, E-17, E-19, and E-20.

1 Gas items: G-1. Hydro items: H-1, H-2, H-3,  
2 and H-4.

3 Certificate items: C-1, C-2, C-3, and C-4.

4 As to E-20, Commissioner Clark is concurring  
5 with a separate statement. We are now ready to take a vote  
6 on this morning's consent agenda items.

7 The vote begins with Commissioner Honorable.

8 COMMISSIONER HONORABLE: Thank you, Madam  
9 Secretary. I vote aye.

10 SECRETARY BOSE: Commissioner Clark?

11 COMMISSIONER CLARK: Noting my concurrence with  
12 a separate statement, E-20, I vote aye.

13 SECRETARY BOSE: Commissioner LaFleur?

14 COMMISSIONER LA FLEUR: I vote aye.

15 SECRETARY BOSE: And Chairman Bay?

16 CHAIRMAN BAY: I vote aye.

17 SECRETARY BOSE: We will move on the discussion  
18 and presentation items.

19 The first presentation and discussion item for  
20 this morning is E-1, a draft Final Rule concerning reactive  
21 power --

22 (Audience interruption.)

23 SECRETARY BOSE: With regard to E-1, the  
24 presentation will begin by Brian Bak from the Office of  
25 Energy Policy and Innovation, and Gretchen Kershaw, from

1 the Office of General Counsel.

2 MR. BAK: Good morning, Mr. Chairman and  
3 Commissioners. Item E-1 is a draft Final Rule that would  
4 revise the Commission's pro forma Large and Small Generator  
5 Interconnection Agreements by establishing new reactive  
6 power requirements for non-synchronous generators, such as  
7 wind or solar generation. The draft Final Rule would  
8 remove the current exemptions for wind generators from the  
9 provision of reactive power. Additionally, the draft Final  
10 Rule would require all newly interconnecting  
11 non-synchronous generators to provide dynamic reactive  
12 power at the high-side of the generation substation.  
13 Finally, the draft Final Rule would apply only to newly  
14 interconnecting non-synchronous generators that have not  
15 executed a Facilities Study Agreement as of the effective  
16 date of the draft Final Rule.

17 In establishing an exemption for wind generators  
18 from the requirement to provide reactive power in Orders  
19 Nos. 2003, 661, and 2006, the Commission was concerned that  
20 the cost of requiring wind generators to provide reactive  
21 power could create an obstacle to the further development of  
22 wind generation.

23 (Audience interruption.)

24 SECRETARY BOSE: Brian, you may resume your  
25 presentation.

1           MR. BAK: Since then, advancements in the  
2     inverters used to interconnect wind generators to the  
3     transmission system have made it much less expensive for  
4     wind generators to provide reactive power. The draft Final  
5     Rule concludes that improvements in technology, and the  
6     corresponding decline in costs in the provision of reactive  
7     power from wind generators make it unjust, unreasonable,  
8     and unduly discriminatory and preferential to exempt such  
9     generators from the reactive power requirement when other  
10    generators are not exempt. Additionally, the continued  
11    exemption of wind generators from the requirement to  
12    provide reactive power could result in insufficient  
13    reactive power on the transmission system. This could lead  
14    to reliability issues as the quantity of wind generators  
15    increases and more traditional sources of reactive power  
16    retire.

17           The draft Final Rule would establish  
18    requirements for providing reactive power specific to newly  
19    interconnecting non-synchronous generators.  
20    Non-synchronous generators deliver power to the  
21    transmission system from their Generating Facilities,  
22    through the generator substation and finally through  
23    sometimes lengthy Interconnection Facilities to the Point  
24    of Interconnection. Reactive power can be administered at  
25    any of these three points. The draft Final Rule would

1 require non-synchronous generators to provide reactive  
2 power at the high side of the generation substation. By  
3 comparison, synchronous generators are required to provide  
4 reactive power at the point of interconnection. Measuring  
5 reactive power at the high side of the generator's  
6 substation reasonably balances the need for reactive power  
7 for the transmission system with the cost to  
8 non-synchronous generators in providing that reactive  
9 power. The draft Final Rule would also require  
10 non-synchronous generators to provide dynamic reactive  
11 power. These requirements recognize that non-synchronous  
12 generators have qualitatively different interconnection  
13 facilities compared to synchronous generators. In  
14 particular, many non-synchronous generators have  
15 substantial collector systems and are geographically  
16 distant from the point at which they interconnect to the  
17 transmission system.

18 MS. KERSHAW: In establishing new reactive power  
19 requirements for non-synchronous generators, the draft  
20 Final Rule recognizes that some newly interconnecting  
21 non-synchronous generators may have already started the  
22 interconnection process when the draft Final Rule takes  
23 effect. Therefore, the draft Final Rule would apply to all  
24 newly interconnecting non-synchronous generators that have  
25 not yet executed a Facilities Study Agreement as of the

1 effective date of the Final Rule. The draft Final Rule  
2 would not apply to newly interconnecting non-synchronous  
3 generators that have already executed a Facilities Study  
4 Agreement as of the effective date of the draft Final Rule.  
5 The draft Final Rule would also not apply to existing  
6 non-synchronous generators making upgrades that require new  
7 interconnection requests. This transition mechanism would  
8 allow non-synchronous generators to complete the  
9 interconnection process without unreasonable delay or  
10 expense.

11 The draft Final Rule would establish clear rules  
12 for newly interconnecting non-synchronous generators for  
13 the provision of reactive power that recognize the unique  
14 characteristics of non-synchronous generators. Further,  
15 the draft Final Rule would ensure that the transmission  
16 system has an adequate supply of reactive power as the  
17 number of non-synchronous generators interconnected to the  
18 transmission system continues to grow and as more  
19 traditional sources of reactive power increasingly retire.  
20 The draft Final Rule would take effect 90 days after its  
21 publication in the Federal Register. This concludes our  
22 presentation for today, and we would be happy to answer any  
23 of your questions. Thank you.

24 CHAIRMAN BAY: Thank you, Brian, Gretchen, and  
25 team.

1           There's a certain irony here, because the  
2           protestors interrupted a presentation by Staff on  
3           Commission work that can enable a higher degree of  
4           penetration of wind resources while maintaining  
5           reliability.

6           I support today's Final Rule and believe it  
7           serves as an example of how the Commission's rules and  
8           regulations must adapt to account for technological  
9           advancements and innovation, as well as a shifting  
10          generation mix. This Final Rule will ensure comparable and  
11          nondiscriminatory treatment of both traditional resources  
12          and new resources, such as wind and solar in a provision of  
13          reactive power, while recognizing that some technological  
14          differences remain.

15                    Colleagues?

16                    COMMISSIONER LA FLEUR: Thank you, Mr. Chairman.

17                    And thanks, Brian, Gretchen, and everyone else  
18                    on the team for your work on this Final Rule.

19                    I also appreciate the timeliness of the rule,  
20                    given that we voted out the notice of proposed rulemaking  
21                    just in November.

22                    As the Chairman alluded to and as we all know,  
23                    the nation's resource mix is going through a lot of change  
24                    right now, and both FERC and NERC have been working hard to  
25                    ensure that the grid is supported by sufficient essential

1 reliability services, like reactive power, frequency  
2 response, and others.

3           Today's rule recognizes that wind and other  
4 non-synchronous generators, which are an increasingly  
5 important part of the fleet, now have the technical ability  
6 to provide reactive power at reasonable cost, and so  
7 they'll now be required to do so.

8           I think today's rule highlights that wind and  
9 solar are no longer just niche technologies but are very  
10 much playing in the varsity in contributing to reliability  
11 and other services on the grid, or maybe in the jargon of  
12 the day, we would say they're Division I. But I think it's  
13 important that the Commission continue to stay on top of  
14 technology and adapt our regulations in the markets to  
15 maximize the value of new resources while also not erecting  
16 barriers to their participation, and I think the Final Rule  
17 strikes a good balance.

18           Finally, I just want to note that I think this  
19 rule highlights the importance of engaged stakeholder  
20 participation. I always say that when you make comments on  
21 proposed rules or other FERC work, the more detailed and  
22 specific they are, the more helpful they are. In this  
23 case, we got a lot of very detailed comments on point of  
24 interconnection, the effective date of the rule, and to  
25 what it would apply, and those comments informed changes in

1 the Final Rule.

2 So thank you to everyone who participated in the  
3 docket.

4 Thank you.

5 CHAIRMAN BAY: Thank you, Cheryl.

6 Tony?

7 COMMISSIONER CLARK: Thank you. I concur on the  
8 statements of my colleagues and would just add that I think  
9 there was a relative amount of, I won't say unanimity, but  
10 there wasn't a lot of disagreement with the direction that  
11 the Commission is taking with this rule, which I think  
12 speaks to the nature of variable integrated resources like  
13 wind coming online and just how, as you indicated,  
14 mainstream they've become. It was -- I got the sense it  
15 was never really a question of whether this was something  
16 that the Commission should be doing but about how it should  
17 be done and the balance the Commission would strike in  
18 making certain technical determinations.

19 I also want to thank Staff for getting me up to  
20 speed on reactive power, at least as much as you can  
21 without being an electrical engineer. I'm not going to  
22 give a seminar in it any time soon. But they did come up,  
23 draw a lot of very impressive graphs on my whiteboard that  
24 are going to stay up for a while because it makes me look  
25 smarter.

1                   So thank you to Staff for the hard work.

2                   CHAIRMAN BAY: Thank you, Tony.

3                   Colette?

4                   COMMISSIONER HONORABLE: Thank you,

5                   Mr. Chairman.

6                   I agree with the comments of my colleagues. I  
7                   would like to thank the team and also all of the  
8                   stakeholders for your feedback. It was educational, and I  
9                   think we've certainly come a long way. I believe this  
10                  Final Rule is an acknowledgment of our need to adapt our  
11                  policies to address the evolution of the bulk power system  
12                  and also to address potential challenges and to be  
13                  proactive in doing so to address grid reliability created  
14                  by the migration to nonconventional generation sources. In  
15                  my mind, this rule acknowledges increased wind penetration  
16                  across the country and also adjust policy to accommodate  
17                  technological advances that have increased the capabilities  
18                  of wind generation, and we are much better for it in our  
19                  ability to integrate as much wind as we've been able to and  
20                  to do so reliably.

21                  When it comes to the provision of reactive power  
22                  by wind resources in the development of policy, this  
23                  Commission has been careful to weigh, and I hope that this  
24                  rulemaking is an example of that, the impacts of the  
25                  additional cost of providing reactive power with the needs

1 of the bulk system.

2                   And I believe that the Final Rule does a fine  
3 job of sorting through the issues associated with the  
4 non-synchronous generating resources and what they are able  
5 to bring to the table and what their needs are and what the  
6 needs are for the grid more broadly. I believe this  
7 migration in policy demonstrates that energy policy can  
8 create conditions under which new types of generation can  
9 develop and flourish, while upholding our responsibility to  
10 protect the reliability of the grid.

11                   And for these reasons, I, too, support this  
12 Final Rule.

13                   Thank you for your presentation.

14                   CHAIRMAN BAY: Thank you, Colette.

15                   Madam Secretary?

16                   SECRETARY BOSE: We will now take a vote on E-1.  
17 The vote begins with Commissioner Honorable.

18                   COMMISSIONER HONORABLE: Aye.

19                   SECRETARY BOSE: Commissioner Clark?

20                   COMMISSIONER CLARK: Aye.

21                   SECRETARY BOSE: Commissioner LaFleur?

22                   COMMISSIONER LA FLEUR: Aye.

23                   SECRETARY BOSE: And Chairman Bay?

24                   CHAIRMAN BAY: Aye.

25                   SECRETARY BOSE: The next presentation and

1 discussion item for this morning is E-2, a draft Final Rule  
2 concerning settlement intervals and shortage pricing in  
3 markets operated by RTOs and ISOs. There will be a  
4 presentation by Stan Wolf from the Office of Energy Policy  
5 and Innovation. He's accompanied by Alicia Cobb from the  
6 Office of the General Counsel and Pamela Quinlan from the  
7 Office of Energy Market Regulation.

8 MR. WOLF: Good morning, Mr. Chairman and  
9 Commissioners. Item E-2 is a draft Final Rule addressing  
10 settlement intervals and shortage pricing triggers. This  
11 Final Rule is the first final rule in the Commission's  
12 ongoing price formation initiative. In advancing the  
13 Commission's price formation goals, the reforms in the  
14 draft Final Rule will help ensure that rates for energy and  
15 operating reserves and RTOs and ISOs are just and  
16 reasonable.

17 Specifically, the draft Rule addresses the two  
18 existing practices in RTO and ISO markets that fail to  
19 compensate resources at prices that reflect the value of  
20 the services they provide to the system, thereby distorting  
21 the price signal.

22 First, the draft Final Rule addresses existing  
23 practices related to settlement intervals. The draft Final  
24 Rule would align settlement intervals with dispatch  
25 intervals by requiring that each RTO and ISO settle

1 real-time energy transactions financially at the same time  
2 interval the RTO, or the ISO, dispatches energy. The draft  
3 Final Rule would also require each RTO and ISO to settle  
4 operating reserve transactions at the same time interval at  
5 prices operating reserves, and to settle intertie  
6 transactions at the same time interval that they are  
7 scheduled. Currently, several RTOs and ISOs have a  
8 misalignment between dispatch intervals and settlement  
9 intervals. They dispatch resources every five minutes but  
10 settle transactions for these dispatches based on an hourly  
11 integrated price - that is, based on the average price of  
12 all the dispatch intervals across the hour. This  
13 misalignment distorts price signals because compensation is  
14 based on average prices across an hour rather than prices  
15 that apply during each dispatch interval during the hour.  
16 These distorted price signals can mute a resource's  
17 financial reward for being able to quickly respond to  
18 system needs and create a disincentive for resources to  
19 respond to dispatch signals. Aligning settlement intervals  
20 with dispatch intervals - as proposed in the draft Final  
21 Rule - will compensate resources in a way that better  
22 reflects the value of the service they provide and provide  
23 better incentives to follow dispatch instructions.

24 In addition, the proposed settlement interval  
25 reform should reduce uplift payments, thereby increasing

1 system transparency and the ability of market participants  
2 to hedge their transactions financially.

3           Second, the draft Rule addresses existing  
4 practices related to shortage pricing triggers. The draft  
5 Final Rule proposes to require that each RTO and ISO  
6 trigger shortage pricing for any dispatch interval during  
7 which a shortage of energy or operating reserves is  
8 indicated during the pricing of resources for that  
9 interval. In contrast, currently, on the systems of some  
10 RTOs and ISOs, the shortage is required to last a minimum  
11 time period before a shortage pricing is triggered. As a  
12 result, there's a delay between the time when a system  
13 first experiences a shortage of energy or operating  
14 reserves and the time when prices reflect a shortage. In  
15 instances when a shortage lasts less than a minimum time  
16 period, energy and operating reserves prices never reflect  
17 the shortage condition. Due to such delays, short-term  
18 prices fail to reflect potential reliability costs, as well  
19 as fail to reflect the value of both internal and external  
20 market resources responding to a dispatch signal. The  
21 shortage pricing reform should provide resources with price  
22 signals that reflect the value of their services, and the  
23 value of system operating needs at each dispatch interval.

24           Under the draft Final Rule, each RTO and ISO  
25 would be required to submit a compliance filing within four

1 months of the effective date of the Final Rule. Under the  
2 draft Final Rule, full implementation of the settlement  
3 reform would be effective within twelve months from the  
4 date of the compliance filing. Implementation of the  
5 shortage pricing reform is not expected to be as complex.  
6 Thus, under the draft Final Rule, full implementation of  
7 the shortage pricing reform would be effective within four  
8 months from the date of the compliance filing.

9 Thank you. This concludes our presentation. We  
10 would be happy to answer any questions you may have.

11 CHAIRMAN BAY: Thank you, Stan, Pamela, and  
12 Alicia. And let me say thank you again to the entire price  
13 formation Staff team here at the Commission.

14 I also wish to thank Cheryl for starting the  
15 price formation initiative when she was the chairman. I  
16 think this is some of the most important work that we're  
17 doing at the Commission. I believe that the Commission and  
18 Staff have been thoughtful and judicious in prioritizing  
19 and pursuing solutions to address price formation issues.

20 So I'm pleased to support today's Final Rule,  
21 and I believe that it will further the Commission's price  
22 formation goals.

23 I also note that there is more work to be done,  
24 and I look forward to working on other price formation  
25 issues. So thank you, team.

1                   Cheryl?

2                   COMMISSIONER LA FLEUR: Thank you very much,  
3 Norman, for those comments. And thank you, Stan, Alicia,  
4 Pam, and everyone else who is working on this. I'm very  
5 happy to support the order.

6                   As the Chairman alluded to, we've initiated a  
7 lot of work on price formation, but as Stan mentioned, this  
8 is the first reform to move forward to Final Rule. I know  
9 that it will take some time and effort for the RTOs to  
10 comply with the portion of the rule on settlement  
11 intervals. It won't necessarily be easy.

12                   However, I think it's critically important that  
13 markets send clear, accurate, timely and undiluted price  
14 signals that send a signal of what they need, when they  
15 need it, and we pay resources accordingly for the value  
16 that they're providing. Today's order is one important  
17 step in furthering that goal, and I know it won't be the  
18 end of our work on this.

19                   Thank you.

20                   CHAIRMAN BAY: Thank you, Cheryl.

21                   Tony?

22                   COMMISSIONER CLARK: Thanks to my colleagues.  
23 Thanks to the team for all the efforts you have been  
24 putting into this price formation effort that the  
25 Commission has been going through for some time now. So

1 it's good to see it moving forward, and this is the next  
2 little -- our next little step, I guess, in those efforts,  
3 and echo the comments of my colleagues.

4 I do have one question, because I want to drill  
5 down on one area that seemed to receive -- we had comments  
6 on both sides of it. It was something that -- you had some  
7 markets, RTOs that fell on one side and some that fell on  
8 another. And you referenced it in your prepared statement,  
9 but I would like to highlight a little bit and, if you  
10 could, add a little more meat to the bones on why the  
11 Commission did what it did. It has to do with this issue  
12 of applying shortage pricing during any reserve shortage  
13 event, regardless of its duration, as opposed to certain  
14 commenters who would have preferred that there be  
15 parameters around when shortage pricing takes place based  
16 on either the nature of the duration or perhaps if it  
17 presents some sort of specific reliability concern.

18 And I'm wondering if you could talk to why it's  
19 important to properly price those shortage events,  
20 regardless of duration, why those decisions were made, and  
21 then talk about how that -- those sorts of price signals  
22 can be beneficial in terms of signaling investment.

23 MR. WOLF: Commissioner, one basic premise that  
24 lies behind the suggested resolution is that any time you  
25 have a shortage of reserves, the ability of the system to

1 respond to additional events generally is compromised, and  
2 it's important that resources be given a price signal to  
3 respond to that, to stay on the system if they're on, or to  
4 give a price signal to demand that they may want to  
5 consider whether they should stay on the system, and also  
6 as a signal to resources in general for future periods that  
7 you will be rewarded to fulfill system needs in such future  
8 events when the system needs resources, and additional  
9 participation from resources is required.

10           So it -- an example comes to mind is even if you  
11 have a short transient shortage due to, say, some ramping  
12 concern, if you happen to have a major contingency during  
13 that period, you may be in a difficult situation and your  
14 ability to address that additional contingency is less  
15 because of the transient shortage.

16           You may not be, in the jargon of the industry, N  
17 minus 1 secure in that situation. So it's important that  
18 prices reflect that situation. They may not -- prices  
19 applicable may not necessarily be particularly high for  
20 transient shortage compared to a more significant shortage.  
21 But it's important to have the price signals out there.

22           COMMISSIONER CLARK: Great. Thank you very  
23 much. Again, thank you to the team, and I'm happy to  
24 support the order.

25           CHAIRMAN BAY: Thank you, Tony.

1 Colette?

2 COMMISSIONER HONORABLE: Thank you,  
3 Mr. Chairman.

4 I first want to thank the team. You all have  
5 worked hard, and I want to thank those who submitted  
6 comments. They are very thoughtful. We carefully reviewed  
7 the record before issuing this Final Rule.

8 And I agree with my colleagues. Today's Final  
9 Rule is, indeed, a milestone. It's our first Final Rule.  
10 But I also urge and encourage all of our colleagues and  
11 stakeholders to stay tuned and stay engaged. We are in  
12 this for the long haul, and we have quite a bit of work to  
13 do. So I want to thank you all for getting us going in a  
14 strong way in addressing these two particular items. I  
15 believe that today's Final Rule allows the Commission to  
16 take several important steps to increase confidence and  
17 transparency in RTO and ISO markets.

18 With regard to confidence, it's important that  
19 we get prices right, and I believe that's one of the basic  
20 and most important functions of markets. I agree with the  
21 Chairman. This work that we are undertaking is among the  
22 most important that we do here. And so your role in  
23 bringing it about is so important.

24 I believe that LMP should reflect the true  
25 marginal cost of production and send accurate market entry

1 and exit signals. And I also believe that addressing this  
2 issue about shortage pricing as this draft Final Rule does,  
3 it addresses several existing practices to not trigger  
4 shortage pricing, even when an energy or operating reserve  
5 shortage is present. So we're trying to get that right,  
6 and I appreciate our efforts here to work toward that  
7 regard.

8 I believe this Final Rule will also increase  
9 market transparency, which I believe is also a hallmark of  
10 a well-functioning market, because resources should ideally  
11 be compensated at the published price that they are  
12 dispatched to and respond to for the value that they  
13 provide. And I appreciate the information and the comments  
14 that we received from the RTOs and ISOs that educated us  
15 about how they're using hourly average prices and how they  
16 are undertaking their settlements in that regard.

17 I, too, hope that this effort will reduce uplift  
18 payments, as you said, Mr. Wolf.

19 And I have a question for anyone that can answer  
20 it. I thought Pam was going to chime in on Commissioner  
21 Clark's earlier question. So if you want to do that, feel  
22 free to do that. But I have a question, too, actually.

23 So the draft Final Rule chose not to apply  
24 settlement interval reforms to load. And this struck me as  
25 a reasonable balance, but I know that there were concerns

1 raised about the need to do so. And I wanted to ask one of  
2 you to address some of those concerns. Why we settled on  
3 not -- why we settled on exempting load from this  
4 requirement.

5 MS. COBB: I'll take that question. Thank you  
6 for the question.

7 So the Final Rule did not apply -- the  
8 settlement reform does not apply to load because it was not  
9 a part of the NOPR. The NOPR proposes to apply the  
10 settlement reform to supply resources. And thus, we did  
11 not seek comment on why -- the settlement reform to load  
12 and didn't have an appropriate record before us to make  
13 that determination.

14 COMMISSIONER HONORABLE: Thank you, Ms. Cobb,  
15 for illuminating that. I wouldn't want anyone to think we  
16 overlooked it somehow.

17 My second question relates to the metering  
18 issue. I've heard that upgrading meters to five-minute  
19 revenue quality capabilities is not a cheap task, that it  
20 certainly could be cost-intensive. What, if any, metering  
21 requirements would this Final Rule enact to enable  
22 subhourly settlements?

23 Pamela?

24 MS. QUINLAN: So moving to five-minute  
25 settlements is the requirement of the rule. The rule does

1 not require any specific changes to metering. There are  
2 different avenues that RTOs and ISOs can take to move  
3 toward five-minute settlements, and the draft Final Rule  
4 does not require any specific metering technology and would  
5 allow certain RTOs and ISOs to continue to have the  
6 metering requirements that they have and actually  
7 potentially back into five-minute data, estimated  
8 five-minute data for settlement purposes.

9 COMMISSIONER HONORABLE: Very good.

10 Mr. Wolf?

11 MR. WOLF: I would just add to that. She talked  
12 about backing into the data. Specifically, one thing that  
13 some of the RTOs are considering or that's out there is  
14 using a combination of telemetry and hourly revenue quality  
15 data to form profiles for five-minute data. So in using  
16 that, you can avoid a lot of the metering costs that you  
17 might otherwise incur.

18 COMMISSIONER HONORABLE: Thank you. I look  
19 forward to seeing what comes of that. Thank you all again  
20 for your hard work.

21 CHAIRMAN BAY: Thank you, Colette.

22 Madam Secretary?

23 SECRETARY BOSE: We will now take a vote on E-2.  
24 We will begin with Commissioner Honorable.

25 COMMISSIONER HONORABLE: Aye.

1           SECRETARY BOSE:  Commissioner Clark?

2           COMMISSIONER CLARK:  Aye.

3           SECRETARY BOSE:  Commissioner LaFleur?

4           COMMISSIONER LA FLEUR:  Aye.

5           SECRETARY BOSE:  And Chairman Bay?

6           CHAIRMAN BAY:  Aye.

7           SECRETARY BOSE:  The last item presentation and  
8 discussion -- I should say item are E-3 and E-4.

9           E-3 is a draft NOPR concerning implementation of  
10 certain CEII regulations, and E-4 is a draft Final Rule  
11 concerning availability to the Commission of certain NERC  
12 databases.

13           There will be a presentation by Nneka Frye from  
14 the Office of General Counsel.  She is accompanied by  
15 Marcos Araus and Julie Greenisen from the Office of the  
16 General Counsel and Raymond Orocco-John from the Office of  
17 Electric Reliability.

18           MS. FRYE:  Good morning, Chairman Bay and  
19 Commissioners.  Today, we will provide a summary of agenda  
20 items E-3 and E-4.

21           Agenda item E-3 is a draft Notice of Proposed  
22 Rulemaking in which the Commission proposes to amend the  
23 Commission's regulations to implement provisions of the  
24 Fixing America's Surface Transportation Act that pertain to  
25 the submission, designation, protection, and sharing of

1 Critical Electric Infrastructure Information. The  
2 Commission also proposes to amend its existing regulations  
3 that pertain to Critical Energy Infrastructure Information.  
4 The amended process will be referred to as Critical  
5 Energy/Electric Infrastructure Information Process. The  
6 Commission will continue to refer to the process as "CEII,"  
7 although now including provisions implementing the FAST  
8 Act. The changes proposed in the draft NOPR are therefore  
9 intended to comply with the FAST Act as well as to improve  
10 the efficiency of the CEII process for information that is  
11 submitted to or generated by the Commission.

12           The FAST Act added section 215A of the Federal  
13 Power Act to improve the security and resilience of energy  
14 infrastructure in the face of emergencies. The FAST Act  
15 directs the Commission to issue regulations aimed at  
16 securing and sharing sensitive energy infrastructure  
17 information. The draft NOPR proposes regulations to:  
18 establish criteria and procedures for designating CEII;  
19 prohibit unauthorized disclosure of CEII; establish  
20 sanctions for unauthorized disclosures of CEII and  
21 facilitate voluntary sharing of CEII between government  
22 entities, NERC, regional reliability bodies, owner  
23 operators and users of critical electric infrastructure,  
24 and other entities determined appropriate by the  
25 Commission.

1           In addition to implementing the FAST Act, the  
2 draft NOPR makes proposed revisions to its existing  
3 Critical Energy Infrastructure Information regulations  
4 regarding: owner-operator requests, federal agency  
5 requests, intervenor requests, organizational requests and  
6 timing requirements.

7           Comments are due 45 days after the draft NOPR's  
8 publication in the Federal Register.

9           Agenda item E-4 is a draft Final Rule amending  
10 the Commission's regulations to require the North American  
11 Electric Reliability Corporation to provide the Commission  
12 and Commission staff with access, on a non-public and  
13 on-going basis, to three existing NERC databases. The new  
14 regulation would apply to NERC's Transmission Availability  
15 Data System, the Generating Availability Data System, and  
16 the protection system misoperation database.

17           The draft Final Rule would limit the new  
18 regulation to data that is related to U.S. facilities, as  
19 was proposed in the Notice of Proposed Rulemaking. In  
20 addition, in response to comments received on the NOPR, the  
21 new regulation would apply to data that is provided to NERC  
22 on a mandatory basis. Finally, the draft Final Rule defers  
23 the effective date of the regulation until the Final Rule  
24 is issued implementing the FAST Act provisions.

25           This concludes our presentation. We are happy

1 to take any questions you may have.

2 CHAIRMAN BAY: Thank you, Nneka, Marcos, Julie,  
3 Raymond, and the rest of the team. I very much appreciate  
4 your work on E-3 and E-4.

5 I have one question for the team with respect to  
6 E-4, and that is whether the TADS, GADS, and misop data  
7 could be used for modeling purposes. And if so, how could  
8 that data be helpful for modeling?

9 MR. OROCCO-JOHN: Yes, the data could be used  
10 for modeling purposes. Currently, we have plans in place,  
11 once we receive the data, to work collaboratively with NERC  
12 to see how we can utilize the existing periodic assessment,  
13 as well as the data we are receiving to do some modeling.

14 CHAIRMAN BAY: If that data is used for  
15 analytical purposes, is that the kind of work where Staff  
16 would be able to collaborate with NERC?

17 MR. OROCCO-JOHN: Yes.

18 CHAIRMAN BAY: Colleagues?

19 Cheryl?

20 COMMISSIONER LA FLEUR: Thank you very much,  
21 Norman, and thank you, Nneka, Marcos, Julie, Raymond, for  
22 your work on these orders.

23 I know that people, a lot of folks out there  
24 have been eagerly awaiting the notice of proposed  
25 rulemaking on the new CEII regulations, maybe the Final

1 Rule on the databases less so. Nonetheless, I think a  
2 joint presentation is very appropriate, and I appreciate  
3 the Chairman calling these two items together. I think the  
4 draft rule on the FAST Act regulations does a very good job  
5 adapting our current CEII to the new requirements of the  
6 law, including the somewhat tricky terminology change in  
7 the law.

8 Obviously, maintaining the confidentiality of  
9 critical infrastructure information is absolutely essential  
10 to our work in this area, particularly on reliability.

11 The FAST Act contains important new authority  
12 for the Commission that allows us to both protect critical  
13 information and confidentially share it with government and  
14 private parties.

15 I think it's particularly important that the act  
16 establishes clear protections from Freedom of Information  
17 Act disclosure for information whose disclosure and misuse  
18 could put the grid at risk. That's something I've been  
19 calling for for a long time. I really appreciate Congress  
20 giving us this authority.

21 The NOPR incorporates and builds on our existing  
22 CEII regulations and what we hope will be a streamlined  
23 process for designating, identifying, and protecting  
24 information, and I look forward to receiving comments on  
25 that process and everything in the NOPR.

1           I also want to highlight something that's  
2   referenced in E-4 and that the team mentioned regarding the  
3   Final Rule allowing Commission access to GADS, TADS, and  
4   misoperation databases. We received a lot of feedback on  
5   our proposal, much of it related to the sensitivity and  
6   confidentiality of the information contained in those  
7   databases. In recognition of those concerns, the database  
8   Final Rule will not become effective until the issuance of  
9   a Final Rule and the new CEII regs are in place and our  
10  authority is established.

11           I think that approach strikes an important  
12  balance and should ensure that we have the authority at our  
13  disposal to protect the confidentiality and sensitivity of  
14  databases that are available to us.

15           In addition, I think the time that gives us will  
16  allow us time to work out any logistical or process issues  
17  with NERC about our access to the database.

18           So thank you again to the teams.

19           CHAIRMAN BAY: Thank you, Cheryl.

20           Tony?

21           COMMISSIONER CLARK: Thanks to the teams, and I  
22  concur wholeheartedly with the comments of my colleagues.  
23  I don't have any questions for you. So you are off easy  
24  today.

25           CHAIRMAN BAY: Thank you, Tony.

1 Colette?

2 COMMISSIONER HONORABLE: Thank you,  
3 Mr. Chairman.

4 Tony is yielding his time to me.

5 COMMISSIONER CLARK: I am.

6 COMMISSIONER HONORABLE: I want to first thank  
7 the team for your work. This was quite an undertaking, and  
8 to review all of the comments that we received, and I know  
9 my colleagues and I have entertained a number of meetings  
10 associated with this issue and related ones. I want to  
11 thank you for your work and your work with a spirit of  
12 excellence to get us to just the right place at just the  
13 right time to ensure that we are treating CEII data with  
14 protection that it deserves.

15 The FAST Act NOPR is intended, as Commissioner  
16 LaFleur mentioned, to effectuate Congress's decision to  
17 provide express protections for CEII data, and I believe  
18 that this rule will codify our processes and commitments to  
19 provide the type of certainty that the industry can rely  
20 upon. It's important that if we are accessing this  
21 information, that we have the means and authority and  
22 ability to protect it.

23 CEII data is certainly extremely valuable.  
24 We've never taken our responsibility to protect this data  
25 lightly. And certainly, I believe this rule demonstrates

1 that we don't intend to do so going forward. It's  
2 certainly fitting that we simultaneously issue our Final  
3 Rule regarding availability of NERC databases to the  
4 Commission with the FAST Act NOPR.

5 I think this also provides a bit of confidence  
6 in how we will treat this information. Data collection  
7 efforts are essential to the execution of our  
8 jurisdictional responsibilities and protection of this  
9 important data is crucial. As I've stated publicly before,  
10 this rule will enable the Commission to better carry out  
11 our jurisdictional responsibility to oversee the  
12 reliability of the bulk power system and not to duplicate  
13 the role of FERC. And I especially want to acknowledge and  
14 thank FERC for the engagement on this issue. I think it's  
15 valuable and certainly educates and enlightens me and my  
16 colleagues about our respective roles going forward.

17 This Final Rule takes into account the many  
18 comments that were received, and I believe it appropriately  
19 balances the needs of the Commission and our Staff to  
20 obtain this data, and it balances that with the concerns  
21 that were raised by industry. And I believe that this  
22 Final Rule marks an important step forward in our security  
23 and data protection efforts going forward.

24 Thank you.

25 CHAIRMAN BAY: Thank you, Colette.

1                   Madam Secretary?

2                   SECRETARY BOSE: We will call for votes of both  
3 items together E-3 and E-4. The vote begins with  
4 Commissioner Honorable.

5                   COMMISSIONER HONORABLE: Aye.

6                   SECRETARY BOSE: Commissioner Clark?

7                   COMMISSIONER CLARK: Aye.

8                   SECRETARY BOSE: Commissioner LaFleur?

9                   COMMISSIONER LA FLEUR: Aye.

10                  SECRETARY BOSE: And Chairman Bay?

11                  CHAIRMAN BAY: Aye.

12                  And thank you. With that, this meeting is  
13 adjourned.

14                  (Whereupon, at 10:59 a.m., the Commission  
15 Meeting was concluded.)

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## CERTIFICATE OF OFFICIAL REPORTER

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

Name of Proceeding:

CONSENT MARKETS, TARIFFS AND RATES - ELECTRIC  
CONSENT MISCELLANEOUS ITEMS  
CONSENT MARKETS, TARIFFS AND RATES - GAS  
CONSENT ENERGY PROJECTS - HYDRO  
CONSENT ENERGY PROJECTS - CERTIFICATES  
DISCUSSION ITEMS  
STRUCK ITEMS

1,028th COMMISSION MEETING

Place: Washington, DC

Date: Thursday, June 16, 2016

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

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Official Reporter