

1 FEDERAL ENERGY REGULATORY COMMISSION  
2 EPA'S CLEAN POWER PLAN (AD15-4)  
3 Thursday, February 19, 2015  
4 Commission Meeting Room  
5 888 First Street, N.E.  
6 Washington, D.C. 20426

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8 The Commission met pursuant to  
9 notice at 9:00 a.m., when were present:

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12 Technical Conference on Environmental Regulations  
13 and Electric Reliability, Wholesale Electricity and  
14 Energy Infrastructure

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16 COMMISSIONERS:  
17 CHERYL A. LaFLEUR, Chairman  
18 PHILIP D, MOELLER, Commissioner  
19 TONY CLARK, Commissioner  
20 NORMAN C. BAY, Commissioner  
21 COLETTE D. HONORABLE, Commissioner

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1           FERC STAFF:

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3   KIMBERLY D. BOSE, Secretary

4   KRISTI WALD from OGC

5   JAY ARNOLD QUINN, Director Office of Energy and Innovation

6   JEFF DENNIS, Office of Energy Policy at Innovation

7   MICHAEL BARDEE, Director, OER

8   JOSEPH McCLELLAND, Director Office of Energy Infrastructure

9                   Security

10   DAVID MORENOFF, General Counsel

11   JAMIE SIMLER, Director Office of Energy Market Regulation

12   MICHAEL BARDEE, Director Office of Electric Reliability

13   ANNA COCHRAN, Deputy Director of the Office

14                   of Energy Market Regulation

15   TED FRANKS   Office of Electric Reliability

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1           A P P E A R A N C E S of the Panelists

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3   FIRST PANEL

4   (Electric Reliability Considerations)

5   PATRICIA HOFFMAN, Assistant Secretary for the

6           Office of Electricity Delivery and Energy

7           Reliability, U.S. Department of Energy

8   LISA EDGAR, President National Association of

9           Regulatory Utility Commissioners and Commissioner

10          Florida Public Service Commission

11   GERRY CAULEY, President and CEP, North American Electric

12          Reliability Corporation

13   CRAIG GLAZER, Vice President, Federal Government Policy,

14          PJM Interconnection

15   GERARD ANDERSON, CEO, DTE Energy (on behalf of Edison

16          Edison Electric Institute)

17   SUSAN KELLY, President and CEO American Public Power

18          Association

19   JAY MORRISON, Vice President Regulatory Affairs, National

20          rural Electric Cooperative Association

21   JOHN MOORE, Senior Attorney, Sustainable FERC Project

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1 A P P E A R A N C E S of the Panelists

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3 PANNEL 2

4 (Identifying and Addressing Infrastructure Needs)

5 JUDI GREENWALD, Deputy Director for Climate,

6 Environmental & Efficacy Office of Energy Policy

7 and Systems Analysis, U.S. Department of Energy

8 ELIZABETH JACOBS, Iowa Utilities Board

9 SUAN BITTER SMITH, Arizona Corporation Commission

10 ROBERT BRADISH, Vice President, Transmission Grid

11 Development, American Electric Power

12 JOHN SHELK, President and CEO, Electric Power Supply

13 Association

14 ROB GRAMLICH, senior vice president and general counsel

15 Boardwalk Pipeline Partners (on behalf of Interstate

16 Natural Gas Association of America)

17 JAMES HOECKER, Husch Blackwell, counsel to WIRES

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1 A P P E A R A N C E S of the Panelists

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3 PANNEL 3

4 (Potential Implications for Commission Jurisdictional

5 Markets)

6 MICHAEL KORMOS, Executive Vice President, Operations

7 PJM Interconnection, LLC

8 CLARI J. MOELLER, Executive Vice President of

9 Transmission & Technology, Midcontinent Independent

10 System Operator, Inc.

11 DAVID LITTELL, Maine Public Service Commission

12 CARLA PETERMAN, California Public Service Commission

13 KATHLEEN BARRON, Senior vice president, Federal

14 Regulatory Affairs and Wholesale Market

15 Policy, Ecelon

16 JON BREKKE, vice president, Membership and Energy

17 Markets, Great River Energy

18 SUSAN TIERNEY, senior advisor, Analysts Group

19 DIANE MUNNS, senior Director Clean Energy Collaboration

20 Environmental Defense Fund

21 JAMES GARNDER, vice chairman, Kentucky Public Service

22 Commission

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

2 CHAIRMAN LAFLEUR: Good morning, again,  
3 everyone, and welcome to the first of four  
4 technical conferences that the Commission will be  
5 holding to discuss the implications of compliance  
6 approaches to the Clean Power Plan.

7 For those of you who were not here for the  
8 announcement before our early opening this  
9 morning, please be advised that behavior that  
10 disrupts or attempts to disrupt the proceeding is  
11 grounds for removal from the building.

12 I would like to thank Edmund Straiter McCabe  
13 and all of the panelists who I see all the smart  
14 people, I see an array before me ready to solve  
15 these problems.

16 I know that folks that came into town for  
17 NERUC including president Edgar have extended  
18 their trip to DC to be here and we are very  
19 grateful for that.

20 Also, and God forbid, that I forget later  
21 want to thank FERC staff for their hard work on  
22 this and the other three upcoming conferences.

23 Four conferences in just over a month is a  
24 tremendous amount of work just answering the phone  
25 of people who wanted to be present for the

1           tremendous amount of work and so were very  
2           grateful for that.

3           With us at the table here in addition to my  
4           colleagues, the Commissioners, are Kristi Wald  
5           from OGC Jeff Dennis from the Office of Energy  
6           Policy at Innovation, General Counsel David  
7           Morenoff, Arny Quinn, the director of the Office  
8           of Energy Policy and Innovation. Jamie Similar,  
9           the director of the Office of Energy Market  
10          Regulation.

11          Mike Bardee, the director of the Office of  
12          Electric Reliability. Anna Cochrane, deputy  
13          director of the Office of Energy Market  
14          Regulation.

15          Joe McClelland of the Office of Energy  
16          Infrastructure Security and Ted Franks who is  
17          Mike's deputy in the Office of Electric  
18          Reliability.

19          So I should get some kind of prize for not  
20          incurring any problems there.

21          As I said we had a lot of requests for folks  
22          who were eager to speak which we appreciate due to  
23          the importance of the issue in a lot of folks's  
24          minds, and so we have kind of supersized the  
25          panels today.

1           As a result with the exception of  
2 administrator McCabe, Assistant Secretary Hoffman,  
3 and President Edgar, we are not to have our  
4 panelists read their prepared remarks.

5           You can assume that we have spent time  
6 reading your remarks and are familiar with your  
7 positions and we will try to jump right into more  
8 of a conversation.

9           As I said many times before, as states and  
10 regions face their compliance responsibilities  
11 with the Clean Power Plan this commission will  
12 have three significant roles.

13           A role as a convener of conversation to  
14 assure that reliability is preserved and  
15 understood. A role in assuring that adequate  
16 infrastructure is in place to facilitate  
17 compliance, and a role in overseeing adaptations  
18 in the competitive capacity in energy markets as  
19 necessary to adjust to the state and regional  
20 implementation plans.

21           And those three roles are really reflected in  
22 the three panels that we've set up today, one on  
23 reliability on infrastructure, and on markets.

24           I am hoping against hope, but I'm an optimist  
25 that we can move past the ideology and rhetoric

1           that seems to surround this issue to try to keep  
2           it real with as much real concrete information as  
3           we can put in the record on how potential  
4           compliance with the rule will affect your  
5           company's state, region, organization, and  
6           concrete suggestions to the extent that we can  
7           begin to develop them for what this Commission  
8           will need to do to take this forward.

9           Since I have the seat, I am going to do a  
10          couple of housekeeping matters, please silence all  
11          cell phones, and if you're anywhere near a mike  
12          turn off your equipment totally because they  
13          interfere with our audiovisual equipment and we  
14          know we have people watching in overflow rooms,  
15          hello to you, as well as on the webcast.

16          For panelists, if you want to be recognized  
17          to speak put your tent card up, make sure you turn  
18          on your microphone before you speak because that  
19          way you will be picked up in the tape and when you  
20          are not speaking please turn off your microphone  
21          to minimize background noise.

22          We will have a one-hour break for lunch after  
23          Panel I and a 15 minute break after Panel II, and  
24          with that I will turn to my colleagues for opening  
25          remarks.

1           COMMISSIONER MOELLER: Thank you, Chairman, and  
2 thank you for putting these together. Thanks to  
3 all of our panelists many who whom have come from  
4 across the country to be here today.

5           Thanks to Janet McCabe and Joe Goffman for  
6 being here as well from EPA.

7           Thanks for staff who put this together as  
8 they have a lot of work ahead of them for the next  
9 three.

10          I'm glad that we are actually doing these. I  
11 appreciate the fact that you decided to hold them.  
12 It should be a good subsequent discussion both  
13 today at the national level and then the regional  
14 meetings that follow.

15          A point that I made when I was on a panel  
16 with Janet McCabe just a couple days ago that I  
17 don't want people to lose sight of is that for the  
18 last twenty years we have expanded wholesale  
19 markets whether they are in organized markets or  
20 the bilateral markets, so the larger footprints a  
21 greater dispatch of power can then lead to  
22 essentially lower prices and greater reliability  
23 for consumers.

24          It's easy to take for granted the strides  
25 that have been made by Commissioners before us

1 over the last twenty years, so we want to make  
2 sure that as these decisions are made as a Clean  
3 Power Plan, whatever state it ends up in is a  
4 final rule does not disrupt wholesale markets, but  
5 rather works with them to assure again that  
6 consumers can be served with affordable and  
7 reliable power and that should be something that  
8 is in everyone's mind as we move forward.

9 Thanks for the chance and I will conclude my  
10 remarks.

11 COMMISSIONER CLARK: Thank you, Madame Chairman, let  
12 me add my voice to the chorus in thanking you for  
13 willing to put these together.

14 This suite of potential 111(d) carbon  
15 regulations puts commissions like the FERC and  
16 state commissions in very challenging positions in  
17 a lot of ways because a lot of sort of on the road  
18 where the rubber meets the road sort of issues  
19 with potential challenges related to cost or  
20 liability falls squarely on the shoulders of state  
21 regulatory agencies and agencies like the FERC  
22 that oversee our wholesale markets in bulk power  
23 system reliability.

24 That is really why a series of tech  
25 conferences like we are going to be having is so

1 very important.

2 People have asked, "What do you hope to  
3 accomplish at these or what do you see this is a  
4 venue for?"

5 I don't see it as just a general public  
6 policy discussion about climate change and  
7 critiquing the EPA, so on and so forth. That is  
8 the role for Congress and it sounds like they will  
9 be doing plenty oversight hearings on just those  
10 sorts of issues.

11 Ours is a much more granular and technical  
12 analysis which is we are the agencies that have to  
13 deal with the implications of cost and impacts on  
14 markets and potential impacts on reliability in  
15 this very technical analysis that needs to be  
16 done.

17 Ours are the agencies at both the state and  
18 federal levels will be the ones that are going to  
19 be asked to potentially permit a lot of  
20 infrastructure that goes into supporting what we  
21 will need to have happen if the Clean Power Plan  
22 goes through.

23 This is where the rubber meets the road and I  
24 see it as really a two-fold analysis that we are  
25 doing in a sense.

1           One is somewhat an inward looking analysis  
2           for the regulatory community as a whole and I  
3           include states in that, but states and FERC where  
4           we need to start putting some meat on the bones of  
5           what does reliability assessment look like from a  
6           technical standpoint?

7           At what level do we need to be doing that  
8           sort of analysis?

9           Most of what you see in the popular press at  
10          this point is really very generic grid wide,  
11          nationwide, interconnection wide, or perhaps  
12          regional studies, but really getting down into the  
13          nitty-gritty of voltage support and particular  
14          units being down when other units are down, and  
15          things like that, so digging into that kind of  
16          work and understanding what the impact on markets,  
17          both our operating markets and regional markets,  
18          but also bilateral markets that exist in many  
19          parts of the country and understanding how that  
20          will work.

21          An good issue that I have raised is one that  
22          we want to make sure that as the patchwork of  
23          state and federal implementation plans come and  
24          regional plan starts coming together that they fit  
25          together and that you have got a group that

1           actually works and not one that is torn apart at  
2           the seams.

3           There is also a second purpose to this which  
4           is more of an outward looking goal of the tech  
5           conferences which is we have folks from the EPA  
6           here, and thank you for being here, I know that  
7           your staff will be at all of our tech conferences,  
8           but it's hopefully leveraging our resources to  
9           provide input to EPA so that they have more  
10          information upon decisions that they will be  
11          making under the statutes that they have authority  
12          over, understanding that these are not our rules  
13          and these are not our statutes that we are  
14          implementing and so we can be perhaps as I think  
15          you have said, Chairman, the past honest brokers  
16          of information.

17          Finally, and this is just an admonition to  
18          all of the panelists at future tech conferences.  
19          One of the things the Chairman brought up is that  
20          much of this is going to be Q and A directed  
21          dialogue from the Commission because we just don't  
22          have the time to have 10-minute presentations from  
23          every person who is going to be appearing at  
24          these, understanding that there's a lot of people  
25          who will be appearing we drew up the whole day

1 just doing presentations.

2 For the future meetings, although the staff  
3 has not set a hard deadline for when to get  
4 testimony in, they have indicated that it's  
5 helpful if you get it in sooner rather than later.

6 I really want to emphasize that. It is very  
7 helpful for us as a Commission in a format like  
8 this if you have the information to us a week  
9 early so that we can go through it and we can  
10 develop questions which was, for the record, yes  
11 yesterday, for those of you who are to be in  
12 Denver.

13 Do get those in early because we are just not  
14 going to have the time to have everyone give full  
15 presentations if you haven't previously submitted  
16 that to us, so it's helpful for us, and I think  
17 for your cause.

18 Thank you.

19 CHAIRMAN LAFLEUR: Thank you, and I agree on  
20 getting things in early. Commissioner Bay.

21 COMMISSIONER BAY: Thank you, Chairman LaFleur. I  
22 think staff for putting together these technical  
23 conferences. A lot of work goes into organizing  
24 any technical conference. I hear there are four.

25 I also appreciate the panelists for coming

1 here today and braving the cold in Washington to  
2 share their views with us.

3 Let me mention two things that I hope to get  
4 out of these conferences. First, what are the  
5 challenges associated with implementation of the  
6 Clean Power Plan?

7 And second, given those challenges how can  
8 FERC be helpful in assisting states and industry  
9 in adapting to the rule?

10 Perhaps this involves infrastructure,  
11 markets, or technical assistance.

12 Of course, it is a given that FERC will have  
13 to work closely with state authorities, with the  
14 EPA, DOE, NERUC, the RTOs and ISOs.

15 FERC takes great pride in getting things done  
16 in being a problem solver and in carefully  
17 considering the views of stakeholders. So I look  
18 forward to hearing your views and any suggestions  
19 that you might have for us.

20 Thank you.

21 CHAIRMAN LAFLEUR: Thank you very much.  
22 Commissioner Honorable.

23 COMMISSIONER HONORABLE: Thank you, Chairman. Good  
24 morning, everyone. I would like to thank the  
25 staff who worked very hard in putting together and

1 supporting this work. I would like to thank my  
2 colleagues for your willingness to move forward in  
3 this fashion. It is very constructive, it is  
4 productive, and also, all of you, I especially  
5 thank the panelists, Janet, who is sitting here  
6 ready to go and who with him we met many times.

7 I would also like to extend a welcome and  
8 thank you to NERUC president, Lisa Edgar and the  
9 state regulators and all of you stakeholders who  
10 are truly invested in this work.

11 I very much agree with Commissioner Clark's  
12 comments in putting in focus what this effort is  
13 about.

14 If we take stock of where we are now and  
15 where we are headed, there is a proposed rule out  
16 there and there will be a final rule in June.

17 Let's work constructively as this is what the  
18 people expect of us and we are very well capable  
19 of carrying out this effort meaning expects,  
20 planners, people who think about N-1 contingencies  
21 and the like.

22 Let's work together productively and  
23 thoughtfully thinking about what the future holds  
24 for us.

25 I also embrace Commissioner Bay's remarks

1           about the expectations for what we should expect  
2           here not only throughout the technical conferences  
3           but how we might provide advice and assistance to  
4           the EPA, so thanking you in advance to everyone  
5           and I look forward to the gala.

6           CHAIRMAN LAFLEUR: Thank you all. We are going  
7           to get started with Acting Assistant Administrator  
8           McCabe.

9           I want to thank Administrator McCarthy for  
10          making Assistant Administrator McCabe, super  
11          lawyer Joe Goffman, and all the EPA staff that are  
12          in the room available committing to this  
13          aggressive schedule of tech conferences.

14          We are very happy to have you here and the  
15          floor is yours.

16          ADMN. McCABE: Thank you, Chairman LaFleur  
17          and other Commissioners. Thanks to FERC for  
18          holding these conferences. We are thrilled that  
19          you are providing this opportunity for people to  
20          come together and have these constructive  
21          conversations and I agreed with many things that  
22          you all said.

23          One thing I particularly agreed with you,  
24          Chairman LaFleur, is to reflect on the level of  
25          smarts that are in this room on these issues, so

1           there could be no better audience for this  
2           particular conversation.

3           I am especially pleased to be able to speak  
4           to you today about the proposed Clean Power Plan  
5           and a vital issue of electric system reliability.

6           Over EPA's long history developing Clean Act  
7           Pollution Standards for the electric power system  
8           including the proposed Clean Power Plan, the  
9           Agency has consistently treated electric system  
10          reliability as absolutely critical.

11          We have devoted significant attention to this  
12          issue ourselves and have also made sure that we  
13          are coordinating with stakeholders and energy  
14          regulators at the federal, state and regional  
15          levels to ensure the important public health and  
16          environmental protections Congress has called for  
17          in the Clean Air Act are achieved without  
18          interfering with the country's reliable and  
19          affordable supply of electricity and Administrator  
20          McCarthy and the President's help have emphasized  
21          this on many occasions.

22          Because of this attention, this historical  
23          and present attention at no time in more than 40  
24          years had EPA been implementing the Clean Air Act,  
25          has compliance with air pollution standards

1           resulted in reliability problems.

2           Of course, we are equally committed to our  
3           mission to protect public health and the  
4           environment and in the case of the Clean Power  
5           Plan proposal that means addressing climate change  
6           a problem that is already affecting the health and  
7           economic well-being of communities across the  
8           country.

9           These impacts both dramatic and incremental  
10          will get worse if we do not take steps to cut  
11          carbon pollution.

12          In 2009 an EPA administrator found that  
13          elevated concentrations of greenhouse gases in the  
14          atmosphere may reasonably be anticipated to  
15          endanger public health and welfare of current and  
16          future generations.

17          New scientific assessment since 2009 by  
18          groups including the intergovernmental panel on  
19          climate change and others have improved our  
20          understanding of the climate system and strengthen  
21          the case that greenhouse gases endanger public  
22          health and welfare.

23          In addition these assessments highlight the  
24          urgency of the situation as greenhouse gas  
25          concentrations continue to rise.

1           As a result of the endangerment finding and  
2           the steps outlined in President Obama's climate  
3           action plan, EPA has undertaken a series of  
4           actions under the Clean Air Act to address the  
5           most significant sources of greenhouse gases.

6           These actions have resulted in historic  
7           programs to improve fuel efficiency in our motor  
8           vehicle fleets and now our focus on new and  
9           existing fossil fuel fired power plants.

10          Power plants are the single largest source of  
11          greenhouse gas emissions in the country accounting  
12          for 40% of our nation's carbon pollution in 2012.

13          EPA's analysis of the Clean Power Plan  
14          projects that it will help to cut carbon pollution  
15          from the power sector by 30% from 2005 levels in  
16          2030 upward of 700 million tons of reduction, that  
17          is tremendously significant reductions.

18          While this is a substantial step that the  
19          United States can take at home we know that  
20          climate change is a global challenge and we cannot  
21          address it on our own.

22          We must also lead.

23          Through this proposal and other actions the  
24          Agency has taken, the United States is leading by  
25          doing in ways that are needed for other countries

1 to commit to action themselves.

2 So let me turn to the proposal to Section  
3 111(d) and to the issue of reliability which is so  
4 much on everybody's minds and your focus in this  
5 and in your field hearings.

6 In crafting the Clean Power Plan proposal,  
7 EPA sought to provide the flexibility and the kind  
8 of time line that states, tribes, territories and  
9 affected generators would need to cut carbon  
10 emissions while maintaining affordable electric  
11 power and safeguarding system reliability.

12 Let me start with Section 111(d). This  
13 section of the act is written in a way that  
14 maximizes flexibility for states. It mandates  
15 that the EPA set goals for affected facilities  
16 based on the Best System of Emission Reduction,  
17 otherwise known affectionately as the BSER, but  
18 leaves it up to the states to develop plans that  
19 will achieve those goals.

20 The BSER mandate provides EPA with a  
21 framework and a set of factors to consider  
22 including technology, costs, feasibility and the  
23 size of reductions to be achieved.

24 It also gives EPA the latitude to consider  
25 the interconnected nature of the power sector.

1           To develop the proposal we started by looking  
2           at the wide range of input states and stakeholders  
3           provided to us through our outreach and engagement  
4           process.

5           This helped us identify four main strategies  
6           or building blocks that are already widely used in  
7           the power sector including.

8           First, making fossil fuel fired power plants  
9           more efficient.

10          Two, using lower admitting fossil fuel fired  
11          power sources more.

12          That is not easy to say.

13          Third, expanding renewable generation  
14          capacity and using zero emitting sources more  
15          including solar, wind, and nuclear facilities.

16          And fourth, using electricity more  
17          efficiently.

18          While our proposal recognizes the  
19          interconnected nature of the power sector and is  
20          founded on four common strategies that are already  
21          in use today, it also proposes unique goals for  
22          each state that reflect the differences in the mix  
23          of resources that are currently being used to  
24          generate electricity in each state and differences  
25          in the potential each state has to increase the

1 use of lower carbon and zero carbon resources.

2 Because of these key differences from state  
3 to state the proposals target setting does not  
4 rely on a one size fits all approach.

5 Instead we propose different goals for  
6 different states and casting my mind back to the  
7 early days of developing this proposal, that was  
8 one of the loudest messages that we heard from  
9 states and from suppliers is that, "This is not  
10 suitable to a one-size fits all approach."

11 Because we establish statewide goals, each  
12 state in developing and implementing its plan can  
13 rely on a variety of measures and policies that  
14 result in less carbon dioxide emitted per megawatt  
15 hour generated or avoided.

16 It is critical to emphasize that the proposal  
17 offer states in the power sector a broad range of  
18 choices, not only in choosing which building  
19 blocks to emphasize, but also in going beyond  
20 those four building blocks in formulating their  
21 compliance strategies.

22 The choices of the types of emission  
23 reduction measures to employ is the first of  
24 several types of flexibility the proposal provides  
25 to ensure that the goals are met without risk to

1 an affordable and reliable electric power system.

2 I want to just stop for a minute on that  
3 point because I think a lot of attention has been  
4 zeroing in on the four building blocks and why  
5 they pose challenges and why EPA didn't get them  
6 quite right, but I think it's important not to  
7 forget that there is a range of other activities  
8 that states and utilities can engage in that will  
9 lead to reduced carbon and those are available to  
10 the states to use.

11 A second type of flexibility we propose is  
12 the timing for reductions.

13 Part and parcel of offering states and  
14 affected generators wide latitude in meeting the  
15 state goals, the proposal provides room for  
16 planning to avoid reliability concerns.

17 The proposed final compliance date of 2030  
18 gives states, generators, reliability entities,  
19 and other stakeholders a 15-year planning horizon.

20 Meanwhile, the compliance period of 2020  
21 through 2029 for the interim state goals was  
22 intended to allow states and affected generators  
23 to shape their own glide paths so that they can  
24 determine the pace and the timing of the measures  
25 and programs that need to be put in place.

1           Because of the importance of timing  
2 flexibility to the assurance of both affordability  
3 and reliability, in late October last year we  
4 issued an additional notice of data availability  
5 that among other things highlighted for public  
6 comment the question of whether the proposal  
7 indeed provided a realistic opportunity for states  
8 to develop their own glide paths for achieving  
9 reductions between 2020 and 2030.

10           Our objective in doing so was to ensure that  
11 stakeholders and the public had the benefit of  
12 reviewing this information and the opportunity to  
13 comment on the ideas that were presented in the  
14 notice.

15           Again, as I have emphasized we continue to  
16 believe that such flexibility is critical because  
17 it is instrumental to maintaining electric system  
18 reliability and avoiding unreasonable costs.

19           The rule making record also reflects  
20 stakeholder comments regarding how the 2020  
21 initial interim compliance here and the stringency  
22 of some state targets may indeed defeat the  
23 flexibility the proposal was intended to provide.

24           We are paying a lot of attention to this. We  
25 appreciate all the input that we are getting about

1 the challenges that the 2020 date poses, and I  
2 assure you, we will be looking at it very very  
3 closely and I want to echo the comment that was  
4 made earlier that what is so valuable to us is to  
5 get very specific and concrete information both in  
6 terms of the impacts, but also in suggestions for  
7 how we might address some of these concerns so we  
8 can take those into account.

9 I will pause here just to mention, as I have  
10 said many times how important the public comment  
11 process is to EPA rule making and I have not  
12 worked on a single rule at EPA in my time there or  
13 before where the rules didn't change and improve  
14 as a result of that comment process and I know  
15 that that will be the case here as well.

16 From the perspective of ensuring electric  
17 system reliability, and the final 2030 compliance  
18 date, we believe that the long time horizon for  
19 the final target will provide system operators  
20 states and generators the needed flexibility to do  
21 what they are already doing and what they do so  
22 well looking ahead to spot the potential system  
23 changes and contingencies that can pose  
24 reliability risks and identify the actions needed  
25 to mitigate those risks.

1           We do appreciate the length of time that some  
2           of these investments can take and know that  
3           planning horizons are absolutely essential.

4           We see the significant changes already  
5           underway in the industry in response to changes in  
6           fuel markets and increased use of renewable and  
7           distributed resources.

8           We also know that companies are making  
9           long-term investments to address the mercury and  
10          air toxic standards and regional haze obligations  
11          under the Clean Air Act and we have received lots  
12          of suggestions of how to avoid stranding new  
13          assets and we are considering ways to address  
14          those comments in our final rule.

15          A third type of flexibility under the  
16          proposal is the option states have to act together  
17          through regional or multistate plans.

18          We believe that this option allows states to  
19          develop strategies that are more in line with  
20          existing interstate power markets, taking maximum  
21          advantage of the sectors' interconnected nature to  
22          maintain reliability and affordability while  
23          achieving emissions reductions.

24          We know that states have commented on whether  
25          they will be able to commit fully to regional

1 approaches or be able to do so in the time that  
2 the proposed rule provides for state plans to be  
3 completed and we are looking carefully at those  
4 suggestions as well.

5 We appreciate the practical considerations  
6 that states are presenting to us and also their  
7 requests for different types of flexibility when  
8 it comes to relationships with other states.

9 We recognize that making full use of the  
10 flexibility provided by the proposal requires time  
11 for planning and another issue that many states  
12 and stakeholders have commented on is the  
13 one-to-three year timetable that the proposal  
14 provides for states to submit their compliance  
15 plans. They have told us that that is inadequate,  
16 that it doesn't work with state processes, it  
17 doesn't work with states who may be wanting to  
18 talk to one another, and that more time is needed.

19 We recognize that planning is key not only to  
20 achieving reductions ultimately, but the  
21 safeguarding reliability along the way.

22 Fortunately, commenters are offering  
23 practical suggestions for us to consider for the  
24 final rule either in the form of additional  
25 process steps in developing compliance plans that

1 we might consider or in the form of relief from  
2 specific requirements that would constitute what  
3 many are calling a reliability safety valve.

4 It should go without saying, but I will say  
5 it, and say it, and say it. EPA is taking all of  
6 this information and the suggestions that  
7 commenters have provided to us and the concerns  
8 they raise very seriously as states and generators  
9 move forward with meeting their emission  
10 reductions obligations.

11 Looking ahead, one of the outcomes of these  
12 FERC workshops that we are anticipating is the  
13 further development of ideas that FERC, DOE and  
14 EPA can use to focus on reliability issues after  
15 the Clean Power Plan is issued this summer and  
16 states undertake their compliance plan.

17 In addition to helping us think about how the  
18 final rule should be framed, we know that there  
19 will be ongoing work that we will do together on  
20 these issues.

21 And that the Mercury and Air Toxic Standard  
22 Rule that I mentioned a minute ago provides an  
23 example of how this could work and has worked.

24 As many of you know when EPA announced the  
25 final MATS Rule we also issued an enforcement

1 policy that defined a specific path that affected  
2 generators could follow if they felt they needed  
3 extra time to comply with the rule specifically in  
4 order to maintain electric system reliability.

5 In addition, FERC, DOE and EPA began a  
6 process that continues to this day jointly and  
7 regularly convening with the RTOs and ISOs to  
8 monitor closely and frequently changes in the  
9 various regional systems that have been occurring  
10 while the affected generators were undertaking the  
11 actions needed to comply with MATS, and the first  
12 compliance date for MATS is in April of this year.

13 Like you we will be examining all of the  
14 information and the ideas generated by these  
15 workshops as we move forward to finalize the rule  
16 and after the rule is finalized.

17 As part of that process we look forward to a  
18 continuing robust and ongoing relationship with  
19 FERC and DOE.

20 Before I wrap up and I am happy to take  
21 questions that you might have, I want to emphasize  
22 again how very constructive the discussion has  
23 been over the past year or so and how important  
24 our interactions with FERC, state energy offices  
25 and other federal agencies has been for us and

1 will continue to be.

2 Our federal and state partners and our  
3 stakeholders are putting concrete ideas on the  
4 table about how reducing carbon emissions which is  
5 so critical to our future can be done efficiently  
6 without threatening reliability in ways that build  
7 up our communities and benefit everyone.

8 Thanks, again, Chairman LaFleur and all of  
9 the FERC Commissioners and the FERC staff for  
10 holding this and the other reliability sessions.

11 I do plan to attend to observe the regional  
12 sessions and very much appreciate your including  
13 us, and Joe Goffman, he is the only one we will  
14 let go to Denver, so he will be at the Denver one.

15 While I will not be able to stay all day,  
16 several of the key senior OAR technical legal and  
17 policy staff are here and do plan to stay all day,  
18 so they can hear all of the testimony and then  
19 does the dialogue that you all will have and we  
20 will also join with me at the three regional  
21 conferences.

22 I will look forward to their reports at the  
23 end of today to further conversation with you this  
24 morning and in the days and months to come.

25 Thank you, Chairman LaFleur.

1           CHAIRMAN LAFLEUR: Thank you so much,  
2 Administrator McCabe. I particularly appreciate  
3 your sharing some thoughts about the areas of the  
4 draft rule that you are most zeroing in on  
5 including reliability mechanisms and the challenge  
6 that you issued to us to try to work through in  
7 these workshops process going forward because we  
8 know there will be trade-offs between environment  
9 reliability and cost as always and how we can  
10 promote a process.

11           It is generous of you to stay for questions.  
12 I wanted to give my colleagues the opportunity to  
13 ask questions.

14           COMMISSIONER MOELLER: Thank you. In the interests  
15 of time, I really just have one comment.

16           Administrator McCabe, you mentioned that we  
17 essentially should not get too focused on four  
18 building blocks, that there is other flexibility  
19 available.

20           Can you elaborate on that, please?

21           ADMN. McCABE: Sure. There has actually been  
22 a fair amount of pretty robust conversation about  
23 this and a lot of the stakeholders and people in  
24 that in the industry who are very familiar with  
25 the industry are having good discussions about

1 this.

2 But there are other ways to improve the  
3 efficiency of the system, one that has been  
4 mentioned a number of times is transmission  
5 efficiency and working on those areas.

6 Things like significant uses of power in  
7 municipalities is managing water and waste water  
8 and efforts to be more efficient there can really  
9 reduce the amount of power that's needed.

10 So we think that there are of a variety of  
11 things that people can look at.

12 COMMISSIONER MOELLER: And yet I think there are  
13 some limitations, and correct if I'm wrong, but  
14 take a state like California that basically has no  
15 coal, they're trying to promote renewables through  
16 wind and solar, but they are going to need  
17 significantly more natural gas generation to back  
18 up that wind and solar during the ramp periods,  
19 that is a fact, it's physics, laws of physics, and  
20 yet, they are not getting credit for their  
21 electric vehicles that they are trying to promote  
22 which I certainly support.

23 Any thoughts on that?

24 ADMN. McCABE: Sure. I think we need to go  
25 back to 111(d) and look carefully at the authority

1           that EPA has under the Clean Air Act, and 111(d)  
2           is part of the section of the Clean Air Act that  
3           addresses performance standards for new and  
4           existing industrial sources of air pollution and  
5           the affected category that we are regulating under  
6           111(b) and (d) is the fossil fired generating  
7           fleet.

8                        So there are limits to the kinds of  
9           strategies that we could look at and that we  
10          believe are appropriate to fit into plants.

11                      But, I assure you, we are getting lots of  
12          suggestions from people about the kinds of things  
13          that states would like to be able to consider  
14          looking at including in their plans and we are  
15          looking carefully at all those, but we need to  
16          make sure that we are grounded solidly in our  
17          authority under 111.

18                      COMMISSIONER MOELLER: Thank you.

19                      CHAIRMAN LAFLEUR: Thank you Commissioner  
20          Moeller. Commissioner Clark.

21                      COMMISSIONER CLARK: Thank you and thanks for being  
22          here, Janet. This is a question that I have been  
23          itching to ask since I heard you and COMMISSIONER Moeller  
24          at the NERUC meeting a couple of days ago, so it  
25          is rather specific one, but it is one that

1           intrigues me.

2           It would seem that EPA has an interest in  
3           getting as many states willing to play ball as  
4           possible in terms of setting up SIPS or regional  
5           plans because there are a lot of things that  
6           states can voluntarily put into a SIP that EPA  
7           probably can't mandate as part of a federal  
8           limitations plan, so with that as a backdrop.

9           One of the things that was brought up on from  
10          a number of state commissioners who were speaking  
11          was this issue of liability that states may incur  
12          from third-party plaintiff lawsuits on which is a  
13          big concern for a lot of states, I have heard a  
14          number of times, whereas, in the sue and  
15          settlement agreements have become kind of the bane  
16          of state government to a great degree, but in the  
17          past they have always been limited to just one  
18          power plant or one polluter, one emission source,  
19          or maybe a fleet within the state, but to the  
20          degree that sort of everything in the state energy  
21          plan, all of those things that constitute  
22          flexibility that you have talked about, state  
23          building codes, energy efficiency standard, rate  
24          design decisions of the State Public Utility  
25          Commission, to the degree those get put into a SIP

1           they feel like there is this big target on their  
2           chest now for federal lawsuits and effectively  
3           walking into a sort of buzz saw where their whole  
4           state energy plan could be subject to judicial  
5           fiat.

6                     Is there a way for EPA to address that  
7           concern through the rule itself to limit some of  
8           the exposure that states have that might encourage  
9           them to want to play ball or is that something  
10          that it is just embedded right in the act itself  
11          and only Congress could provide that sort of  
12          immunity from that type of lawsuit?

13                    ADMN. McCABE: Yes, yet that is a good  
14          question and people were eloquent on this topic at  
15          the NERUC Conference as you say.

16                    As a former state regulator myself, I am  
17          extremely sensitive to this kind of issue and we  
18          try to be extremely sensitive to that in our  
19          proposal recognizing potential tension there.

20                    We want states to have as much flexibility as  
21          possible, but we also recognize that that very  
22          real impulse to not put into a federal  
23          enforceability world things that have  
24          traditionally not been and there are other reasons  
25          beyond being concerned about possible federal

1 enforceability.

2           There are concerns about continuing to allow  
3 innovation and change in development and a variety  
4 of things.

5           So we have worked with states for four years  
6 on developing SIPS and how to be respectful of  
7 state processes while still respecting everybody's  
8 responsibility, ours and the states. under the  
9 Clean Air Act.

10           We laid out in the proposal kind of two  
11 alternative approaches. One is a more traditional  
12 approach that focuses on the obligation being on  
13 the affected sources and one is what we call the  
14 portfolio approach and we did try to address some  
15 of the issues related to what happens in a  
16 portfolio approach is everything in there become  
17 immediately federally enforceable and so we  
18 provided a fair amount of discussion there.

19           We think there are some things that we can  
20 think about in the final rule to provide space for  
21 states to design plans that wouldn't necessarily  
22 bring every last bit into federal enforceability,  
23 but those are issues that we are continuing to  
24 look at and looking at the input that we got on  
25 now.

1 I can assure you it is something that we want  
2 to work very hard to find a way to be responsive  
3 to those concerns.

4 COMMISSIONER CLARK: How much flexibility is granted  
5 for EPA to provide that kind of protection for  
6 states versus how much is just baked into the act?

7 EPA itself may decline to enforce, but you  
8 still have that third-party lawsuit. Is there any  
9 protection for states that can be granted or is  
10 that just something that such a core part of the  
11 act that it really can't be mitigated?

12 ADMN. McCABE: We are really looking at ways  
13 that a portfolio approach could be implemented by  
14 states that would mitigate those concerns.

15 COMMISSIONER CLARK: How a portfolio does that.  
16 When you say portfolio, I understand what a  
17 portfolio approach is, there are a lot of things  
18 that are in there, but how does simply having a  
19 portfolio provide some level of immunity from that  
20 or some level of protection from that sort of  
21 third-party liability?

22 What we will be looking at is the level of  
23 specificity and that would be provided in a  
24 portfolio approach and there are a variety of  
25 programs that we think states they may want to

1 consider and their use of those programs or their  
2 reliance on those programs may shift over time, so  
3 we are really looking at ways that we can design  
4 the portfolio approach to preserve states  
5 abilities to run those programs.

6 Because we are not at the final rule yet, no,  
7 I can't lay it all out for you, but we think there  
8 are some options there.

9 COMMISSIONER CLARK: Thank you very much and in the  
10 interests of time, I will pass it on to my  
11 colleague.

12 COMMISSIONER BAY: Thank you. Administrator McCabe,  
13 thank you for coming here today and I want to  
14 recognize and commend both you and your boss for  
15 the amount of outreach that you have been doing.

16 I know that you worked with NERUC with your  
17 boss just earlier in the week and it is very  
18 helpful when you engage in that kind of outreach.

19 My question to you really follows up on one  
20 of the two things that I am hoping to get out of  
21 these conferences and it is really the latter  
22 objective, and that is, how can FERC be helpful to  
23 the EPA?

24 What should we be doing to be most helpful to  
25 you?

1           ADMN. McCABE: Thank you. That is a nice  
2 question to ask. Posting these conferences is  
3 helpful from the get-go so that people who really  
4 want to engage with you on the questions of  
5 reliability have an opportunity to do that and we  
6 can learn from that.

7           I think an ongoing relationship with FERC at  
8 the staff and at the leadership level is critical  
9 and I am very pleased at how that relationship has  
10 developed just over the time that that I have been  
11 at EPA.

12           We are sibling federal agencies with  
13 different responsibilities. We want to be able to  
14 look to FERC for advice and counsel on the issues  
15 in which you are expert and we are not and  
16 together be able to implement an important part of  
17 the president's Climate Action Plan.

18           We will look forward to further conversation  
19 after you hold these hearings, but then ongoing  
20 discussion and communication as we finalize the  
21 rule and then as we implement the rule and states  
22 begin to really put together the plans.

23           That is when we really can zero in on the  
24 potential for reliability concerns is when we have  
25 some more specificity about what will really be

1 done in the states to implement the program and I  
2 know that you will be paying attention to that  
3 over the years to come as those plans are  
4 developed.

5 CHAIRMAN LAFLEUR: Thank you. Giving advice to  
6 my siblings even unsolicited is one of my core  
7 competencies.

8 Commissioner Honorable.

9 COMMISSIONER HONORABLE: Thank you, Madame Chairman.  
10 I tend to be on the receiving end of siblings and  
11 it has and worked well both ways.

12 Administrator McCabe, thank you for being  
13 here again, and thank you to Administrator  
14 McCarthy, to counsel Joe Goffman and all of the  
15 others.

16 Certainly in my last year's tenure as NERUC  
17 president, I am very much appreciative of the  
18 interaction that EPA has productively engaged in  
19 with the states, with the stakeholders and now I  
20 am I am looking forward to it in this new role.

21 I would like to drill down a bit on process.  
22 I see these technical conferences as a golden  
23 nugget of opportunity for you and your colleagues  
24 at the EPA to be informed in an open and  
25 transparent way as we are here at FERC by a number

1 of issues.

2 We have talked quite a bit about one here,  
3 reliability. Certainly affordability,  
4 infrastructure, development and certainly  
5 planning.

6 I would like to ask you, are these happening  
7 at a sufficient time from your perspective and  
8 also how will EPA be able to use this information  
9 going forward?

10 ADMN. McCABE: I do think they are happening  
11 in a very timely way. While the comment period is  
12 officially closed for this rule, really, all of  
13 the issues that people are concerned about have  
14 been brought up to us in one way or in hundreds of  
15 ways in comments and I see this discussion and  
16 these discussions as further elaboration on those  
17 issues.

18 So that is good.

19 And with our summertime expectation for when  
20 we are going to deliver this rule, this is prime  
21 time for us to be getting this input and being  
22 part of these discussions.

23 So that is great.

24 I do see the opportunities will just continue  
25 once we finalize the rule we will move into more

1           officially into implementation mode.

2           We are already doing a lot of that. You may  
3 know we have started to think hard about tools and  
4 resources that the states will need. They have  
5 been very forthcoming with requests to us.

6           There will be opportunities for us to seek  
7 your sibling advice on those things as we move  
8 forward and we will look forward to many  
9 opportunities to do that.

10           COMMISSIONER HONORABLE: Thank you very much.

11           CHAIRMAN LAFLEUR: Thank you very much,  
12 Administrator McCabe, for being here and we look  
13 forward to having the rest of your team here for  
14 the balance of the day and I will call up all the  
15 first panel.

16           ADMN. McCABE: Thank you.

17           CHAIRMAN LAFLEUR: Welcome to every one who has  
18 joined us for the Reliability Panel.

19           I appreciate all of you coming here to be  
20 with us this morning and I want to start by  
21 recognizing somebody who I know is no stranger to  
22 this Commission but with whom we work closely on  
23 many reliability and security issues.

24           Assistant Secretary Pat Hoffman of the  
25 Department of Energy who will make her remarks.

1 MS. HOFFMAN: Thank you, Madame Chair and  
2 thank you to all the Commissioners for having me  
3 here today, I always appreciate coming and having  
4 conversations with the Commission as well as with  
5 the panelists.

6 It is on. Once again, thank you for having  
7 me here today. I am always pleased to have a  
8 conversation with the Commissioners and all the  
9 folks on the panel here and I am pleased to talk  
10 to you today about electrical reliability.

11 I will keep my comments short as I know it is  
12 the Commissioners interests to engage in dialogue  
13 and questions.

14 DOE has been briefed by a number of  
15 organizations including the ISO RTO Council on  
16 their proposals and recommendations to EPA through  
17 a public comment on the proposal, specifically on  
18 how to address reliability issues in the context  
19 of the Clean Power Plan.

20 EPA is working to address these comments and  
21 finalize the Clean Power Plan and DOE will  
22 continue to offer its technical expertise to work  
23 with EPA upon their request.

24 DOE appreciates that many of the reliability  
25 coordinators have offered to help their states in

1 developing compliance plans that consider  
2 potential grid reliability implications and  
3 strongly encourages states to work with these  
4 organizations that are responsible for the  
5 reliable operation of the electric system.

6 Let me quickly just highlight a couple  
7 activities the Department of Energy has been doing  
8 in assistance to the states. We offer technical  
9 assistance to the states, resources for state,  
10 local, and tribal governments on topics relevant  
11 to the proposed Clean Power Plan.

12 These resources include tools that may assist  
13 states and tribes as they develop their compliance  
14 plans.

15 For example, DOE with NERUC designed and  
16 conducted energy risk labs several of which have  
17 looked at planning resources and decisions and  
18 implications.

19 In February 2014 we had a meeting that had  
20 over 200 participants from states that explored  
21 the implications and the implementation challenges  
22 and we looked at different options and  
23 opportunities of coordination across states.

24 The Recovery Act, we engaged the transmission  
25 planning efforts through the 300 interconnections.

1 We helped develop tools and capabilities at the  
2 interconnections to look at different scenarios  
3 and to start thinking about policy implications  
4 and the need for transmission investment and  
5 infrastructure investments.

6 More broadly, we are continuing to work with  
7 the states on comprehensive system reliability  
8 plans and we will encourage regulators within a  
9 state and neighboring states to address the  
10 spectrum of issues and system challenges that  
11 states are facing.

12 Specifically, in 2016, we have \$27.5 million  
13 in the 2016 budget to look at state energy  
14 reliability grants for electricity, transmission  
15 storage, that will provide awards to states,  
16 localities, regions, tribes for long term energy  
17 system planning and integrate reliability,  
18 efficiency, environmental protection, climate  
19 resiliency planning and any sort of actions that  
20 will help with the building of transmission  
21 storage and distribution infrastructure.

22 These reliability grants would be offered to  
23 all 50 states as well as local, regional, tribal  
24 and territorial entities.

25 We would like to continue to work with the

1 states in developing tools and capabilities.

2 Finally, DOE under the Federal Power Act also  
3 provides the legal tools for ensuring grid  
4 reliability.

5 Under Section 202(c) the Secretary has the  
6 authority to order a generator to operate in  
7 emergency conditions.

8 We recognize this as a tool of last resort  
9 but it is also a tool that is available for  
10 unforeseen circumstances.

11 If I can summarize my three "asks" real  
12 quick, my first ask has already been mentioned and  
13 that is to educate.

14 Reliability is critical. We need to educate  
15 everybody and understanding what is reliability  
16 and what it means for the electric system.

17 This is a great forum and opportunity to  
18 educate everyone on reliability. If we do not  
19 bend we are behind the ball and truly getting  
20 people to understand how the grid operates and  
21 what is reliability.

22 Two, consistent analysis, terminology and  
23 guidance. I ask the interconnection, the ISOs,  
24 the reliability coordinators to be consistent as  
25 they look at in presenting reliability

1           implications and information to whether it is  
2           consumers, air regulators or utility commissions.

3           For example, things that are at risk, what is  
4           the status of new editions, efficiency as it is  
5           being advanced in the states, realtime scheduling  
6           and modeling on a regular basis so that realtime  
7           feedback can be provided.

8           It is very important to have this information  
9           understandable and accessible.

10          Third, if there anything that you can do to  
11          facilitate continued investment in infrastructure  
12          whether that be transmission or gas  
13          infrastructure.

14          From my perspective it is looking at the  
15          ability to streamline any sort of permitting, the  
16          NEPA reviews, and doing the proper due diligence  
17          but making sure that infrastructure keeps pace  
18          with the needs of the United States and moving  
19          things forward.

20          So climate is very important, but reliability  
21          is also very important.

22          Thank you and this concludes my remarks and I  
23          look forward to the discussion.

24          CHAIRMAN LAFLEUR: Thank you very much Assistant  
25          Secretary Hoffman. We are going to try to keep

1           our questions real brief, but I believe  
2           Commissioner Moeller has a question.

3           COMMISSIONER MOELLER: Just a point. Doctor, it is  
4           always good to see you. Thanks for being here.

5           But since you and I have testified in front  
6           of Congress on the subject you know what is  
7           coming.

8           The fact that our former colleague Mark  
9           Spitzer called it the Hobson's Choice of a  
10          generator having to choose which federal law to  
11          violate, the Clean Air Act or the Federal Power  
12          Act, and I believe that Congress really ought to  
13          at least take a look at this issue because it is  
14          not fair to generators if they are being pulled in  
15          both directions for the sake of reliability.  
16          Thanks again for being here.

17          CHAIRMAN LAFLEUR: Thank you, Madame Secretary,  
18          you are off the hook for today, but this  
19          conversation is just starting.

20          I would like to next call on president Lisa  
21          Edgar, the president of the National Association  
22          of Regulatory Utility Commissioners.

23          In her day job she is on the Florida Public  
24          Service Commission. She has been in Washington,  
25          DC with NERUC since Friday and she is from

1 Florida, so we are going to let her get on a plane  
2 because we want to hear from her on behalf of  
3 NERUC this morning.

4 MS. EDGAR: Thank you so much, Chairman  
5 LaFleur, Commissioners, this is my first  
6 opportunity to be here in this room live and in  
7 person and see at FERC you do this close, thank  
8 you so much for the opportunity and thank you on  
9 behalf of NERUC for your participation in our  
10 meetings this week and for your ongoing support.

11 As you mentioned it has been a long week for  
12 me here in Washington, but very very productive  
13 and each of you and your staffs have helped us.

14 As the Chairman mentioned I am as always kind  
15 of wearing two hats this morning. For the record,  
16 I am a commissioner for the Florida Public Service  
17 Commission in a job and a role that I have held  
18 for ten years and this year I have the honor of  
19 serving as president of NERUC.

20 As you know our members are the public  
21 utility regulators in all 50 states and the U.S.  
22 territories and our mission is to educate and to  
23 advocate for effective regulation in the public  
24 interest very much in keeping with the discussions  
25 today.

1           On behalf of NERUC, I want to formally and  
2           officially today thank you for holding this series  
3           of technical conferences.

4           We have several state commissioners who are  
5           participating today and more will take part in the  
6           regional conferences that you are having in the  
7           next few weeks.

8           I also want to thank all of the other  
9           panelists for all of their good work, hard work  
10          and long work that they have put in to be ready  
11          for today and also over all of the months and  
12          recognizing particularly to my right, I am going  
13          to surprise her here, Ms. Dunn, with ECOS, the  
14          Environmental Council of the States, this is the  
15          second time in all of the ten years that I have  
16          been doing this, but this is the second time in  
17          about two weeks that she and I have worked  
18          together on a panel and the fact that you have  
19          this date an association of utility regulators and  
20          state association of the environmental secretaries  
21          together on this topic, those go a long way to  
22          show that coast to coast, states to states, region  
23          to region, this issue has brought environmental  
24          regulators and economic regulators together for  
25          discussions.

1           Today's discussion is essential so that  
2           reliability, regional considerations and consumer  
3           impacts are addressed as the EPA finalizes its  
4           rule.

5           NERUC as you know is a very diverse and  
6           vibrant organization as evidenced by the amount in  
7           range of comments that our members sent to EPA on  
8           the proposed rule.

9           Although our organization has taken no  
10          position on the overall plan, we have been able to  
11          reach consensus on some of the major points.

12          The most important and the most relevant for  
13          today's meeting is that the EPA rule requirements  
14          must not negatively harm the reliability of the  
15          electric power system.

16          As economic regulators ensuring the safe and  
17          reliable delivery of utility services in our  
18          states adjust in reasonable rates is our  
19          responsibility.

20          Every decision we make is based on the  
21          underlying notion that reliability of the system  
22          is paramount for public health, for public safety  
23          and for our local economies.

24          As you know the specifics vary state to state  
25          and region to region, but it is important to take

1 notice that a number of our members in their  
2 comments to EPA did raise reliability concerns.

3 In addition, states like Ohio, Virginia, and  
4 others have referenced the NERUC study on  
5 potential reliability impacts and I know you will  
6 be hearing more about that today as well.

7 In keeping with the theme of state and  
8 regional differences it should also be noted, of  
9 course, that some state commissions did not raise  
10 concerns about reliability.

11 At the same time many states have questions  
12 about infrastructure and whether we have pipeline  
13 capacity needed to anticipate increase in natural  
14 gas use to comply with the proposal.

15 These infrastructure concerns also extend to  
16 the electricity transmission lines.

17 In some cases additional renewable energy  
18 will require additional transmission lines and as  
19 we all know deciding process for linear  
20 infrastructure for both gas and electricity is  
21 time consuming and it is often contentious.

22 And of course new infrastructure is expensive  
23 and these costs will likely land on rate payers  
24 and many already overburdened.

25 Utility rates and reliability are the

1 responsibility of state commissions and FERC and  
2 that is why these discussions are so important.

3 We need to make sure that reliability and  
4 cost impacts are considered in the final rule and  
5 that the federally mandated costs and  
6 implementation requirements are well understood.

7 Speaking specifically for just a moment from  
8 Florida, the Florida Public Service Commission has  
9 exclusive jurisdiction over the planning,  
10 development and maintenance of a coordinated  
11 electric power grid throughout Florida to assure  
12 an adequate and reliable source of energy.

13 Intrusion by EPA into these matters could  
14 interfere with our jurisdiction over the  
15 generation and distribution of electricity.

16 Florida's electricity grid and with the  
17 economic regulation of electric retail service.

18 In addition, the proposed rule potentially  
19 compromises Florida's ability to maintain a  
20 diverse generation fuel source mix.

21 The rapid addition of large scale  
22 intermittent generating resources may compromise  
23 grid reliability.

24 Of course, without knowing the final  
25 implementation requirements individual utilities

1 will not be able to determine the most cost  
2 effective compliance plan.

3 So no matter your perspective on the EPA's  
4 Clean Power Plan, it will only work if we are able  
5 to maintain and improve upon the reliability of  
6 the electricity system.

7 It must be technically and economically  
8 feasible.

9 FERC's role in helping us all work through  
10 these issues cannot be underestimated.

11 As stated earlier very knowledgeable state  
12 commissioners are here today and will be with you  
13 at your next conferences and I know that they are  
14 very much looking forward to your questions and  
15 this opportunity to respond and engage.

16 So, Chair, Commissioners, thank you again on  
17 behalf of NERUC for allowing me to participate  
18 this morning and for your support of the overall  
19 work that we do.

20 CHAIRMAN LAFLEUR: Thank you very much,  
21 President Edgar. Anyone wish to ask the NERUC  
22 president a question first?

23 COMMISSIONER CLARK: Mine is not a question, but  
24 just an observation. President Edgar, thank you  
25 for being here and Secretary Hoffman as well.

1           There is something that was common in both of  
2           your comments was this issue of infrastructure  
3           development and the challenges associated with  
4           linear projects especially pipelines which tends  
5           to be more federal activity, transmission lines  
6           which tend to be a marked stayed activities.

7           I just want to thank you for bringing that  
8           up, and Secretary Hoffman for your comments as  
9           well for emphasizing that and for the work that  
10          you are doing within the federal government in the  
11          administration to bring that issue to a head, I  
12          hope you will share that sentiment throughout the  
13          administration.

14          I have some concerns with some pending  
15          proposals in places like CEQ and a few other  
16          things that I have heard around that may make it  
17          more difficult to build those kinds of projects as  
18          opposed to easier in a time when we will probably  
19          need a lot more of them, so thanks for your  
20          efforts in bringing that issue to the forefront.

21          CHAIRMAN LAFLEUR: Thank you very much for being  
22          here and we really look forward to the continued  
23          engagement with our colleagues at the state level  
24          both in these conferences and then in all the  
25          things that will be working on going forward.

1           I want to welcome and introduce the rest of  
2           the panel beginning with Alexandra Dunn who was  
3           sitting to Lisa's right who is the executive  
4           director and general counsel of the Environmental  
5           Council of the States, welcome to this conference  
6           and welcome to FERC.

7           I am not sure that we have had you here  
8           before.

9           Not new, however, is Gerry Cauley of NERC who  
10          has to be some kind of all star tech conference  
11          participant and we are happy to have you here.

12          Craig Glazer of PJM on behalf of the ISO RTO  
13          Council.

14          Gerard Anderson of DTE Energy on behalf of  
15          the Edison Electrical Institute.

16          Sue Kelly, the CEO of the American Public  
17          Power Association.

18          Jay Morrison, vice president of regulatory  
19          affairs of the National Rural Electric Cooperative  
20          Association.

21          And John Moore who is the senior attorney at  
22          the Sustainable FERC Project.

23          Thank you very much for being here.

24          I have been through all of your testimony that  
25          was submitted and I am going to try to do this,

1 and if it does not work on this panel, we are not  
2 going to do it again, but we definitely do not  
3 want you in any way to read your statements.

4 Just to kickoff the discussion, I would like  
5 to give each of you no more than a minute or two  
6 to say what are the top one or two things you want  
7 to say to FERC.

8 It is not what you want to say to the EPA,  
9 although I have read some of those comments as  
10 well, but it is what you want to say to us about  
11 what we have to be doing today and going forward  
12 on reliability.

13 Beginning with Ms. Dunn.

14 MS. DUNN: Great and thank you for the  
15 welcome, Chairman LaFleur, and it is really nice  
16 to be here in front of you and I think the fact  
17 that this is my first time here, and as Ms.  
18 Edgar's comments indicate that this rule has sort  
19 of brought different solar systems into direct  
20 collision.

21 We have been merrily going about our ways  
22 since the 1970s implementing as environmental  
23 secretaries around the country, the Clean Air Act,  
24 the Clean Water Act, and all the other panoply of  
25 environmental laws and regulation, and as Janet

1 McCabe mentioned many of them have an impact on  
2 economy.

3 They have an impact on industry. They have  
4 an impact on people and communities.

5 So answer your question specifically, what  
6 can FERC do to help state commissioners?

7 My members have to write the plans and I will  
8 tell you that last week with my officers we speak  
9 every Wednesday morning, I ask them, "What are you  
10 doing right now? Are you working on your plan?  
11 Everyone wants to know. Are you working on your  
12 plan?"

13 It may disappoint this room to hear that the  
14 answer is no. States are not working on their  
15 plans right now because it is too uncertain.

16 The time and the resources to begin working  
17 on a plan now for something that might change in a  
18 final rule that comes out in the late summer is  
19 something that states don't have the capacity to  
20 do.

21 We all live in constrained environments. We  
22 are facing new regulations every day from the  
23 ministration as well as existing regulations and  
24 so what states are actually doing is awaiting the  
25 final rule.

1           That doesn't mean that they are sitting on  
2           their hands and I don't want to imply that.

3           What they are doing now is taking advantage  
4           of conversations like this one, learning, meeting  
5           with their PUC counterparts, getting to know one  
6           another, making new connections, meeting with  
7           their ISOs and all the other organizations and  
8           stakeholders, the utilities.

9           But I will express a concern and here is  
10          where FERC can help perhaps is to kind of "juice  
11          things along" in terms of the importance of the  
12          conversations happening not too late that we  
13          cannot make smart decisions.

14          The types of decisions and the schedule at  
15          which they have to be made is intense and Janet  
16          McCabe mentioned that we have got 2016, 2017, and  
17          2018 to deliver plans.

18          I have had states say, "I don't have time to  
19          work across state lines. I am going to have to  
20          write a plan that is just about my state."

21          Here we have this incredible opportunity in  
22          many ways to look ahead for the U.S. for the  
23          future of how we handle our energy portfolios and  
24          reliability, but I am afraid that will not have  
25          the right amount of time to do it well and we are

1           dealing with a bit of an awkward tool, 111(d), of  
2           the Clean Air Act.

3           What FERC can do to help is much like we  
4           heard from the Secretary from Energy is to make  
5           states aware of the resources that you bring to  
6           help them make better decisions on and these  
7           convenings that you are creating now are  
8           incredibly important to get the smart thinking  
9           done early because people are going to put pen to  
10          paper sometime late this summer and it is going to  
11          be quick. It is going to be quick and it has to  
12          be done well.

13          CHAIRMAN LAFLEUR: Thank you very much. That  
14          really puts us in the head of the folks in the  
15          states who are actually having to write these  
16          plans.

17          Gerry?

18          MR. CAULEY: Thank you, Chairman LaFleur,  
19          especially for surprising us with your opening  
20          remarks. That is great.

21          I did want to say we have seen the NAERC work  
22          on reliability assessments and we see that as a  
23          progression.

24          We have done an initial view really just to  
25          set the table in terms of what the issues are.

1           I do want to assure the Commission that the  
2 issues are real. We are actually seeing in our  
3 long-term assessment that we put out in fall, in  
4 addition to the initial EPA Report, there are  
5 currently shortages that we are projecting in some  
6 regions of the country.

7           There is gas infrastructure support issues.  
8 There are emerging issues on renewable  
9 penetration. So those are real.

10           The evolving reliability picture is going to  
11 change. It is going to be very dynamic. We are  
12 getting new data every few months, annually, and  
13 we are updating a report, so it is going to be  
14 something that is going take a lot of ongoing  
15 attention going forward, and as the plans emerge,  
16 as we understand what the states will do, what the  
17 RTOs will do it is going to become clearer and  
18 clearer.

19           NAERC cannot live with positive assertions  
20 that reliability will not be a problem. We  
21 require our entities to do studies to verify and  
22 validate the system that the will be adequate,  
23 transmission deliverability will be adequate and  
24 it is not optional and so this work has to take  
25 place.

1           One "ask" that I would have of the Commission  
2           is to help us carry that message with the EPA.  
3           There is an opportunity to ensure that that  
4           dialogue and relationship is substantially more  
5           robust than it has been previously.

6           It has been very positive in the last few  
7           months but to make sure that the message is really  
8           carried and the work that the negotiations take  
9           place.

10          With regard to states, I see a particular  
11          challenge there of interpreting the four building  
12          blocks and then the requirement to meet carbon  
13          reduction targets at the state level has a severe  
14          risk for reliability of creating a patchwork sort  
15          of mosaic of plans that don't really integrate  
16          well and don't fit the other and are not flexible  
17          from the overall grid perspective in terms of  
18          severe events, severe cold, fuel shortages, and  
19          how you really make sure the overall grid is  
20          robust.

21          We are strongly encouraging, if not regional  
22          coordination, at least cross state coordination  
23          and the development of these plans to make sure  
24          that there is maximum flexibility and diversity of  
25          resources to not only meet the carbon reduction

1 requirements, but also the reliability rules.

2 We are proposing that a progressive phase-in  
3 of the targets is going to be essential for  
4 reliability particularly on certain regions and we  
5 are also proposing that the safety valve will be  
6 essential.

7 I happen to believe that not a lot of work  
8 has been done on the safety valve yet, but I would  
9 propose today that FERC needs to have a strong  
10 role on that.

11 This is not going to be the one unit by one  
12 unit issue. This is going to be regional. There  
13 are going to be shortages in areas and there will  
14 be stability challenges of particular parts and  
15 the system is just going to take a broader set of  
16 review and actions and I can provide further  
17 comment on that.

18 The Commission is going to have a role and  
19 essential reliability services ensuring that new  
20 forms of generation, particularly wind and solar  
21 are providing their fair share of essential  
22 reliability services to the grid.

23 There have been many assertions that we have  
24 integrated a lot in the past, and we have, but the  
25 grid does not live on the past, the grid lives on

1 the future, so we have to look at in declining of  
2 baseload units that we are going to be running  
3 short on essential services, the Commission has a  
4 role to recognize that and evaluate proposals to  
5 require those services going forward.

6 Thank you.

7 CHAIRMAN LAFLEUR: Thank you. Craig?

8 MR. GLAZER: Thank you, Chairman LaFleur, and  
9 Commissioners. I have got the unenviable position  
10 today of speaking for states with opinions as  
11 diverse as California, Texas, New Jersey and  
12 Arkansas and the RTO serving those regions, not  
13 the states, but the RTOs, and as a result you may  
14 watch me become a rendition of a human pretzel as  
15 the day goes forward, so just bear with it as we  
16 go through those questions.

17  
18 This is a town of sound bytes as I have learned  
19 over the years, and the term "reliability safety  
20 valve," which if I recall, the IRC actually coined  
21 that phrase, has become something of its own sound  
22 byte. Everybody's for it, but nobody can define  
23 it.

24 The good news is we as the ISO RTO Council  
25 took that charge seriously and actually have put a

1 lot of work into the defining it.

2 Attached to our comments actually are  
3 attachments where we submitted to EPA not just the  
4 concepts, but specific language, specific rule  
5 language as to how this works, and as we get into  
6 the discussion, I will be happy to go through  
7 that.

8 In response to your admonition let me just  
9 cover two high-level points very quickly.

10 One is, it is really important in our view to  
11 write the processes into the final rule itself.

12 I was here when we went through the Potomac  
13 River and MATS quite frankly where we had to go to  
14 the DOE Secretary, it is not great to do these  
15 processes on the fly.

16 It is also not great when the Commission has  
17 all of these ex parte rules about it that really  
18 made communication with you all difficult.

19 We have got to write these processes  
20 into the rule itself, and frankly, Commissioner  
21 Clark, there actually is a way to solve, not  
22 totally solve, but at least to address this  
23 litigation problem because if you think about it,  
24 if you write the reliability safety valve into the  
25 rule itself it is harder for a district court

1 judge to find that you violated the rule that in  
2 itself contains a safety valve and it might be a  
3 way to address some of this Catch-22 that the  
4 Commissioner Moeller and Commissioner Clark you  
5 both mentioned with regard to litigation and so  
6 for the lawyers in the room there are some  
7 creative ways to address that.

8 So process Question 1 is to get it written  
9 into the rule.

10 Point number two. You have got a lot of good  
11 foundations here and you have got a lot of  
12 jurisdictional hooks be it Order 1000, be it your  
13 pipeline authority, your authority overcapacity  
14 markets, you have got a lot of good hooks.

15 What we need and what we have spent time  
16 laying out is processes to break logjams.  
17 Processes for at the end of the day, the EPA  
18 administrator has to make the decision what gets  
19 submitted in front of her on this, what role you  
20 have, we really have given that some thought and  
21 we think that getting those processes specified  
22 will help to set a clear path.

23 It is not one to make up as we go along.

24 Thank you.

25 CHAIRMAN LAFLEUR: Thank you. Gerry?

1           MR. ANDERSON: Good morning, thank you  
2           Chairman LaFleur, I am here representing EEI's  
3           member companies which is a large group of  
4           companies and sometimes not all that easy to bring  
5           to consensus on issues.

6           That was not the case here. We pretty  
7           quickly reached consensus on the issue of greatest  
8           concern in the Clean Power Plan. It is a  
9           reliability concern and it focuses on the 2020  
10          Interim Compliant Standard.

11          I think it's fair to say that the Clean Power  
12          Plan is the most fundamental transformation of our  
13          bulk power system that we have ever undertaken and  
14          it is not hyperbole. If you look back over the  
15          past 50 years we built some baseload power plants  
16          in the 1960s and 1970s at large scale, but nothing  
17          like the transformation that we are about to  
18          undertake.

19          So that perks us up.

20          The 2020 standard has 80% of the states  
21          implementing 50% of that compliance by 2020 which  
22          would amount to probably a year and a half or so  
23          after states actually might have their compliance  
24          plans approved and I will describe that in a  
25          minute.

1           There's a group of states, eleven of us,  
2 Michigan is one of them that meets 75% of the  
3 compliance done within that time frame and I would  
4 suggest that that borders on unachievable but from  
5 a reliability perspective would certainly be ill  
6 advised.

7           Now why is that? Why can't we take that on?  
8 Well, in MISO just to give you a sense for the  
9 scale we will be, it is projected, removing 85  
10 coal producing units and 20 of those are projected  
11 to come out in Michigan, twelve of those in my  
12 company.

13           In our state we will be removing 30% of the  
14 peak production capacity and about 40% of the  
15 energy production, so this is very fundamental.

16           And to take on 75% of that within a couple  
17 years you can see is a herculean task.

18           You also run into some very practical issues  
19 around time frames, but we tend to think of that  
20 in terms of how long it takes to build things, but  
21 we really need to think of what needs to happen  
22 before anybody can build anything.

23           In my state we are working on enabling  
24 legislation currently. We hope to pass that this  
25 year. I don't know if we will. Now that will

1           happen in many states.

2           We will then need to move from enabling with  
3           legislation to the development of the state  
4           implementation plan. It is true. People are not  
5           working on implementation plans because we don't  
6           have a final rule and we don't have agreement on  
7           our status to what our portfolio should look like  
8           in the future.

9           We probably will play out optimistically the  
10          state implementation plan by mid 2017, but that  
11          does not put us in a position to invest because  
12          the State Implementation Plan that needs to be  
13          taken to regulatory approvals and these  
14          investments are multibillion-dollar slates of  
15          investments and our Commissions need to weigh in  
16          on whether those investments are prudent, done in  
17          the right order, and so forth.

18          So in mid 2017 we would be optimistic to say  
19          that regulatory approvals take a year, mid 2018, I  
20          described the transformation that we would need to  
21          have done by 2020, it simply is not achievable in  
22          that time frame especially since the assets like  
23          combined cycles really from conception to  
24          completion are five years, construction may be  
25          three, but there is work that comes before

1 construction.

2 Pipelines, we develop a lot of them, five to  
3 six years is typical. For pipelines from  
4 conception to completion and transmission  
5 construction time frames are longer.

6 I would say the issue that we rally around is  
7 an industry and achieved a remarkable degree of  
8 consensus around is that the front end of this  
9 plan is compressed in a way that threatens  
10 reliability and what is most needed is a glide  
11 path to the 2030 timeframe which is more  
12 reasonable, allows for careful planning to take  
13 place, regional coordination to take place, assets  
14 to be built in a well engineered way, and so  
15 forth, and if we do that, it is advisable to have  
16 other safety mechanisms like a reliability safety  
17 valve, but perhaps there should be second-order  
18 solutions.

19 The first order solution should be the time  
20 line that allows our companies to undertake this  
21 in an orderly well-planned way and I would suggest  
22 that we don't have that right now.

23 In terms of your role, you have expertise in  
24 this area and good government would suggest that  
25 an act of dialogue between you and EPA to make

1           sure that that time line is defined in the way  
2           that it should and you can do that before the  
3           final rule is released and after the final rule is  
4           released it would be advisable for you to hold  
5           technical conferences to see if in fact liability  
6           experts and companies believe that those goals  
7           have been met.

8           Thank you.

9           CHAIRMAN LAFLEUR: Thank you. We are now  
10          turning to Sue Kelly. Let me ask folks, in  
11          particular, to add things that haven't been said  
12          so we can move to the questions, but thank you.

13          MS. KELLY: Not a problem, I will comply.  
14          Thank you very much for the opportunity to speak.

15          I am going to go straight to our "asks" of  
16          you as the Commission. We obviously have lots of  
17          thoughts on the actual rule over 200 pages of and  
18          will be happy to discuss those if you wish, but my  
19          thought for you all today is to urge you is the  
20          Commission not to be chopped liver.

21          You do have an active role in this process  
22          because you under the Federal Power Act have  
23          important responsibilities to keep rates  
24          reasonable, to assure the reliability the Bulk  
25          Power System and we believe that EPA's rule

1           because they have chosen to take such an expansive  
2           view of what BSER is they really have swept you  
3           into the maelstrom whether you really want to be  
4           there or not.

5                     But you are there now and you need to be  
6           involved and extremely active and so here is my  
7           list of asks for you.

8                     You need to play a vital role in shaping the  
9           rule before it is issued. That means now. You  
10          heard System Administrator McCabe talk about the  
11          teachable moment therein, so I urge you to take  
12          advantage of that.

13                    You need to support NEARC's ongoing analysis  
14          of the EPA results of that plan and to help put  
15          those forward at EPA.

16                    You need to support the inclusion of a  
17          reliability safety valve in the final rule.

18                    And let me just say, again, it was mentioned  
19          this morning of the procedure that was used in the  
20          MATS rule, that is a less than ideal process.

21                    We had one of our members, the Kansas City  
22          Board of Public Utilities Commission run the  
23          gauntlet that it took to gain that relief. We  
24          thank you very much for the order that you  
25          granted, but that just proved to us that that is

1 not a good way to proceed.

2 It needs to be built into the rule itself,  
3 not bolted on in the form of some kind of  
4 memorandum, and it needs to make sure that those  
5 who are asking for it because it may be entire  
6 states and regions are not considered to be in  
7 violation of the Clean Air Act before they  
8 actually get their relief.

9 Enough said about that.

10 Obviously willing to work with Craig and  
11 anybody else who wants to on the wording of that  
12 reliability safety valve should look like.

13 You should support the recommendation to EPA  
14 echoed by many states and other stakeholders for  
15 more time.

16 I won't go into the 2020 goals that was  
17 handled very well, but we have states for which  
18 that is not workable.

19 We would like you to continue to seek  
20 improvements and efficiencies in coordination  
21 between the natural gas and electricity sector,  
22 you are ideally suited to do that.

23 We would like you to think about expediting  
24 approval for new infrastructure additions that are  
25 needed to support, for example, new gas pipelines.

1           We have had a vivid useful demonstration this  
2 morning of some of the difficulties of doing that,  
3 but the fact of the matter is, is that Block 2 is  
4 all about more use of natural gas and we need to  
5 try and help make that happen, although I am not  
6 as optimistic as the EPA about the ease of doing  
7 that or the prices will stay low.

8           You need to provide guidance to states and  
9 other stakeholders on how to reflect public policy  
10 requirements in the Order 1000 planning process  
11 and I would be remiss here if I did not mention my  
12 favorite section of the Federal Power Act, Section  
13 217 before which requires you when you are using  
14 your transmission planning authorities to make  
15 sure that load serving entities get the  
16 requirements they need to meet their loads.

17           The last thing I am going to mention. I  
18 would be remiss if I didn't mention that as well.

19           You need to relook at your RTO market  
20 structures to see what will work and what goes  
21 forward and what does not work. I realize there's  
22 another panel on this, but I will just say that we  
23 have felt for some time that the current mandatory  
24 capacity markets in the eastern style RTOs do not  
25 do the best job of supporting and developing the

1 new resource mix we are going to need to meet this  
2 rule and that is going to become apparent very  
3 soon.

4 Thank you.

5 CHAIRMAN LAFLEUR: Thank you very much for the  
6 specificity of your suggestions to us, although  
7 the thought of being chopped liver in a maelstrom  
8 is almost more -- I might have to take a recess  
9 now.

10 Mr. Morrison?

11 MR. MORRISON: Thank you very much, and good  
12 morning. Thank you for the opportunity to speak  
13 this morning.

14 When Sue mentioned chopped liver all I could  
15 remember was the old statement, "I am not a potted  
16 plant."

17 Please do not be a potted plant in this  
18 instance. Please do be very active in our "asks"  
19 for you are to be very involved with the EPA to  
20 help educate them about some of the challenges  
21 that the industry is going to face.

22 Let me just highlight a couple of those that  
23 we hope you will be discussing with the EPA.

24 The first one was already mentioned which is  
25 the early cliff challenge. I would be happy to go

1           into detail at some point about some of the  
2           concerns that our members have raised about how we  
3           could possibly meet that 2020 deadline.

4           Our members are also concerned even with the  
5           2030 deadline in some states. They are hoping  
6           that there will be flexibility in the glide path  
7           that the states are allowed to adopt to reflect  
8           their local conditions.

9           The first issue is that short-term cliff, the  
10          short-term implementation challenges.

11          There is also the relationship to the  
12          reliability analysis that NEARC and the RTOs and  
13          others will be doing.

14          We do need to be looking at the SIPs  
15          individually and how they work together to make  
16          sure that at the point of implementation we are  
17          not looking at reliability problems.

18          The EPA needs to be flexible to allow the  
19          time to adjust SIPs in light of whatever that  
20          analysis might be so that the whole system is  
21          working together.

22          But there is also long-term liability  
23          challenges. It is not just what does the system  
24          look like in year one?

25          The EPA's approach of bundling the entire

1 electric system into a CO2 only analysis ignores  
2 some things that are very important to the  
3 operation of the system like fuel diversity.

4 If once we close coal plants in the first  
5 years in order to meet the initial requirements we  
6 find that we have needed them for fuel diversity  
7 issues.

8 If we had needed them for system support they  
9 are gone, and once they are gone we can't bring  
10 them back, and so we need to be working in the  
11 analysis up front at what the long-term need is  
12 for the resources and we need to be able to adjust  
13 the targets to allow us to have a resource  
14 portfolio that meets all of our needs.

15 We also need to be flexible long term because  
16 resources on the system change, if a nuclear plant  
17 goes down, if new fish rules mean that we cannot  
18 get as much hydro out of the dams that we expect  
19 we are not going to be able to meet the targets  
20 that were set based on 2012 assumptions about the  
21 resources that are available.

22 That's why we talk in our comments about a  
23 dynamic reliability safety valve. This is not  
24 just upfront additional time, though, that is  
25 needed.

1           This is not just upfront flexibility and  
2           adjusting the targets based on 2016, 2017, 2018  
3           conditions. This is the ability to adjust things  
4           in 2028, 2032, 2034 as resources come and go on  
5           the system as a result of factors entirely beyond  
6           the control of states.

7           We had one member in a highly heavily nuclear  
8           state say, "In order to plan for N-1, we would  
9           have to build a second nuclear plant, an  
10          additional nuclear plant so that it is available  
11          to comply with the EPA rules should one of our  
12          plants go down."

13          Consumers cannot afford that. That doesn't  
14          make sense in the operation of the system. We  
15          need flexibility long term in that safety valve to  
16          adjust to changing resources.

17          The final ask for you is that you consider as  
18          you implement the market rules that allow the CPP  
19          to be implemented and as you talk to the EPA about  
20          what this looks like, to recognize that  
21          reliability and affordability are two sides of the  
22          same coin.

23          We have already heard talk about being stuck  
24          between compliance and keeping the lights on. We  
25          don't want to be stuck between that silla and that

1 caribedis, but there is a third hazard in these  
2 waters and that is that we keep the lights on that  
3 consumers cannot afford to flip the switch.

4 So we need to be able to ensure that we can  
5 comply, that we can keep the lights on, and can  
6 keep power affordable which means that that rule,  
7 those targets, need to be flexible as we do our  
8 analysis and look at what the cost of vocations  
9 are going to be as well as the reliability ones.

10 Thank you.

11 CHAIRMAN LAFLEUR: Thank you. Mr. Moore?

12 MR. MOORE: Thank you very much, Chairman  
13 LaFleur, and Commissioners.

14 You can trust that I will not necessarily  
15 repeat everything I have just heard from the same  
16 perspective.

17 I say that with a couple of points in mind.  
18 First of all, the Clean Power Plan is attractive  
19 to the Sustainable FERC Project coalition of  
20 national, regional, local environmental and clean  
21 energy groups in part because it provides so much  
22 flexibility of the type that we have heard of and  
23 heard about today in NERUC and in the proposal  
24 itself, flexibility to use banking emissions  
25 allowances, credits over a 15-year time period,

1 flexibility over resource diversity, including  
2 significant demand side resources and flexibility  
3 to come together, for states to come together  
4 regionally, two or three states together, it  
5 doesn't all have to be an entire region, but it  
6 gives states a lot of flexibility in that  
7 perspective in that way.

8 One of the themes that I have heard from EEI  
9 and others is the timing issue. The rule does not  
10 have a 2020 cliff and we strongly disagree with  
11 the idea that resources are all facing that  
12 deadline because as long as the average emission  
13 rate targets over the 2020 to 2029 period are met,  
14 the state can remain in compliance as long as they  
15 make adjustments down the road.

16 But there is no cliff and that is one of the  
17 reasons we disagreed with the modeling that a  
18 couple of the regions have done on this.

19 Power plants are not going to retire all in  
20 2020. Many will remain economically viable and  
21 modeling that the PJM is already done shows how  
22 power plants move forward and don't just fall off  
23 a cliff.

24 The other point is we spend a lot of time  
25 talking about what resources are going to retire.

1 We need to spend as much time talking about what  
2 new resources will come on to this system beyond  
3 just the levels in the building blocks.

4 This is really important to know and I think  
5 there is a fair amount of time to talk about it,  
6 but EPA assumed really marginal levels of  
7 renewable energy in the building Block Number 3,  
8 for example.

9 Many states are already at or very close to  
10 their building block level targets. The building  
11 block levels are not the required levels. It is  
12 the actual targets to meet.

13 When we talk about the modeling of  
14 retirements, we also need to be talking about the  
15 more accurate modeling of new resources into the  
16 system, so with that part, with that background, I  
17 will quickly say that our priorities here today,  
18 and in the future with FERC, number one, are for  
19 of course we absolutely support FERC's strong  
20 involvement in this process and as you will hear  
21 in a minute, you will see why we believe that.

22 Because you have built a foundation through  
23 Order 890 and Order 1000, for regional and  
24 interregional planning to work effectively the  
25 sole system needs cost effectively and efficiently

1 and that means in a perfect system bringing  
2 together the grid operators in the regions and the  
3 states together to work on solving system  
4 problems.

5 We are concerned at the regional level that  
6 that is not really yet happening with respect to  
7 such things as demand-side alternatives to meet  
8 system needs, a non-transmission alternatives and  
9 that includes generation, not just energy  
10 efficiency and demand response.

11 We have seen in planning in the regions how  
12 difficult it is to identify those non-transmission  
13 alternatives including generation when ripe to  
14 solve reliability problems.

15 We think the Clean Power Plan is going to be  
16 a stimulus for that interregionally.

17 Just getting off the ground, I am very  
18 curious to see what that MISO SPP order says.

19 Interregional planning has a lot to go  
20 because we haven't seen in the year or two that  
21 the some of the regions have been working  
22 together. We have seen almost no interregional  
23 projects.

24 Really to get some of those in a long  
25 transmission lines built to deliver wind power

1           between regions you are going to have a better  
2           process with agreed upon methods and so we are  
3           very concerned about that.

4           The bottom line on the planning piece is the  
5           modeling and the related planning really has to  
6           rise to a level of best practices because I heard  
7           a lot at the NERUC about getting the modeling  
8           right especially for states to work together  
9           regionally to figure out how they can comply and  
10          FERC has a role there.

11          So we encouraged FERC to do something like  
12          you did with the fuel assurance order and ask  
13          regions moving forward to tell FERC what they are  
14          doing around modeling because there are modeling  
15          best practices to be done.

16          We are concerned with the way NEARC has  
17          approached its modeling so far. We absolutely  
18          agree with NEARC that states and regions need to  
19          be talking together and we agree with that.

20          We do disagree with some of the ways it has  
21          approached the modeling and really just focused on  
22          those building block levels.

23          We would like to work more closely with NEARC  
24          and make that process more transparent for  
25          everyone to participate in the planning the way

1           that is done at the RTO and the regional grid  
2           identity level out west in the south.

3           With those types of concerns supporting  
4           modeling best practices, vibrant regional and  
5           interregional planning, consideration of  
6           non-transmission alternatives in the planning  
7           process that the states bring to the regions we  
8           feel that the reliability safety valve "mechanism"  
9           is going to be needed a lot less than many say.

10          We do really appreciate the ISO RTO proposal  
11          and apart from our need to have offsetting  
12          emissions when you run a plant that is needed for  
13          reliability purposes having a framework  
14          conceptually is very good.

15          CHAIRMAN LAFLEUR: Thank you very much. I will  
16          allow myself one question before I pass the mike  
17          here.

18          I do want to focus in on the reliability  
19          safety valve.

20          Having read all the testimony that came in, I  
21          have really seen sort of five different flavors of  
22          what people mean by that, and I was appreciative  
23          when Administrator McCabe spoke about the good  
24          work we have done on MATS, and I hope that myself  
25          in speeches in spite of the fact that interesting

1 to hear Sue's perspective on the difficulty of  
2 actually having run that gauntlet, the reliability  
3 safety valve that was crafted in MATS is really  
4 quite specific bearing in mind that "mercury and  
5 air toxic" just applies to specific plans, so it  
6 was a very specific protocol for a company to come  
7 in and say, "I would like to keep this plan open,  
8 to describe people," and then Mike Bardee and his  
9 people run specific models under the NEARC  
10 standards and the resource adequacy that the  
11 regions have set out and said, "Does this work or  
12 does it not work?" and that's when we put in our  
13 policy statement.

14 This is just such a different rule because of  
15 the breadth and scope and geographic scope of the  
16 rule.

17 The five that I have seen are the ISO RTO, by  
18 far the most well spelled out, but if I understand  
19 it, it is around the time we are doing the SIP,  
20 the state could come in to FERC and others, and  
21 say, "Help us tell the EPA we need more time for  
22 our SIP," and they have to go through steps of  
23 what assessment they did, what things they tried,  
24 why they need more time kind of proving the  
25 negative that Mr. Moore might have ever agreeing

1 with, that there is nothing else they left on the  
2 table, that they are stuck, they need more time,  
3 and we would see that and then the EPA would make  
4 the decision.

5 Second is, we heard Mr. Morrison, and the  
6 testimony will talk more by dynamic reliability  
7 safety valve similar to the first where the state  
8 gets more time where you can come in even later,  
9 and say, "I thought I was going to be here by  
10 2025, but I'm not because of this or that changed,  
11 so I need more time," and then run the gauntlet of  
12 what FERC says and how you make that case to EPA.

13 The third is for FERC to somehow put the map  
14 out and put all the SIPs next to each other and  
15 find places where they do not jive and somehow  
16 look at mutual achievability.

17 The fourth, I would say is more like an  
18 old-fashioned, "Dare I say reliability must run.  
19 We thought we were working towards our SIP, but  
20 now we are not there, so we need to leave the  
21 Jones plant open longer because otherwise we won't  
22 have reliability, so we need an exception for this  
23 plant in some way," and then we would somehow  
24 validate that and figure out how to cost it.

25 Then the fifth is much more of a real-time

1 dispatch thing. You are trying to meet the thing.  
2 You got all the environment things built into your  
3 model and then all of a sudden, you say, "Oh, my  
4 God. Lights are going to go out today." So that  
5 there's a place you can call to say, "I can't do  
6 what I'm supposed to do under the SIP. I need to  
7 do something different out of order that I have  
8 some EPA special Hall pass to do in real time to  
9 keep the lights on."

10 Those are all valve like, but they are very  
11 different.

12 I will start with Craig because you have done  
13 a lot of work on this.

14 If we are going to write this into the rule,  
15 what is it?

16 MR. GLAZER: Thank you. A great question.  
17 Bottom line? That is a great summary, but they  
18 are not mutually exclusive.

19 What you described are five tools that can be  
20 taken out of the tool box at different times and  
21 the concept that we have in the safety valve is a  
22 lot of this upfront work. Does the plan work?  
23 Does the plan have impacts in other regions? Does  
24 the plan need to be sent back using your Order  
25 1000?

1           That is all the preapproval stock that you  
2           just talked about and that is where you can  
3           hardwire in some of the rule itself to deal with  
4           this.

5           Then the second basket is, "Oh, my God, now  
6           the plan is approved, something bad has happened,  
7           we have got to make modifications."

8           I would not want to carve it, and our  
9           proposal has both. I would not want to carve it  
10          between one or the other because this is going to  
11          require both.

12          I will just close with it cannot be a free  
13          pass. No one can come in, and say, "I want to  
14          exempt my state for the next five years because I  
15          just don't want to do this. It is too hard."

16          There has to be a burden on the entity that  
17          is asserting as a reliability problem to show it.

18          CHAIRMAN LAFLEUR: But in your plan which is by  
19          far the most kind of spelled out with language,  
20          and also, I believe one of them, I do not have my  
21          glasses on, this is like you have proved that you  
22          tried everything and you need this.

23          Is not somebody always, and I mean, a lot of  
24          this is not even FERC jurisdictional, but they are  
25          going to come in, and say, "They have not

1 maximized their rooftop solar. There is more they  
2 can do. Some other state has more energy  
3 efficiency."

4 My goodness more energy efficiency than them,  
5 so they could do more energy efficiency and we are  
6 going to be sort of having to look under the hood  
7 at all these states and kind of say, "Yes, but  
8 could you not do this or could you not do that?"  
9 and now we are right in their planning process.

10 That was the stage that kind of, it sounds  
11 rational that you kind of make sure they tried  
12 everything, but how we would be sitting because it  
13 is not as simple as saying to Mike, "Make sure  
14 there is no NEARC standards violations okay," not  
15 that that is simple, but at least we understand  
16 it.

17 MR. GLAZER: Thank you, Chairman. The answer  
18 to that question is you do not regulate energy  
19 efficiency.

20 We are not coming to you asking you to have a  
21 big hearing to see is there more that can be done  
22 in energy efficiency? Just as an example.

23 We really intended that to be a point of  
24 review and discussion between the reliability  
25 entity and the state.

1           You would comment on that, but we are not  
2 asking you to definitively define could there be  
3 more energy efficiency out there, it is the state  
4 plan that is being modified, and it seems to me  
5 that that is a discussion, you provide support for  
6 it, but we are not looking to try that issue in  
7 front of you.

8           CHAIRMAN LAFLEUR: Thank you. I saw Gerry, Jay,  
9 Sue and then Jon.

10          MR. CAULEY: Thank you, Chairman LaFleur.  
11 Just to reiterate? Our feeling of the importance  
12 of having a well thought out safety valve, safety  
13 mechanism, and the whole process, I will start  
14 with the negative which I think your fifth option  
15 does not sound really reliable or practical from a  
16 power reliability standpoint.

17          We expect system owners and operators to  
18 manage and provide for an adequate system. If  
19 somebody finds out tomorrow they are going to have  
20 a problem.

21          We are not looking for there to be a hotline  
22 to call up and solve my problem. Operators have  
23 what they have.

24          If they are unable to support that, they  
25 should shed load, but it is too late if we are

1 down to the last minute trying to save the day  
2 through some administrative process. I don't  
3 think that will work.

4 I do believe that mechanism must be enduring  
5 throughout this transition. We are not going to  
6 be able available to see all the problems up  
7 front.

8 We are not going to see the challenges.  
9 There is too much uncertainty and really what the  
10 safety valve would be built for is to address the  
11 uncertainty.

12 I have a gas pipeline. It's going to solve  
13 my problem. It is going to get me the target, but  
14 it is not developed on time because of the  
15 surprise retirement of a plant that wasn't  
16 expected, or a new plant decides that it is just  
17 going to shut down, impacts my plans on what I had  
18 thought was going to be my roadmap is no longer  
19 there.

20 This has to be a substantive process for the  
21 duration and maybe even beyond 2030 until we  
22 settle out into a stable system.

23 I agree with previous comments, and most  
24 importantly, has to be baked into the final rule  
25 and that requires a lot of negotiation ahead of

1 time between yourselves and the EPA.

2 There are three critical reliability keys  
3 that we have registered with us, transmission  
4 operators, balancing authorities, and liability  
5 coordinators.

6 If they say that they are pinned into a  
7 corner and they are going to violate work  
8 standards and they can project when that will  
9 happen based on their resource projections and  
10 load projections that is an urgent call for  
11 somebody to make a decision.

12 Because of the complexity, all the factors  
13 that may not be unit by unit, in many cases it  
14 will not be, it will be a region, it will be a  
15 zone, it will be a company wide problem, that the  
16 Commission is the foremost best place to make  
17 those decisions.

18 Understand it is probably not as challenging,  
19 was everything else tried, but you are the body  
20 that understands reliability, the equities, and  
21 the cost issues.

22 That relationship needs to be worked out  
23 beforehand with the Department of Energy and the  
24 EPA, and what that will be and then provide  
25 explicit provisions for that in the final rule.

1           CHAIRMAN LAFLEUR: Thank you. Jay?

2           MR. MORRISON: Thank you very much, Chairman  
3 LaFleur. We need to define what the safety valve  
4 protects us from. What the safety valve gets us  
5 in terms of from what are you released in the  
6 safety valve and how we get that protection, what  
7 process is in place?

8           Let me first note that the complexity here,  
9 the complexity that you noted going through all of  
10 those potential RSVs comes from the nature of the  
11 Clean Power Plan.

12           If we had stayed within the fence line in  
13 terms of defining what we needed to accomplish,  
14 then a MATS kind of RSV would make sense.

15           We simply need more time to put in whatever  
16 equipment is required to get the efficiency that  
17 is being asked for. That would be a very simple  
18 process.

19           Unfortunately we are not there.

20           Then we need to look at what are the threats?  
21 There is a short-term threat that is trying to  
22 move too fast that is going to leave us without  
23 the gas, the transmission, the generation capacity  
24 that we need.

25           We need some sort of protection to make sure

1           that the timing of implementation makes sense.

2           The second threat is that we have  
3           overestimated what we can accomplish even given  
4           current resources, even given some more time can  
5           we really get to where the EPA thinks we can get  
6           to in the light of the interaction between each  
7           state's SIP, and other states' SIPs, interregional  
8           challenges that we are going to face, market  
9           challenges in which case can we address the  
10          targets to reflect that reality.

11          And then the third issue is what happens when  
12          the resources are available to us?

13          Gerry mentioned after the 2030 date. Well,  
14          the targets don't go away after 2030. We continue  
15          to be subject to the targets after 2030, but the  
16          nuclear plants in which we rely have set lives.

17          We hope to be able to extend many of those,  
18          but some of them will be shutting down, and when  
19          they do, can we replace a gigawatt of nuclear  
20          power with wind or efficiency? That is going to  
21          be a question for wind plant shutdowns and they  
22          may shut down a lot sooner than we intend.

23          Southern California didn't expect Psalms to  
24          go down, stay down, and then be decommissioned.

25          So we need to have that flexibility for those

1 future contingencies as well, so it is the  
2 short-term, the midterm, the long-term.

3 The protection we need is not just more time.  
4 The protection we need is an adjustment in the  
5 target. If the target is not realistic the target  
6 needs to be adjusted to what we can accomplish.

7 The best system is not one that does not  
8 reflect the resources that are actually available  
9 on the system, so we need to be able to change  
10 those targets, that does have to be baked in, we  
11 can't just get a waiver from FERC Enforcement that  
12 leaves us subject to a citizen's suit or other  
13 challenges because we are not complying with what  
14 we should be complying with.

15 We need to be able to adjust those SIPs  
16 dynamically as the need arises.

17 What that process is we have done some  
18 thinking on that. We need to do more thinking  
19 with our members. We need to do more thinking  
20 with EEI's members and the RTOs and ISOs.

21 We have some ideas, but they are not yet  
22 ready for prime time.

23 CHAIRMAN LAFLEUR: Thank you. I am presuming  
24 that EPA is not going to say to FERC, "You can  
25 adjust the targets, just go forth."

1           It has to be a defined, whatever it is, we  
2           are going to be charged with examining and  
3           advising, will have to be somehow defined if this  
4           is to be actually a workable valve.

5           Ms. Kelly?

6           MS. KELLY: I was a little amused as you were  
7           recounting the five different flavors because this  
8           is so like our industry to take one term and then  
9           pour into it many many different concepts that  
10          people use these things very loosely and then they  
11          all think we all know what we are talking about  
12          and we don't, you just vividly illustrated that.

13          Perhaps one way to trim that menu is to, and  
14          for some reason I thought of the pediatrician, you  
15          go to get your vaccinations and you try to prevent  
16          some diseases before they occur, although that is  
17          a hot topic at this moment as well.

18          For example, some of the things you get to,  
19          if the regional entities, and NEARC, and the  
20          reliability coordinators are involved in the  
21          development of the state plans and sufficient time  
22          is given for them to really take a good look at  
23          them as the plea was made by ECOS, which I concur  
24          in, then you may be able to head off the need for  
25          a reliability safety valve because the plan will

1 make sense and will be doable from a reliability  
2 perspective before it goes to EPA.

3 Another touch point is when EPA is  
4 considering it, that you as an agency assisted by  
5 your ERO, if you see something there that looks  
6 like, "That's going to be a problem you can  
7 intervene at that point and I do not think that  
8 necessarily needs to be a reliability safety  
9 valve.

10 What the safety valve needs to be reserved  
11 for is when it looks like there is going to be a  
12 problem with something that was already approved.

13 That is just my own thinking and, of course,  
14 have I consulted with my members about this?

15 No!

16 CHAIRMAN LAFLEUR: In realtime on regulatory  
17 makes it clear.

18 MS. KELLY: I would just suggest that if you  
19 put it in the prophylactic vaccination thing, how  
20 can we resolve these problems and head them off  
21 before they are put into a final and binding plan,  
22 but then have a meaningful reliability safety  
23 valve that allows for future corrections over a  
24 long continuing period is time that Jay says  
25 because we cannot predict what is going to happen

1 in 2032. That is one way to maybe think about the  
2 limits of it.

3 CHAIRMAN LAFLEUR: Thank you. Mr. Moore?

4 MR. MOORE: You understand our perspective on  
5 why we want to keep the reliability safety valve  
6 parameters fairly tight.

7 It is because if you have an expansive safety  
8 valve or other mechanism, we don't really use the  
9 term valve especially because of its reference to  
10 the MATS, the safety valve, and we do agree this  
11 is a very different sort of situation. It is  
12 different because of that flexibility.

13 If we had a broad safety valve, states would  
14 be less likely to take advantage of the  
15 opportunities and the flexibility available under  
16 the Clean Power Plan to use those diversity of  
17 resources and those three areas of flexibility you  
18 have already mentioned, so we want to keep it  
19 tight.

20 I know from our perspective, and I hope I  
21 don't get any Tweets on this, but we want to see  
22 emissions offsets so that we stick to the target.

23 I have not heard much discussion about that  
24 yet, but that is critical that we stick to a glide  
25 path and that means that really the way EPA has

1 designed the Clean Power Plan it does encourage  
2 regional cooperation at some level.

3 It may not be the entire state plan, but a  
4 part of the plan could be regional and you could  
5 access those credits and allowances if you are in  
6 a MATS-based state or credits in a rates-based  
7 state to help keep the plan going.

8 That is important to recognize.

9 CHAIRMAN LAFLEUR: Thank you, Craig. I saw  
10 exactly when your card went up, but I am going to  
11 try to only do one round here, so I can turn it  
12 over to the next "Lord in Downtown Abbey" here  
13 next to me. Ms. Dunn?

14 MS. DUNN: What I would like to add from this  
15 discussion is, now is the time to be talking about  
16 these issues.

17 EPA is working on a model plan, and for a  
18 long time states said they didn't want a model  
19 plan because funds, when you get a federal model  
20 your state plan doesn't look a lot like the  
21 federal model you run into trouble, right?

22 But EPA wants to show that it can be done.  
23 What is linked with this discussion, and some of  
24 the passionate opinions about some sort of safety  
25 valve mechanism, that one of the conversations

1 that should happen is when EPA is developing the  
2 Model Federal Plan now.

3 They hope to have that out before the final  
4 rule, so that they have less of a reason to say it  
5 is not doable because they are being shown the  
6 way, so I would encourage the discussion to  
7 continue because this is something very tangible.

8 A lot of what's going on in this is all a big  
9 picture and this is just very tangible. There are  
10 more tangible things we can identify and in the  
11 prophylactic approach address now, get them in  
12 there, get them thought about.

13 You also have the conversations where we have  
14 different folks from different parts of the  
15 country and have those conversations now with your  
16 state regulators.

17 I know they are open to it. I know they want  
18 to meet the people. They want to sit down.

19 There are not going to write plans in a  
20 vacuum, and plans, I should make clear, cannot  
21 disrupt reliability. There is just not a tenable  
22 proposition. It just can't be.

23 If you've got a state regulator trying to  
24 develop a plan they can't disrupt reliability you  
25 all to my right and to my left, around the table

1 can help us get there, right, to write those plans  
2 that don't disrupt reliability and that includes  
3 the mechanisms that need to be in there.

4 It is really going to take the leveraging of  
5 intellectual capital to meet these plans as good  
6 as they can be.

7 CHAIRMAN LAFLEUR: Finally, Mr. Anderson,  
8 anything to add?

9 MR. ANDERSON: Just a couple of comments.  
10 First, I would say that EEI companies haven't yet  
11 reached agreement on what the RSV would look like.

12 I am sure we will and it is work ahead of us.  
13 I would emphasize, again, that what needs to be  
14 looked at is a second-order solution, not first  
15 order solution, so getting the right time frame  
16 will likely ensure that an RSV is rarely used, and  
17 if we do not have the time frame right we will  
18 probably have lots of opportunities to use it.

19 I guess I would add that I support Gerry's  
20 notion that this needs to be an enduring mechanism  
21 across this 15-year period and the reason for that  
22 is that reliability events rarely come from the  
23 place you anticipate when you do your planning.

24 They usually are the confluence of an  
25 unforgiving environment and some unanticipated or

1 unexpected event.

2 We are going to be making the environment  
3 substantially less forgiving as we work our way  
4 through that.

5 It is just undeniable. Our reserve margins  
6 are going to go from generally biased long to  
7 generally biased neutral to short.

8 We are going to be redispatching the system  
9 in fundamentally new ways which may show  
10 congestion patterns that are unanticipated.

11 We are going to be maintaining our existing  
12 power plants differently. We are maintaining them  
13 in retirement. You do not maintain plants in the  
14 same way as you move toward retirement as you  
15 would otherwise so the environment will be less  
16 forgiving.

17 The unanticipated events are events like a  
18 power plant not coming online when anticipated  
19 that happens.

20 Gas pipelines that run late. It happens all  
21 the time.

22 Or major power plants because they are  
23 maintained differently that go down, but do that  
24 for a durable period and if you combine those  
25 sorts of outcomes with what typically are the real

1           kicker on a reliability even which is an  
2           unanticipated demand, a non-economy, hot weather,  
3           you get what we had in the late 1990s in the  
4           Midwest which was a pretty serious reliability  
5           event, I would suggest that the nature of the  
6           unforgiving environment back then was pretty  
7           modest by comparison with what we might run into  
8           now.

9           It needs to endure and have the flexibility  
10          to deal with unforeseen events a decade out.

11          CHAIRMAN LAFLEUR: Thank you for all those  
12          comments. Mr. Moeller?

13          COMMISSIONER MOELLER: I know that everyone wants a  
14          chopped liver sandwich, so I will be quick.

15          An observation and then I would like your  
16          reaction. First of all, thank you very much for  
17          being here and being a part of this discussion.  
18          We are going to be talking to each other a lot.

19          I have been pretty consistent in thinking  
20          despite the talk of flexibility of the rule that  
21          basically people are going to focus on the  
22          foregoing box.

23          I don't think Building Block 1 is relevant.  
24          Building Block 4, I love energy efficiency, but  
25          states are going to be a little reluctant to

1 embrace it as the area that they can be enforced  
2 against.

3 It leads to Building Blocks 2 and 3.  
4 Building Block 2, 70% gas dispatch. We are going  
5 to need a lot more pipelines.

6 Building Block 3 more renewables, the nuclear  
7 element of it, we are going to need more  
8 transmission.

9 I raised on Tuesday at the panel Janet McCabe  
10 just to make sure what we heard publicly, the  
11 concern over the challenges we already have in  
12 building enough pipelines and transmission, but  
13 particularly on pipelines and the thought that  
14 there is a challenge in financing in the new  
15 business model.

16 After the session, one of the financial  
17 analysts came up, there is no problem with money,  
18 but rather the problem is that people are  
19 reluctant because they are worried they are not  
20 going to get their certificates because of  
21 hostility from states and specifically state  
22 environmental organizations to build more  
23 pipeline.

24 The concepts out there, I just want you to  
25 react to it.

1 MS. DUNN: When I look at the building  
2 blocks, and I have given lots of talks about this,  
3 they are incredibly ambitious.

4 I have been in environmental regulation for  
5 two decades. We had an example today of people  
6 who feel very passionately about energy. They  
7 feel passionately about where it comes from. They  
8 feel passionately about how it is brought into  
9 their community or through their community.  
10 Whether they derive any benefit from it.

11 We have a lot of policies, frankly, on the  
12 books that are in conflict with dramatically  
13 increasing infrastructure quickly.

14 We have the Endangered Species Act and I  
15 don't have to tell you all about the problems we  
16 have in putting pipelines in.

17 We also have from the same administration a  
18 waters of the US Proposal where that could make a  
19 lot of inland areas potentially subject to needing  
20 some sort of dredge and fill permitting.

21 And when you talk about expedited permitting  
22 or streamline permitting the conversation doesn't  
23 go very far.

24 We may need to look to our neighbors to the  
25 north. We have been talking a lot with Canada.

1 Canada has come up with some new processes for  
2 streamlining large projects and what they are  
3 trying to do, I'm not saying that I think this is  
4 completely palatable in the States, but  
5 streamlined provincial and federal requirements so  
6 that large projects that are deemed critical to  
7 infrastructure can be moved more quickly.

8 I represent states. States are very  
9 passionate about their authorities and so I don't  
10 mean to suggest that any state would willingly  
11 give up its right to wave a red flag or weigh in  
12 on something, but I do think what you are raising  
13 is a very important point.

14 We have to think really holistically. If we  
15 are going to do what is proposed here by 2030, a  
16 lot of the background noise that exists around  
17 environmental regulation may have to move and  
18 adjust because it cannot happen with the very  
19 public participation oriented society we have  
20 which has benefited a lot with environmental  
21 places around this country.

22 There are lots of things that are there today  
23 that would not have been there if people had stood  
24 up, and said, "No, not here, not now."

25 But if this is saying, "Yes, a wind farm here

1 now. Yes, solar here now," or, "Yes, pipeline  
2 here now," to achieve this goal, we have some  
3 reconciling to do.

4 MS. KELLY: The only thing I would add to  
5 that, and I hardly concur in your remarks, is the  
6 concern we have about CEQ's proposal to revise the  
7 NEPA regulations which we see as an additional  
8 potential set of considerations that will have to  
9 be dealt with and which could further slow things  
10 down, so I just wanted to note that.

11 COMMISSIONER MOELLER: Thank you. John?

12 MR. MOORE: I do politely disagree with the  
13 idea that the energy efficiency is not going to be  
14 an option since 26 or more states already have EE  
15 programs and they can be easily expanded, and I  
16 also think Order 1000 support for the independent  
17 transmission developer process is really a good  
18 step forward that this needs to be strengthened  
19 that would help with some of the transmission  
20 build out in particular.

21 COMMISSIONER MOELLER: I supported EE. I always  
22 have. Early adoption hasn't necessarily been  
23 given credit and until we see more real time  
24 pricing at the retail level, it is always going to  
25 been a struggle, but yes, it will be part of

1 building blocks.

2 On your earlier comments though, don't hold  
3 your breath on interregional transmission plants  
4 because for Order 1000 really kind of punted on  
5 that.

6 Yes, we have got the orders, but it wasn't  
7 quite the same as regional. I am with you. I  
8 would like to see it, but I do not think it is  
9 going to be the grand solution that you might  
10 think.

11 MR. MOORE: The good news is that MISO and  
12 PJM, and a couple of the other regions, are  
13 actually doing the planning. They are not just  
14 coordinating.

15 They have gone beyond just coordination in  
16 the planning, so they are moving in the right  
17 direction.

18 We might be back to you and a few others  
19 might be back to you with some recommendations to  
20 strengthen that.

21 CHAIRMAN LAFLEUR: Commissioner Clark?

22 COMMISSIONER CLARK: Thanks. I do have quite a few  
23 questions, and in the interests of time, I am just  
24 going to direct them at specific people so I can  
25 hopefully go through a few of these.

1           Alex, how nice to see you somewhere other  
2           than at a hockey rink. Our sons are friends and  
3           play hockey together, so.

4           MS. DUNN: You use a lot of energy to play  
5           hockey.

6           COMMISSIONER CLARK: Yes, you do. That is right.  
7           The question to you regarding who becomes the  
8           entity that is the receiving end of compliance, if  
9           EPA or someone else decides to bring a compliance  
10          action against, in previous years one would say it  
11          is against the polluter, against the emission's  
12          source.

13          Here because it is such a different creature  
14          it could be things like energy efficiency  
15          standards, state renewable portfolio standards,  
16          state building codes, do you have a sense for whom  
17          then becomes the target of enforcement in those  
18          cases?

19          Let's say someone thinks that the state RVS  
20          is not being met properly or the Energy Efficiency  
21          Standards are not being properly supported by a  
22          state PUC decision, do you have a sense for that  
23          your members or can flush that out?

24          MS. DUNN: This has now sort of bubbled up  
25          quite a bit since the conference earlier this

1 week.

2 I think your question is right on target,  
3 Commissioner Clark. States are going to be  
4 reluctant to bring things into their plan that  
5 currently are kind of voluntary partnerships with  
6 businesses.

7 We have been talking a lot with large  
8 companies that operate in all 50 states. They may  
9 want to swap out light bulbs. They may want to do  
10 energy efficiency.

11 They want that to be discretionary. They  
12 don't want to somehow have their company green  
13 program rolled into the state, "We need that  
14 program to meet our goal, and if you don't do it."  
15 what are we going to do, turn around as the state  
16 and enforce against the company that that didn't  
17 swap out light bulbs or didn't reduce their power  
18 purchasing at warehouses?

19 You are touching on a very sensitive issue  
20 which is who is responsible at the end of the day?

21 At the end of the day 111(d) applies to those  
22 electric generating units.

23 There is some talk that somehow do those  
24 plants end up at the end of the day having to sort  
25 of bear the shortfalls that might occur through

1 the other building blocks not delivering the way  
2 they were projected.

3 COMMISSIONER CLARK: The idea is they do not get  
4 credit for whatever that offset was.

5 MS. DUNN: Or there is a deficiency and where  
6 is the entity, the only entity that's truly on the  
7 hook under the Clean Air Act is the existing  
8 electric generating unit under 111(d).

9 There is some risk there. We need to explore  
10 this concept. If it is interpreted too rigidly,  
11 we will see inflexible approaches to state plans  
12 which some of my colleagues want to see things  
13 like renewable energy and energy efficiency in  
14 these plants, but if putting it in the plan makes  
15 it federally enforceable, that is going to begin a  
16 deterrent. That is definitely going to be a  
17 deterrent.

18 COMMISSIONER CLARK: Thanks. Gerry Cauley. I have  
19 a question about process. You talked about an  
20 iterative process that will eventually have to  
21 take place. In terms of NEARC's time line, when  
22 do you believe you will first be able to start  
23 doing the actual granular technical analysis that  
24 is going to need to be done with regard to  
25 specific regions and specific plans.

1           MR. CAULEY: First, the very next up will be  
2 a report in early April which relies not just on  
3 hypothetical, but we get data in continuously to  
4 do our seasonal and our annual reliable  
5 assessments who we are relying on sort of current  
6 trajectories, current announced retirements and  
7 plans, so that report in April will highlight at a  
8 much more granular level of where the hot spots  
9 are likely to be, where the challenges will be.

10           But I will emphasize that it is going to be a  
11 continuing process because we are still working  
12 off trajectories for the data that we have, a sort  
13 of a lot of unknowns in the plans coming out of  
14 the states and individual companies.

15           COMMISSIONER CLARK: Thanks. A question for Jay  
16 Morrison. Thanks for bringing up one of my pet  
17 issues which is this issue of who figures out if  
18 all these seams work together?

19           We have this patchwork of what we will  
20 probably emerge as some regional plan, some state  
21 plans, probably a large chunk of states saying,  
22 "EPA, you own it," so that there will be federal  
23 plans.

24           You said that somebody needs to make sure  
25 that all of these assumptions are going to these

1 different plans, work together, when you reach at  
2 the seams.

3 Who should that entity be that makes that  
4 determination? Who has the viability to do it?

5 MR. MORRISON: Commissioner, I will, I had a  
6 clear answer for you on that. That is going to  
7 differ regionally.

8 In some cases it may be an RTO, the  
9 challenges that we have are members who are more  
10 than one RTO.

11 We have one member that is in three RTOs.  
12 That makes it very hard for even that large an  
13 entity to do the job. It may be the regional  
14 liability coordinators. It may be NEARC.

15 We are still going to have to have a  
16 discussion about that, but I think where the  
17 Commission can be really helpful right now is to  
18 help EPA understand why that discussion needs to  
19 take place so they can understand the time  
20 flexibility that is going to be needed, not just  
21 for the SIPs to be drafted, but then for the  
22 interrelated effects of those SIPs to be discussed  
23 and perhaps to have the SIPs amended which is  
24 going to push out those compliance deadlines but  
25 it is going to be necessary if we are going to

1 keep lights on affordably if we are going to deal  
2 with some of those seams issues.

3 COMMISSIONER CLARK: Thanks. Craig, I am going to  
4 ask you a question. You were among the first who  
5 brought up RSV, the reliability safety valve.

6 It has also been commented upon that there  
7 are two sides of the same coin which is  
8 reliability and cost which are sometimes hard to  
9 separate from a from a market standpoint for the  
10 way FERC usually thinks of just and reasonable  
11 rates.

12 Has there been any discussion of, or even any  
13 ability, to think about some sort of cost  
14 component to a safety valve. It is a very typical  
15 thing in state renewable portfolio standards that  
16 there are some sort of cost off ramp if a certain  
17 point is had, and usually it is a state commission  
18 that determines when that is, but it just occurs  
19 to me that there is a way to keep the lights on in  
20 many situations.

21 It might be suboptimal where you just blow  
22 through market caps and you let prices go as high  
23 as they are going to go, and eventually the  
24 customer self-selects to not draw as much power.

25 Help me to walk through this idea that, yes,

1           there's a reliability safety valve which is a  
2           little bit colder technical analysis of voltage  
3           support and there are pipelines available, there  
4           is fuel supply available, I mean all that stuff  
5           that we're used to, but there is also kind of an  
6           economic analysis so much that you can keep lights  
7           on at a very very expensive cost if need be.

8           MR. GLAZER: That's a great question. Here's  
9           the trip point. We have got to be careful that we  
10          are not, we do not turn this into a giant IRP  
11          process because, frankly, this Commission almost  
12          looks like that and that is why my card went up  
13          before because if we are not careful we are going  
14          to trip into that and you are going to be in an  
15          impossible position of having to adjudicate.

16          Could you have done more energy efficiency,  
17          things that are way beyond your jurisdiction that  
18          are not even appropriate here.

19          It's a state plan. The state owns it. The  
20          state is making those trade-offs effectively on  
21          behalf of its citizens.

22          The markets are providing information on what  
23          is the most cost-efficient way to achieve that,  
24          but at the end of the day the State is deciding,  
25          "You know what? I get that the market price for

1 the renewable is X or the energy efficiency is Y.  
2 I choose one of those two."

3 That needs to remain a state government  
4 function, if you will, and not a FERC function,  
5 not even an EPA function.

6 That's why we have left it as a reliability  
7 safety valve because I think that really, frankly,  
8 at the end of the day is uniquely your  
9 responsibility, uniquely our responsibility, and  
10 all these other issues, the markets inform, the  
11 IRPs inform, but those are really state processes.

12 My only plea is we don't make it into a scope  
13 creep beyond what it needs to be.

14 COMMISSIONER CLARK: Thanks and I am happy to turn  
15 it over to my colleagues.

16 COMMISSIONER BAY: The Chairman was asking about the  
17 five flavors of the reliability safety valve, but  
18 I have a different flavor of the day to ask you  
19 about and that is the glide path.

20 A number of you had mentioned a glide path  
21 approach and what I am trying to get a sense for  
22 is how helpful you think the glide path would be  
23 and to what extent the glide path would resolve  
24 many of the concerns you have about the Clean  
25 Power Plan. Yes, please.

1           MS. DUNN: Thank you, Commissioner Bay.  
2 Thank you for the great question. Moving to what  
3 we hear is called the 2020 cliff, that will be  
4 very helpful.

5           It will allow states to plan over a longer  
6 period of time and make more thoughtful decisions.

7           We have heard some fairly eloquent cases to  
8 that effect. I also think that EPA has heard so  
9 much angst about the 2020, the early deadline that  
10 I would predict that they will make some changes  
11 there in the final rule.

12          MR. ANDERSON: I have made comments on this a  
13 couple of times already, but it would resolve a  
14 large measure of the incidences as you might need  
15 a reliability safety valve for, so let me give you  
16 a specific example for Michigan, but we look a lot  
17 like many states in the Midwest.

18          Our ultimate carbon intensity reduction  
19 target is 31%, and our average for the ten-year  
20 period is 27%, so you can do the simple math and  
21 see that you need to start at 23 or 24 on a path  
22 to 31 which is why I said of 12 units will  
23 eventually take out ten of them would be to be  
24 done with back fields from renewables and other  
25 power plants by 2020.

1           If you delay that, your compliance curve just  
2 becomes steeper, deeper, and more expensive.

3           So states are going to fight hard not to  
4 delay it for that reason and it leads to a lot of  
5 compression costs, and as I said earlier, a less  
6 forgiving environment, and that's when reliability  
7 issues emerge, when you've got too much trying to  
8 happen in too short a time and combine that with  
9 unexpected events on the demand side you get your  
10 reliability events coming out of those sort of  
11 circumstances.

12           And those are the most likely times you would  
13 need a safety valve and the glide path will deal  
14 with a lot of this, not all of it, though.

15           I would concur with Gerry that there are  
16 going to be things even with a very ordered  
17 transition that surprise us.

18           We are going to need a very well-designed  
19 process to deal with those.

20           MS. KELLY: This is where the part of being  
21 the CEO of a trade association with 1,300 members  
22 in 49 states makes your job very interesting.

23           The fact of the matter is, for some members,  
24 they think they can meet those goals. They would  
25 like to have more flexibility how to do it.

1           We have some members in some states that  
2           don't think they can meet the goals, that the  
3           goals are fundamentally a real problem, that the  
4           flexibility that has been much discussed here is  
5           large part illusory and it is kind of you can buy  
6           a Model T in any color you want as long as it is  
7           black kind of situation.

8           And they are not clear whether they can make  
9           it even by 2030, but there is no question that  
10          removing the cliff and giving more flexibility  
11          about how states develop the plans and how they  
12          get to the eventual goal hopefully a goal that is  
13          set based on reasonable criteria, that would be a  
14          huge help, but I don't want to leave the  
15          impression that as long as we just remove the  
16          2020, then everything is fine because that is not  
17          the case in all cases.

18          MR. MORRISON: Thank you, Commissioner. Yes,  
19          removing the 2020 cliff is very important. I want  
20          to be careful though about how we define a glide  
21          path.

22          I hear that term and I'm afraid that EPA will  
23          then give us a different glide path and they will  
24          tell us what percent to get each year between now  
25          and 2030.

1           When I think glide path, I think about what  
2           111(d) is designed to do which is allow states to  
3           come up with their own compliance plan and the  
4           states need to be able to figure out how soon they  
5           can reach what levels of emission reductions, so  
6           some may be able to move very quickly, some may  
7           need to push things out even a little bit beyond  
8           2030, particularly, if they are considering  
9           continuing economic life of the plants in their  
10          state which the statute tells them they should be  
11          considering.

12           We need to make sure when we talk glide path  
13          we are talking about state flexibility to adopt  
14          the glide path that makes sense for each state.

15           COMMISSIONER BAY: Thank you. One or two other  
16          questions. One thing that I am struck by the  
17          energy space is the amount of innovation that is  
18          occurring.

19           Since 2009, for example, the price of wind  
20          just dropped about 60%.

21           Amazing.

22           If you look at the price of PV, again, those  
23          costs just come down. There have been  
24          developments with respect to managing the grid  
25          more efficiently and providing more visibility

1           into transmission so that the grid can be used  
2           more efficiently.

3           To what extent is innovation and  
4           technological change the X Factor here? Because  
5           it is really not something that is taken into  
6           account in the EPA rule making? Gerry?

7           MR. ANDERSON: One of the things that we  
8           consistently said is that EPA needs to have the  
9           ability for companies and states to bring their  
10          plans back revised because over the 15-year period  
11          the likelihood that both technologies and markets  
12          will change in pretty sharp ways is very high so  
13          we completely expect that our choices in 2025 will  
14          be quite different than they are in 2015 we are  
15          going to want to change our plans to take account  
16          of that.

17          One of the intended consequences of doing too  
18          much compliance early is that you actually don't  
19          take advantage of some of the cost effective, for  
20          example, renewable technologies that are likely to  
21          merge as you go deeper into this plan.

22          So from an environmental perspective, I am  
23          not sure that early compliance actually sets us up  
24          well long term and there's an argument, again, for  
25          a more rateable path into this in order to be able

1 to take advantage of technology innovations as  
2 they evolve.

3 The technology in innovations take time and  
4 we will certainly see them across a 15-year  
5 period.

6 MR. CAULEY: Thank you, Commissioner Bay. I  
7 agree with the Commissioner Moeller's statement  
8 earlier that the predominant solutions we are  
9 talking about in the 10 to 15 time, you time  
10 horizon is going to Blocks 2 and 3 and so there is  
11 a lot of opportunity in Block 3 for renewables.

12 There's a lot of existing technology out  
13 there that allows solar and wind resources to be  
14 effective contributors to the control management  
15 of the grid. There just has not been a lot of  
16 support in the regulatory arena to this point to  
17 bring that to bear.

18 It has been more of a, "Let's get it all on,"  
19 and the rush to get it on is ignoring the fact  
20 that these resources at some point will have to  
21 provide essential services so that the  
22 technologies there are I applaud PJM for requiring  
23 new connections to include digital inverters to  
24 step in the right direction, but on the regulatory  
25 level of the state and federal levels we need to

1 realize that this flexibility down the road to  
2 include ride through frequency control ramping  
3 capability, these are going to become more and  
4 more important and need to be part of the  
5 regulatory dialogue, but the technology is there.

6 MR. MOORE: I'm really happy to hear Gerry  
7 talk about the ride through capability in the PJM  
8 proposal which we think is really good, and yes,  
9 we think to a large extent the grid is changing in  
10 very dynamic ways that would occur regardless of  
11 whether or not we have the Clean Power Plan, that  
12 the fuel shift changes, and innovations in  
13 technology.

14 A specific example is right on the cusp of  
15 really taking off would be price responsive demand  
16 was smart thermostats, smart water heaters, who  
17 knows where Internet protocol version 6, as I know  
18 enough about that just to be able to cite that,  
19 would take us with smart technology?

20 FERC has a role to play there and they will  
21 touch on that in the market's piece, but that  
22 might bring some of the promise of the demand side  
23 to bear here.

24 COMMISSIONER BAY: Thank you, John. Jay.

25 MR. MORRISON: Thank you, Commissioner. I

1 hope very much the technological changes help  
2 bring down the cost of compliance.

3 Any new resources that are available to us  
4 and any advances that allow us to comply at lower  
5 cost, obviously, is a good thing for our members.

6 We have to recognize though that those  
7 changes are going to be very locational and  
8 situational specific.

9 Those states that don't have access to much  
10 wind today, even when wind costs come down still  
11 are not going to have access to a lot of wind.

12 Even with technological changes and unless  
13 storage changes dramatically in the short term is  
14 not going to replace the reliability that gas and  
15 coal give us.

16 Solar is, again, regionally specific in terms  
17 of cost-effectiveness anyway resource. It too is  
18 not going to be able to replace gas and coal  
19 without significant changes in storage.

20 Yes, there will be some impact from  
21 technological change. I hope that there will be,  
22 but we need to still remember the need for each  
23 state to be looking at that in light of which  
24 resources are going to be available to it in terms  
25 of the glide path on technological change that

1           they anticipate given their local needs.

2           COMMISSIONER BAY: Thank you. Sue?

3           MS. KELLY: I would just say that I too am a  
4           great believer in the power of technological  
5           advance to assist us as we go down this road.

6           A lot of our members have been very forward  
7           thinking in this area, and that's actually why one  
8           of the big beefs that we have with EPA's rules is  
9           the failure to provide credit for early action  
10          because of what our members have done a lot of  
11          really good things already.

12          On the other hand, your question in some way  
13          answers itself when you say, "How much reliance  
14          should we place on the X Factor?"

15          "It's an X Factor."

16          It is a little scary to rely on it when it's  
17          an X Factor.

18          Then there is the issue that you raised about  
19          if you do go heavily into technological advances  
20          with price responsive demand and energy efficiency  
21          who is on the hook for that which is yet another  
22          reason why I don't know if we necessarily want to  
23          counter as a compliance strategy if that makes you  
24          liable if the X Factor doesn't happen.

25          But there is no question that we are looking

1 at a lot of different technologies.

2 I was out in Utah in December at the meeting  
3 of one of our joint action agencies, they are very  
4 very seriously looking at small modular reactors  
5 and that is a compliance strategy that is not one  
6 of the four building blocks, but it is something  
7 that they are looking at.

8 I have great hope and faith in it, but I am  
9 concerned about relying on it as it is an X Factor  
10 simply because there is many a slip between the  
11 cup and the lip, but that doesn't mean you should  
12 not move forward.

13 COMMISSIONER BAY: With all of those metaphors  
14 together, Sue? We have flavor of the day, a slip  
15 between the lip and the cup, so on and so forth.

16 Craig?

17 MR. GLAZER: Thank you, Commissioner. This  
18 is an argument on frankly why to keep the  
19 reliability safety valve there but narrow.

20 It becomes a tool where frankly somebody can  
21 run into a governor's office, and just say, "I  
22 have got a reliability problem," and we push out  
23 2030" to some amorphous new date, nobody is going  
24 to be able to make those investments because they  
25 are not going to know any idea when the crunch

1 time really comes about.

2 That's why it has got to be narrow. That's  
3 why we put in some of the hoops to show these  
4 other alternatives haven't worked out, otherwise  
5 it becomes frankly very hard for this new  
6 technology to jump in.

7 We kept it narrow with some of that thinking  
8 in mind.

9 COMMISSIONER BAY: Alexandra?

10 MS. DUNN: Thank you, Commissioner. I will  
11 just round it out by saying, if we do not seize  
12 the opportunity for innovation, it is a failure on  
13 our part as a whole. I mean, this is a proposal  
14 from the current administration to take us forward  
15 and it is probably going to be in place and not  
16 that whatever administration follows, this concept  
17 is sort of here to stay.

18 We have to put innovation into it and there  
19 are a couple things that I would like to  
20 highlight.

21 We recently met with the Department of Energy  
22 and we were absolutely surprised by the number of  
23 programs that are available to states, \$40 billion  
24 in loan authority for nuclear, for renewable  
25 energy for smart vehicles, there is technology

1 loans for existing fossil fuel carbon capture and  
2 storage, I know is a sensitive issue, but  
3 nonetheless there is funding for it.

4 There's a clean energy grant fund. We have  
5 to now say, if we are now moving in this direction  
6 we have to have DOE help states to know what is  
7 available to them so that they take advantage of  
8 the money that there because I will tell you the  
9 money is not at EPA.

10 EPA's budget offers \$25 million nationally in  
11 FY 16, proposed, and I don't think Congress is  
12 going to be a big fan of increasing EPA's budget.

13 \$25 million nationally to assist states with  
14 writing 111(d) plans.

15 \$25 million nationally. It is not going to  
16 get us there. We have got to get there through  
17 the places where there is money in this government  
18 at the Department of Energy and that will promote  
19 innovation and you may know in the president's  
20 proposal there was a proposal for a \$4 billion  
21 clean energy incentive fund and I will make an  
22 important point here.

23 That fund, were it funded by Congress, \$4  
24 billion, amazing, but it is only for states that  
25 can exceed or accelerate the EPA set targets and

1 ECOS came out of the box that day and said that is  
2 a disincentive for investment.

3 It should not be just for the people that can  
4 go above and beyond. It should be for everyone  
5 because there is room in every state to move  
6 infrastructure, to move innovation forward.

7 COMMISSIONER BAY: My last question. A lot of tents  
8 went up on the other question, and maybe more than  
9 I had anticipated, but my last question is for  
10 Gerry.

11 Given the importance of the reliability  
12 studies that NEARC will be doing going forward,  
13 what kind of transparency and process are you  
14 going to provide for stakeholders?

15 MR. CAULEY: We balance that out all the  
16 time. We are really focused on making sure that  
17 our reports withstand the scrutiny of being the  
18 objective and independent electricity reliability  
19 organization, so we want to make sure that we  
20 don't have a process that sort of is either the  
21 least common denominator of what industry would  
22 allow us to say or what people want to say.

23 We are not a trade association in that  
24 respect. We are trying to get to the truth based  
25 on facts and data and analytics.

1           We do rely on the data the company rose up  
2           from actual plans, actual load forecasts from  
3           companies through the regions.

4           We use the data. We validate it. We do peer  
5           reviews on it to make sure it is trustworthy. We  
6           do our work with industry experts to get ideas on  
7           trends and conclusions and then we issue the  
8           report after it has been reviewed by our  
9           independent board.

10          It is an open process and we publish the  
11          results in the drafts, but it is not meant to be  
12          consensus as much as it is meant to be the truth  
13          as we know it.

14          It's a little bit different than some of our  
15          other processes like standards development, and so  
16          on, where we are in an entirely open and consensus  
17          based process.

18          COMMISSIONER BAY: Will you be making public the  
19          underlying data and assumptions that you're  
20          relying on in doing your modeling?

21          MR. CAULEY: That's a good question. We will  
22          make available the data that we publish. I will  
23          have to get back to you on the entirety of the  
24          database just because I do not want to speak out  
25          of hand. Thank you.

1           CHAIRMAN LAFLEUR: Thank you very much. And  
2 last, but not least, Commissioner Honorable.

3           COMMISSIONER HONORABLE: Thank you, Madame Chairman.  
4 I must be a very patient soul.

5           I have really enjoyed the discussion and I  
6 have particularly enjoyed hearing your  
7 perspectives.

8           And, Ms. Kelly, if I can call you Sue, I very  
9 much appreciate the role that you play and that a  
10 number of you play with ECOS, for instance, it is  
11 like hiding cats.

12           You are here on behalf of large  
13 organizations. Jay, I think you may have more of  
14 a solidified group, so you have a bit of a luxury  
15 in that regard.

16           Just having had the experience that I have  
17 had a state regulator, I appreciate that they are  
18 different states with different perspectives and  
19 different approaches for tackling or otherwise  
20 this issue, but I want to think about process  
21 because before we talk about a reliability safety  
22 valve and before we talk a state not being able to  
23 meet their goal, I would like to start at the very  
24 beginning and I appreciate that you really can't  
25 formulate a crystallized plan until you see the

1 final rule, I get it.

2 I want to think, for instance, with regard to  
3 a regional approach to implementing this plan, so  
4 you all, it is very clear you have thought a lot  
5 about the different ways that this could be  
6 approached.

7 Are you talking with one another? I want to  
8 ask you here because we are going to learn from  
9 you.

10 And, by the way, I do not see our role with  
11 EPA is adversarial. I do not see the FERC as  
12 negotiating with the EPA.

13 I think it was a no show this morning. We  
14 are here to provide advice and counsel and the EPA  
15 has said that they want to get that. You all are  
16 very helpful in that process, so I want to think  
17 about, let's say, a regional approach, therefore  
18 Craig, you get the first crack at this.

19 How will you all interact with one another to  
20 get the ball rolling and let me tell you why I am  
21 asking this question.

22 If we wait until June, we could already be  
23 behind in terms of thinking about the process of  
24 developing a plan.

25 Are you all talking, Craig, and others, what

1 do you envision for how all of these stakeholders  
2 with perspectives in a regional context, and I  
3 appreciate the fact that for some of you you are  
4 not thinking about a regional approach, it could  
5 be your state.

6 But I want to have this conversation together  
7 with the benefit of us looking on?

8 How would you go about that?

9 MR. GLAZER: Thank you. It is a \$64 billion  
10 question. Absolutely.

11 Let me just take it piece by piece. For one,  
12 and I started this conversation by saying, RTOs  
13 with diverse views from Texas to California came  
14 together on the RSV proposal, that, in and of  
15 itself is showing a level of coordination among  
16 us, and frankly, if nothing else comes out of this  
17 conference if we can have that dialogue with  
18 others around this table, and whoever is on TV  
19 that would be great too, that would be a real  
20 accomplishment because obviously we need to hone  
21 that.

22 Let me give the good news and then the  
23 challenge. The good news is each of the RTOs is  
24 actively in these discussions and analyses.

25 We have gotten requests from the organization

1 of PJM states and we have run models looking at  
2 regional versus state-by-state approaches.

3 MISO has SBB ads, so we are all engaged. It  
4 is even, we are not waiting for the final rule.  
5 We are engaging in sort of what this whole thing  
6 looks like.

7 Where I think the rub will come in, quite  
8 frankly, and this is not a complaint about your  
9 processes, but a challenge that we are all going  
10 to have.

11 We have interregional planning processes. We  
12 have cost allocations and processes that say you  
13 build things when beneficiaries pay.

14 You add to the question of who is the  
15 beneficiary. One state's estate plan versus  
16 another state's estate plan, suddenly the  
17 transmission planning process gets embroiled in  
18 and the beneficiary pays is taken to a new level  
19 because how does it affect my plan and my  
20 neighbor's plan in my regional plan?

21 What you all have done is going to get a lot  
22 more challenging as we apply rules like  
23 beneficiary pays, two things a whole lot more  
24 baggage associated with what that all means.

25 That's the challenge for all of us. Take the

1 regulatory process out of what we normally think  
2 about and now put it into this context and frankly  
3 that work is only just beginning.

4 COMMISSIONER HONORABLE: Indeed, and I am very  
5 pleased to hear you reference the state certainly  
6 another effort was one time Commissioner Meredith  
7 Doug Scott led about all of the Midwestern states  
8 and a lot of folks who are trying to grapple with  
9 this, and certainly, I want to reference something  
10 that Ms. Dunn said earlier.

11 As a regulator we really had not engaged very  
12 much with air regulators even with the  
13 implementation of MATS to the degree that we now  
14 do with 111(d), so I agree that there are good  
15 things that have come from that and certainly  
16 challenges as well.

17 Thank you. Gerry?

18 MR. CAULEY: Commissioner Honorable, thank  
19 you for asking a question. I have had sort of  
20 points around that, I just never had a chance to  
21 get them out because I think you have really hit  
22 on one of the secrets to success is the early  
23 planning and collaboration that needs to take  
24 place even starting now and not waiting for the  
25 rule.

1           I sensed that the NERUC meetings this week in  
2 sort of a Commissioner Clark's question earlier,  
3 who is really under the thumb for enforcement?

4           I sensed at the NERUC meetings who is under  
5 the gun to really produce the plans because,  
6 essentially, it is the environmental regulators at  
7 the state you could say that, but really a lot of  
8 the answers to the solution is with the utility  
9 commissions.

10           But the third group, really, has to be  
11 involved directly at the table, are the utility  
12 companies and the organizations that need to make  
13 the system work.

14           This has to be a collaborative consultative  
15 process right from the beginning to get the  
16 options on the table that may or may not work.

17           We should look to where there are  
18 pre-existing regional relationships in  
19 organization through an RTO or some other regional  
20 type of an organization, rely on them, but even  
21 where it doesn't exist form that collaboration.

22           My final point would be our preference from a  
23 reliability perspective would be to ensure that  
24 there is cross-state coordination to make sure  
25 that we are not creating individual plans within a

1 state that is sort of optimized for the citizens  
2 of the state.

3 I know that that is a hard thing to do  
4 probably as a state commissioner, that is who  
5 you're protecting, but ultimately the overall  
6 costs and reliability are going to be most  
7 effective risk management dealing with the  
8 uncertainty of things that may come down the pike  
9 is going to work best if we have a diverse mix  
10 resources.

11 That we have flexibility across those  
12 resources in an interstate fashion that sort of  
13 reflects how we run the power grid which is  
14 connected.

15 MS. DUNN: Thank you, Commissioner. That was  
16 a great question. I think ECOS began this process  
17 actually with Commissioner Honorable last year at  
18 our conference where she was our keynote at  
19 speaker because our past president was Teresa  
20 Marks, the director of our Arkansas Department of  
21 Environmental quality and she said, "We need to  
22 have Colette Honorable as our keynoter to start  
23 building some bridges, so that began.

24 It is very interesting. The states have  
25 grouped themselves in many ways around this issue.

1 We have the eleven northeastern states.

2 If you look in the docket you will see the  
3 eighteen attorneys general who have laid their  
4 litigation strategy forward.

5 We have the energy producing states who have  
6 had some very productive meetings up in the Dakota  
7 area.

8 We have that Gov. Ritter's group in Colorado  
9 who has managed to pull a set of comments to get  
10 it included, California, Colorado and Arizona.

11 That dialogue is happening.

12 What I do see at least from my window is, it  
13 is AGs. It is state environmental regulators.

14 We have maybe starting now start expanding  
15 the dialogue to include some of the people at this  
16 table to make sure that it is a bigger  
17 conversation then I think is what is currently  
18 happening. I really do appreciate your raising  
19 it.

20 MR. ANDERSON: I will try to speak for member  
21 companies, and not all, because there are  
22 different parts of the country, there are  
23 different places, but for I would say wide areas  
24 of the nation, this conversation has barely begun  
25 and that is because the companies themselves are

1 so consumed in state-level processes which may  
2 involve legislative processes that need to be  
3 clarified before they can move on.

4 First, they need to have a final Clean Power  
5 Plan, but legislative processes to enable what is  
6 to become, the development of state plans.

7 It is not simple in many states to land on a  
8 plan because there are many viewpoints as to what  
9 that plan should look like, what it should  
10 incorporate and so forth.

11 There is great energy being given to try to  
12 shape the right plan and that really is going to  
13 be consuming into probably the 2017, 2018 time  
14 frame.

15 I talked earlier about compression of  
16 compliance into the front years. The more the  
17 compliance is compressed in some ways, perversely,  
18 the less energy they will be given to regional  
19 coordination because people will be so consumed  
20 with trying to put together a compliance plan that  
21 can meet those early years.

22 The more time there is, the more time there  
23 is for rational planning and coordination between  
24 regional entities and states.

25 I can tell you in MISO, that MISO has done

1 thinking and analysis on the benefits of a  
2 regional plan, but the MISO companies have spent  
3 almost no time, my peers and colleagues, we have  
4 spent almost no time talking about how we could  
5 shape our state implementation plans to take  
6 advantage of that because we simply are dealing  
7 with too many other things.

8 I really think that the regional coordination  
9 is going to improve over time as people get some  
10 of the basics behind them and we get closer to  
11 2020, but it is going to be hard to be very  
12 sophisticated early on and make that big part of  
13 our plans early on.

14 MS. KELLY: I am going to answer that  
15 question two ways. One is at the state level and  
16 one is at the national level.

17 Going to the state level first, we have  
18 encouraged our members and most of them did not  
19 need our encouragement to start talking with their  
20 state-level offices.

21 It is not only the Departments of  
22 Environmental Quality which they have actually  
23 dealt with as generators for some time, but we  
24 have been encouraging them to talk more with their  
25 state PUCs which a lot of them are not as well

1           wired in with because they have not been regulated  
2           by them in the past, so it varies that  
3           relationship that varies from state to state, but  
4           clearly, they are important players in this at the  
5           state level.

6           Then there are the state energy offices as  
7           well. For example, we have a lot of members with  
8           efficiency programs. How does one measure and  
9           verify the savings from that when we are not  
10          regulated by the PUCs in that state, so we have  
11          been talking with a variety of players try to  
12          figure out how that would all work, all of those  
13          moving pieces.

14          Because we have members who have loads and  
15          resources across state lines.

16          You may have heard at that NERUC meetings, a  
17          discussion about Missouri River Energy Services  
18          has a very large generating unit in Wyoming and  
19          load in four other states and environment energy  
20          efficiency programs in Iowa, does that get to  
21          offset the emissions?

22          We have got a lot of complicated problems  
23          that are giving us a big headache and so we are  
24          out there in the states talking to the various  
25          state regulators trying to figure out where we fit

1           into this and we even go across RTO boundaries.

2           We have loads in resources in different  
3           states. Sometimes it is not because of our doing  
4           because other entities decided to change RTOs,  
5           shifted of those boundaries and stuck us with the  
6           results.

7           But we are not bitter.

8           We are moving forward.

9           COMMISSIONER HONORABLE: I think I approved one or  
10          two.

11          MS. KELLY: Anyway, just to say that we are  
12          trying to deal with the world as it is even though  
13          we didn't always make it.

14          But at the national level, actually EPPS  
15          joined the national Climate Coalition because we  
16          see that as a group that has a broad and diverse  
17          membership that is thinking about these issues in  
18          a way that we may be as ourselves would not be.

19          We want the benefit of that thinking. We  
20          want to be able contribute to that dialogue and we  
21          are obviously reaching out to all sorts of  
22          organizations including you, and we hope you are  
23          reaching out to EPA in the spirit of the love, not  
24          in an adversarial way, but you need to be there  
25          because a lot of times if you are not at lunch you

1           went up as lunch. I am just pointing that out.

2           That's my response.

3                     MR. MORRISON: Thank you very much. I could  
4           spend a lot of time discussing why the design of  
5           the Clean Power Plan overlaid on the grid makes it  
6           very difficult to do regional plans, but this is  
7           probably not the best time to do.

8                     I will just say that that is one of the  
9           reasons why we have asked the EPA to give us more  
10          time to develop the SIPs, because as Gerry said,  
11          three years is not really enough time to do a good  
12          regional negotiation that resolves all of the  
13          challenges.

14                    We really need that flexibility at the front  
15          end to have more time to have the good discussions  
16          to come up with the best results for our members.

17                    MR. MOORE: Just two basic points, first, is  
18          that you do not necessarily have to think that  
19          this is all or nothing regional or state, so the  
20          layered approach helps with some of the timing.

21                    Well, three points.

22                    Second, I absolutely agree that early  
23          education is important at Midwest Energy and  
24          Environmental Regulators group really terrific and  
25          has had to work through at least five meetings to

1 get everyone that education.

2 That education has to really be happening  
3 now.

4 Third, it is critical to get the planning and  
5 especially the modeling right because the states  
6 are going to be taking a lot of direction from  
7 what those models tell them and I know we haven't  
8 gotten granular enough yet with the modeling that  
9 has been done, but those have to have the right  
10 inputs and the right assumptions about what is  
11 available because that is going to make a big  
12 difference in how states approach compliance.

13 COMMISSIONER HONORABLE: Thank you. I appreciate  
14 those perspectives and I greatly appreciate where  
15 you come from and the respect about the duality  
16 and maybe the multiplicity in some regard.

17 In closing, we certainly won't meet it if we  
18 do not begin at some point, I will say that.

19 We also want to be better informed about the  
20 ways in which we work to be helpful and not a  
21 barrier to moving forward.

22 So thank you all.

23 CHAIRMAN LAFLEUR: I told Clay yesterday that in  
24 the second panel after lunch I am to start with  
25 going in reverse order for questions and she said,

1 "That's okay," so I bet she feels different about  
2 it now.

3 Yes, I want to go first now.

4 I want to thank our wonderful panelists for  
5 your patience and your remarks.

6 We clearly have a lot of work to do, but I  
7 really appreciated the quality and substance of  
8 the discussion. Thank you, Pat, for coming to be  
9 with us this morning and we will resume promptly  
10 at 1:45. Thank you.

11 (Afternoon Session.)

12 CHAIRMAN LAFLEUR: Good afternoon, everyone. I  
13 think we are going to get going again.

14 I had a delicious chopped liver sandwich for  
15 lunch, I assume I will never live that down, but  
16 welcome every one on the next panel.

17 This is the session in which we will be  
18 talking about potential infrastructure needs  
19 driven by state and regional implementation plans  
20 under the Clean Power Plan particularly focused on  
21 what FERC, how it may drive FERC's work or what we  
22 may need to do.

23 The obvious types of infrastructure that the  
24 Clean Power Plan would drive our need for greater  
25 gas pipeline, either spurs or pipelines or storage

1 to support either greater use of existing gas  
2 generation or people potentially adding gas  
3 generation under the flexibility afforded for  
4 their plan, greater electric transmission  
5 particularly for location constraint renewables,  
6 but really any change in resource mix can drive  
7 transmission needs, and as I have often pointed  
8 out, other types of resources like energy  
9 efficiency and distributed renewable resources  
10 requires infrastructure of a different type,  
11 delivery, infrastructure aggregation, and so  
12 forth.

13 We are going to take on that bundle of topics  
14 here and asked the speakers to do as the earlier  
15 ones did to try to focus on concrete things,  
16 concrete needs, suggestions for us that we can act  
17 on.

18 Let us introduce the panel and then we will  
19 introduce our first speaker who is going to make  
20 remarks and then we are going to launch in.

21 We are joined by Judy Greenwald who is the  
22 Deputy Director for Climate Environment and Energy  
23 Efficiency in the EPSC, not John Shelk EPSC, but  
24 the DOE Office of Energy Policy and Systems  
25 Analysis.

1 Chairman Elizabeth Jacobs from the Iowa  
2 Utilities Board who has now two open meetings in a  
3 row has come out.

4 Chairman Susan Bitter-Smith of the Arizona  
5 Corporation Commission.

6 Robert Bradish, the vice president of  
7 Transmission Grid Development for AEP.

8 John Shelk, the president and CEO of the  
9 other EPSA, Electric Power Supply Association.

10 Rob Gramlich, the senior vice president of  
11 the American Wind Energy Association.

12 Michael McMahon from Boardwalk Pipeline  
13 Partners on behalf of INGA the Interstate Natural  
14 Gas Association of America.

15 And Chairman Jim Hoecker, counsel to WIRES  
16 which stands for something that means, it builds  
17 up to a lot of words, but I don't remember what  
18 the words are.

19 It's an acronym.

20 We are going to start with Deputy Director  
21 Greenwald who has asked me to make a few opening  
22 remarks from our partners in government here and  
23 we are going to start with her and then over to  
24 the panel.

25 Thank you. Judy?

1           MS. GREENWALD: Thank you Madame Chair and to  
2 the Commission for holding this important workshop  
3 and for inviting me to speak.

4           My remarks today will focus on a report that  
5 DOE released two weeks ago, sorry, I has a kind of  
6 clunky title, Natural Gas Infrastructure  
7 Implications of Increased Demand from the Electric  
8 Power Sector. I would like to submit that report  
9 for the record.

10           This study was one of a large set of analyses  
11 undertaken as part of the first administration  
12 wide quadrennial energy review which focuses on  
13 energy transmission, storage, and distribution  
14 Infrastructure for electricity, natural gas, and  
15 liquid fuels.

16           The purpose of this particular study is to  
17 understand potential infrastructure needs for the  
18 US Interstate Natural Gas Pipeline Transmission  
19 System under several future natural gas demand  
20 scenarios.

21           Since adequate natural gas infrastructure is  
22 a key component of electric system reliability in  
23 many regions, it is important to understand the  
24 implications of greater natural gas demand for the  
25 infrastructure required to deliver natural gas to

1 end users including electric generators due to the  
2 evaluated varying levels of future electric sector  
3 natural gas demand.

4 The study includes a reference scenario with  
5 similar levels of natural gas supply and demand  
6 and prices to EEIAO 2014 Reference case.

7 The study also includes intermediate and high  
8 demand cases which assume that an illustrative  
9 national carbon policy is applied to the electric  
10 power sector.

11 These assumptions do not represent any real  
12 or proposed policy.

13 The high demands scenarios intended to  
14 represent an upper bound test case on natural gas  
15 consumption in the electric power sector. Here  
16 are our key findings and conclusions.

17 First, the rate of capital expenditures for  
18 interstate pipelines in a business as usual future  
19 is projected to be lower than historical rates.

20 Second, in a hypothetical future with very  
21 high levels of electric power sector natural gas  
22 consumption the projected incremental natural gas  
23 pipeline capital expenditures are modest in  
24 comparison to the business as usual future.

25 Specifically across a range of scenarios, a

1 total of \$42 Billion to \$45 billion in capital  
2 expenditures are projected for new expanded and  
3 modified interstate pipeline capacity between 2015  
4 and 2030 while historical pipeline capacity  
5 expenditures total more than \$63 Billion between  
6 1998 and 2013.

7 Why is this the case? We are reaping the  
8 benefits going forward of the investments we have  
9 made in the recent past to interconnect more  
10 diverse supply.

11 While challenges remain our interstate  
12 pipeline system has become a more robust network  
13 with excess capacity and multiple alternative  
14 interconnection opportunities.

15 Because projected natural gas production and  
16 demand are geographically diverse, the potential  
17 for pipeline capacity constraints and the need for  
18 additional pipeline infrastructure is lower than  
19 it would be if increased production or demand were  
20 concentrated in a particular region.

21 Traditional natural gas flow patterns have  
22 evolved with the dramatic changes in the sources  
23 of natural gas production in the United States.

24 The geographical shift in regional natural  
25 gas production that has occurred over the last

1 decade largely due to expanded production from  
2 shell formations has resulted in an interstate  
3 pipeline that is not fully utilized.

4 Thus increased demand for natural gas does  
5 not lead to much larger increases in pipeline  
6 capacity because in some regions available  
7 existing pipeline capacity is projected to be used  
8 before expanding existing pipelines or building  
9 new capacity.

10 Finally, the study acknowledges that citing  
11 energy infrastructure in United States is a  
12 complex multijurisdictional and multidimensional  
13 process with no two projects facing the same set  
14 of issues.

15 Where there are constraints deciding new  
16 interstate natural gas pipeline infrastructure,  
17 the projected pipeline capacity editions in this  
18 study are lower than past editions that have  
19 accommodated such constraints.

20 FERC's authorities to facilitate the setting  
21 of this infrastructure are, of course, key.

22 Being encouraged by the fact that that FERC  
23 is diligently reviewing pipeline proposals and  
24 approving new pipelines and pipeline expansions.

25 Indeed, over the last five years alone

1 approximately 44 billion cubic feet per day of new  
2 interstate pipeline capacity has been added with  
3 nearly 6,000 miles of new pipeline constructed at  
4 a cost of more than \$30 billion.

5 Taken at face value this is evidence of  
6 pipeline owners and FERC have been responsive to  
7 the need for additional pipeline capacity to bring  
8 new natural gas to market.

9 Looking forward, DOE is happy to provide any  
10 technical assistance that FERC would find helpful  
11 as you continue to consider the infrastructure  
12 issues associated with EPA's proposed Clean Power  
13 Plan, and in particular, I would like to offer two  
14 specifics on technical assistance.

15 One is we are thinking about following work  
16 to this study and we would be very happy to talk  
17 to you and your staff about what would make sense  
18 and what additional information would be helpful  
19 as you deliberate.

20 And second, I wanted to note that DOE has a  
21 long history of providing technical assistance to  
22 states throughout our programs throughout the  
23 building.

24 We now have a way to make it a little bit  
25 easier for states to access that technical

1 assistance.

2 We now have a portal on our website and it is  
3 [www.DOE.gov](http://www.DOE.gov) / technical assistance and there you  
4 can find all of their resources that we have from  
5 our different offices.

6 In the context of this hearing, probably  
7 especially from our office of electricity, and  
8 Assistant Secretary Pat Hoffman mentioned some of  
9 that, and people can find that information, and  
10 state officials in particular are welcomed to  
11 email us through that website, we can provide some  
12 tailored technical assistance to the extent that  
13 resources allow.

14 CHAIRMAN LAFLEUR: Thank you very much Director  
15 Greenwald. Just a couple minutes ago I warned you  
16 that somebody might ask you a question, and now it  
17 seems I moved to at least make a comment which is  
18 that I thought the report was extremely  
19 interesting.

20 I really enjoyed reading it. It certainly  
21 verified something that we know which is that we  
22 certificated a great deal of natural gas pipeline  
23 over the last 15 years, but the conclusion of the  
24 report on the reduction in investment versus what  
25 we have seen more recently doesn't square with the

1           caseload that we are seeing in our natural gas  
2           certificate work which has been driving our budget  
3           and what we are doing.

4                     I wondered whether that might be partly  
5           because of the flow patterns because we were not  
6           building pipelines across the country any more but  
7           perhaps because the gas is being utilized in  
8           different regions, shorter mileages.

9                     It is just an interesting observation because  
10          we are seeing a great deal of work.

11                    My question relates to I know that the report  
12          modeled like a hypothetical national carbon  
13          strategy where you went and found the most  
14          effective carbon solutions, and under the Clean  
15          Power Plan where we are looking to stay, and  
16          potentially regional strategies, do you see the  
17          DOE being in a position to do more work on the  
18          pipeline needs driven by state and regional  
19          implementation plans under the Clean Power Plan  
20          when they evolve because they may show the same  
21          picture as a national carbon strategy may show  
22          different, I guess depending on the needs of  
23          different states.

24                    MS. GREENWALD: We do think we need to do  
25          more granular analysis. We think other people

1           need to do more granular analysis and is just  
2           going to have to go down to the state level as  
3           people look at what their options are and what  
4           their infrastructure situation is.

5           We think that this is a very useful report,  
6           but we can't either overstate or understate its  
7           usefulness.

8           The broad conclusions we feel very  
9           comfortable with. We think we do have to get more  
10          specific and that the community broadly involved  
11          in this has to get more specific and we stand  
12          ready to help on that and we are actually already  
13          thinking about what more work e we can do as I  
14          mentioned where we welcome collaborating with you  
15          on what would be most useful.

16          CHAIRMAN LAFLEUR: Other comments?

17          COMMISSIONER MOELLER: Thank you for being here Ms.  
18          Greenwald. I do not want to shoot the messenger,  
19          but as you acknowledge, the last page of the  
20          report basically describes its limitations and I  
21          have had this discussion with Commissioner Clark,  
22          but what we are really talking is peak capacity  
23          when it is really needed like in about 16 hours  
24          from now when it is really really cold and there  
25          is a stress on the system.

1           The report was perceived, whether you meant  
2           it to or not, that everything is rosy, but I would  
3           contend it's not, and a little gray. We are  
4           looking in the peak demand is really what is  
5           necessary.

6           Some of my environmental friends are not  
7           thrilled with the prospect of more pipeline in New  
8           England, but just about everybody else has  
9           recognized a need for that, and yet, we are still  
10          not realizing it happened to the extent that many  
11          people would like including almost all the  
12          governors up there.

13          But thank you for being here.

14          I am hoping we can continue the granular  
15          analysis of this because it's absolutely vital if  
16          the Clean Power Plan in my opinion is going to do  
17          more good than harm.

18          CHAIRMAN LAFLEUR: Even the report did single  
19          out New England as a place with special needs. We  
20          are getting so used to that as being singled out  
21          in every report.

22          Mr. Clark?

23          COMMISSIONER CLARK: Sure, actually very much in the  
24          same light that Commissioner Moeller just talked  
25          about.

1           Do you have some concern that it may give a  
2 false impression, the report that this is going to  
3 be a lot easier than it may be in certain areas of  
4 the country and I think that that gets to the  
5 granularity of the issues.

6           As I read through the report, it seems like  
7 what drove a lot of it is the nature of the  
8 geography of the shale that it plays that are  
9 coming about, in the past it is true, the water  
10 gas was produced was much further from where it  
11 was going to be used.

12           You had a lot more miles of pipe that it  
13 would be hooked up to, but that does not obviate  
14 the fact that although the Marcellus is closer to  
15 a lot of large load centers, and you may need less  
16 miles of pipe, you are citing pipe through some of  
17 the most difficult parts of the country cited and  
18 through some of the areas of the country that  
19 probably have the greatest need for the  
20 infrastructure.

21           The challenge remains nonetheless and I just  
22 hope all of us as we incorporate the report into  
23 our thinking realize that Paul Porter was speaking  
24 to some of its limitations.

25           Thanks.

1           CHAIRMAN LAFLEUR: Thank you. I hope you're  
2 still glad you came and is a perfect intro for  
3 this infrastructure panel.

4           I am going to try to do what I did the last  
5 time, but a little modified because I really have  
6 read all the testimony. I know my colleagues  
7 have, but just to set up the conversation before I  
8 turn it over to Commissioner Honorable, I would  
9 like each of you to say the top thing that you  
10 want to get across to FERC.

11           You do not have to cover the whole thing on  
12 this panel as particularly we have people more on  
13 the electric infrastructure side, more in the gas,  
14 and so forth.

15           What is your key point that you want to lead  
16 off the conversation with and then we will go from  
17 there and hopefully have lots of time for  
18 questions.

19           Starting with Chair Jacobs.

20           MS. JACOBS: Thank you, Madame Chairman, and  
21 other Commissioners, thank you for the opportunity  
22 to be here this afternoon.

23           I hope I get more than one sentence to give  
24 you my sentiments. I am going to take a little  
25 bit of a different approach. I'm here fully

1 prepared to talk about physical infrastructure,  
2 but there's another kind of infrastructure that  
3 impacts physical infrastructure and that's  
4 regulatory infrastructure.

5 There's a tremendous role for FERC to play in  
6 terms of being a convener and a facilitator to  
7 talk about the regulatory infrastructure at a  
8 multitude of levels that will impact what can and  
9 cannot move forward on the physical infrastructure  
10 side of things.

11 A couple of examples. One has some open  
12 dockets before you, so I am going to take the very  
13 high road, the staff coming on all sides, but I  
14 promise, I am going to state two, and as a matter  
15 of fact they say nothing about either or any of  
16 the cases.

17 But one of the examples is EPA's MATS Rule  
18 has a compliance date of April 15. MISO which has  
19 a FERC approved resource planning process has a  
20 date of June 1st.

21 One example. I will not go any farther than  
22 that. Staff, you don't have to worry.

23 The other is what Commissioner Moeller talked  
24 about this morning, a generator that is in an EPA  
25 compliance issue versus a must run issue.

1           What I'm saying is we don't need a "one size  
2 fits all" approach to regulation throughout the  
3 country.

4           Certainly, there are lots of differences  
5 between the regions, between state, between  
6 federal, all of that, but it might be helpful as  
7 we go forward to look at things that might at  
8 least be complementary instead of adversarial and  
9 so that would be an important role for FERC to  
10 play.

11           At the RTO level, we have been having some  
12 trouble with getting capacity credit for MISO for  
13 new resources in Iowa.

14           I heard this week it take 665 days for MISO  
15 approval on a generating an interconnection  
16 agreement for a new resource. I have asked MISO  
17 to verify that number because it keeps flying  
18 around out there.

19           The other challenge is then from ISO's tariff  
20 to be revised or approved by FERC is a long  
21 process as well.

22           If we are to have a new generation, if we are  
23 to have new interconnections, 665 some days is  
24 just not realistic.

25           At the state-level looking at Building Blocks

1           3 and 4 in particular, in Iowa, the Public  
2           Utilities Commission which is the Iowa Utilities  
3           Board has responsibility for what is in building  
4           Block 3 and Building Block 4, renewables and  
5           energy efficiency.

6           When EPA comes out with the final rule and  
7           kind of to the question that I think Commissioner  
8           Clark asked this morning about enforceability who  
9           tells us what, everything that we have to do in  
10          those two arenas is laid out very specifically in  
11          Iowa Code.

12          Are we going to have to be beholden to the  
13          EPA or the Iowa Legislature who has determined  
14          what our roles are?

15          What FERC can do is play a very active and  
16          engaged role in this whole process.

17          We had a lot of conversation this morning  
18          right before break about the regional approaches  
19          and what we are all are trying to do regionally.

20          Great conversation about the Midwestern  
21          approach where we have 15 states, one economic  
22          regulator and one environmental regulator working  
23          together trying to do modeling, trying to figure  
24          out what can work.

25          I would hope that same kind of approach could

1 be something that FERC does. FERC can do modeling  
2 for EPA. There's nothing wrong with that. Maybe  
3 never has been done before in the arenas of  
4 reliability or physical infrastructure needs but  
5 that certainly could be done.

6 As we look to the states, and the RTOs, and  
7 the discussions that we have heard this morning  
8 those are takeaways for FERC there as well.

9 I would ask FERC to be extremely involved and  
10 engaged. You do give advice and counsel, and  
11 maybe it's time to kind of break the Washington  
12 mold a little bit more and with that will be much  
13 more active and engaged.

14 Some of the states are holding stakeholder  
15 meetings. They are joint meetings between their  
16 economic regulators and their environmental  
17 regulators and inviting stakeholders.

18 We have four of those in Iowa in the last  
19 year and a half with over 35 stakeholder groups  
20 represented.

21 Is that something that FERC and EPA could do?  
22 Those are the kinds of things, adding DOE, adding  
23 the Department of Interior, you have got a lot of  
24 public lands that we are going to need  
25 transmission and other physical infrastructure on.

1           It is active engagement and we are going to  
2           have to look at regulatory infrastructure as well  
3           as physical infrastructure. Thank you.

4           CHAIRMAN LAFLEUR: Thank you very much for those  
5           very specific suggestions. Some of them sound  
6           hard, but I would rather be regulatory  
7           infrastructure. That should be a good thing and  
8           not a potted plant.

9           Chairman Bitter Smith.

10          MS. BITTER SMITH: Thank you Chairman and  
11          Commissioners. We too appreciate the opportunity  
12          to be here and to visit with you a little bit  
13          about our challenges in Arizona.

14          Actually, as Chairman I would like to have a  
15          label "Special Needs" for my state because that is  
16          exactly the challenges we are facing as we look at  
17          opportunities for us that it simply can't happen  
18          by 2020 or even by 2030.

19          Due partly to Chairman Jacobs comments about  
20          encouraging FERC to be active and engaged we need  
21          your help in that arena as well.

22          We clearly have no ability to meet and get to  
23          what we need to be by 2020, and in fact we are  
24          probably the Poster Child for a glide path policy  
25          even beyond 2030, even if we have a reformed goal

1 for 2030.

2 As many of you know, in Arizona we have all  
3 of our gas comes over pipelines and they are  
4 almost currently at capacity or close to capacity.

5 Infrastructure is key for Arizona, and again,  
6 as many of you may know, and I liked Chairman  
7 Jacobs comments about having the Department of  
8 Interior included, 80% of Arizona land is either  
9 public, BIA, or native American owned, so there  
10 are very stringent challenges for us to look at  
11 citing new infrastructure in any kind of timely  
12 fashion.

13 Even if we were to start today we cannot meet  
14 the proposed deadlines due for plant replacement  
15 and transmission limitations, pipeline limitations  
16 by 2020 and certainly by 2030 under the current  
17 EPA proposed limitations.

18 We are in need of your help and assistance  
19 and active engagement.

20 Joint meetings among the other agencies would  
21 be extremely important.

22 We in Arizona do have stakeholder meetings  
23 that have been driven out of fear partially as I  
24 said earlier on a panel earlier in the week  
25 because we know that the implications for Arizona

1 are dire.

2 In July unlike here in DC where it is  
3 knowing, maybe not in particular in July, every  
4 single amount of power generating from our power  
5 plants is being utilized. We have no room for  
6 error to keep the lights on.

7 My one message today is that you heard  
8 earlier with the earlier panel, one size does not  
9 fit all, that we are, again, a perfect example for  
10 that configuration.

11 You heard a lot about needing to have  
12 flexibility? We are there. That is exactly what  
13 we need is flexibility and understanding for our  
14 unique challenges.

15 And we heard that the term glide path which I  
16 said earlier is exactly what is a challenge for  
17 us.

18 We need you to help assist us in  
19 communicating the urgency of that message. We  
20 need you to help us potentially coordinate  
21 cooperative conversations.

22 We look forward to that opportunity and we  
23 look forward to revisions proposed in the plan and  
24 we look forward to the opportunity to look at what  
25 works in Arizona.

1           It may not also be the right solution for  
2 California, but every state has unique challenges  
3 and I welcome the label "Special Needs" Chairman,  
4 that would make my life much easier.

5           CHAIRMAN LAFLEUR: Thank you very much. Mr.  
6 Bradish?

7           MR. BRADISH: Thank you, Chairman, and  
8 Commissioners, I do appreciate the opportunity to  
9 be here.

10           I will start this morning by saying that we  
11 all got up. Some of us stumbled out of bed. We  
12 had to stretch a little bit to get out backs  
13 going, but we eventually got to a point where we  
14 touched a light switch and that light switch when  
15 we moved it the lights came on.

16           We call that the miracle working again  
17 because that's what it is, you turn that switch  
18 on, you are not the only one that turned a switch  
19 on. There are millions of others all at the same  
20 time, turning their switches on and off and you  
21 have the full expectation from everybody except  
22 the lights do come on, and the TV comes on when we  
23 hit the remote and the gas or the electric stoves  
24 come on when we turn those on, and everybody  
25 expects that to happen and so my "ask" to the

1 Commission is going to be for you to help us  
2 continue with the miracle.

3 The polar vortex, we talked a lot about that  
4 last year. There is a tremendous amount of  
5 infrastructure in place to get us through the cold  
6 weather last year.

7 There is a tremendous amount of  
8 infrastructure to get us through the cold weather  
9 that we are experiencing now and some of that  
10 infrastructure goes away in a few months.

11 We are just going to turn off, AEP turning  
12 off 6000 MW in a few months.

13 It just goes away and it is not being  
14 replaced. It is not like we are turning that off,  
15 we are turning something on to replace it, it just  
16 goes away.

17 We are concerned about that as an operator of  
18 a transmission system. We are very concerned  
19 about that. We have done the planning studies.  
20 We think we have a plan in place that will help us  
21 Through this process.

22 These retirements are driven by the last  
23 go-round on the environmental regulations with  
24 MATS, so that infrastructure we are working on it  
25 today will not be in place by the summer of 2015,

1 all of it, probably will, but some of it will not  
2 be in place until later on in the year where we  
3 are trying like heck to make sure we get it all in  
4 place before next winter after this one.

5 Infrastructure matters and the infrastructure  
6 disrupted is very important and we got to get the  
7 infrastructure right in order to keep that miracle  
8 going.

9 From my perspective some things that you can  
10 do is take EPA up on the invitation as a teaching  
11 moment for them making sure that everybody  
12 understands how disruptive large changes in supply  
13 are to the actual functioning of the power system  
14 and what we need to do about that.

15 We need to educate the EPA on what it takes  
16 to actually feel the infrastructure, how do we  
17 decide what infrastructure is needed, and then how  
18 do we actually go about building that  
19 infrastructure?

20 Probably one of the most important parts of  
21 that, and then we talked a little about that this  
22 morning, is the time line involved in that.

23 You just have to recognize the realities of  
24 the situation we are in. You just have to  
25 acknowledge that and it just takes time to work

1 through this stuff.

2 It is not that it can't be done. It just  
3 needs time to work through that process.

4 As soon as you are done educating, then I  
5 will take you to your current process herein with  
6 Order 1000. I would encourage you very much to  
7 work on the interregional planning.

8 I was here this morning Commissioner Moeller  
9 when you mentioned your frustrations perhaps with  
10 interregional planning.

11 AEP is a very large system.

12 Our eastern footprint sits on the border  
13 between PJM and MISO. We make up about 65% of  
14 that seam between PJM and MISO.

15 We are very interested in a functioning  
16 interregional planning process. We have got a lot  
17 there at stake and we are very committed to  
18 helping make that happen, but for us interregional  
19 planning is critical.

20 We also happen to have a western set of  
21 companies that share a seam between SBP and MISO.

22 Again, very important to us.

23 Do not give up on interregional planning and  
24 I encourage you to push very hard on that to go  
25 through that and get something that is meaningful

1 in place and something that can actually produce  
2 an actionable plan.

3 If you are not exhausted from that part, then  
4 how about the harmonization of the gas and  
5 electric businesses?

6 I know that is in front of you and I know you  
7 are working on those issues and those would be  
8 extremely beneficial to both industries, to both  
9 the gas and electric industry and we can work  
10 through to get that done.

11 Then finally there is still an opportunity as  
12 we build out this infrastructure if we are indeed  
13 interested in expediting the process then the  
14 permitting process is the one that seems to take a  
15 big chunk at a time and we have to go through that  
16 process.

17 We're not suggesting we don't, but anything  
18 you can do to help us expedite that process would  
19 be extremely helpful.

20 My "ask" is you just help us continue to keep  
21 that miracle and if you had worked on those things  
22 you will do that.

23 CHAIRMAN LAFLEUR: Thank you, and not to pick on  
24 my friend John Shelk, but I just remind people to  
25 be brief so that that we can have time for

1 questions as well.

2 MS. SHELK: There used to be a clock in the  
3 middle.

4 CHAIRMAN LAFLEUR: That's why they are only  
5 letter us do this one. When staff runs the other  
6 ones they are going to be Tick Tick Tick.

7 MS. SHELK: A quick message and two asks.  
8 The message is that this Commission, for those of  
9 you here today, and your predecessors, are  
10 actually 20 years ahead of the Environmental  
11 Protection Agency in acting to give us a very  
12 vibrant extensive infrastructure on the supply  
13 side today, that is not only prepared to help meet  
14 the goals of the Clean Power Plan, but is already  
15 reducing carbon emissions, and I think it is well  
16 known that the increase in the nuclear power plant  
17 capacity factor is Building Block 2 would not  
18 exist without a combined cycle natural gas plants  
19 that already increased efficiency coal, so you  
20 should be commended all of you and your  
21 predecessors and that's because of the wholesale  
22 markets with the procompetitive policies that you  
23 forward, but we cannot rest in our laurels, none  
24 of us, not in the private sector, and not in the  
25 regulatory side and that is because while we are

1 all focused on the Clean Power Plan today  
2 understandably the fact is that decisions are  
3 being made today in this week, in this month, and  
4 next year long before 2020 some of which are  
5 enhancing the ability of the grid to reliably  
6 supply power consistent with the goals of the  
7 Clean Power Plan and other investment decisions  
8 that are not.

9 Part of the message at least as to the two  
10 asks is obviously in the markets as you know you  
11 oversee them over two thirds of the country are in  
12 markets of various shapes and sizes and that is  
13 where 95% of our 210,000 MW is located those  
14 markets operate and this gets to your admonition  
15 to be granular and concrete, those markets operate  
16 and must continue to operate on security  
17 constrained economic dispatch as the model, as the  
18 algorithm, as the way in which plants are  
19 dispatched and around which planning occurs.

20 We have found much to our dismay very costly  
21 as a country those instances in which we have not,  
22 and in conversation, we can talk about some  
23 specific ways there are aspects of the proposed  
24 plan that are not consistent with economic  
25 dispatch and others that are not which is why our

1 unified principle as an association is that  
2 whatever happens to match up the plan with what  
3 the markets do there really needs to be a price  
4 based mechanism.

5 There are various ways of doing it. We do  
6 not have a singular endorsement of any particular  
7 approach, but I think you will find all economists  
8 in market design experts and operators would rally  
9 around a price based as opposed to other  
10 mechanisms for reconciling the two.

11 That leads me to the most important ask and  
12 the last point which is you all have done an  
13 incredibly important work on capacity markets last  
14 year in the technical conference and you recently  
15 had the RTOs report on fuel assurance. You have  
16 done equally important work at the staff level of  
17 the Commissioners on energy price formation, that  
18 is well over 70% of the revenue.

19 That's the signal and it is not just a signal  
20 and a directional beacon. It is also the means in  
21 terms of revenue to make these investments to make  
22 them on time, to make them reliably to make them  
23 consistent with the plan to keep the  
24 infrastructure going.

25 And there is a need to follow through on that

1 independent of the Clean Power Plan with just as  
2 your original pro-competition policies had  
3 co-benefits of better environmental outputs.

4 We think the same would happen here and that  
5 fuel assurance paradigm of requiring the RTOs to  
6 come back based on the principles and issues you  
7 uncovered in three workshops last year and having  
8 them come back not just with where they are today,  
9 but a work plan to implement those improvements as  
10 we think that will go a long way to improve the  
11 markets for the core of just and reasonable work  
12 of the Commission but the co-benefit is to make  
13 the supply system and the infrastructure stronger  
14 for the Clean Power Plan.

15 CHAIRMAN LAFLEUR: Thank you very much. Mr.  
16 Gramlich.

17 MR. GRAMLICH: Thank you Chairman LaFleur,  
18 and Commissioners, I really appreciate the  
19 opportunity to be here. This is of historic  
20 importance related to this decade's major  
21 challenge for the electric industry, perhaps for  
22 the next decades as well.

23 The Commission was deeply involved in QFs in  
24 the 1980s, open access in the 1990s, restructuring  
25 in the 2000s, so this is of similar magnitude and

1 importance.

2 I really appreciate also all the previous  
3 panelists whose comments have all been reasonable  
4 and we have agreed with the original EPSA on  
5 markets.

6 And, Bob, particularly on morning back pain  
7 as well as transmission, and I see now that it's  
8 those seats that the Commissioners advisors have  
9 to sit in that cause mine, but some day I will  
10 catch up with these chairs as these are better.

11 My main message is solutions are available  
12 and have been proven to and have been done  
13 recently. There will be infrastructure needed,  
14 but at the scale that we've been doing so really  
15 what we need to do is keep it up and those  
16 solutions didn't just come by themselves, they  
17 came with an active role for all of the industries  
18 participants states utilities and in particular  
19 FERC.

20 FERC's going forward will be as important if  
21 not more important than any of those previous  
22 historic changes affecting the power sector.

23 In the infrastructure development side, it  
24 has often been said that if you love wind, you've  
25 got to at least like transmission. We believe

1 that. A lot of utility executives have said that  
2 and the good news is that a lot of transmission  
3 has been built with FERC leadership with RTOs,  
4 various utilities around the country.

5 I think EEI members alone built \$17 billion  
6 of transmission in 2013. That's about a four-fold  
7 increase from the previous decade. That is the  
8 level and scale of transmission we need to keep  
9 going and keep doing.

10 If we do that, and there was at one time 60  
11 gigawatts worth of new transmission allowing the  
12 wind to come on the grid, so at least for wind  
13 energy's role in carbon reductions in the power  
14 sector that transmission, if we keep up that  
15 scale, we can make a major dent in the needs of  
16 many states and utilities have.

17 That's one part of the solution and another  
18 part is reliability studies and renewable energy  
19 integration studies. I am thinking more of the  
20 utility level and regional level of the sort that  
21 Commissioner Clark mentioned.

22 The nationwide ones have a role, but really,  
23 I think looking more granularly at the particular  
24 needs and resources and any utility or state to  
25 make sure resort study as we go.

1           Many utilities have looked at 5% renewable  
2           integration and then they said, yes, we can do  
3           that, then they did it and then they said to take  
4           it to 10%, we can do that, so that's the  
5           deliberate study reliability check as we go will  
6           be essential.

7           The last point is that these solutions,  
8           transmission infrastructure in renewable energy  
9           integration in particular do not just happen.

10          They all require a very active role for FERC,  
11          so I will echo the theme here on chopped liver,  
12          potted plant, wallflower, whatever cliché you  
13          like, but FERC needs to play a very active role.

14          The Agency is up to the job and I think the  
15          industry is up to the job, so I say let the hard  
16          work begin. Thanks.

17          CHAIRMAN LAFLEUR: Thank you. Mr. McMahon.

18          MR. McMAHON: In the pipeline industry, in  
19          the process in creating new infrastructure one of  
20          the key elements of that processes is timing.

21          There's kind of three pieces of building  
22          infrastructure. There is the commercial aspect  
23          which is do we have customers who are willing to  
24          purchase the transportation capacity that will  
25          justify the build?

1           If we do, then we can find the capital and we  
2           have demonstrated the ability to build.

3           The second piece of that is the certificate  
4           process and the certificate process is going to  
5           vary based on the size of the facilities and the  
6           location of the facilities.

7           The certificate process at the Commission is  
8           we have no complaints. The one suggestion we  
9           might give you is to give your project managers  
10          greater empowerment, but the Commission is moving  
11          things through in a timely manner, and they have,  
12          and that is evident by the amount of pipeline  
13          capacity we built.

14          The challenge, in kind of what I call "the  
15          regulatory process," is not so much with this  
16          Agency, but it is with all the other agencies.

17          When you look at the regulatory mandates and  
18          their regulatory structures of a lot of different  
19          agencies both at the state and federal level, what  
20          you're seeing are some differences, some  
21          dislocations, some overlap and some confusion.

22          And it is much more and difficult to permit a  
23          pipeline today than it was in 2005, the last big  
24          build out the industry did.

25          It takes more time and a lot of that has to

1 do with some of the same challenges the Commission  
2 is facing as its more experienced members of its  
3 staff are retiring, as that is hitting a lot of  
4 other agencies, but it is the demand and the  
5 number of infrastructure projects are being built  
6 especially along the Gulf Coast and other areas  
7 where you not only have interstate pipelines, you  
8 have intrastate pipelines, you have industrial  
9 facilities, you have LNG facilities, you have all  
10 these other people hitting the same permitting  
11 agencies and basically delaying.

12 And the last piece is a construction and  
13 remarkably that is becoming the easiest piece of  
14 the project.

15 But I go back to kind of the one thing, the  
16 one message that I would like to leave is timing  
17 matters.

18 To get through the process it takes time. As  
19 much as we would like to be able to go out and  
20 build a pipeline within a year from the time you  
21 sign your contract, you may be able to do that on  
22 a very small project, but most projects from the  
23 time you sign that first contract to the time that  
24 goes in the ground it is at least three years.

25 So a week here, a month there, that all

1 matters. Timing really does matter in working  
2 through the morass, and I use the term morass, it  
3 is because it is nobody's intent, it is just the  
4 way the agencies have developed and how they have  
5 developed their own sets of rules and regulations.

6 The last point I would like to make is this.  
7 There have been questions about whether we will or  
8 won't build facilities and I go back to something  
9 that Commissioner Moeller said.

10 We get a little concerned when we hear that  
11 there is "excess capacity" or "not fully utilized  
12 capacity". That is probably true on every  
13 pipeline, but below that "Access" or "not fully  
14 utilized capacity" is may or may not be where  
15 markets are being developed where you need new  
16 infrastructure.

17 In key locations where you're growing you  
18 probably do not have excess capacity, so you don't  
19 have to build through compression, through adding  
20 new pipe or building lines off of your laterals  
21 off your pipe once you attach new load.

22 The key here is we have to look at this on a  
23 project by project, pipeline by pipeline, basis  
24 and the one thing that I think the pipeline  
25 industry does, and why we are confident we can

1 meet the market's needs is we do compete against  
2 each other.

3 We are all looking for, and chasing, new  
4 load, so we are actually providing the market with  
5 the most competitive solution available.

6 Somebody can do it through just adding  
7 compression that's going to be a much more  
8 economic project than if somebody has to build in  
9 50 miles of new pipe.

10 What we would ask you guys to do is to keep  
11 doing what you have been doing to keep supporting  
12 our projects as we bring them to the Commission.

13 CHAIRMAN LAFLEUR: Thank You. Finally, Chairman  
14 Hoecker.

15 MR. HOECKER: Thank you, Chairman, and thank  
16 you Commissioners. It is a privilege to be here.  
17 I have not been on this side of the table since I  
18 was a junior attorney and OGC a long time ago.

19 I made presentations on Section 202 under the  
20 Federal Power Act, and after I finished, Chairman  
21 Curtis looked at me, and he looked at his statute  
22 book, and he said, "I don't think we have the  
23 authority to do this."

24 That is when I switched from advisory to  
25 litigation staff.

1           But the limitations on the Commission's  
2 authority is certainly at issue here. We are  
3 talking about somebody else's rule making that is  
4 going to impact a whole lot of entities over which  
5 you have very little say.

6           But I subscribe to what everyone at the table  
7 today has said already, that it's absolutely  
8 critical that the Commission be active and as an  
9 educator and as a regulator because this is  
10 happening all over your jurisdictional turf.

11           The CPP, the Clean Power Plan, is going to be  
12 transformative. No question about it.

13           We have heard a lot today about reliability,  
14 about access to diverse resources, we will hear  
15 more about markets and there is one thing that  
16 touches all of that and that's electric  
17 transmission.

18           Transmission. I guess the bottom line here  
19 is that it can no longer be a band-aid, something  
20 you do to patch a reliability problem.

21           We are talking about enabling transmission as  
22 an enabler of new technologies of the markets that  
23 you all have been championing for a long time.

24           It is not acceptable anymore to look at  
25 transmission as something to be avoided because it

1 provides so many diverse kinds of benefits.

2 The CPP notwithstanding, this is something  
3 that needs your continued attention.

4 I really appreciated the response to  
5 Commissioner Honorable's question, the sense of  
6 urgency that we saw in the first panel  
7 particularly from Gerry Cauley about the need to  
8 really get moving in advance of the implementation  
9 of this rule making.

10 Everybody has a big stake and certainly the  
11 uncertainties here are enormous, but a strong  
12 transmission system is the key instrument for  
13 addressing uncertainty.

14 I have three points that I would like to  
15 make. Maybe they are asks or maybe they are just  
16 strong suggestions, I don't know.

17 One is focus on your advisory role, your role  
18 as an educator particularly with regard to the EPA  
19 which is climbing the learning curve, they are  
20 doing a remarkable job and the deputy  
21 administrator, I thought, acknowledged that and  
22 also acknowledged the importance of transmission  
23 this morning as opposed to the tone of the note  
24 for itself which is really, "Don't worry, be  
25 happy, transmission will show up."

1            Crossing this point with EPA is important and  
2            their understanding of the challenges to  
3            developing transmission, I think, is important.

4            I don't know a transmission owner, a  
5            transmission developer in the country, who  
6            wouldn't die to have Michael's problems, "Oh, it  
7            takes three years to build a pipeline!"

8            Well, we are in a parallel universe on the  
9            transmission side and 5 to 10, and longer, than  
10           that, is easily the case.

11           Secondly, and I can't stress this enough,  
12           you've already contributed mightily to solving the  
13           implementation problems, at least on the  
14           transmission and the market side of this rule.

15           It's called Order 1000. You have processes  
16           out there that can be employed for convening  
17           stakeholders to begin to plan and to begin to  
18           adjust to the new world Of Clean Power Plan.

19           There are regional solutions and they are  
20           entirely due to this Commission and there a lot of  
21           other devices buried in the Federal Power Act.

22           You can work with states in a very  
23           authoritative manner under Section 209 of the  
24           Power Act.

25           I was always hesitant to support joint boards

1           because it was viewed as sort of a compromise of  
2           the Commission's authority.

3           On the other hand, this is an extraordinary  
4           situation. You might want to think about that.

5           There are a lot of states, I just heard our  
6           two Commissioner friends from Arizona and Iowa  
7           suggest that they need your help and cooperation.

8           And, finally, it is never too early to start.  
9           We can't do SIPs and transmission planning  
10          sequentially. By the time these plans are  
11          developed a good deal of time, will have been used  
12          up and the transmission is going to be necessary  
13          to implement particularly Building Block 3 but  
14          even some in Building Block 2 are going to be a  
15          long way from completion.

16          Those three things are things that I would  
17          just strongly urge you to think about.

18          CHAIRMAN LAFLEUR: Thank you. It seems that  
19          your command of rarely used sections of the  
20          Federal Power Act has not diminished at all since  
21          your time up here.

22          Now let me turn it over to Commissioner  
23          Honorable to kick off the questioning.

24          COMMISSIONER HONORABLE: Thank you, Madame Chairman  
25          and I appreciate this great privilege.

1           Good afternoon and thank you for your  
2 thoughtful opening remarks.

3           Certainly you have come to this session with  
4 an appreciation for what FERC maybe has done well  
5 and the things that this Commission has worked  
6 very hard on in recent years, but I want to ask  
7 you now to focus on some things that may need  
8 changing in your opinion.

9           Are there any FERC policies that need work or  
10 changes in terms, this is broadly speaking not  
11 with regard to any particular docket, with regard  
12 to rule makings that would enable you to begin  
13 this work more readily or more ably, if you will?

14           Certainly, to Chairman Hoecker's point, we  
15 know our role here and now we have a new term  
16 "wallflower" added in the bunch.

17           I do not think there is a wallflower among  
18 this group, but it is a delicate walk that we are  
19 walking here.

20           We recognize that it is not our rule making,  
21 but we do have a role to play and it is a  
22 significant one.

23           In order to aid you, the stakeholders, in  
24 doing this work, I want to ask you what things can  
25 we do better? Is there work yet that we must do

1       aside from advising, counseling, and convening and  
2       educating? So, please, if we could drill down a  
3       bit into maybe some? Libby gave a couple of good  
4       real live instances, but I want to hear from you  
5       about others.

6             I recognize your card, Mr. Chairman.

7             MR. HOECKER: Thank you. You need not call  
8       me Mr. Chairman. Just call me Mr. X Chairman.

9             One thing I would mention is certainly an  
10       evolving issue on the transmission side is cost  
11       allocation.

12            Cost allocation needs some more certainty,  
13       let's put it that way, particularly when it comes  
14       to one of the new drivers for transmission  
15       construction which is going to be public policy  
16       and the CPP in particular.

17            It would be nice to know up front what you  
18       consider to be benefits when we talk about what  
19       beneficiaries pay.

20            Those have been identified, I have to say,  
21       with some pride by WIRES in a couple of reports  
22       and there's another one coming out fairly soon and  
23       the resolution of a lot of the debate, some of the  
24       give-and-take with the 7th Circuit, as part of  
25       that, but as to what is a benefit, how planners

1 take those into account when they judge whether a  
2 project should or should not be built.

3 This is a big open area in my estimation and  
4 this Commission needs to provide some considerable  
5 guidance.

6 COMMISSIONER HONORABLE: Thank you, Ex-Chairman.

7 MR. GRAMLICH: I will give you some time back  
8 because I pretty much think the same answer as  
9 Jim.

10 The benefits of recent transmission  
11 investments have exceeded the costs by about two  
12 fold, 100% higher benefits and costs. It's still  
13 an extreme challenge to get the planning and cost  
14 allocation agreed to in these regions and I think  
15 we need to go a little further and I would  
16 recommend to the Commission that it go back and  
17 revisit the question and Order 1000 that said the  
18 planning entities should just consider public  
19 policy requirements.

20 I don't think at the time anybody in the  
21 record was talking about a Clean Power Plan.

22 I think they had in mind maybe renewable  
23 portfolio standards and we have, by the way,  
24 pretty much met most of the ones on the book, so  
25 that's not an issue.

1           Really, if states are truly going to have the  
2 flexibility that EPA intends to comply with the  
3 Clean Power Plan, then they are going to need  
4 transmission creating those options, so public  
5 policy needs to get into those plans.

6           MS. SHELK: Just briefly, what the Commission  
7 does every day is important for the reasons I  
8 mentioned. Related to that LNG price formation in  
9 capacity markets but particularly energy price  
10 formation is essential.

11           What the workshops detail is excellent fact  
12 based, the data-based work was that there are  
13 basically, if you reduce it to a single principle  
14 instead at the operator, the grid operator takes  
15 an action in the name of reliability to operate  
16 the grid, then that needs to be reflected in price  
17 if it's not those of us investing based on price  
18 they are not going to see that.

19           Related to that, and I mentioned this  
20 briefly, so it would be helpful for the Commission  
21 to look through the plan because there are  
22 potential market impacts, so you must talk a  
23 little about it in the next panel, but they are  
24 all related to infrastructure eventually in terms  
25 of how the plan is implemented.

1           For instance, if you look at Block 2 there  
2           are a number of ways in the plan that states could  
3           choose to reach that 70% capacity factor that was  
4           mentioned earlier.

5           There are things like runtimes and there are  
6           other limits on the individual plants for reasons  
7           that the RTOs have spoken about do not really  
8           work.

9           There are priced-based ways to do it that you  
10          will hear about in the next panel.

11          There are some anomalies to be aware of that  
12          may not sound like they were market impact, but  
13          they could and that is not all power plants as you  
14          know are covered by this plan.

15          Not even all fossil fuel power plants are  
16          covered by plan. New power plants at present are  
17          not, nor are plants that run at less than 33%  
18          capacity factor.

19          Imagine a state where the emissions rate from  
20          a new combined cycle plant is less than the state  
21          target those emissions do not count. So you could  
22          have uneconomic entry into the market as a result  
23          of that phenomenon just as you could have out of  
24          market revenues from other ways the plan would  
25          work.

1           This Agency has a strong tradition in  
2 expertise and how markets work and policing them  
3 to keep them as economically integrity as  
4 possible.

5           There are details in the plan that I would  
6 think would be things that the Commission and the  
7 Commission staff would want to look into more  
8 closely if they have not already.

9           MR. BRADISH: I will go back to some of the  
10 things I said in my ask list earlier. Certainly,  
11 interregional planning is near and dear to our  
12 heart, and again, I will urge you not to give up  
13 on interregional planning to push forward on that.

14           It is not that the RTOs are not trying, but  
15 it is slow going and we have not gotten to where  
16 we can actually get an actual plan out of the  
17 process so continue to push hard there to get us  
18 to a place where a part of that becomes  
19 meaningful.

20           I will assume to echo what the Ex Chairman  
21 said and Rob said about public policy issues about  
22 cost allocation. Those things are all things that  
23 are going to have to be resolved here because this  
24 is certainly a public policy endeavor, the CPP, so  
25 we have got to know what direction we are supposed

1 to go in terms of how we are going to allocate the  
2 cost.

3 You have got lots of generators retiring and  
4 lots of new generators that are coming on, the  
5 cost allocation for generation interconnection is  
6 different depending on where what state you're in.

7 It is different between generation  
8 interconnection costs are assigned differently  
9 than regional transmission planning have costs.

10 When you do it all at once, what does that  
11 look like when everybody is coming and who is  
12 causing what?

13 You know calculation of the benefits would be  
14 a very important part of this and then assigning  
15 those benefits for public policy types, so I would  
16 echo what the other gentlemen said as that is  
17 going to be a very challenging process to go  
18 through for the stakeholders for sure.

19 Then I mentioned the harmonization issues,  
20 again, as the electric utility, as an electric  
21 business begins to rely more and more on the gas  
22 we are being tied more and more closely together  
23 we have got to be able to function well together.

24 I am not pointing fingers. We both have to  
25 come to the table and figure out how to get that

1 done and I would encourage you to hold our feet to  
2 the fire and make sure that we do that.

3 I know that you have taken a stab at it but  
4 we have got to get that done.

5 Even when I think about from a planning  
6 environment, so we look at things called  
7 contingency so that if we're going to lose  
8 transmission lines, we are going to lose power  
9 plants, and now, depending on the gas  
10 infrastructure, we may have to look at what if we  
11 lose the pipeline and how many plants go out for  
12 the pipeline.

13 So even our own planning approach may need to  
14 be modified a little bit. Again, it depends on  
15 how the two come together and where we end up at  
16 the end of that process.

17 To me those are some of the things that would  
18 certainly be helpful.

19 MS. JACOBS: Thank you. I know I have a few  
20 suggestions. This is maybe a broader piece taking  
21 a page out of both public and private sector  
22 management books just general process improvement.

23 You all know or your staff all knows where  
24 some of the bottlenecks are, a lot of entities use  
25 lean process, kisans to try to figure out how you

1 can improve a process and maybe that would help if  
2 from a timing standpoint to expedite some things  
3 if there are a couple of those kinds of pressure  
4 points that could be looked at and reviewed.

5 I don't have specifics. You all know what  
6 those are probably internally.

7 COMMISSIONER HONORABLE: Thank you. Madame  
8 Chairman, I would just say in closing that I  
9 really appreciate your thoughtfulness with regard  
10 to your presentations today, but more importantly,  
11 the work you are carrying out. It is not lost  
12 upon us in how challenging it is.

13 I would appear before our state legislature  
14 from time to time with personnel requests, and to  
15 justify them I would talk about how complex this  
16 work was, so after a while a member of our team  
17 went forward to ask for another slot. And she  
18 said, "Let me guess. It is complex."

19 We get that it is complex, but it's certainly  
20 nothing like living it day in and day out, and for  
21 that, thank you.

22 CHAIRMAN LAFLEUR: Thank you and turning next to  
23 Commissioner Bay.

24 COMMISSIONER BAY: Thank you. I want to thank all  
25 the panelists for coming here today.

1           Your remarks have been very very thoughtful  
2           and helpful.

3           To what extent will a glide path help you  
4           deal with infrastructure related concerns and I  
5           know there has been some discussion of the glide  
6           path in your remarks, but I want to do a specific  
7           drill down on that alone.

8           MS. BITTER SMITH: Commissioner, I might  
9           start, because as you might have guessed, from my  
10          concerns, timing is everything and Mr. McMahon  
11          mentioned about the implications of timing for us  
12          for infrastructure so additional opportunities  
13          particularly for Arizona that has a 2020 looming  
14          large 90% of attainment rate that is impossible  
15          for us to do, time means that we have the  
16          opportunity to explore and deal with the  
17          challenges we have to meet.

18          We talked about transmission lines a few  
19          minutes ago by the panelists, and I think you said  
20          5 to 8 years, there is a sunzi of powerlines still  
21          sitting in our region of the world that is in year  
22          eight.

23          It may filed before my term expires in 2016,  
24          but it's anyone's guess.

25          Timing is extremely important and key and the

1 flexibility of timing of when whatever happens in  
2 the Clean Power Plan final rules are implemented  
3 allowing for work different kinds of regions, for  
4 different kinds of states to have different timing  
5 patterns perhaps because of the uniqueness of lack  
6 of additional pipeline and the inability to put a  
7 transmission line citing in any kind of timely  
8 fashion.

9 I just want to add to that, and I know that  
10 you all are very familiar with this, multiple  
11 jurisdiction, particularly multiple landowners,  
12 public landowners, create -- well, the word morass  
13 was used earlier, to create a morass of processes  
14 for us to even begin to talk about new  
15 transmissions.

16 If I could leave you with one thing, timing  
17 is key for all of us. It is extremely important  
18 to those of us in the west and particularly  
19 Arizona.

20 COMMISSIONER BAY: Thank you. Mr. Bradish.

21 MR. BRADISH: The answer you got this  
22 morning, I cannot remember who gave it to you,  
23 talked about what that glide path would look like,  
24 I guess, and I interpreted their comments and the  
25 concern there was, well, we have a glide path, but

1 don't put a cliff in 2025 or don't put a cliff in  
2 2027.

3 The challenge for us is the sudden  
4 disruption. Again, we go back to the issue of  
5 building infrastructure and our business just  
6 takes time.

7 So glide paths are a way to ease that  
8 certainly, so we have time to get the  
9 infrastructure done.

10 By the same token, if at the end of the day  
11 we are still having significant disruptions, we  
12 have to figure out a way to void those also and  
13 smooth those out.

14 We just have to be careful what that glide  
15 path would look like.

16 But, again, I go back to what the  
17 Commissioner just said on the issue of just timing  
18 alone.

19 I take us back to the MATS, that experiment  
20 that I had talked about earlier that we are going  
21 through now.

22 When we went through that process, I figured  
23 when I was going to retire, we then worked  
24 directly with the RTO and our neighboring TOs to  
25 figure out what transmission infrastructure had to

1 get done.

2 We went through that process very quickly  
3 because there was a limited number of parties  
4 involved. There was not competition to worry  
5 about.

6 The cost allocation wasn't going to be an  
7 issue, but it still took us eleven iterations to  
8 figure out what the ultimate plan is going to look  
9 like.

10 We had to go back and forth with the RTO  
11 owner and our neighbors to figure out what the  
12 ultimate configuration was going to look like and  
13 what we build.

14 We worked through that process remarkably  
15 fast, but for every iteration you go through you  
16 have got to run a reliability analysis.

17 You have to look to see to make sure if  
18 you're suggesting that you're going to do  
19 something that you are not doing harm to your  
20 neighbor because of the interconnective nature of  
21 the grid we influence each other, so you have to  
22 iterate that process.

23 Now, just take that and expand it and blow it  
24 up to what we are talking about here with the CPP,  
25 but with a whole lot more parties involved, a lot

1 more complexity around it.

2 Timing issues. It is an incredible issue  
3 that we really have to get our arms around. We  
4 really have to think through how this is going to  
5 work.

6 I like the comments, Commissioner Honorable,  
7 that you had about the process, to think about  
8 what that process is going to look like and figure  
9 out how that's going to work, what comes first,  
10 then what are we going to do next and how many  
11 iterations or loops are we going to do in that  
12 process to make sure we get that worked out and  
13 then trying to put that into some kind of time  
14 frame and then glide back to.

15 Because putting the glide path in first still  
16 you may put yourself in a place for you just  
17 simply can't get there.

18 Talk about the process. Talk about what you  
19 want to get to and then figure out what it takes,  
20 how quickly you can move through that, and then  
21 you can set your glide path up around that, but it  
22 is going to be a huge challenge for us to get  
23 there.

24 COMMISSIONER BAY: Thank you. Mr. McMahon?

25 MR. McMAHON: This goes back, if you have a

1 cliff where everybody has to meet a certain date,  
2 I am being very practical at this point, you are  
3 going to have a resource constraint.

4 By that, I mean you have a regulatory  
5 resource constraint both at the Commission and at  
6 the permitting agencies.

7 You do not have a resource constraint and the  
8 people to build infrastructure be it at generation  
9 facilities, be it the pipeline, so anytime you  
10 create a constraint you change the whole economics  
11 of any type of project. We all know that from  
12 basic economics.

13 Anytime you can smooth out and give people  
14 the advantage of time to plan and then once you  
15 have the ability to plan, you also have the  
16 ability to rationalize both from a regulatory  
17 perspective and from a physical perspective, so  
18 giving our customers the time or our customers  
19 have the time to meet the thing in a rational  
20 fashion will allow the infrastructure never to be  
21 the constraint.

22 COMMISSIONER BAY: Thank you, Chairman Hoecker?

23 MR. HOECKER: With transmission, we are  
24 undergoing a renaissance of transmission  
25 development right now at the rate of somewhere

1       around \$10-\$13 billion a year, it may decline a  
2       little bit this year, but there is always a  
3       question as to whether we pick the low hanging  
4       fruit and we are planning or prepared to build the  
5       kind of major facilities that the transformational  
6       effect of the CPP is going to bring upon us.

7               Looking at the near-term deadlines in the EPA  
8       rule making, it creates pretty obvious problems if  
9       you're talking about starting to build a project  
10      to serve a particular new resource under Block 3,  
11      for example.

12             We are looking longer term at a glide path or  
13      whatever you want to call it, but I would just  
14      reemphasize the need for a sustained or looking  
15      for your support for a sustained commitment to  
16      invest in the grid year in and year out for the  
17      next decade and a half because that is what it is  
18      going to take.

19             COMMISSIONER BAY: Thank you.

20             CHAIRMAN LAFLEUR: Thank you. Commissioner  
21      Clark?

22             COMMISSIONER CLARK: Thank you. It seems like we  
23      have made a little bit of a transition here in my  
24      opening to date, I talked about that some of this  
25      is an outward look as in a discussion to EPA and

1           some of it is an inward look amongst those of us  
2           in the regulatory community.

3           This morning was a lot of some of that  
4           outward conversation. "EPA, here are concerns  
5           that we have, please take this into consideration  
6           as you are writing the plan."

7           On this panel and probably the next one as  
8           well we are engaging more of an inward discussion  
9           within the regulatory community about how do we  
10          handle some of the things that are going to be  
11          coming at us from an infrastructure development  
12          and later from a market standpoint.

13          I will ask just a few questions, again,  
14          directed at specific folks.

15          Chairman Bitter-Smith, thanks for being here.  
16          Arizona is one that I too have often used here as  
17          a poster child for why those building blocks and  
18          the interim targets are really really important  
19          because if you get them wrong some really bad  
20          things can happen with particular states and that  
21          is an example of one where there has been a lot of  
22          concern raised has been a number of others.

23          I am curious from the standpoint of working  
24          regionally with your peers in the Western region.

25          How challenging is it for a state that is a

1 big outlier to find any regional peer who is  
2 willing to work with them?

3 Because my guess is that it's probably pretty  
4 tough because other states do not want mix or buy  
5 your problems.

6 Is that accurate?

7 MS. BITTER SMITH: Commissioner Clark, I do  
8 appreciate the question and I will give you a very  
9 honest answer.

10 No one is pounding down the door to come work  
11 in a partnership with a state that is the number  
12 one or two target in the country, so it is very  
13 very complicated and I would encourage the  
14 Commission, and I do appreciate the internal view,  
15 I still am looking to you for help on the external  
16 view and communication to EPA and exactly that  
17 challenge.

18 We are certainly open to partnership  
19 opportunities, but to be quite frank, if I were in  
20 another state's shoes, I would not be pounding on  
21 our door either. So we have some very unique  
22 challenges as an under -- I have used the word  
23 "fear" earlier in terms of why we have been  
24 working so diligently to get at other stakeholders  
25 in our state.

1           It keeps us awake at night because we do not  
2 know how we are going to be able to attain what we  
3 have to attain under the proposed rules for 2020  
4 much less 2330.

5           I really am enlisting your help and support  
6 for that external education and guidance that we  
7 talked about in the earlier panel and on this  
8 panel today.

9           COMMISSIONER CLARK: Thank you. Mr. McMahon, I have  
10 a question for you. I was intrigued by a point  
11 that you made in your prefiled testimony which was  
12 in relation to the challenge that INGA members see  
13 with regard to this, what I will term as natural  
14 gas being sold is simply like a five-year bridge  
15 sort of fuel where I think the way you put, the  
16 assumption is that the plan assumes that the gas  
17 infrastructure will be there to help out maybe in  
18 the first five years of the plan, but after that,  
19 it is just not going to be needed anymore.

20           Explain the implication for that and why it  
21 makes it tough for your companies to finance the  
22 pipelines that will be needed at least in the  
23 early years, the plan.

24           MR. McMAHON: If you are building a decent  
25 sized pipeline, you are going to be spending

1           somewhere between \$4 million and \$8 million a  
2           mile. That is just good rough number.

3           If you are building a 100-mile pipeline that  
4           is somewhere between a half-billion and \$1 billion  
5           give or take a dollar.

6           If all you are assured of is a contract for  
7           five years, think about the rate you are going to  
8           need to charge to get your money back in five  
9           years because if you are building to a power plant  
10          that may or may not need it after five years, this  
11          is just not an investment that makes any sense.

12          Most of the infrastructure we build we will  
13          tend to look at a minimum of seven to ten years,  
14          but those are facilities that are integrated in  
15          your system and you know you can use for a wide  
16          variety of customers.

17          The more singular in nature of the pipeline  
18          build is, the more long term the investment, you  
19          are going to want to make to justify spending the  
20          capital.

21          Our concern is that if your are spending all  
22          this capital or wanting to build infrastructure  
23          that has a five to seven year life, and it can  
24          become stranded, that is really not a good  
25          investment to go to your board with and say, "We

1 want you to invest."

2 What we are looking at is where we can make  
3 it, so it is serving multiple customers and you  
4 see the demand of that facility being long term,  
5 you might take shorter contracts, but the more  
6 singular the asset is the longer term you are  
7 going to want to do just so you make sure you get  
8 a return on your capital so that it becomes  
9 stranded at the end of that period of time.

10 That is what I was alluding to in my  
11 statement.

12 COMMISSIONER CLARK: Thank you. A question for Rob  
13 and Mr. Ex-Chairman. Actually, I will ask  
14 Chairman Bitter-Smith to take a stab at this too.

15 This is really a Western issue and maybe we  
16 will get more into this when we get into the  
17 Western conference itself, but infrastructure  
18 builds in the West especially electric  
19 transmission citing.

20 Is there any hope at all in the West? It  
21 seems like for years we have heard about this  
22 challenge of citing on public lands and I  
23 experienced it myself as a state regulator where  
24 North Dakota doesn't have as much federal land as  
25 some other states, but we have some and I have

1           some horror stories that I could tell you about  
2           trying to site in and around it in every state in  
3           the West especially.

4           There has been a rapid response team that  
5           tried to deal with some of these issues. I mean  
6           it doesn't seem like I'm hearing lots of success  
7           stories yet.

8           Is there light at the end of tunnel or are we  
9           still muddling through transmission builds in  
10          certain parts of the country?

11          MR. HOECKER: This may be more Rob's question  
12          than it is mine, but the rapid response team had  
13          some success, not the West, or at least not  
14          principally. They are still working at it.

15          Is there hope? Yes, of course there is,  
16          there's hope, but it is a major challenge and  
17          somebody mentioned the regulatory infrastructure  
18          and this is one of the principal challenges that  
19          the transmission development has in the West  
20          particularly to serve remote renewable energy  
21          projects and I'm glad you brought it up.

22          Now let me give that to you.

23          MR. GRAMLICH: If you ask, "Can we succeed?"  
24          or, "Are we going to muddle through?" my answers  
25          are, yes and yes, and muddling through is just the

1 way it happens, right? And for citing any  
2 long-distance infrastructure of any sort, but  
3 there has been some recent success.

4 Sunzi was mentioned earlier and that got  
5 through was meant to early on that got through  
6 some important steps that involved multiple  
7 agencies in the administration.

8 I know this administration is working  
9 extremely hard to work with the various agencies  
10 and getting through those processes, so it can be  
11 done, and I think it is getting done recently, but  
12 a lot more needs to continue to happen in that  
13 regard.

14 MR. HOECKER: I should mention that with some  
15 projects in the West, I think Transwest expresses  
16 what I have in mind, but I am not sure it will go  
17 out of their way at great expense to plan the line  
18 around federal lands for precisely the reason that  
19 you allude to.

20 It is very uneconomic. It would be very  
21 important since we are talking about interagency  
22 collaboration to have to have the Department of  
23 the Interior involved in this discussion at least  
24 with regard to the transmission aspects of the  
25 CPP.

1           MS. BITTER SMITH: Commissioner Clark, if I  
2 could add? I would like to think that I am an  
3 optimist, however, I think pragmatic approach  
4 would tell you that we still have big challenges.

5           I would respectfully suggest that Sunzia  
6 still has many roadblocks ahead. We are eight  
7 years into it. It has not been filed yet and  
8 still has many other approval processes yet to go.

9           That being said, I think you all can be very  
10 helpful in the interagency collaboration that just  
11 suggested that not only the Department of the  
12 Interior that I think Chairman Jacobs for  
13 suggesting but BIA as well.

14           Those Native American tribal lands are unique  
15 challenges for decisions in a timely fashion, and  
16 to the extent that we can have that involved in  
17 the conversation, that would greatly help us and  
18 aid us in moving forward.

19           COMMISSIONER CLARK: Then I would add to the list  
20 probably USDA through the U.S. Forest Service and  
21 National Grasslands is has part that I have some  
22 experience with.

23           But, yes, you are exactly right. We are  
24 talking about a plan that is coming together and  
25 rapidly and a pretty fast track in trying to drive

1       that with eight, nine, ten-year planning horizons,  
2       it just doesn't fit together very well. So I  
3       appreciate the concern.

4               My last probably is more of a comment than a  
5       question, but I will allow Chairs Jacobs and  
6       Bitter-Smith to respond if they wish.

7               Some of the comments and the recommendations  
8       have been directed at FERC that hears things that  
9       you all can do to speed along a citing.

10              It is not lost on me, though, when it comes  
11       to electric transmission citing. That is a state  
12       responsibility. Not a federal one.

13              Sometimes I think sort of the "skunk in the  
14       room" within NERUC when I was there because I  
15       always thought federal backstop made some sense,  
16       and I know that that is not necessarily a widely  
17       held opinion with NERUC, but I will offer it as  
18       food for thought which is I hope NERUC itself will  
19       focus in on are there things that states can be  
20       doing on the stateside from a state citing policy  
21       standpoint that can streamline that process?

22              I know that that has happened from time to  
23       time in fits and starts in different regions, but  
24       to me states are going to play as important a role  
25       as FERC is on the natural gas site, but on the

1 electric transmission site when it comes to  
2 deciding, so I hope states are up to that  
3 challenge.

4 MS. JACOBS: Actually, when I made the  
5 recommendation on process Improvement, the Iowa  
6 Utilities Board several years ago did a Kizan on  
7 transmission franchise projects and how we could  
8 streamline it and took the process down a number  
9 of days to rejustify about 33% and we continued.

10 We do Kizans almost every other year in our  
11 agency on a variety of topics so you are  
12 absolutely right.

13 I have to be a little careful as we have  
14 numerous open dockets right now with some highly  
15 controversial transmission projects, so I have to  
16 be a little cautious with what I say.

17 Citing transmission is getting more and more  
18 difficult and that is nothing new and you all know  
19 that as well. No matter how good or bad the  
20 project is people are going to be lined up on both  
21 sides. It is just taking longer and trying to  
22 figure how we let everybody have their voice and  
23 their say in it.

24 We have to figure out more expeditious ways  
25 to move the process along and making sure we still

1 follow due process, but you are absolutely right.

2 What we are finding, though, is in our state  
3 because of a couple of projects, the legislature  
4 is thinking maybe they should get involved in  
5 transmission citing.

6 Unfortunately, I am not sure where that will  
7 go, but those are some of the risks that were all  
8 running into as well.

9 The projects are just getting larger or  
10 needed faster or whatever and people are willing  
11 to say more about it.

12 COMMISSIONER CLARK: Thank you. I see Judy has her  
13 tent card up, but I want to be respectful with my  
14 colleagues time too.

15 MS. GREENWALD: I was going to mention. At  
16 the same time a couple weeks ago when we released  
17 the report that I described this morning we also  
18 released a couple of other reports.

19 One of them was a synthesis analysis of work  
20 that has been done by the regional groups and it  
21 talked about how energy efficiency can help avoid  
22 the need for additional transmission.

23 This also reminds me that that the  
24 quadrennial energy review will be coming out in  
25 the next few weeks, and we are releasing some of

1 the analysis in advance, and some of that will  
2 come out after, but I believe there will be a lot  
3 of information and analysis that would be useful  
4 to states to see about reporting a little bit back  
5 on the states for some of these issues that will  
6 be very helpful, and we certainly, in our process  
7 with the quadrennial energy review, have heard  
8 from states and we are very mindful of how we can  
9 be hopeful.

10 Again, a lot of this is the Office of  
11 Electricity and then throughout the department we  
12 have resources available and so this work will be  
13 helpful.

14 COMMISSIONER CLARK: Thank you, Judy.

15 MS. BITTER SMITH: Commissioner Clark,  
16 briefly, could I add in terms of the state's role  
17 in line siting.

18 It is very complicated, and certainly, in  
19 Arizona we believe we have the very process, but  
20 there is a phenomena now too that states that have  
21 lots of growth where we have gone through a  
22 process of line siting process, and then as  
23 housing and commercial then happens, there is a  
24 visitation or at least a presumed revisititation by  
25 citizens of what was cited eight and ten and

1 fifteen years ago.

2 So you have a double hit in this process and  
3 we have many of those issues arising now in our  
4 state on people rethinking and wanting to rethink  
5 decisions that were made in a great and integrated  
6 planning process in anticipation of meeting goals  
7 but now perhaps our thought not to be as  
8 appropriate as they once were.

9 COMMISSIONER MOELLER: The first thought I had was,  
10 and is related today earlier when I talked about  
11 Building Block 4, I wanted to make it clear that I  
12 clearly endorse energy efficiency and have been a  
13 supporter of it.

14 My concern goes to the dialogue that was  
15 between Commissioner Clark and Ms. Dunn which is  
16 states will be reluctant to embrace Building Block  
17 4 because of the enforceability aspect, not  
18 because of the merits.

19 Moving on to the issue of capacity. As Mr.  
20 McMahon noted, the analogy to the electric side  
21 really is that on an annual basis we really don't  
22 need half the power plants or half the wind farms  
23 we have.

24 But it's not an annual basis that we base it  
25 on, it is on peak, and again, we will find out

1 tomorrow morning how we do at least in this  
2 region.

3 My question is to all of you as to what  
4 leadership role specifically should EPA employ  
5 related to these challenges of citing  
6 infrastructure and part of it is the  
7 interrelationship between the rules.

8 We have the Clean Water rule that is going to  
9 impact particularly California. We have gone this  
10 whole day without mentioning ozone, and remember,  
11 ozone is county by county, and so a lot of  
12 replacement under Building Block 2 may or may not  
13 be able to be cited in the non-attainment counties  
14 and that's a very very significant issue in terms  
15 of replacement power.

16 I would love to invite the Secretary of  
17 Interior and the Secretary of Agriculture, and the  
18 Secretary of Energy in along the state  
19 representatives to talk about improving the  
20 citing, and I will do it, but I am guessing that  
21 they probably won't show.

22 This is EPA's rule, like it or not, they are  
23 injecting themselves into electricity planning for  
24 the future of this country, so I kind of think  
25 it's their responsibility to address these

1 infrastructure issues and the challenge of citing  
2 and to play a role in that kind of a leadership.

3 I will start with Chairman Hoecker, what are  
4 your thoughts as to specifically, and you can go  
5 down the line, what you would recommend to EPA to  
6 play a productive role because the present system  
7 just is not working.

8 I have supported federal backstop citing for  
9 transmission, but I don't see that coming out of  
10 Congress soon, so absent of that, what role should  
11 EPA have of these issues?

12 MR. HOECKER: EPA is going to have a tough  
13 time directly as an environmental regulator, so it  
14 seems to me that one conceivable approach would be  
15 for them to create a fifth building block and a  
16 building block would involve a development of gas  
17 pipeline and transmission infrastructure to serve  
18 the other building blocks that are integral to the  
19 rule.

20 That may be totally unrealistic, but the fact  
21 is that they said virtually nothing about electric  
22 transmission in this rule making, but I think that  
23 if, for example, they were to support a more  
24 regional approach to infrastructure development,  
25 this doesn't necessarily apply to gas pipelines

1           which are not planned on the basis that  
2           transmission is, but to include the Order 1000  
3           processes or something like it or to bring the  
4           regional state committees and SBP or the MISO  
5           states in and use them as a vehicle for planning  
6           infrastructure in a kind of collaborative process.

7           Your question is really a great one and I  
8           would love to give it some more thought and run it  
9           by our members, but certainly, they need to focus  
10          on this because at least two of the blocks that  
11          they are talking about in terms of end use are not  
12          going to happen the way they are anticipating it  
13          without attention to infrastructure.

14          MR. McMAHON: This is a policy that is very  
15          important to the administration.

16          One of the things EPA could do is help the  
17          commission herd the cats and getting Fish and  
18          Wildlife, the Corps of Engineers, all the other  
19          federal agencies that have to issue permits to  
20          build infrastructure.

21          You guys have your hands somewhat tied right  
22          now because you can issue your certificate and we  
23          are still waiting on a core permit or a permit  
24          like that.

25          If you want step out a little bit where EPA

1           may be able to help the timing of the whole  
2           process and take a role it is to help push some of  
3           this permitting through so that you don't have the  
4           delays that you otherwise do dealing with all the  
5           individual agencies and their individual mandates.

6           MR. GRAMLICH: Just to put some numbers and  
7           context on it. The Department of Energy is coming  
8           out pretty soon with a study of what it would take  
9           to do, just to take a scenario of 20% of US  
10          electricity, and from by 2030, that would require  
11          about 900 new miles a year above business as usual  
12          of 2700, so about a third greater.

13          But the good news is the Clean Power Plan  
14          only requires about a fifth of that much wind in  
15          the building block, that's what it assumes.

16          These are just sort of doable numbers and  
17          sort of what the Clean Power Plan requires is well  
18          under what that report talked about.

19          I would just say for EPA, to keep in mind  
20          that the low-cost option often is utility scale  
21          renewables which are usually delivered on  
22          transmission which takes time.

23          But the flexibility in the rule does provide  
24          for that option so it is in pretty good shape.

25          MS. SHELK: I am tempted to invoke the "Clint

1 Eastwood Defense" that a man should know his  
2 limitations and get ahead of the comments that we  
3 filed at EPA in this case.

4 You have asked a really good question and is  
5 broader than this. It is societal.

6 Everybody in this room wants environmental  
7 protection. No sector in the economy, just as  
8 with cyber security, this sector, there is not a  
9 sector in the economy that has done more to reduce  
10 pollution and improve the environment than the  
11 electric power sector admittedly with the help of  
12 Congress.

13 Judy and I will not tell you when we were in  
14 the Lincoln Administration working under the Clear  
15 Air Act amendments of 1990, but it worked.

16 You're right, EPA, you cannot see these in a  
17 vacuum. We have the situation where even in  
18 states that are very strong in the broadest sense  
19 of the term on state renewables which I remember  
20 put in the place that others have that we actually  
21 go to sight it in a specific location in  
22 California, for instance, where I once lived, it  
23 becomes a problem, so it really comes down to  
24 presidential leadership, and this rule needs to go  
25 through the interagency process in these kinds of

1 places where it meets up against runs in other  
2 jurisdictions, I would hope, and we are speaking  
3 personally now, would be a part of the interagency  
4 review process.

5 Then you have congressional oversight, but  
6 ultimately, there needs to be somebody connected  
7 with what is almost like a scorekeeper otherwise  
8 it really will not add up.

9 If the incentives are right, we can get it  
10 done, and it can be sighted, but there are so many  
11 conflicts that we see constantly to getting it  
12 done on time, so I don't know if you really want  
13 EPA actually making the citing decisions, as I do  
14 not think that that's what you were implying, but  
15 they need to be mindful that this needs to add up.

16 If they thought about it, and they are, as  
17 you said they have been very good about outreach,  
18 they of all people should want this to work.

19 It will be a problem very quickly, as you all  
20 know, if there is a problem in 2020 or 2022, then  
21 from their perspective it makes the whole plan  
22 difficult, whereas, we think it is manageable.

23 So being willing to continue to invest if the  
24 incentives are there, to keep making the  
25 investments, reduce the emissions, but we have to

1 be able site the plant to do it.

2 MR. BRADISH: This is somewhat outside of my  
3 area of responsibility, so I don't want to get --  
4 we have a very strong environmental group, and we  
5 have lots of states that we operate in, so I do  
6 not want to get in front of those. But I would  
7 say certainly in acknowledging, the EPA should at  
8 least acknowledge the reliability concerns.

9 The CPP discounted or dismissed them which  
10 sends them down a path that takes them in the  
11 wrong direction, so had that not happened and had  
12 the reliability concerns been front and center in  
13 their process, that may have taken them in a  
14 different direction, so certainly understanding  
15 all that FERC is trying to do, working Order 1000  
16 and the processes, and all of this stuff that you  
17 all are putting in place, and how that could help  
18 them actually achieve their goals rather than kind  
19 of just, if you go by the site, to me there still  
20 needs to be apparently a strong education to take  
21 EPA up on their request to educate them about  
22 those types of things so that then they maybe they  
23 will come to conclusion that we have got to go to  
24 a different path and do some of the things that  
25 these other folks have said that would be helpful

1 going forward.

2 MS. BITTER SMITH: Commissioner Moeller, let  
3 me first echo your concerns about Building Block  
4 Number 2 and it's obvious challenges and  
5 contradictions with proposals and rules as those  
6 would almost make it impossible to build a new gas  
7 plant in Arizona which is clearly what we have to  
8 do to meet the requirements that are in the  
9 proposed rules.

10 But as with our discussion about citing, and  
11 certainly, we have spent a lot of time in my  
12 commission dealing with those issues as well,  
13 there are many agencies involved and I don't think  
14 I particularly want the EPA engaged in that  
15 decision either.

16 That being said, what they could do to assist  
17 us is to listen to the comments I heard in the  
18 earlier panel, and you hearing us today, we need  
19 additional time and we need flexibility in the  
20 proposals and file when things have to be  
21 accomplished and when we actually do reach the  
22 cliff.

23 Without flexibility we are going to be in a  
24 win-loss situation and we are going to be the  
25 loser.

1           MS. JACOBS: Commissioner Moeller, thank you  
2           for the question. I agree with the Commissioner  
3           Smith's comments about the timing, but there are  
4           three other things from an EPA standpoint.

5           The first is, something that in our joint  
6           comments in the State of Iowa we need to clarify  
7           in the final rule as to what renewables count and  
8           how the counting will work across state lines.

9           We do not need to build more transmission if  
10          we cannot sell our great winds in from Iowa and  
11          from other states and who gets credit for it.

12          We have to have some clarity around how  
13          renewables are going to be handled, what counts,  
14          the early adapters, who gets credit, those kinds  
15          of things.

16          Secondly, making sure the EPA does allow a  
17          regional approach if that that's important and not  
18          only a regional approach by the states but a  
19          regional approach by the utilities who do fleet  
20          management across state borders.

21          I think that is important for them to  
22          understand how they might need to manage things  
23          and what if the transmission issues might be if  
24          that is not allowed.

25          Lastly, on a broader scale, as the EPA comes

1 out with a variety of regulations in all different  
2 arenas, whether it is MATS, you name it,  
3 understanding that those cannot just be developed  
4 in silos but because of the impact it can have on  
5 our business in the energy world, how close  
6 together can impact things that could be as  
7 important as sightings as well.

8 COMMISSIONER MOELLER: Ms. Greenwald, do you care to  
9 comment?

10 MS. GREENWALD: I am going to take the  
11 question not to advise EPA, but to think about  
12 what the federal family broadly can more with DOE  
13 included as well as you all in PA.

14 In the quadrennial energy review which  
15 focuses on transmission storage and distribution  
16 infrastructure of all kinds, we are looking at  
17 TSNDR in terms of the environmental ends both with  
18 the impact of the TSNDR itself which is often what  
19 we talk about when we are citing it, what is this  
20 actually doing to the environment and we think  
21 about it that way of project by project basis, but  
22 also looking at it more broadly as how  
23 infrastructure itself can enable better  
24 environmental performance.

25 It is really important that we get that

1 discussion going as we could really make a  
2 difference in the debate if we can explain and do  
3 a better job, having a conversation about how  
4 these infrastructure decisions actually can make  
5 the environment better.

6 If we can do that, we could make a huge  
7 impact on the Clean Power Plan implementation and  
8 all kinds of limitation issues that we have with  
9 infrastructure in this country and that is what we  
10 hope to do beginning with the QER and in this  
11 discussion more broadly.

12 I should say, it has been said before, but  
13 just as a reminder, the Clean Power Plan  
14 definitely has a lot of challenges, but the  
15 flexibility that it affords is really an  
16 opportunity for us to think about all of these  
17 things.

18 Broadly, we can think about it in multistate  
19 convenings. We can think about it state by state.

20 We can think about it at the federal level.  
21 It is not just a challenge. It is definitely a  
22 challenge, but it's also an opportunity because it  
23 is a very flexible rule.

24 People have talked about how it is not like  
25 MATS and in MATS you actually know exactly what is

1 going to have to happen and you can plan around  
2 that and has some advantages from a certainty  
3 perspective, but it's much less flexible.

4 In this context with the Clean Power Plan we  
5 do have the opportunity to really think broadly  
6 about how to make this work as well as possible  
7 taking into account our infrastructure issues as  
8 well as all the other issues.

9 COMMISSIONER MOELLER: Somebody has to show the  
10 leadership at the federal government to get  
11 everybody together, and if it is DOE, that's  
12 great, I am pretty sure this agency would be a big  
13 part of that, but I think it demonstrates that  
14 there are so many moving parts that somebody has  
15 to sort through this or else it is not going to  
16 work. Thank you.

17 CHAIRMAN LAFLEUR: Thank you, Commissioner  
18 Moeller. We are almost at break time and I want  
19 to make a couple comments and one might lead to a  
20 bit of a question.

21 Come back for a minute to energy efficiency  
22 because that is something that we have not given a  
23 lot of time to today.

24 I understand the comment of not wanting to  
25 have enforcement consequence if you don't make an

1 energy efficiency goal, but there are tools that  
2 state regulators have to incentivize, its energy  
3 efficiency, if there is an upside as well as a  
4 downside in both rate tools and actual rate tools  
5 like time of use rates, but also incentive rate  
6 making tools that I know a lot of states have  
7 utilized.

8 Sue Tierney is here somewhere. I think she  
9 is hiding behind Gerry Cauley, but back when I ran  
10 conservation programs, and she was a state  
11 regulator which was like 25 years ago, I think  
12 Massachusetts had, I mean I was younger than 40  
13 when I was -- but Massachusetts had an up-and-down  
14 system where you had rewards for achieving and  
15 penalties for not achieving that you can really  
16 make energy efficiency feel more like a resource  
17 was consequence, so I don't think that is a  
18 building block we should leave on the table.

19 COMMISSIONER MOELLER: I have my own stories.

20 CHAIRMAN LAFLEUR: So counter that.

21 COMMISSIONER MOELLER: Sure, I have plenty of  
22 stories from Washington State working on energy  
23 efficiency from 1989 to 1990!

24 They can work, but that's not what I'm  
25 saying. I'm saying that we have got to seriously

1 think about whether states will embrace them, if  
2 there is the looming question of enforcement and  
3 who's going to enforce them if they don't achieve  
4 the goals.

5 As part of the discussion, flexibility is  
6 great, but a compliance plan eventually has to add  
7 up and a state has to be comfortable with how it  
8 is going to be enforced and that is my concern on  
9 Building Block 4.

10 I would be happy to be wrong. We have to  
11 think about the possibility that states will be  
12 reluctant to embrace Building Block 4 because of  
13 the enforcement nature. That's my only point.

14 You were very successful in your former job  
15 on your conservation program, so I will never  
16 doubt your expertise in energy.

17 CHAIRMAN LAFLEUR: Massachusetts is the number  
18 one state for energy efficiency in the country,  
19 but I haven't touched those programs since 1994,  
20 so I do not think that I should bear much of the  
21 credit for that.

22 COMMISSIONER HONORABLE: Madame Chairman, I guess I  
23 will stay out of the fray with Arkansas being the  
24 most improved in 2014 and that is all I will say.

25 COMMISSIONER CLARK: In North Dakota, we just have

1 the cheapest power.

2 CHAIRMAN LAFLEUR: If we are having a contest of  
3 who is oldest and can throw around the earliest  
4 states, I am almost positive I can win that but I  
5 do not even want to.

6 The second comment I was going to make is  
7 entirely different, but just picking up on  
8 something that you brought out, Phil, in the last  
9 conversation.

10 There's kind of a contradiction here that  
11 infrastructure in my mind both electric and gas is  
12 a major facilitator of environmental improvement  
13 especially if we are looking at air and climate  
14 goals.

15 But as we see in our meetings, and as we see  
16 in our dockets, it has its own environmental  
17 consequences and when you're building a  
18 transmission line it might be bringing the  
19 cleanest resource available, but if you are the  
20 person whose land its crossing you are focusing on  
21 a different aspect.

22 I take your point that the EPA has a rule,  
23 but we, the collective energy community, have a  
24 role also in enforcing that tie because I'm not  
25 sure those of you who are much closer to the

1 ground that I am, whether carbon is in people's  
2 day-to-day conversation, and they look at anything  
3 that happens as having to do with that, it  
4 probably varies in different parts of the country,  
5 but it is not clear to me that it has captured the  
6 popular imagination to the extent you used your  
7 metaphor, if we can put a man on the moon, we can  
8 reduce our global footprint, so if we don't choose  
9 your cliché, I'm not sure that people are seeing  
10 the tie between the projects and that goal.

11 I would appreciate anyone who is going to be  
12 closer to the people who are being regulated to  
13 comment.

14 MS. BITTER SMITH: Chairman, it is an  
15 excellent observation. I have just a brief  
16 response because as recently as two days ago, I  
17 had citizens in my office complaining about a  
18 potential transmission line sighting, and I can  
19 assure you that carbon reduction was not on their  
20 minds in that conversation.

21 It is all about the value of their property,  
22 and their perceived impact on their view, resale  
23 rates ultimately for their house, or for their  
24 business.

25 It is very much a pocketbook driving

1 conversation to them personally, so we do have an  
2 educational goal to fill in terms of making those  
3 dots connect for not only our small property  
4 owners, but our per large commercial property  
5 owners as well.

6 MS. JACOBS: I would concur with that. It is  
7 very personal. It is what is in it for me in many  
8 of the cases particularly with someone who is a  
9 residential or a landowner and those are issues  
10 there.

11 But I also get the folks who really are  
12 pushing us to do something that I would call very  
13 important in reducing the carbon footprint whether  
14 it is electric vehicles or whatever, but then they  
15 are the same groups that are coming in and opposed  
16 to any sort of transmission building, and I always  
17 ask them, "Where is the power going to come from  
18 so charge up your car?"

19 Those are some of the conundrums until we  
20 really have global, in the sense of the United  
21 States, a really important talk about all this and  
22 the impact and how it all works.

23 It is always going to be individual by  
24 individual at this point.

25 MR. GRAMLICH: We all have been protested and

1 none of us are immune from that, but the point you  
2 made is really important.

3 Just to view this infrastructure as part of  
4 the clean energy agenda, and I don't think that  
5 has been broadly sort of understood and embraced  
6 by the general public.

7 It helps a lot from our previous panel, and  
8 John Moore representing the national environmental  
9 groups promoted transmission very actively and  
10 firmly and that helps.

11 We need to talk getting that to filter down  
12 to the local and regional levels, but I think the  
13 more we have this national dialogue about what is  
14 part of the national clean energy agenda, it  
15 helps.

16 CHAIRMAN LAFLEUR: Thank you. Mr. Ex Chairman?

17 MR. HOECKER: That is a tremendous  
18 observation, Chairman. Transmission can do a  
19 tremendous amount to reduce carbon to improve  
20 efficiency of the system.

21 We are all bound together in a North American  
22 electricity market after all and we have the  
23 potential to get to wonderful resources in Canada  
24 and Mexico if we have all the wires that will  
25 enable us to get there.

1           This is a point that you made. It is one  
2           that arguably is very sensitized to we where need  
3           to spend more time with our state regulators,  
4           spend more time explaining the benefits of  
5           transmission and it may be, I don't think it's a  
6           fool's errand, but it is a very very big rock to  
7           roll up the hill.

8           CHAIRMAN LAFLEUR: Judy, you kicked this off.  
9           Do you want to take us home?

10          MS. GREENWALD: I may be reiterating what you  
11          said, and what I said, but I do think this is such  
12          an important point that in this context of the  
13          Clean Power Plan that each state is going have to  
14          do hopefully in cooperation with others, and with  
15          very intense stakeholder engagement, this is the  
16          opportunity really call the question.

17          This is our plan or our draft plan. We are  
18          going to get our greenhouse gas emissions  
19          reductions this way and we are going to need this  
20          kind of infrastructure, and if you don't like that  
21          kind of infrastructure, what is your alternative?

22          Really forcing ourselves to ask the question,  
23          compared to what, is really a potentially huge  
24          opportunity in this context.

25          I really do think we have time, I know there

1 are concerns about the particular deadlines and  
2 the way that this is structured, but broadly  
3 speaking, this is a program that is going to go  
4 out 15 years.

5 We have time to do planning. We have time to  
6 actually think about this and do it in an orderly  
7 process and according to our analysis, at least  
8 broadly for natural gas the challenge broadly is  
9 less than a challenge that we have met in the  
10 past.

11 I am very optimistic that going forward we  
12 can do this. We have to keep working. People  
13 have to do their jobs. It is not just going to  
14 happen by itself.

15 We really do have to work together and this  
16 is opportunity to actually have a real  
17 conversation about what it is you have to do and  
18 what kind of infrastructure you need.

19 CHAIRMAN LAFLEUR: Thank you very much. I would  
20 like to thank all our panelists for your very  
21 thoughtful comments. We will take a 15-minute  
22 break starting at 3:50 p.m. Thank you.

23 (Panel III.)

24 CHAIRMAN LAFLEUR: I know that Commissioner  
25 Moeller will be with us in a minute, but I thought

1 I would just introduce the panel while we got  
2 started because I know some of you have to fly  
3 someplace, some people to some place colder, some  
4 people to some place warmer, but we have another  
5 all-star panel to talk about the potential  
6 implications of the Clean Power Plan for wholesale  
7 markets under the Commission's jurisdiction and I  
8 will introduce panelists beginning with my Mike  
9 Kormos, the executive VP for operations of the PJM  
10 Interconnection.

11 Clair Moeller, the executive VP for  
12 transmission and technology of the Midcontinent  
13 ISO.

14 Commissioner David Littell of the Maine PUC.

15 Commissioner Carla Peterman of the California  
16 PUC.

17 Vice Chairman James Gardner of the Kentucky  
18 Public Service Commission.

19 John Brekke, VP of membership and energy  
20 markets of Great River Energy.

21 I can see that you are not in my order, that  
22 you are on my page, I was just so addled.

23 Susan Tierney, senior advisor of the Analysis  
24 Group.

25 Diane Munns, senior director of the Clean

1 Energy Collaboration for the Environmental Defense  
2 Fund.

3 Hari Singh, VP of J. Aaron & COMMISSIONER

4 And Kathleen Barron, senior vice president of  
5 Exelon.

6 We are going to use a little bit different  
7 approach. The first time I asked everyone to talk  
8 for two minutes and they talked for five minutes.

9 Then the second time I asked that everyone  
10 talk for one minute and they talked for ten  
11 minutes.

12 So now we are not going to do opening remarks  
13 and if you came loaded with points you have to  
14 find a way to fit them into one of our questions  
15 and that should keep you awake as you are looking  
16 for the question where you can say what you wanted  
17 to say all along.

18 What I will do is kick it off first with a  
19 couple questions about the energy markets and then  
20 the capacity markets and then I will turn it over  
21 to Commissioner Moeller.

22 Starting with the energy markets.

23 I have been running all over the place making  
24 a speech about the implications of the Clean Power  
25 Plan on the Commission jurisdictional wholesale

1 energy markets and how one of our major rules that  
2 we are going to have to have is to adapt the  
3 energy markets and it sounds very intelligent  
4 because I have thrown a lot of words like  
5 logarithm, and dispatched stack, to make it sound  
6 like I understand something about this, but the  
7 basic point is that, whereas, with previous plan  
8 specific clean air legislation you would just  
9 model, "This coal plant can only run so many hours  
10 or it will overheat the bay. Therefore, we will  
11 put that in the model a certain way and you would  
12 program it into the dispatched stack in a way that  
13 reflected its limitations and just as you put in  
14 the operational parameters of all the different  
15 units.

16 Whereas, here in the Clean Power Plan where  
17 there is a much broader plan where a state might  
18 say, "I want more of this, less of this, I have to  
19 have some of this," it would be, according to my  
20 speech very difficult for PJM to take 13 state  
21 implementation plans and somehow model them in run  
22 least cost security constrained economic dispatch  
23 the way we have always run it.

24 But then I come to find the comments filed by  
25 the person who actually runs the PJM dispatch

1 stack saying in fact you think you can do this  
2 which was actually very good news.

3 I want to start with Mike, and ask, what do  
4 you think, and particularly not focused really on  
5 any one, but on the multistate or a large RTOs,  
6 and ISOs that are running an energy market, how  
7 will the different state implementation plans of  
8 the Clean Power Plan affect that?

9 I was just going to interrupt the panel and  
10 we are just getting started with a question on the  
11 impact of the Clean Power Plan on running the  
12 dispatch order under the energy market.

13 Starting with Mike.

14 MR. KORMOS: Thank you, Chairman. Actually  
15 both of your answers are correct.

16 In some ways there are things that the  
17 markets do very well and one of the things that  
18 markets will do very well is if we can assign a  
19 cost of compliance, whether it is a generator even  
20 if it is a demand response, so we still have the  
21 demand response, it is a separate topic in our  
22 markets, but assuming we can assign a cost to that  
23 the markets in fact to internalize that very well.

24 It pretty much flows through the markets as  
25 any other cost does. Whether it is a fuel cost or

1           whether it is a compliance cost, the markets work  
2           very well when you can actually assign a cost.

3           Markets work fairly well when you are looking  
4           at things like limitations on runtimes where again  
5           we can optimize to make sure we are providing the  
6           most economic mix from all of the resources that  
7           are available to us.

8           Quite frankly, though, the markets don't  
9           necessarily work well if in fact the dispatch is  
10          being impacted by externalities that are not being  
11          represented in the cost and you heard some of the  
12          previous speakers.

13          We have been having ongoing discussions and  
14          overloading you with filings on things such as  
15          price formation uplift, issues where there are  
16          externalities that are affecting the dispatch and  
17          causing the actions of the dispatchers not  
18          necessarily to be represented in the dispatch.

19          Those markets do not handle well. They can  
20          cause issues. A lot of times they will  
21          potentially cause cost allocation issues because  
22          at that point trying to determine, and again, this  
23          is where you would get concern, is which state  
24          caused that action, therefore they in theory  
25          should be paying the cost of that.

1           In some ways, again, we are very encouraged  
2           to the extent we can and we have done this with  
3           other environmental factors, get a cost, put a  
4           cost down, and this is not trivial how 13 states  
5           ultimately put a price on carbon, but assuming we  
6           can get to that point, and it doesn't need to be  
7           the same price.

8           CHAIRMAN LAFLEUR: So I understand. If you have  
9           reggie or carb or if all thirteen states had a  
10          carbon market, then you would price in the  
11          allowances, you would put it in the stack.

12          MR. KORMOS: Yes.

13          CHAIRMAN LAFLEUR: But if they are not doing a  
14          carbon market, but rather Illinois is saying, "We  
15          are going to up this and have less of that and  
16          more of that," and Pennsylvania is saying  
17          something different, do you somehow figure out and  
18          put that into a cross-stream what their choices  
19          are?

20          MR. KORMOS: Again, to the extent that the  
21          owner of the asset can put a price on it, yes. To  
22          the extent that they are not, to the extent that  
23          they are going to have to operate out of economic  
24          merit order, outside of the security dispatch,  
25          that his problematic, and so again, I think this

1 way we absolutely encourage looking at ways and it  
2 doesn't need to be cap and trade. It can be a  
3 carbon tax.

4 Exelon has even offered another alternative  
5 in their written comments where, again, if the  
6 price can be established regionally as ideal,  
7 multiregionally, it would even be better, but even  
8 individually by states, that will flow through  
9 easily.

10 It is true. If states are looking to do  
11 something that will cause us to take an action  
12 that is uneconomical and cannot be reflected in  
13 the dispatch, it cannot be reflected in the  
14 capacity markets or in the ancillary services  
15 markets, that will be problematic.

16 We will figure a way to do it. We will make  
17 sure the system stays reliable.

18 CHAIRMAN LAFLEUR: But I thought Exelon's idea  
19 was asking that EPA do that. Do we think states  
20 will set up their own carbon markets?

21 MR. KORMOS: I can't speak to that. We have  
22 panelists that can speak much better as to what  
23 the states can and cannot do.

24 CHAIRMAN LAFLEUR: Anyone else? Hari?

25 MR. SINGH: In the context of the Clean Power

1 Plan, there are two broad approaches. The rate  
2 based approach is where a given a state plan would  
3 try to get to a target emissions rate or the MATS  
4 based approach which is more akin to the reggie  
5 and the 8032.

6 As I think of the markets that you regulate,  
7 the RTO markets, the ones that Mike runs, the  
8 central tenet there is economic dispatch.

9 The rate based approach has messed that up  
10 because the same plant, whether it is in this  
11 state or the next state, would be dispatched  
12 differently by PJM.

13 You also have the scenario where one state  
14 picks a rate based approach, let's say Arizona,  
15 and then subsidizes a natural gas plant, and then  
16 is selling to California which has a MATS based  
17 approach which may have a more efficient plant but  
18 that is displaced by the other plant in Arizona.

19 So you have all of those kinds of outcomes  
20 that are worth some more thoughts as people think  
21 about one approach or the other.

22 I know the powers are limited, but if I could  
23 wish for something, I don't have any "ask" here, I  
24 mean I would just wish that people join reggie in  
25 the East and 8032 in the West.

1           CHAIRMAN LAFLEUR: I can talk all day that this  
2           approach works better for markets and markets have  
3           had all these benefits for customers, this  
4           approach works less well for markets, please do  
5           the approach that works for markets unless the EPA  
6           somehow incentivizes it or requires it, I am  
7           interested in if there's something you think we  
8           should be doing or how we are going to do it and I  
9           will let Sue pick up the conversation.

10          MS. TIERNEY: One thing FERC might do is  
11          provide some kind of guidance about the extent to  
12          which the Federal Power Act would be helped or  
13          harmed or in conflict with the Clean Air Act to  
14          the extent that as Mike just described something  
15          shows up later as a constraint on operations, you  
16          only have a 30-day window to operate a plant, or  
17          it can only operate within this range, or there is  
18          a real price.

19          That sounds to me like that works pretty well  
20          with the Federal Power Act and our normal manner  
21          of dispatch and addresses reliability and  
22          efficiency.

23          But if there are parts of the Federal Power  
24          Act that could run afoul by designing a state plan  
25          in a particular way, then it might be helpful to

1 the world to understand that.

2 For example, I am reminded of the famous New  
3 Jersey and Maryland cases where the courts have  
4 said the state shouldn't do it that way preempted  
5 by the federal government.

6 There may be things conversely that now if a  
7 state tries to protect a particular power plant  
8 that might end up being a situation where there is  
9 some kind of distortion between a state action and  
10 the outcomes in federal markets.

11 If there is ever a chance where there could  
12 be some clarification on those kinds of things,  
13 what's grey and what's really black and white in  
14 terms of being okay versus not, it might be  
15 helpful.

16 This is sort of a mind bender to think that  
17 we would say we are preempting a state response to  
18 another federal agency, it would be great to work  
19 it out.

20 MS. TIERNEY: Ahead of time.

21 CHAIRMAN LAFLEUR: Ahead of time.

22 MR. KORMOS: One last comment. In the  
23 ultimate extreme, our markets are what we use to  
24 maintain reliability.

25 It is absolutely essential for us that our

1 markets work effectively.

2 They were designed not only to maintain it  
3 but to enhance reliability. To the extent a  
4 state's plan were to work so much against that, I  
5 mean that might be one of the things we would look  
6 for reliability safety now or a reliability plan  
7 we could just have to come and say, "We don't  
8 think we can make this work reliability if it is  
9 that much fighting against the markets."

10 CHAIRMAN LAFLEUR: Mr. Brekke.

11 MR. BREKKE: Thank you, Chairman. Thinking  
12 broadly about this, one of the key questions that  
13 we ask ourselves is that if we are going to  
14 regulate carbon as a country, what is the best way  
15 to get organized on that issue as an economy on  
16 the issue of carbon emissions?

17 How do we organize ourselves and get a handle  
18 on it and really stop the sense of hysteria that  
19 permeates some of the discussions that take place  
20 in some of the decisions that that happen?

21 We already have these wonderful  
22 cost-effective flawed yet grand and effective  
23 markets that we developed through the years called  
24 RTOs, and they deal with sources and uses and  
25 forecasts and constraints. Is it all that much

1 more to also ask to have them deal with carbon  
2 emissions as just another constraint for  
3 optimization?

4 We feel the states should have the robust  
5 option of a market-based approach Incentivizes by  
6 the market benefits that you get from such an  
7 approach, but also by the good graces of EPA and  
8 FERC.

9 This is going to take some time to develop,  
10 to give it the space to grow and to give it the  
11 time to develop. It will take years to get states  
12 together on these discussions and breathe life  
13 into it by giving that time.

14 One of the things about this is carbon is an  
15 issue for the eons. It is a very long-term issue  
16 and the advantage of a market approach is that it  
17 works over that kind of time horizon.

18 I don't think in 100 years anybody is really  
19 going to understand what building blocks are and  
20 how we developed our building blocks.

21 They are going anachronistic maybe within 20  
22 years, but a: Carbon price," people will  
23 understand that in 100 years, and plus, you can  
24 superimpose other regulatory regimes on it in the  
25 future that might come in 50 years.

1           We already have a market approach to deal  
2           with a future regulatory regime. We said in our  
3           thinking about this that any carbon revenues you  
4           collect out to go back to consumers through load  
5           serving entities in the states.

6           Of course, there are going to be interests  
7           that want to grab some of that money, but our  
8           point is, if there is a carbon price you are  
9           already providing an incentive for renewable  
10          energy because the LNP price is going to be  
11          higher.

12          You are already providing an incentive for  
13          energy efficiency for the same reason.

14          What you ought to do is give it back for rate  
15          relief, but each state can decide that as well, so  
16          just give it the space to grow, give it the time  
17          to develop and the funny thing, smart people can  
18          devise the simplest of solutions and I think we  
19          can do the same as a country if we breathe some  
20          life into this.

21          CHAIRMAN LAFLEUR: It sounds a little bit like  
22          the 2009 legislation, but it is kind of somehow  
23          building it into implementation by agreement.

24          Mr. Moeller number two?

25          MR. MOELLER: One of the things that is going

1 to make pursuing regional state reciprocity  
2 difficult is the relative uneven burden from state  
3 to state, so as we think about how to proceed, we  
4 have to be careful not to infer we are going to  
5 socialize that burden or socialize the cost of  
6 bearing that burden or we are never going to get  
7 across to more regional kind of regime.

8 Also it has to be voluntary on behalf of the  
9 states. The MISO market, there are only three  
10 states that are wholly within the MISO market.

11 There are states that have a light burden  
12 that are going to want to opt out, so we need to  
13 think about those kinds of things as we proceed to  
14 make sure that state to state reciprocity makes  
15 sense because at the end of the other day the  
16 state has to make the case to EPA that they are in  
17 compliance.

18 Electricity has never been a state-by-state  
19 thing, so we have got those two regulatory  
20 paradigms that are just completely out of line  
21 with each other.

22 We have got the federal EPA, the state  
23 version of the EPA, they are quality folks. We  
24 have got FERC and we have got state commission.  
25 So we have got a cacophony of regulatory voices

1           there that are essentially four times.

2           We have a lot of work across the last 20  
3           years of debulking the grid between two of  
4           those. Now we have four.

5           This is going to be complicated, but if we  
6           move back to some principles about what we have to  
7           accomplish, and focus on those first, then start  
8           working on how to accomplish it and not get too  
9           far too fast in terms of let's find out what they  
10          are going to do to everybody without answering  
11          those underlying questions or socializing the  
12          burden or socializing the cost for bearing the  
13          burden.

14          CHAIRMAN LAFLEUR: To make sure I keep it moving  
15          with my colleagues, I want to turn for a minute to  
16          the capacity markets which, of course, does not  
17          apply to everyone, but in some parts of the  
18          country are used as a mechanism to incentivize  
19          forward investment in generation and other  
20          resources.

21          The capacity markets are also economic in  
22          their scheme and have not proven themselves to be  
23          readily adjusted even to small tinkering that we  
24          have done to support state programs let alone  
25          naturally the Clean Power Plan.

1           I know that a lot of you have given a lot and  
2           have been very active in all of our various  
3           dockets on this, if you have any thoughts about  
4           what the various state implementation plans, if  
5           they states opt for a rate based revenue, or if  
6           they go to MATS based, how is that going to affect  
7           how we choose capacity?

8           Is economic wholesale resource adequacy  
9           selection going to survive? Is there a way we can  
10          build this in?

11          At least in energy I feel like I understand  
12          the question. In the capacity markets, I get even  
13          more confused.

14          Commissioner Littell?

15          MR. LITTELL: Hi, Chairman LaFleur and  
16          Commissioners. We have given that a little bit of  
17          thought, and of course, in the reggie states we  
18          have implemented a cost on carbon and it works, it  
19          works rather well and we have not had reliability  
20          issues, we have reduced carbon substantially so  
21          that is an example of how it can work and it  
22          hasn't altered the function or capacity markets.

23          It is often observed by my staff that we  
24          generally spend about 20% of our electricity  
25          revenue, if you will, or resources on the capacity

1 markets, but it has spent 80% of our time arguing  
2 over it as opposed to the 80% in the energy  
3 markets.

4 Even though in my statement I suggested the  
5 capacity markets might be a place to look to and  
6 my thinking is probably in the energy markets  
7 because of the mismatch between the time frames  
8 for the capacity markets and at least the primary  
9 issue that we are seeing in the Northeast which is  
10 a natural gas pipeline capacity issue.

11 The time period that they need for those  
12 commitments are out of line with the capacity  
13 markets, but the energy markets is a place where  
14 you could adjust the rules and probably affect the  
15 outcome to what we are seeing as the major issue  
16 which, by the way, is not an issue with these  
17 rules, it is obviously a pre-existing issue.

18 CHAIRMAN LAFLEUR: Mr. Kormos.

19 MR. KORMOS: It is a great question actually.  
20 Obviously, we have in front of you some major  
21 changes that we do think go a little bit towards  
22 trying to shore some of the security we need which  
23 is some of the concern we start to see with the  
24 pressures on potentially retiring and gas taking  
25 its place, so we have already started to try to

1 put some proposals in front of you to make those  
2 changes.

3 Capacity markets can work with state actions.  
4 We have RPSs and most of our states they are  
5 managed within the capacity markets, obviously,  
6 some may take issue with how the states run those,  
7 but I think in the end it does get reflected in  
8 the capacity.

9 If we get the energy market right, that is  
10 very hopeful for them to be reflected in the  
11 capacity market.

12 That is going to be my concern is just that  
13 the time of the transparency for the market to be  
14 able to react to what will ultimately happen in  
15 the energy market.

16 Right now we are all guessing what the final  
17 role will be. We are all guessing how the states  
18 will implement that. That puts a lot of pressure  
19 on the market to make decisions.

20 How ultimately those decisions will end up  
21 being reflected in the energy market? Will it be  
22 suppressing prices are increasing prices?

23 Ultimately that needs to be understood so  
24 people can then determine what they want to invest  
25 in and then how to price it.

1           MS. TIERNEY: I would encourage the  
2           Commission to look at all of the various. I do  
3           think that price formation in the energy market is  
4           really critical.

5           Looking at all of the product markets would  
6           be really important to do.

7           In the energy markets in most of the RTOs  
8           there are still things that I think are leading to  
9           them not really reflecting full prices and that  
10          affects the capacity market, but I remember  
11          sitting here maybe a year ago and encouraging the  
12          Commission to think about whether or not there are  
13          other attributes that need to be procured in the  
14          market.

15          I recently spent a lot of time reading the  
16          NERUC essential reliability services report which  
17          I recommend to everyone because it really does  
18          talk about these other attributes of this system  
19          which are evolving whether or not the Clean Power  
20          Plan comes along, they are evolving because of a  
21          variety of different forces.

22          And looking to see whether or not any of  
23          those other attributes, like inertia, or voltage  
24          support, or procurement of ramping capability, or  
25          heaven sakes, imagine even procuring a certain

1 average blend of carbon?

2 I am not encouraging you to go there yet, but  
3 that in fact could be a product that people are  
4 putting into the markets.

5 Believe me, I am not asking you to go there  
6 yet. But this concept of attributes I think is  
7 coming up in a lot of ways that you were thinking  
8 about your fuel assurance program that is on-site  
9 fuel, and so forth.

10 You get the point.

11 CHAIRMAN LAFLEUR: I was going to ask what  
12 ancillary services markets, but I limited myself  
13 to two questions, so I am going to go to Hari and  
14 then Clair and then turn it over to Mr. Moeller.

15 MR. SINGH: Very quickly. Capacity sales do  
16 not involve any carbon, so carbon is not really a  
17 part of capacity markets, but to Commission  
18 Moeller's question in the morning, if you look at  
19 the building blocks and Building Block 3 and your  
20 more renewables, and RPS, you need something to  
21 keep her on the fossil flexible generation.

22 Perhaps not being a fan of capacity markets  
23 myself, it is a bit of a Hobson's Choice. Is the  
24 future going to be more like PJM and a good  
25 capacity market or is it going to be like IRP in

1 California?

2 It is that sort of the choice that we have.

3 MR. MOELLER: One more point on that. Until  
4 the state plan starts to mature, it is hard to  
5 know what the capacity market rules might need to  
6 look like.

7 If the state rules get to a point where there  
8 is reciprocity, a gas fired plant on the Marcellus  
9 shale selling by transmission line into MISO might  
10 be a good thing, but if the state reciprocity  
11 doesn't exist, we would have to build a pipeline  
12 and that would be okay.

13 That seems like it is illogical to build a  
14 pipeline from Marcellus and MISO would comply, but  
15 a powerline from Marcellus into MISO would not  
16 comply?

17 We have to work through those kinds of things  
18 before we can rationalize what is going to have to  
19 happen.

20 The worst thing that could happen is a  
21 rebulkanization of the grid based on those fine  
22 administrative kind of rules that people have to  
23 follow to ensure the strict compliance with inside  
24 of the state's strict boundary.

25 CHAIRMAN LAFLEUR: I am going to turn it to

1 Commissioner Moeller to keep it moving.

2 COMMISSIONER MOELLER: Thank you, Chairman. Sue,  
3 thanks for being here as well as the rest of the  
4 panelists.

5 Can you elaborate a little bit more on your  
6 thoughts about the Federal Power Act and the Clean  
7 Air Act and the conflict there?

8 It is informed a little bit by the testimony  
9 I gave on the Olsen Bill where it was at least an  
10 attempt to reconcile that conflict that I  
11 referenced earlier of which federal law generator  
12 is choosing to violate.

13 As a Commission at the time we had a little  
14 bit different makeup, we all could agree on the  
15 concept behind the bill and that's what I  
16 testified to, but EPA opposed the bill, so that  
17 wasn't very encouraging from a public policy  
18 perspective.

19 MS. TIERNEY: Ultimately there will be  
20 circumstances where state plans come in with  
21 components where it is going to come to a court to  
22 have to decide those kinds of questions.

23 I just love answering this question because I  
24 am probably the only non-lawyer on the whole  
25 panel, so it's really wonderful.

1           But that never stopped me, right?

2           I can see it in the example that you are  
3           describing, the famous Potomac Electric  
4           Generating --

5           COMMISSIONER MOELLER: I think Petero Hill probably  
6           even a better example, but yes.

7           MS. TIERNEY: But I could imagine it in other  
8           circumstances too. Kathleen and I were speaking  
9           about the reliability, what is it called again?

10          MS. BARRON: Reliability Dispatch Safe  
11          Harbor.

12          MS. TIERNEY: Thank you very much. And the  
13          first question I asked her was, "Is it a real  
14          cost? Is it a real cost or is it a shadow price?"  
15          because it struck me that if there's a shadow  
16          price it's not a real cost in markets and you guys  
17          might be faced with then, "What does an RTO doing  
18          without a real cost in markets in the offer  
19          prices?"

20          I am thinking of that as an example. We want  
21          to encourage as much flexibility in responses on  
22          the Clean Power Plan guided by what are the rules  
23          that you have to stand on, and what are the rules  
24          that the Clean Air Act requires or the flexibility  
25          that it invites because there is probably a lot of

1 overlap in a nice diagram where there is a set  
2 that provides flexibility that is efficient and  
3 reliable and doesn't run into it such as the  
4 Reliability Dispatch Safe Harbor.

5 MS. BARRON: So should I put my tent card up?

6 COMMISSIONER MOELLER: I think it is time for you to  
7 elaborate on that.

8 MS. BARRON: Two ways that everyone could  
9 mention my company before I said something, but I  
10 appreciate the invitation, Sue.

11 The jurisdictional issue, the question that  
12 everyone answers the same way which is markets can  
13 do this better than state-by-state or  
14 command-and-control, the concerns you hear about  
15 2020 is too soon for all the states to sort of get  
16 together in the ways that they would like to.

17 A real concern about costs, and of course, a  
18 concern about reliability, all of those questions  
19 led us to an idea that we didn't come up with.

20 My public power colleague John Brekke came up  
21 a year ago to use the existing RTO infrastructure  
22 to answer the question of how we are going to  
23 cause the kind of redispatch in the system that we  
24 think is necessary to reduce carbon in the way  
25 that EPA anticipates.

1           A number of entities, you have heard a little  
2 bit about this already, I have urged EPA to offer  
3 states an option to comply using price, in  
4 addition to comply using an emission rate or an  
5 emission cap, EPA could give states the option to  
6 say, "I am going to require the admitting  
7 generators in my state to reflect this cost of  
8 carbon that EPA would determine based on its  
9 modeling of, again, the kind of re-dispatching  
10 that price that it chooses would cause," and that  
11 is how the state complies.

12           We call it a safe harbor because we sort of  
13 think about it in terms of the interim period and  
14 the questions about how are we going to do all  
15 these things that we need to do by 2020?

16           The RTOs have the superstructure already.

17           You have a 60-day tariff filing deadline and  
18 so now there are questions that need to be  
19 answered, but these are things that can be done in  
20 the time that is available and it gives the states  
21 more time to figure out what their longer-term  
22 strategy would be.

23           Accordingly, it effectively caps the costs  
24 for customers at the price the EPA sets and it  
25 answers this reliability question.

1           The stations that are needed are still  
2           available to run when the price justifies the  
3           running and they recover the rest of their costs  
4           through the capacity market.

5           It answers that question.

6           That is sort of what led us to take John's  
7           good idea and tweak it a little bit to make it  
8           something that would fit into the hole that  
9           everyone is describing of how do we do this in a  
10          time we have available?

11          COMMISSIONER MOELLER: I am curious what the states  
12          would say to that. Like so many things you say  
13          conceptually it does make sense of it.

14          That is a compliment, yes.

15          The practical reality of states imposing  
16          those costs in the real world we live in does  
17          bring on a different aspect of the workability of  
18          it, but I would be curious what the states, what  
19          Ms. Munns would have to say to that.

20          Mr. Gardner?

21          MR. GARDNER: Thank you, and I do appreciate  
22          the opportunity to be here. Thank you for the  
23          invitation, and just for the record, I was asked  
24          to speak on the half of the non-RTO part of our  
25          state so I am confused.

1           And if not even further because in Kentucky  
2           where we have TVA, we have three utilities in PJM,  
3           we have one utility in MISO, and our largest two  
4           utilities are independent and part of the Order  
5           1000 SERTAP Region.

6           It is a difficult situation, but to answer  
7           specifically your question, let me say that MATS  
8           was easy compared to this because one of the  
9           things that MATS arguably didn't have to do was  
10          really deal with retail politics, the Air Office  
11          primarily did.

12          I know many states opposed and filed suit,  
13          but one didn't have to go to the Legislature or  
14          the Governor.

15          But the Clean Power Plan in many respects  
16          requires the legislative action, Governor's  
17          approval, those change all the time.

18          The irony is that EPA had four building  
19          blocks, the BSER, but really the key building  
20          block is the state.

21          The state is a political entity. Two things.  
22          One, there is no way that Kentucky is going to  
23          approve a carbon price, and in fact, our  
24          legislature has already acted and said that we  
25          can't propose any plan at all unless it deals only

1 with Building Block Number 1.

2 Maybe we can get to the point, maybe, that we  
3 can put limits on the amount of dispatch in order  
4 to comply if that's what it takes.

5 But there's no way that we will voluntarily,  
6 if you will, put a price on carbon. It's just not  
7 possible.

8 And it also makes it then difficult to expand  
9 the reach. What does a state like Kentucky do  
10 with respect to regions?

11 I heard Clair indicate that all but two of  
12 his states have multiple, whether its regions or  
13 independents, so it is just not going to happen  
14 that we are going to put a price on carbon.

15 MR. LITTELL: Three points. One is, we tend  
16 to favor market-based solutions. If not as was  
17 observed before, many solutions could violate the  
18 Clean Air Act or the Federal Power Act to a set of  
19 solutions probably that satisfy both by setting up  
20 a market construct, if something is not working  
21 terribly well, you end up with a high price and  
22 that tells you as opposed to something that  
23 clearly violates one set of laws, or another, so  
24 it has the advantage of indicating you should go  
25 in and fix it, but at least the system works until

1           you do that.

2           I tend to think that the proposal put forward  
3           by MATS is a very good one. I might think if we  
4           are not going to meet these carbon standards and  
5           ongoing standards, if we can't find a way to keep  
6           up nuclear units operating and incentivize more in  
7           parallel sort of to the hydro situation as well  
8           without those resources being valued, we can't do  
9           that.

10          I tend to think that it's a good way to go.

11          COMMISSIONER MOELLER: Ms. Munns?

12          MS. MUNNS: I am going to bring a senior  
13          perspective here as somebody who when I started in  
14          regulation was in a state that had seven companies  
15          all started with the word Iowa.

16          The changes that we have seen over the last  
17          20 to 30 years in regionalizing and finding these  
18          economies, and the states have come along too, to  
19          recognize, and I think the other thing we have to  
20          recognizes is in talking about the Clean Power  
21          Plan it is not a go or no go.

22          These changes are taking place and you  
23          recognize it. We keep coming back to this. We  
24          need to do something about carbon, so you get to  
25          the states, I think some will be slower than

1 others.

2 I tend to believe that we will all get to a  
3 place or we will be a role model for states or our  
4 role may be different than it is today.

5 Something we went through on telecom with the  
6 explosion of technology and the change that it was  
7 a different role, not the same role, and that  
8 takes working through in time, but I really  
9 believe that the states are looking out for their  
10 customers and if they see a place that it is done  
11 more cost-effectively, and in the interest of  
12 customers, that they will follow.

13 There will be fits and starts. It will not  
14 be the same everywhere, but I think it will  
15 happen.

16 COMMISSIONER MOELLER: Mr. Brekke.

17 MR. BREKKE: It's very clear that there will  
18 be some states that won't want to set a carbon  
19 price and won't want to participate in a  
20 market-based approach that is done regionally.

21 And we certainly get that.

22 But I think you can make the construct with  
23 the willing. Just as in the formation of RTOs.  
24 We started with a couple major utilities and then  
25 you incrementally add over time.

1           The same thing could happen with carbon  
2 markets if they are constructed well because if  
3 this issue really is something that we want to  
4 deal with over the next hundred years, that is a  
5 lot of time to prove up benefits of market-based  
6 regional solutions and to find ways to work with  
7 on an incremental basis neighboring states and  
8 neighboring utilities.

9           That could be of benefit to this issue on the  
10 long-run scale.

11           COMMISSIONER MOELLER: Thank you. Kidding aside,  
12 Mr. Brekke, I do appreciate all the emphasis you  
13 placed on nuclear and the need to maintain that  
14 the nuclear fleet, if we are going to continue our  
15 carbon reduction, so thank you.

16           CHAIRMAN LAFLEUR: Thank you. Commissioner  
17 Clark?

18           COMMISSIONER CLARK: Thanks. Now we are down to  
19 brass tacks. This is right in the Commission's  
20 wheelhouse.

21           The questions that I have got are very much  
22 in line with where my two colleagues have started  
23 and I will take up the question this way.

24           We can probably all acknowledge has been  
25 pointed out, and Jim, you it pointed out, there

1 are certain states where it will be over their  
2 dead body that you put on a carbon tax, carbon  
3 adder, cap and trade scheme, it's just a political  
4 non-starter.

5 In fact, probably I would argue it is may be  
6 majority of the country at this point.

7 State legislatures and governors will not go  
8 along with it. So then the question for this  
9 Commission becomes how do we incorporate that into  
10 our markets and here's one example that comes to  
11 my head and I thought about it as I read through  
12 Kathleen's testimony in the Exelon proposal and it  
13 is very similar to John's company.

14 Let's say that you have within a region a  
15 number of states that due to in some way put a  
16 price on carbon, however that is.

17 If you have adjacent states in that same  
18 market that choose to do something else. Maybe  
19 they feel like they can comply in some other way.

20 Maybe they just kicked the can and there is a  
21 fit that is implemented whatever it is.

22 As those markets are run under FERC rules the  
23 fact that there is a carbon tax or price and some  
24 of those states will raise the LNP for the region  
25 to the degree they are not in a constrained

1 region, so how does this Commission then deal with  
2 the situation of protecting ratepayers in a  
3 separate jurisdiction that have chosen to meet  
4 their compliance obligation through a different  
5 mechanism in the state that has chosen to add a  
6 price to its carbon?

7 Jon, you said there may be a way to deal with  
8 it, but I would be interested in hearing how that  
9 is because I am anticipating that we will get some  
10 complaints from adjacent states that are saying,  
11 "Our rates are going up and we are paying twice to  
12 comply with the Clean Power Plan.

13 MR. BREKKE: Commissioner, that is a great  
14 question and one that we have wrestled with and I  
15 think one that is going to require discussion  
16 between states to really resolve how to do that  
17 within the ISO, and that is one of the things we  
18 need time for, but I would say that even if we  
19 don't have a carbon price in any state within an  
20 ISO, and instead have individual state  
21 implementation plans, there are going to be  
22 spillover impacts because we operate within  
23 markets together and so even without a carbon  
24 price you still have those spillover impacts that  
25 will affect neighboring states and those potential

1 fairness discussions of how you deal with that,  
2 one example, being the renewable energy credits  
3 that are generated in one state, but are maybe in  
4 the resource portfolio largely in another state.

5 We are going to have those issues no matter  
6 what, but I would say that in designing these  
7 markets we have to be mindful of the seams, the  
8 seams between those utilities or those states that  
9 are not imposing a carbon price on generation and  
10 those that are.

11 And, first of all, how do you establish the  
12 clearing of generation in a fair manner and then  
13 how do you deal with the distribution of revenues  
14 in a fair manner and then mitigate any impacts on  
15 neighboring states?

16 Can it be done? Yes. Is it difficult?  
17 Absolutely. It is going to be difficult. It's  
18 going to be something that takes years to work out  
19 between the states.

20 COMMISSIONER CLARK: I will add one more level of  
21 complexity to it, not just between states, but  
22 seams between markets.

23 Let's say you have majority PJM running off  
24 of some sort of carbon price adder? Let's say you  
25 have the majority of MISO not operating under that

1 model.

2 You now have the seam where there are going  
3 to be regenerators who view a price, say if there  
4 are generators in the MISO side viewing a price on  
5 the PJM energy side which is only \$30 higher at  
6 any given point, how does that distort those  
7 market seams as well beyond just state to state  
8 issues?

9 Jon, you can answer, but I would be curious  
10 if Mike or Clair have any thoughts on that.

11 MR. BREKKE: Commissioner, I would say that  
12 we have looked at that, at a surface level, and we  
13 have one design for it, but I think there are  
14 other ideas that have to be brought to bear on it  
15 as well.

16 But it seems the issues are the number one  
17 challenge with a market approach. No question.

18 COMMISSIONER CLARK: It leads to the question, is it  
19 an all or nothing deal? Do you have to have  
20 everybody on board?

21 MR. BREKKE: No, there are ways to adjust for  
22 the impact and to take care of it at the seam, but  
23 you are going to have to have some buy in to that,  
24 some transparency to it, some studies that show  
25 that you are not causing undue harm on one region

1 or another, but there are ways to deal with the  
2 offers made by the generators that are paying the  
3 carbon price versus the ones that are not, and to  
4 achieve fairness.

5 MR. KORMOS: I am not sure you have to  
6 protect them to be honest with you.

7 It is in today's market already.

8 We have reggie states. They have carbon  
9 prices. Those units participate in the markets.  
10 We have other states that have put restriction on  
11 generators that may raise their prices.

12 The answer is, if you don't want to pay that  
13 price, then there are ways to insulate yourself on  
14 the market.

15 The only way to pay that price, if you are  
16 importing power if you are using that power if you  
17 have in fact self supplied. The fact that your  
18 neighboring state is higher is somehow irrelevant.

19 But the fact is, if you are going to go to  
20 the market to meet your needs you should pay what  
21 the market price is and if that is the going price  
22 because other states require it, then in some  
23 cases it is fair.

24 I guess in the extreme, I would agree with  
25 you, we don't want to see unnatural flows, but

1           there are market mechanisms for states to protect  
2           themselves should they not want to be exposed to  
3           those prices, but I would also offer that it is  
4           the market today and I don't think it causes as  
5           big issues.

6           COMMISSIONER CLARK: Is it not fairly limited today,  
7           though, where you have your reggie states which  
8           are fairly isolated and uniform in terms of New  
9           England operating within the New England market,  
10          and New York having its own market, even the  
11          portions of PJM that are in the reggie market are  
12          fairly constrained zones where they are in and of  
13          themselves and California has a AB32 and this  
14          basically of just California it just seems like  
15          this is a level of complexity and potential state  
16          conflict that doesn't exist today.

17          MR. KORMOS: I would agree with you, but not  
18          in the magnitude that you were projecting there.

19          It seems like it could be worse, but it's  
20          there, and again, if they are in a constrained  
21          zone, the price isreflected onto that zone.

22          Again, the market does not see it. At the  
23          end of the day, if there are no constraints, and  
24          that's the clearing price, then the best way is to  
25          protect yourself if you're not using the market.

1           Again, for most of us this is market prices  
2           anyway.

3           Again, who do those get reflected in prices  
4           is being set by the market.

5           COMMISSIONER CLARK: Clair.

6           MR. MOELLER: We have some of those kind of  
7           discontinuities today with the different capacity  
8           constructs, right?

9           There is substantially more revenue in a  
10          three-year PJM type market than there is in our  
11          bilateral for people that have unbundled loads.

12          That's the truth and that is what happens  
13          when people go to where the best prices are for  
14          them.

15          The place you get trouble is if one state  
16          that has chosen to comply administratively so the  
17          costs show up in a different place then on the  
18          energy market, that state may in fact have more  
19          expensive alternatives than they would have had if  
20          they had found a way to monetize those same costs.

21          The place where this Commission will have  
22          entertainment on, that's when the market monitors  
23          show up, right, because how to understand, is that  
24          withholding, is a true price, is where most of  
25          that conversation will end up playing out.

1           COMMISSIONER CLARK: Carla, I see your tent and  
2 David?

3           MS. PETERMAN: Yes, and thank you for having  
4 us. It was worth leaving warm California to join  
5 you here in DC today, although I cannot say I am  
6 not looking forward to going back tomorrow.

7           I also wanted to just add to the conversation  
8 that the integration of markets can also lead to  
9 cost reductions, and in particular, I want to  
10 highlight the work that California's ISO is doing  
11 with some of our utilities in neighboring states  
12 on energy imbalance market.

13           Although we are fairly early in the process,  
14 the early results are positive. We are seeing  
15 more efficient dispatch. We are seeing cost  
16 savings. We are seeing power flows between  
17 regions and ultimately markets like that can help  
18 with the integration of resources that are being  
19 considered under 111(d) and it is about scaling.

20           As you noted, these are niche national  
21 markets yet, but they need to start somewhere, and  
22 once you start demonstrating that there are  
23 benefits others will join, and so even though we  
24 have a relatively self-contained market we are  
25 looking to work with our neighbors in terms of

1 power flows exchanges.

2 MR. SINGH: That was an excellent question  
3 and to add to Commissioner Peterman's example, in  
4 California, the device, a new mechanism in the AIM  
5 to not assign carbon costs to resources in  
6 PacifiCorp for which the energy is not deemed to  
7 flow into California, so I know that that is a  
8 very specific example related to the regulation of  
9 imports which is not the case in reggie, but there  
10 are things that can be done, and a few go with  
11 what Mike said, if you don't want to protect, I  
12 think Delaware and Maryland, yes, are somewhat  
13 congested, but nevertheless if an uncongested case  
14 they do set the LNP and people in non-reggie PJM  
15 states are potential paying a common premium.

16 But they are not doing any other compliance,  
17 so I think it is maybe something for them to think  
18 about, that if they are going to be in PJM, then  
19 they are going to spend money on a  
20 non-market-based implementation approach, maybe  
21 that is going to be more expensive because they  
22 will still be paying the premium for their reggie  
23 states.

24 That is my pitch.

25 COMMISSIONER CLARK: David?

1           MR. LITTELL: Yes, it's a real problem  
2 because we know as economic regulators that the  
3 structure of the Clean Air Act isn't the ideal way  
4 to go state-by-state.

5           I do observe that over the long term it would  
6 tend to be self-correcting even if we don't have  
7 an import correction mechanism as California does  
8 in place because if you end up with imports into a  
9 state that are coming from a higher carbon  
10 emitting source their emissions go up they would  
11 need to deal with it.

12           But if the RTO and ISO tariffs and the sort  
13 of structure that is set up by FERC, whatever you  
14 decide on coming out of these considerations, you  
15 could end up with more headaches than not if you  
16 do not set it up the right way to incentivize the  
17 states and the regions to sort of look at those  
18 issues and solve them themselves which is a very  
19 sort of small example but you were talking about  
20 it earlier today to reserve safety valve.

21           If you set up the safety valves too broadly,  
22 you will probably end up with more states coming  
23 in and trying to use those as a case where you set  
24 them up more narrowly, there will be more hard  
25 planning.

1           It is something to consider in sort of how  
2 wide the off ramp is, whether you want to force  
3 them to do the hard work up front or force them to  
4 do the hard work after you do a lot of hard work  
5 with them.

6           Just a consideration.

7           COMMISSIONER CLARK: Sue?

8           MS. TIERNEY: I will be very quick. I do  
9 think that you are facing this issue right now.  
10 We are facing this issue right now, not just in  
11 the ways that Mike described where the reggie  
12 states surround New Jersey, so it gets the benefit  
13 of having the LNP's reflect carbon, but they don't  
14 get the benefit of the allowance prices.

15           So they got it both ways.

16           But it happens in other ways. A statement  
17 that has a coal plant that is farther from the  
18 coal mine has more transportation costs in the  
19 offer price for that fuel.

20           A state that requires SCR controls on its  
21 power plant in a particular place already has that  
22 thumb on the scale one way or the other in terms  
23 of the costs of operating.

24           I think we see it in a gazillion different  
25 ways. That was really a technical term, a

1 gazillion kind of ways in which the endowments of  
2 states, their geographies, their mix, and  
3 everything else, really does bring these  
4 differences to the table right now.

5 MR. BREKKE: What we have to keep in mind is  
6 the offset between generation revenues and load  
7 costs within a state because a lot of the states  
8 that might want to opt out and not participate in  
9 a carbon price approach would have a lot of coal  
10 plants within the state that if the LNP got an  
11 uplift from neighboring states having a carbon  
12 price presumably there would be a benefit to those  
13 power plants within the state that chose not  
14 participate in the carbon price, they are going to  
15 get more dispatch and their coal plants are going  
16 to get more revenues at the coal plants.

17 Yes, they are going to pay more at load, but  
18 there is some opportunity to offset those two  
19 factors within a state that would also have to be  
20 considered.

21 COMMISSIONER CLARK: There will be lots more to talk  
22 about on this particular issue.

23 I am intrigued by rate payers where in one  
24 state can be protected from actions that are  
25 taking place in another state and the reason I say

1 is I am somewhat less sanguine that there will be  
2 an easy way to correct for that.

3 We struggle on a lot of these little issues  
4 that where one state impacts another.

5 When you are talking about a very  
6 comprehensive and rather substantial probably  
7 carbon adder on the cost of these markets, this  
8 will not be an easy thing to back out of.

9 The concern becomes then the issue of states  
10 that decide, "We are not doing the carbon thing  
11 and we are starting to see our markets get  
12 distorted and we are paying for things two times."

13 Now you have the chance that states on their  
14 own are going to be saying, "These RTOs, these  
15 markets that used to work they do work for us."

16 And we start pulling apart what FERC over  
17 some period of time is working very hard to stitch  
18 together and to make work for consumers. Jim?

19 MR. GARDNER: Thank you. Kentucky is a good  
20 case for that because the two largest utilities  
21 were in fact a member of an RTO.

22 They withdrew and got permission from the  
23 Commission before I was there to withdraw and it  
24 was driven by costs, but at the same time, since I  
25 have been there because of costs one utility

1 shifted RTO to a different RTO and to join two  
2 different RTOs.

3 It's not as if we are against markets. It's  
4 really just against markets per say. It's just  
5 what's driven by the money.

6 CHAIRMAN LAFLEUR: On that happy note,  
7 Commissioner Bay.

8 COMMISSIONER BAY: Thank you. There seems to be  
9 general agreement among the panelists that the  
10 most efficient and cost-effective approach would  
11 be market-based in which you put a price on  
12 carbon, but there also seems to be agreement that  
13 for political reasons at the state level it may be  
14 impossible to achieve that outcome, so my question  
15 is very pragmatic.

16 If that's not realistic what suggestions do  
17 you have for FERC in terms of authority we do have  
18 over the markets to assist states in industry in  
19 dealing with some of the change required by the  
20 Clean Power Plan?

21 MR. LITTELL: Commissioner Bay, my suggestion  
22 would be, and I'm not so pessimistic, I think we  
23 will go through a difficult time period.

24 Will there be a lot of lawsuits? I hope that  
25 my training as a lawyer was as was observed by

1 Sue.

2 But I have observed in my career as a lawyer  
3 people negotiating the solution to issues at the  
4 same time and work with them, and I am hopeful  
5 that people take seriously their duties to act as  
6 various types of governmental officials and  
7 utilities and I think that will be encouraged by  
8 the fact that utilities are the ultimate sort of  
9 rational actor.

10 So a lot of them will take very seriously  
11 their obligation to comply and signal that to  
12 state officials.

13 I'm more optimistic that we will see sort of  
14 once we get through whatever litigation period is  
15 and perhaps even as it is going on some real  
16 discussion of how to comply with whatever EPA  
17 adopts.

18 That said, I do think the RTOs and the ISOs  
19 could do a lot to facilitate those discussions by  
20 running modeling as both of the RTOs and ISOs that  
21 are here on the panel have been done on various  
22 scenarios to inform what different options the  
23 states might look at and to facilitate and work  
24 with stakeholders within their region to look at  
25 the different options and hopefully that would

1 further the discussion and keep people talking as  
2 they move forward and evaluate their options.

3 MS. TIERNEY: Thank you. In the comments  
4 that I submitted probably at midnight last night,  
5 so the Chair was talking about me when she said  
6 that people are in the doghouse when they file  
7 them late.

8 There were a number of suggestions that go to  
9 infrastructure reliability and markets.

10 These things all end up working together at  
11 the same time, but that some of them go to  
12 modeling, encouraging more assessments, including  
13 "What if assessments," if there are different  
14 kinds of approaches that people are doing?

15 There's work that continues to need to be  
16 done on gas electric harmonization issues as other  
17 people have said and I know it is your favorite  
18 topic, so keep going on there.

19 This question about whether or not there are  
20 new products and whether or not there are some  
21 things like reliability must run contracts that  
22 are well-designed versus poorly designed, if  
23 that's a reliability issue that you want to work  
24 in with markets.

25 It occurs to me that if one of the things we

1 are observing anyway, and may see more of is  
2 things happening on the customer side of the meter  
3 as end of transformation, then to at least explore  
4 whether there are mechanisms to have the RTOs and  
5 the market operators see more visibly what is  
6 happening on the customer's side of the meter?

7 I know that butts into state federal  
8 questions, but understanding what's going on there  
9 would be helpful to know.

10 COMMISSIONER BAY: Thank you. Kathleen?

11 MS. BARRON: I was just going to echo what  
12 Commissioner Littell said because it reminded me  
13 of the last time I testified in a tech conference  
14 which was three years ago, and some of you were  
15 here, some of you were not, but you had a  
16 conference on the MATS rule and at the time it  
17 was, "Are these three years enough time to comply  
18 with that regulation?"

19 So that there is this cosmic irony that we  
20 are were talking about this three-year period for  
21 complying by 2020, a little reverb on this side of  
22 the table, but the point he made was that at the  
23 same time people are litigating, they are getting  
24 about the business of complying and EPA heard some  
25 feedback and they made some adjustments and people

1           made the retrofits and here we are.

2           On the carbon price question it comes back to  
3 when you actually sit down and write a plan.

4           What's going to be the way to do it in the  
5 most cost-effective way and how expensive are some  
6 of the other options?

7           I wouldn't be as pessimistic as you were,  
8 Commissioner Bay, about this being a practical  
9 impossibility, particularly if you have an option  
10 like the one that I described earlier where the  
11 cost of the carbon can be refunded to customers to  
12 mitigate the increased wholesale price and tax  
13 that occur in the LNP.

14           With the full suite of options in front of  
15 them, that's one that EPA offers to the states and  
16 I am not as pessimistic that they will not opt for  
17 it given the other alternatives.

18           COMMISSIONER BAY: Thank you. I thought that was  
19 actually a very interesting feature to your  
20 proposal.

21           Diane?

22           MS. MUNNS: I wanted to briefly follow up on  
23 something that Sue said and it is about the new  
24 technology. We had a question earlier about the X  
25 Factor in innovation.

1           In fact, a lot of those X Factor have names  
2           that we are now seeing on dispatchable,  
3           non-dispatchable demand response, energy  
4           efficiency boltvar, digital controls, sensors,  
5           distributed generation, those things we think are  
6           coming could be really helpful here in that they  
7           are more nimble and may be less costly than some  
8           of the other things, but to follow up on something  
9           that Sue said, we do have some jurisdictional  
10          uncertainty here in how to bring those together,  
11          but to the extent that you can look at these  
12          things, and say, "How can the markets or the RTOs  
13          or these structures enable support," we would hope  
14          monetize these new technologies coming in for  
15          solving these problems.

16                 These new technologies are going to be  
17                 critical in meeting some of these emission  
18                 reductions, so the sooner we can get through those  
19                 kinds of problems, solving them and bringing them  
20                 in, those X Factor innovative technologies, the  
21                 better.

22                 COMMISSIONER BAY: Thank you. Carla? Here let me  
23                 just say that I was struck by the positive nature  
24                 of your filing as well as a positive nature of  
25                 David's filing.

1           There was very much a "Can do. This is  
2 doable," tone to both of those filings.

3           MS. MUNNS: Thank you. That is because we  
4 have done it. We know it is not easy but it is  
5 possible.

6           I just think the last comment was excellent  
7 as well about thinking about how these new  
8 resources are integrated and on that point we have  
9 had that experience recently in California as we  
10 deal with energy storage and appreciate the  
11 efforts and the work that FERC has done to come  
12 and clarify storage treatment, but one of the  
13 things we did recently with our ISO as a public  
14 utilities commission was do a joint roadmap on  
15 energy storage and really identifying what  
16 barriers exist and at which entity they belong and  
17 we are going to be meeting to continue to do that  
18 with a number these resources.

19           But I raise my tent card because I wanted to  
20 put a fine point on the importance of FERC  
21 continuing to monitor gas markets and  
22 infrastructure.

23           There has been a fair bit of discussion today  
24 about pipeline expansion and markets, but  
25 particularly focused in the Northeast and as a

1 state where over 40% of our generation is from  
2 natural gas, and being at the end of the pipeline,  
3 trust us, we are watching what's happening, and as  
4 other states look to invest in natural gas  
5 infrastructure, we do want to make sure that it  
6 continues to be robust and sufficient to meet  
7 California's needs.

8 Now through the Western Interstate Energy  
9 Board, there was a study that that board  
10 commission from EE3, and it found generally that  
11 capacity should be able to expand in the West to  
12 meet the needs. But again, it's something that we  
13 do want to monitor.

14 I feel like some of the conversation today  
15 has assumed that the status quo remains in place  
16 for both the time line for expanding transmission  
17 as well as pipelines and there is no need for  
18 that.

19 Commissioner Clark, I feel like I must have  
20 been channeling you at NERUC on Tuesday because I  
21 am on a panel of a similar topic, I noted a number  
22 of things that we have identified as potential  
23 infrastructure barriers to implementation on  
24 111(d) are things that we should just be doing  
25 anyway as PUCs.

1           Why are we satisfied that it takes over seven  
2 years to get a transmission built? Why are we  
3 satisfied that it takes so long to get pipelines  
4 built?

5           We have learned in California that necessity  
6 is not only the mother of invention, but loss of  
7 cooperation, and you can get things to move much  
8 faster if there is an imperative, as well as a  
9 cooperation only with your state agencies, but  
10 also the federal government.

11           We have done a significant amount of  
12 cooperation and collaboration with the Department  
13 of the Interior, with the Bureau of Land  
14 Management, for example, as we aim to cite an  
15 unprecedented amount of solar generation in the  
16 desert.

17           And that working relationship has continued.

18           Now, mind you, we are talking about weekly  
19 calls. It takes an investment of not only money,  
20 but time, but I do think that that is possible, so  
21 I really do want to focus on cooperation and  
22 building those institutional relationships and not  
23 just physical infrastructure.

24           COMMISSIONER BAY: Thank you. Jim?

25           MR. GARDNER: Thank you. With respect to

1 reliability, I just want to support what previous  
2 panelists have said about the need for some sort  
3 of reliability safety valve.

4 Although you were talking about the  
5 three-year period in Kentucky, we have at least  
6 three power plants, and received the extra year  
7 that was necessary for reliability purposes only,  
8 that doesn't include additional power plants that  
9 got extensions to complete their retrofits.

10 That is important and if you look at the  
11 non-RTO companies that I was here to represent  
12 their power flows will be impacted by the Clean  
13 Power Plan because as one constructs new power  
14 facilities the power flows will change and that  
15 will impact them at the seams issue.

16 Reliability and ability to protect  
17 reliability is important.

18 COMMISSIONER BAY: Thank you. Mike?

19 MR. KORMOS: I would like to build off of  
20 Commissioner Gardner's comments.

21 If the assumption is that states will not put  
22 a price on carbon, and that will not get reflected  
23 in the market, we can handle the fact that they  
24 can come up with their plans and we will dispatch  
25 their units the best we can in the most economic

1 fashion.

2 My concern, though, is the market may undo  
3 their plans on them without them recognizing it  
4 and what happens when we get there.

5 That is where we would have to look to the  
6 Commission to give us maybe more tools as to how  
7 do we handle those situations where they did not  
8 expect to run generation are they expected to be  
9 able to buy off the market.

10 The problem was that there was nobody willing  
11 to sell because their plan doesn't allow them to  
12 sell.

13 Going back to what Craig said before, having  
14 those reliability analyses up first to make sure  
15 first off does this fit together?

16 This work will be more critical if it is  
17 outside the market, but then having the  
18 appropriate safety valves as to what do we do if  
19 we then find ourself where the market has driven  
20 the state into noncompliance.

21 And how do we handle that?

22 COMMISSIONER BAY: I am very cognizant of the fact  
23 that I am starting to run into Commissioner  
24 Honorable's time, so that that should do it for my  
25 questioning.

1           COMMISSIONER HONORABLE: Thank you, Commissioner  
2 Bay, very gracious of you. He remembers this  
3 chair once too, I am sure. He is being very  
4 thoughtful. I appreciate it.

5           Let me say panelists that I also appreciate  
6 the recitation of the many attributes of our  
7 markets and how well they are working.

8           And Jon, certainly, I am quite sure I agree  
9 with your impression about the fact that the  
10 markets are not perfect.

11           But around the table this afternoon you have  
12 recited a number of very good very positive goals,  
13 attributes of the markets, the various markets and  
14 how well they are working, and I think that I  
15 would like to begin with you, Sue, because you  
16 have talked a little bit about it as well.

17           When we think about the traditional goals,  
18 and certainly FERC's role of ensuring that the  
19 markets are working fairly, that there is no  
20 manipulation in the markets, in the goals of  
21 ensuring that the markets are providing lowest  
22 cost energy supporting reliability, I think the  
23 gentleman from PJM referenced earlier, and also  
24 supporting investment, should we begin to think  
25 differently about the priorities we have from

1 markets as we think about implementing the Clean  
2 Power Plan or do you think we are on the right  
3 course?

4 MS. TIERNEY: I just keep coming back to  
5 ground zero which leads me to think that the most  
6 efficient thing that eventually states will move  
7 toward is trying to solve these throughways that  
8 are market-based.

9 So having plan elements over time have the  
10 possibility to evolve in that way is a friend to  
11 reliability, is a friend to efficient outcomes for  
12 customers, and I think it is efficient cost per  
13 ton of carbon reduced too.

14 The more that there's an inflexible model  
15 that is not market-based, the more you are going  
16 to bump into reliability safety problems and the  
17 need to pull those levers, the more you encourage  
18 market-based approaches on all of these different  
19 products, the reliability safety valve becomes  
20 less of a concern because there's a lot of churn  
21 in the market and the signals are being sent  
22 properly.

23 I would keep you on that road and improve the  
24 markets in ways that many people have mentioned  
25 making sure that they actually are operating well

1 and I'm not sure they are in a lot of places.

2 COMMISSIONER HONORABLE: Thank you, Jon, and any  
3 others, if you have a thought, please put up your  
4 tent card.

5 MR. BREKKE: Thank you, Commissioner. One  
6 interesting thing about market approach is that we  
7 don't have to choose the victor in advance, so we  
8 do not have to choose which technologies are going  
9 to win out over the next 30 years.

10 We can let the market play out and handle  
11 that. I think one of the real problems with the  
12 building blocks is it is really kind of the  
13 inverse of that if carbon capture and  
14 sequestration becomes a better option than  
15 combined cycle natural gas for getting carbon out  
16 of the emissions, a market approach solves for  
17 that, but the building blocks don't.

18 With nuclear fusion it becomes a more  
19 cost-effective option than renewables?

20 Again, a market approach solves for that  
21 automatically, whereas, a building block treats  
22 renewables better than something like carbon  
23 capture and sequestration or nuclear fusion.

24 The idea of choosing these victors in advance  
25 is solved by the market approach and we can have a

1 better evolution of technology, a better evolution  
2 of our power plant fleet mix and really point the  
3 direction long term towards competition for the  
4 wholesale space in the market.

5 COMMISSIONER HONORABLE: Thank you. That is a point  
6 that Michael earlier that the best laid plans  
7 could well be handled.

8 Maybe not the way we anticipated in all cases  
9 by the market, but they will be treated by the  
10 market. David and then Diane and then Harry.

11 MR. LITTELL: I tend to think in terms of  
12 setting up systems so that they work and they are  
13 self-executing.

14 That is the best type of regulation and I am  
15 a former environmental regulator as you know as  
16 well.

17 One of the most important things that FERC  
18 could do, in addition to providing assistance in  
19 supporting the RTOs and tariff changes is, if  
20 necessary, to facilitate the discussions is to  
21 ensure whatever system you set up does not  
22 incentivize noncompliance.

23 As I said, utilities are the ultimate  
24 rational actors, but if they assessed that they  
25 could submit or not submit a plan and litigate in

1 front of you whether they can comply or not by  
2 producing a plan that says they can't comply for  
3 \$2 million or \$3 million versus a compliance cost  
4 of \$10 million a year for ten years, arguably that  
5 is their obligation to their shareholders to  
6 pursue that option.

7 You want them in their first instance to have  
8 every incentive to work together with other states  
9 and with the EPA to reach their best plan and then  
10 if their best plan is not something they could  
11 comply to have the right reliability safety valves  
12 to pursue that as one example.

13 You don't want to become the District Court  
14 of these sort of issues. You want to be the  
15 ultimate Court of Appeal it is really worked out.

16 As a former environmental regulator we are  
17 very used to what determines malicious compliance.  
18 You get a plan but it is not really a plan, it is  
19 a non-plan.

20 You just need to make sure that the EPA and  
21 the state entities have every incentive to try to  
22 work it out on the way you set up the system, but  
23 ultimately provide those reliability on issues to  
24 ensure that electricity is delivered safely and as  
25 inexpensively as possible.

1           MS. MUNNS: I will echo that, but talking  
2           about the building blocks, building blocks as we  
3           know are intended for setting goals, not for  
4           restricting compliance options, so to think more  
5           broadly about what can we use for compliance  
6           options, it really is bound by what can we count  
7           on for an emission that will result in emission  
8           reductions and that gets us to the point where  
9           people are thinking creatively and innovatively  
10          about this to the extent that we can use market.

11           I am reminded that we can't plan everything  
12          out. I am reminded that when EPRI at the time  
13          Waxman Markey did their prism analysis there was  
14          no gas in it.

15           Think about that. Not very long ago. We do  
16          need the flexibility that is built into this as  
17          extraordinarily important because none of us knows  
18          what the future holds.

19           COMMISSIONER HONORABLE: Hari, you have the last say  
20          with regard to my question.

21           MR. SINGH: Thank you, Commissioner. I would  
22          just say that the best thing I can think of that  
23          FERC would do is to educate and inform.

24           Look through some of the scenarios that work  
25          better and others that cause problems that we

1 haven't even thought about.

2 One other point that I think, and besides  
3 that, I hope I make is markets are beyond just the  
4 RTO markets. There is long-term contracting.  
5 There is risk management and we don't even begin  
6 to think of that.

7 Uncertainty is the worst thing for that and  
8 we have to go through a period between now and  
9 when we know what these things are going to look  
10 like.

11 Is a transaction subject to a common price or  
12 not? It is a very big barrier to doing those  
13 commercial transactions.

14 Finally, I would say there is an enormous  
15 benefit just in being engaged and I think of the  
16 examples, I mean nobody even knew of the term  
17 "resource shuffling," and then we had this case of  
18 attestations and the Commissioner Moeller stepped  
19 in and wrote a letter which resulted in a very  
20 positive outcome of developing safe harbors and  
21 suspending for 18 months in California that worked  
22 out just fine. I'm sure there will be more of  
23 that down the road.

24 COMMISSIONER HONORABLE: Madame Chairman, I think  
25 Kathleen as usual would like to have the last

1 word.

2 MS. BARRON: I am quite sure that I will  
3 regret saying this. Picking more broadly about  
4 your question, if FERC had the appetite to be  
5 proactive it occurs to me that we could rename the  
6 Reliability Dispatch Safe Harbor to the  
7 Reliability Safety Valve.

8 If it's your view that the most effective way  
9 is to comply using price and to build off of your  
10 markets that could be the safety valve and you  
11 could spend your time thinking about how do the  
12 tariffs need to read to address the cost  
13 allocation issues and the protection issues that  
14 Commissioner Clark raised and work on that and  
15 support to EPA as a way through this that would  
16 put the incentives where you want them to be and  
17 achieve the sort of goals that the panelists are  
18 saying, that the market is achieving for you.

19 MR. MOELLER: I would like to put a caveat on  
20 that. Let us not have our FERC market tariff  
21 jurisdictional to EPA. One regulator, I love you  
22 to death, but you are enough.

23 CHAIRMAN LAFLEUR: Now we have come full circle  
24 because we started with four reliability or five,  
25 I do not remember how many reliability safety

1 valves and now we have a new one.

2 I want to just ask one more question which is  
3 something we have touched on, but never directly  
4 asked about which I believe both PJM and MISO have  
5 done studies comparing the cost of regional versus  
6 state-by-state compliance.

7 Are there benefits that you would bring in?  
8 That seems to be pertinent to this we have not  
9 talked about.

10 There obviously were assumptions and so forth  
11 going in to them. I don't know to what extent  
12 they drew necessarily on carbon pricing versus  
13 just the coordination of diversity of resources,  
14 but I wanted to give you an opportunity to mention  
15 something about that if that seemed pertinent to  
16 what we are talking about.

17 MR. KORMOS: Thank you, Chairman, and yes, we  
18 are in the process of publishing those results and  
19 at the request of actually OPSE we did take and we  
20 have actually run 17 different scenarios looking  
21 at different input assumptions and how ultimately  
22 that would affect the dispatch of land and  
23 redispatch we have assigned a carbon price to do  
24 that and how it had to be done, but that also the  
25 easiest way to model it.

1           Part of the process has also then been trying  
2           to go back and run simulations where states  
3           basically met compliance through their own  
4           dispatch, and as you would expect, the majority of  
5           the states would see increased costs just because  
6           they have less resources at their disposal to meet  
7           whatever restrictions have been put on them.

8           We are sharing that and I will not say it is  
9           every case. I mean there are maybe some issues  
10          without the states have been allocated their  
11          reductions that maybe there will be some perverse  
12          incentive for some states to go alone, but at  
13          least from what we've modeled so far it will  
14          appear that the majority of the states can benefit  
15          from original approaches because it gives them  
16          more options either way.

17          In some cases to sell their carbon more or  
18          less into a market that allows another state to  
19          reduce theirs more cost-effectively.

20          We talked about carbon, but sometimes it is  
21          cheaper to buy it from somebody else than to  
22          generate it yourself.

23          MR. HOECKER: Our study was essentially the  
24          same thing, the same conclusion.

25          We didn't do a lot of work on what the cost

1 to achieve either solution was so, for example,  
2 the billions of dollars we will spend on gas  
3 infrastructure was not in there, right, so mostly  
4 ours was a screaming study that says is there a  
5 enough difference between state-by-state and  
6 regional?

7 "Is there enough money there that is worth  
8 pursuing regional," and yes, certainly, there is  
9 enough money that it's worth to see if we can make  
10 it come true.

11 CHAIRMAN LAFLEUR: Maybe we will have a chance  
12 to dig into those when we are in St. Louis and  
13 then back here in the East or maybe I have those  
14 backwards. Maybe we are back here first and then  
15 in St. Louis.

16 I would like to ask my colleagues if they  
17 want to make any closing comments or questions?

18 COMMISSIONER MOELLER: Chairman LaFleur, we would  
19 not be here without you, so that's a thank you  
20 from my perspective.

21 This has been a good discussion with three  
22 great panels and we are going to continue it next  
23 week in the West with a little more detail to that  
24 region.

25 I had this panel at NERUC on Tuesday where it

1 was with Administrator McCabe and NERUC and NRI  
2 put a bunch of maps together that were based on  
3 comments for the public utility commissions put  
4 in, so they were comprehensive about what a state  
5 approach or a state policy was.

6 And a few PSCs, in Kentucky's case, didn't  
7 put in comments because of other agencies did.

8 But the final map essentially showed a little  
9 over simplification, the states that were fine  
10 with the Clean Power Plan and the states that were  
11 not fine with it, was the three West Coast states,  
12 Washington State, Oregon State and California and  
13 then the cluster of the Northeast were basically  
14 in favur of the Clean Power Plan.

15 The rest of the country essentially was not  
16 and it does kind of break down, those are the  
17 states that have either gotten rid of or in the  
18 process of getting rid of the coal versus the  
19 states that still have a significant coal  
20 presence.

21 It was kind of a striking graphic to see  
22 that, so we are all in it together. We are going  
23 to keep these discussions going and it has been a  
24 productive day.

25 Again, thank you for making this happen.

1           CHAIRMAN LAFLEUR: Commissioner Clark.

2           COMMISSIONER CLARK: Thank you. I would agree.

3 Thank you, Chairman LaFleur and to all of the  
4 panelists it has been a productive day. I would  
5 say that we have just started to scratch the  
6 surface of some of the issues that we are going to  
7 get into in the regional meetings.

8           Those are going to be particularly  
9 interesting. The code word for this last panel  
10 seems to be the market approach which I think is  
11 synonymous with carbon adder, so the question will  
12 become, especially as we move into the West, and  
13 again, when we moved back to the East and we start  
14 talking more about the southeast, this is very  
15 market focused up to this point which is primarily  
16 the northeast or the central part of the country  
17 and CALISO, but in these next few meetings we are  
18 going to be talking about parts of the country  
19 that have bilateral markets and this is a very  
20 foreign concept to them and so we are going to  
21 hear very sort of different nuances and how  
22 compliance plans may roll out in those regions, so  
23 I am very much looking forward to delving down  
24 into some of those issues.

25           We just had a national conference and we have

1 not had the time to do today, so thanks to all of  
2 you for making the effort to be here.

3 Stay warm and stay safe on your way back  
4 home.

5 COMMISSIONER BAY: I just want to thank all the  
6 panelists for appearing before us today and for  
7 sharing your views with us. It has been a very  
8 helpful and informative session. Thank you.

9 COMMISSIONER HONORABLE: I too would like to thank  
10 the Chairman and her team, our staff that did the  
11 heavy lifting, thank you, and the panelists as  
12 well.

13 Particularly those of you who came in for  
14 NERUC. It has been a very long cold week for you.  
15 I just also acknowledge all of the participants  
16 that are sitting in, I do not know, who are maybe  
17 not so comfortable seats at this moment around the  
18 room, thank you also for your presence.

19 I am encouraged by today's dialogue. It has  
20 been very thoughtful and I knew we could do it.  
21 We have the experience as some of you have said  
22 over and over again and the knowledge and know now  
23 to crack any challenge, and yes, in many ways,  
24 there are challenges associated with the plan but  
25 I also believe that there are a number of

1 wonderful opportunities.

2 I look forward to seeing you all over the  
3 country and I know my colleagues are getting on  
4 the road as well and for those of you in the  
5 regions I hope you too will come and bring your  
6 thoughtful ideas about how we address this issue  
7 and move forward.

8 Thank you, again.

9 CHAIRMAN LAFLEUR: Thank you. I also want to  
10 thank all three sets of panelists for really very  
11 meaty discussions that satisfied my objective of  
12 really identifying what a lot of key issues are so  
13 that as Commissioner Clark said we will now really  
14 delve into them in more particularized regional  
15 discussions.

16 We clearly all have a lot of work to do so it  
17 is good that we started on it and I also just want  
18 again to thank the FERC staff, the people who are  
19 sitting in the least comfortable seats of the room  
20 are undoubtedly the Commissioners' staffs in the  
21 very shallow benches back there which is fine for  
22 a one hour meeting, but not all day, as well as  
23 all the folks from all of the offices who put  
24 together these and are still very very engaged in  
25 the next three. Thank you very much and safe

1 travels everyone.

2 (Whereupon, the meeting adjourned at 5:25 p.m.)

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