1	BEFORE THE
2	UNITED STATES OF AMERICA
3	FEDERAL ENERGY REGULATORY COMMISSION
4	x
5	In the matter of: :
6	RELIABILITY TECHNICAL : Docket Number
7	CONFERENCE : AD12-1-000
8	: RC11-6-000
9	COMMISSIONER-LED RELIABILITY : EL11-62-000
10	TECHNICAL CONFERENCE :
11	x
12	Commission Meeting Room
13	Federal Energy Regulatory Commission
14	888 First Street, Northeast
15	Washington, D.C. 20426
16	Wednesday, November 30, 2011
17	The technical conference was convened, pursuant
18	to notice, at 9:05 a.m., Commissioner Cheryl A. LaFleur,
19	presiding.
20	ATTENDEES:
21	CHAIRMAN JON WELLINGHOFF, Chairman, FERC
22	COMMISSIONER PHILIP MOELLER, Commissioner, FERC
23	COMMISSIONER JOHN NORRIS, Commissioner, FERC
24	COMMISSIONER CHERYL A. LaFLEUR, Commissioner, FERC
25	

- 1 ATTENDEES (Continued):
- 2 JAMES PEDERSON
- 3 JOSEPH McCLELLAND
- 4 ROGER MORIE
- 5 LARRY GASTEIGER
- 6 JOHN CARLSON
- 7 DAVID ANDREJCAK
- 8 MICHAEL BARDEE, ESQUIRE
- 9 MARTIN KIRKWOOD, ESQUIRE
- 10 CRISTY WALSH, ESQUIRE
- 11 MICHAEL McLAUGHLIN
- 12 JAMIE SIMLER
- 13 MASON EMMETT
- 14 PANEL III:
- 15 MARK LAUBY, Vice President and Director of Reliability
- 16 Assessment and Performance Analysis, North American
- 17 Electric Reliability Corporation
- 18 MICHAEL KORMOS, Senor Vice President of Operations,
- 19 PJM Interconnection, L.L.C.
- 20 CARL MONROE, Executive Vice President and Chief
- 21 Operating Officer, Southwest Power Pool (SPP)
- 22 THOMAS F. FARRELL II, Chairman, President & CEO, Dominion,
- 23 On behalf of EEI; and PAUL KOOMCE.
- 24 KATHLEEN BARRON, Vice President, Federal Regulatory
- 25 Affairs and Policy, Exelon Corporation

1 PANEL III (Continued):

2	ANTHONY TOPAZI, Chief Operating Officer,
3	Southern Company
4	DAVID WRIGHT, Vice Chairman, South Carolina
5	Public Service Commission
6	JOSHUA EPEL, Chairman, Colorado PUC
7	PANEL IV:
8	PATRICIA A. HOFFMAN, Assistant Secretary for Electricity
9	Delivery and Energy Reliability, U.S. Department of
10	Energy
11	GERRY W. CAULEY, President and Chief Executive Officer,
12	North American Electric Reliability Corporation (NERC)
13	NICK ATKINS, Chief Executive Officer of American Electric
14	Power (AEP), on behalf of AEP
15	CLAIR J. MOELLER, Vice President Transmission Asset
16	Management, Midwest Independent Transmission System
17	Operator, Inc. (MISO)
18	BETTY ANN KANE, Chairman, District of Columbia Public
19	Service Commission
20	CHERYL ROBERTO, Commissioner, Public Utilities
21	Commission of Ohio
22	ERIC BAKER, President and Chief Executive Officer,
23	Wolverine Electric Power Cooperative
24	DEBRA RAGGIO, Vice President, Government and Regulatory
25	Affairs, Assistant General Counsel, GenOn Energy, Inc.

1	PROCEEDINGS
2	9:06 a.m.
3	COMMISSIONER LA FLEUR: Good morning, everyone.
4	I'm Cheryl La Fleur, and I'd like to welcome you to the
5	second day of the Commission's Reliability Technical
6	Conference. Yesterday, we examined the priorities that
7	drive our collective reliability efforts. Today, our focus
8	is on one specific emerging issue, maintaining reliability
9	while complying with new EPA regulations.
10	When I was getting ready for this conference last
11	night, I was thinking about my first date with my husband of
12	now 33 years, and on that occasion I got a fortune cookie,
13	this is the truth, that said "Beware of what you want. You
14	may get it."
15	(Laughter.)
16	COMMISSIONER LA FLEUR: Actually, he probably
17	should have got the cookie, but I said I've said several
18	times publicly that I want FERC to sponsor a workshop that
19	brings stakeholders together, to discuss the EPA regulations
20	on reliability. So here we are, and I thank the Chairman
21	for allowing me to chair it.
22	More seriously, in his pre-filed testimony, Clair
23	Moeller of the Midwest ISO said this was an all hands on
24	deck moment for the electric industry and its regulators,
25	and we are fortunate to have just about all hands on deck

with us here today, representatives of the EPA, NERC, state
 regulatory commissions, regional transmission organizations
 and the electric industry.

4 I believe that nearly all energy policy issues include trade-offs between three values: reliability, cost 5 6 and the environment. These trade-offs are illustrated by 7 the choices our nation is making with respect to future power supply. Over the last few years, we've seen 8 tremendous growth in generation powered by natural gas, 9 especially domestic shale gas. We've seen the adoption of 10 11 renewable portfolio standards in nearly 30 states, and of 12 course the development of new environmental regulations to 13 reduce air, water and solid waste pollution.

Those trends represent policy choices made by legislators and regulators at the state and federal level, including most pertinent to today's discussions, by Congress in passing the Clean Air Act and the Clean Water Act, and the EPA, as guided by the courts, in administering it.

In my mind, today's conference is not to discuss whether members of the electric industry, or indeed members of this Commission, agree with the EPA's new and proposed regulations. Comments on that should be directed to the EPA, and I believe they have been. Rather, we sit here as FERC as the federal regulator charged with maintaining the reliability of the bulk power system.

1 Our focus today is on the steps that the Commission can take to maintain reliability, while entities 2 3 comply with their environmental obligations. I believe that 4 we can protect reliability while new environmental regulations are being implemented, as long as those 5 6 regulations, and the changes in power supply they will 7 bring, are carried out with careful coordination and 8 flexibility.

9 Having read all the testimony filed for today, 10 while the panelists disagree on some things, maybe we would 11 say disagree on most things, I believe they all agree that 12 coordination and flexibility will be needed. I hope today 13 we can build on those themes, and consider tools that we 14 have or can develop, to ensure that reliability is 15 maintained.

Before I turn to my colleagues for their opening statements, I've been asked to make a few housekeeping announcements. Today, we're going to hear from our opening speaker and two panels, with a break at noon, which we expect to be during discussion after the first panel, a break for lunch at noon.

I'd remind all panelists to keep their opening remarks brief, to allow ample time for Q and A and discussion. We did that yesterday, for those of you who were here, and I think we had a very robust discussion. We'll be accepting written comments on the topics discussed
 today through December 9th.

Following our second panel this afternoon, the Commission will stay in session and take questions from the press. Also, are there -- for those of you standing, there's an overflow room in Room 7, if you can't hear, if you make cat calls or comments during the speakers. So that is open for all. With that, I will turn to my colleagues beginning with Chairman Wellinghoff.

10 CHAIRMAN WELLINGHOFF: Thank you, Commissioner La 11 Fleur, and I again appreciate you taking the chair of this 12 conference. This is a very important conference, but I 13 think it does need to be put in context, and I think as 14 Commissioner Moeller indicated yesterday, this is just one 15 of a number of emerging issues that we have.

Another one is the changing composition of our electric generation system, and that composition as it changes to a more renewable-based system, and how we're going to ensure reliability with the different characteristics of those renewable resources. It's another extremely important emerging issue.

But certainly the emerging issue of how we incorporate in environmental controls into the existing fleet and how that may impact that fleet is an extremely important issue, and that's why I'm so glad that we have

here today experts before us, to help us look at those
 issues and figure out how they best can be addressed in the
 planning authorities.

As most of you know, I have been an advocate of the ability of our planning authorities to step up to the plate and address these issues. I believe that those planning authorities are competent, and I think they are capable, and reading through the NERC report, the gist came out, and we're going to hear more about it this morning. That was reinforced for me.

11 I think that ultimately the planning authorities that reported to NERC in the back of that report, had 12 13 generally indicated that they are able to step up and address these issues. I am very interested today, to see if 14 15 we have any holes, any areas that we need to again look at specific tools that may need to be put in place, specific 16 17 regulatory changes, specific things that FERC can do to 18 assist those planning authorities, to address these 19 challenges that we have before us.

With that, I'm looking forward to hearing fromyou all. So thank you again. Colleagues.

22 COMMISSIONER LA FLEUR: Thank you, Chairman. Mr.23 Moeller.

24COMMISSIONER MOELLER: Thank you, Commissioner La25Fleur. I'm glad to be here. I think it would be more fun

1 in Room 7, though, were we have the cat calls going on.

2 (Laughter.)

COMMISSIONER LA FLEUR: Glad to be here. I asked for something like this back in September of 2010. I think this is something that's necessary to talk about these issues in an open forum, so that we can get to the facts, because the facts are what we need to drive our decisions on this.

9 As I've said many times, I can be fuel-neutral 10 but I can't be reliability-neutral in this job. That's 11 important, because we have kind of an extraordinary amount 12 of interest on more than our usual monthly meeting, that we 13 set up a lot of these issues in ways that I think people can 14 understand.

15 Now there are a group of generators out there who probably would like to see some of these rules go away or be 16 17 delayed a long time. They have an economic interest in 18 that. I can understand that. There are also a group of generators who, because of the strategic decisions they have 19 made, would like to see these rules implemented, because 20 prices will rise and they will make money off of that, and I 21 understand that. 22

Those are two competing, legitimate concerns. So who do I look to to give us the most or the least biased information, the most unbiased information, and it's

typically the people who run the markets, whether it's the regional transmission organizations or the reliability entities. They have all indicated that there are severe challenges, not with the concept that's being promoted here, but with the time line involved, because of the nature of the electric industry and the ability of the industry to replace generation and transmission.

8 Power plants are not like iPads. You can't just 9 go to the store, get a new one, upgrade and replace it. 10 It's a lot more complicated than that. It takes years, and 11 as I look around, we have challenges that go from perhaps 12 next summer reliability challenges in ERCOT and SPP, and we 13 look at the Midwest, where the challenges are coming down a 14 few years later.

15 I can't help but look at my home in the Pacific 16 Northwest, where there are two coal plants, one in Oregon 17 that's been given until 2020 to shut down, and one in my 18 home state of Washington, which has been given until 2025 to 19 fully shut down. Recognizing those are under different regulations and different concepts, this is an area that's 20 21 much less dependent on coal resources for reliability than 22 other parts of the country.

23 Some people want to lump all the coal plants 24 together, and that is naive at best. The examples are quite 25 different. If you go to New England where Commissioner La

Fleur is from, there are about 6,500 megawatts of fossil
 generation there, and they're older and they're dirtier, and
 they're the most expensive generation in the region.

4 ISO New England reports that those 6,500 5 megawatts composed less than one percent of the annual 6 energy consumption in New England last year, but on the peak 7 day, they were needed for 22 percent. Now that's a real world factor. Trying to replace that amount of generation 8 9 in three to four years has ISO New England extremely 10 challenged. They think they can do it, but they're on the 11 edqe.

12 Contrast that with the Midwest, where our market 13 operators there told us that under the current guidelines, 14 they're looking at about 12,000 megawatts of coal that will 15 be retrofitted. It makes economic sense to do it, but under 16 the guidelines it all has to be out at the same time, 17 causing serious reliability concerns in 2014.

So I'm trying to go back to the concept that we can do this if there's adequate time, to lessen the economic impact on people, because rates are going up over this, and to assure reliability, which is essentially the oath that we took as FERC Commissioners.

I also contrast the fact that if you're in a vertically integrated state and a generator, you might have the economic incentive to upgrade plants, because you can 1 rate base it. Contrast that with a merchant owner in say a 2 restructured market such as ERCOT, and because they don't 3 have the ability to pass those costs on to ratepayers, 4 that's a very different economic decision as to whether they 5 can keep that plant going or not.

6 These are the kinds of details that plant by 7 plant, load by load, flow by flow, need to be analyzed. The 8 regional entities are doing a good job of it, but we, I 9 believe, need to have a role in kind of overseeing all of 10 that, so that we minimize the surprises.

I hope that people will pay particular attention to all other testimony today, but our last panelist from GenOn will have some very painful lessons of history, about the contrast of being told to run a plant and getting promises about not being prosecuted for environmental violations, and having those promises essentially denied.

17 It's a lesson for the future that should be 18 something that we're all very cognizant of, as we have put 19 many of these entities, as Commissioner Spitzer said, kind 20 of Hobbesian choice, of which violations do they choose --21 which regulations do they choose to violate.

That's not good government. We've got to figure out. Maybe Congress has to help us out at this. But generators should not have to choose between violating reliability standards and clean air standards. So my

1 motivation in today is to, as what the Chairman said, find 2 out our next steps. What should FERC be doing, either 3 changes through policies, regulations, rules? What should 4 the entities that we regulate, whether they're RTOs or 5 utilities, what should they be doing differently, so that we 6 can minimize this transition?

When it comes down to some concept of plants 7 needing to be on in the case of reliability, there are two 8 9 fundamental questions. How do we define reliability, and 10 who defines it? Those are the answers or the questions that 11 I'm hoping get answered today. I'm looking forward to all 12 the testimony. I'm very happy to know that Administrator McCarthy is here to testify, and I look forward to a good, 13 long day. 14

15 COMMISSIONER LA FLEUR: Thank you, Phil.16 Commissioner Norris.

17 COMMISSIONER NORRIS: Thank you. Thank you for 18 chairing this, Commissioner La Fleur. Welcome to everyone. Thank you to everyone for all the interest in this, and all 19 20 the panelists for all your thoughtful testimony. I look 21 forward to our conversation today. This is a technical conference, but no one's going to be surprised today to 22 learn that this is a politically charged issue as well. 23 24 I certainly learned that, and I was naive to think when I was called to the Hill to testify in September 25

this wasn't politically charged, but there wasn't a doubt.
After I left there, I knew this issue was politically
charged. So I recognize that what we say today will
probably be used or abused to whatever degree someone wants
to, and in that political environment.

6 But I am looking forward to getting past the 7 politics and figure out how do we make things work. How do 8 we make this work? So I encourage the panelists today to 9 challenge our thoughts. We certainly will challenge yours 10 probably on occasion. This is policymaking, and it requires 11 a robust discussion to get, I think, to the best possible 12 outcome for the policies going forward.

I just want to highlight two things, referring to my House testimony that I made last September, and as is set up for today's conference. One is that I said at that testimony I am sufficiently satisfied that the reliability of the electric grid can be adequately maintained as compliance with EPA regulations is achieved. I continue to believe that.

The reason I say "sufficiently satisfied" is there no such thing as absolute reliability. This is a work in progress, a never-ending work in progress, to make sure our system is reliable. The comments we had yesterday with NERC was a continuation of that process. We will continue to work to make sure our system is reliable.

But there's no absolute certainty. Congress can't legislate absolute certainty. We can't regulate absolute certainty, but it's a continual work in progress to do our best, to make our system reliable. There are certain tools that Congress has given us, not unlimited tools within our current jurisdiction, to make sure that we do all we can do to remain, to maintain reliability.

I do find it a little bit ironic, injecting some politics here, that -- and maybe some of you have heard me say this before, but earlier this year I took my sons to the Spy Museum. If you get to the last room of the Spy Museum, it's totally what I wasn't expecting. You go through all the Maxwell Smart stuff and all the other stuff through the museum.

Then you get to the last room. It's one room with a screen all around you, showing the electric grid of the United States, and that cybersecurity is our most vulnerable national security issue. Yet we're called on the Hill for a hearing on this issue, where Congress has failed to act, I believe, on cybersecurity legislation, that is a greater threat to reliability.

So I just want to put some perspective on the politics of this issue, and ask that there be some legislation moved forward to what I think would address our most serious reliability concern in this country. But what

can we do? I don't believe, as I said in my testimony on
 the Hill, another study, based on more assumptions and more
 hypotheticals, will get us any further down the road to
 achieving both the Clean Air and Clean Water Act
 requirements, and our efforts to maintain reliability.

6 I have -- you'll hear a lot in this industry about the need for certainty. I think once we have the 7 rules in place, there will be certainty about how we're 8 9 going forward, and the market will respond and provide the 10 most efficient way to get there. I think our planning 11 authorities are capable of doing their job. This will 12 enable them to do their job, once they know what units will 13 come off line, what units need to go down for retrofit, and the market will respond. 14

We need today, I think, hopefully flesh out from all of the witnesses, what are the tools that we have or need to work with with the industry, to make sure that this can go as efficiently and effectively as possible. But until we have the certainty of what the rules are, there's constant gamesmanship going on about what -- and guesses and assumptions about what plants will or will not retire.

So I think that certainty, and the market's ability to respond to that certainty, will help us navigate this most efficiently. The second thing I commented on at the House hearing was that I believe the medical research

and underlying science overwhelmingly substantiate that the emissions and effluents, the Clean Air Act and Clean Water Act require the EPA to regulate, have had and will continue to have a harmful and costly impact on the health of Americans. I believe that.

6 I think those pieces of legislation, passed over 7 four decades ago, amended over two decades ago, were a hallmark, bipartisan pieces of environmental legislation, 8 that have been unfortunately attacked continuously over the 9 10 years. I still find it amazing that some people are still 11 fighting those or in fact even surprised that they will 12 actually be implemented, since they are laws of the land, 13 but thankful that the witnesses here today, I believe, have given us meaningful testimony, not to challenge those Acts, 14 15 but how do we -- how do we most efficiently enable those Acts to be enacted through the rulemaking process at EPA, 16 17 and allow us to efficiently and reliably keep our system 18 intact.

So let me end with thanking Mr. McCarthy for 19 20 being here today. Thanks to you and your staff for the 21 meaningful work you're doing on this issue. I know you've 22 taken your fair share of bullets, slings, arrows. I've even felt like a few times grenades have been rolled into the 23 24 But I want to publicly thank you for doing this. room. You know, I have some young children, and 25

protecting our environment is important to me. I appreciate the bullets you're taking on this, and the effort you're putting forward, and really quite frankly, just to follow the law.

Follow the law, the Clean Air Act, follow the 5 6 court decree to get this done, which is why we'll have a 7 rule next month, and then we need to go about working with the tools we have or the development with you and industry 8 on what tools we can provide and work with, as a Commission, 9 10 to make sure that we achieve the goal of the Clean Air and 11 Clean Water Act, but also maintain reliability to our 12 system.

I believe we've faced challenges like this before in this industry. Industry's done a great job of stepping up to the challenge, and now it's time to step up to another one. But if we all work together, I think we can get this done. Thank you.

18 COMMISSIONER LA FLEUR: Thank you, Commissioner 19 Norris. I see at least one speaker standing in the back of 20 the room. We do have reserve seating for speakers right in 21 the front row, so please come down. Well, as my colleagues 22 have said, we're very lucky to have as our first speaker 23 this morning Gina McCarthy, the Assistant Administrator for 24 the Office of Air and Radiation at the EPA.

25 Gina's a fellow New Englander. She's a no

nonsense lady, and she has truly been at the eye of the
 storm for the last several months. So we're happy she was
 able to change her schedule to be with us this morning.
 Thank you, Gina. She'll provide some remarks to frame our
 discussion going forward. Thank you.

MS. McCARTHY: Good morning, everybody. 6 Thank 7 you, Commissioner La Fleur. I appreciate the introduction and your willingness to chair the conference today. 8 9 Chairman Wellinghoff, it's good to be with, Chairman 10 Moeller, Chairman Norris, my colleagues at FERC. Thank you 11 for holding this conference. I think it's incredibly 12 important, and every issue that relates to energy 13 reliability needs to be taken seriously.

We're here to listen and to learn, and hopefully 14 15 contribute, and I think what you want me to contribute this 16 morning is just to give you a little bit of an overview, in 17 particular of the clean air rules that are in place, and 18 being contemplated at EPA. I want to focus on the crossstate air pollution rule which was recently finalized, and 19 the mercury and air toxic standard, which we call MATs, 20 which will be finalized no later than December 16th. 21

These rules are incredibly important. I'd like to talk to you about why that is from EPA's perspective, and then we can talk a little bit about the impacts that are seeing associated with our rules, and the concerns that we

hope we'll be able to address and work on together, as we
 have during the development of the rule process.

3 So let's begin by talking about the importance of 4 the rules. First of all, these rules will achieve major 5 public health benefits for American families. The actions 6 EPA are taking are both required under the law, as well as 7 the standards are technologically achievable. They're cost-8 effective, with benefits that far outweigh the costs.

9 They can be and they must be implemented while 10 maintaining a robust and reliable electric system. The 11 cross-state rule, which requires significant reductions in 12 SO2 and NOx, that cross state lines will yield 120 to 280 13 billion dollars in annual health benefits in 2014 alone, 14 including the value of avoiding 13,000 to 34,000 premature 15 deaths.

16 These benefits far outweigh the estimated annual costs of 17 that rule.

The mercury and air toxics rule or MATS will substantially reduce power plant emissions of mercury and other toxics. Now mercury can cause neurological damage in children who are exposed before birth, and it is associated with impacts on children's cognitive thinking, their memory, their attention, their language, their fine motor and visual spatial skills.

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Toxic metal such as arsenic, chromium and nickel

cause cancer and other health risks. Acid gases cause lung
 damage and contribute to asthma, bronchitis and other
 chronic respiratory diseases, especially in children and the
 elderly. The same control equipment that reduces emissions
 of these toxics will also reduce fine particle pollution, a
 significant public health threat.

At the proposal stage, EPA's analysis of the MATS 7 rule projected that the emissions reductions achieved each 8 and every year beginning in 2016, would reduce approximately 9 10 6,800 to 17,000 premature deaths each year; 12,200 emergency 11 room visits in hospitals each year resulting from 11,000 fewer heart attacks; 120,000 fewer flare-ups of childhood 12 13 asthma; 11,000 fewer cases of acute bronchitis among children. These are rules that have significant public 14 15 health consequence.

The technology to implement these rules is not 16 just available but it's in use. It's known to be cost-17 18 effective, and it's in use across the country in many, many There is tremendous public health support for 19 power plants. these rules, make no mistake about it. Commissioner Norris, 20 21 you're absolutely right. It is politically charged, but the one thing nobody disputes is the kind of public health 22 benefits I just talked about would be welcome by anyone, and 23 24 we are hearing from the public.

25 Since March, we've received hundreds of thousands

of public comments on the mercury and air toxic standards, urging us to reduce mercury and other toxic emissions from power plants. Our analysis and past experience indicate that the recent warnings of dire economic consequences, moving forward with these important rules, are at best exaggerated.

7 While not their focus, the cross-state and 8 mercury and air toxic standards have the potential to 9 improve productivity and provide jobs. We estimate that the 10 proposed MATS rule would results in 850,000 fewer work days 11 missed due to illnesses, and could support 31,000 jobs that 12 are short-term construction, related to the installation of 13 pollution controls. In net, 9,000 long-term utility jobs.

The money spent on pollution control at power plants provides high quality American jobs, manufacturing steel, cement, other materials needed to build that equipment, creating and assembling that control equipment, installing the equipment and operating and maintaining it. These are the kind of jobs that cannot be shipped overseas.

20 Over the years, EPA has taken steps to regulate 21 power plants over and over again. Many of those times, 22 those steps have proven to be either illegal or fall short 23 of what is necessary according to the science and the law 24 and our understanding of technology.

Each and every time regardless, we have heard

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1 claims that our rules will lead to adverse impacts on energy 2 reliability. Well rest assured. Commissioner Moeller, as 3 you have clearly stated, reliability is an outstanding 4 serious concern. The question is, does a serious concern mean that we have serious impacts, and how do we address 5 6 those serious concerns in ways that allow us to deliver these public health benefits and maintain the reliability in 7 our system? 8

9 EPA does not take those concerns lightly. We 10 take them as seriously as the people that are sitting around 11 this table, the stakeholders that are here today. In the 12 40-year history of the Clean Air Act, EPA rules have never 13 caused the lights to go out, and the lights will not go out 14 in the future as a result of EPA rules.

We are paying careful attention to reliability issues. EPA's analysis, that we by the way did include in the rule and talk about in a robust way, unlike how it's been discussed in the press. We project that the Clean Air rules combined will result in only a modest level of retirements, and will not have an adverse impact on generation resource adequacy in any region of the country.

22 Similarly, several outside analyses have reached 23 conclusions that are consistent with ours. The Bipartisan 24 Policy Center issued a report in July of this year, 25 concluding that scenarios in which electric system

1 reliability is broadly affected are unlikely to occur.

2 M.J. Bradley Associates and the Analysis Group 3 have released a series of reports over the past year, 4 analyzing the combined impacts of the cross-state rule, and the proposed MATS rule, including a new update just this 5 6 month. Their analysis has concluded that the electric 7 industry can comply with EPA's air pollution rules, without threatening electric reliability, and have highlighted the 8 many tools that are available to ensure that electric 9 reliability is maintained. 10

As you know, PJM recently issued a report concluding that even assuming retirements substantially in excess of those projected by EPA, that these retirements will not threaten the resource adequacy in the PJM region, and it's significant, given that PJM is one of the largest and most heavily coal-dependent regions in the country.

The PJM analysis emphasizes, of course, that there could be localized concerns, a point at which I will return to in a minute. PJM also points out that to the extent that these rules spur newer, more efficient and more dependable generation, that they actually may enhance reliability.

Other studies do suggest that these rules will result in substantial power plant retirements, that in turn will threaten reliability. In general, these studies share

a number of serious flaws. If those studies were intended
 to actually analyze the rules, as opposed to apply stress
 tests or look at worse case scenarios.

Most notably, as the Congressional Research Service emphasized in August, these studies often make assumptions about the requirements of the rules, that are inconsistent with the rules themselves, either as they've been proposed or have been finalized, and they assume dramatically more expensive control strategies than EPA's rules actually require, or anyone expects to be implemented.

In addition, they often fail to differentiate between plant retirements that are attributable to our rules, and the retirements of older, smaller and less efficient plants that are already scheduled to occur for economic reasons.

16 Third, many analysts do not account for the whole 17 host of tools, including new generation, demand response, 18 energy efficiency, transmission upgrades, energy storage 19 that can and are highly likely to be used by you and others 20 to maintain reliability.

I've seen a lot of analyses, including the one released this week by NERC, that assumed that every uncontrolled coal unit will install the most expensive controls available to meet the mercury and air toxic standard requirements. As a stress test for you, I think

that's great. But we all know that this isn't really what
 will happen.

In reality, there is a 40-year history in the Clean Air Act of firms finding the most affordable way to comply with air quality standards, often in the most innovative ways. These types of worse case assumptions, if they're not clearly described as such, can generate more confusion than they actually bring insight to the table.

9 For example, many press reports and floor speeches over the next few months will likely cite some of 10 11 these high retirement numbers from the NERC report and other similar studies. But those high numbers aren't a result of 12 13 the cross-state rule or the mercury air toxic standard. They are the results of a mischaracterization of EPA's 14 15 cooling water rule under 316(b) of the Clean Air Act, which 16 accounts for the majority of the retirements that NERC 17 specifies in their report.

18 NERC's stringent case captures an outcome that 19 EPA specifically rejected in that proposed rule. Even 2.0 NERC's so-called moderate case assumes that mandatory 21 cooling tower retrofits would be required on 75 percent of 22 the affected capacity. Whereas EPA's actual proposed rule provides substantial flexibilities to adopt less stringent 23 24 requirements where appropriate, including the ability to consider reliability impacts. 25

1 The second attribute of many of these reports 2 that can easily lead to a misunderstanding is that they 3 unrealistically assume a world in which you guys do nothing. 4 They assume a world in which nobody does anything in 5 response to power plant retirements, and their impacts, if 6 any, on reliability.

No construction of new generation, no transmission upgrades, no implementation on demand side resources. Is there anyone in this room that honestly believes that we are all gathered here in the United States of America, and we won't do anything over the next four years to either look at the serious impacts associated with reliability, or take any commensurate action?

That is clearly not the case, since we are all here today, in a serious discussion about what we know to be a serious matter. The upshot is that many of these studies seem to answer a theoretical question, and that question is what would happen in a world in which we impose the most stringent controls imaginable, and no one takes action in response to the resulting power plant retirements?

Now these questions are valuable. They're valuable because they force us to work together. They force us to plan together. They are simply not however an assessment of the rules themselves. They are a reminder to us that the environmental world and the energy world must

work together to implement these rules that will provide significant public health benefits to American families, and we must do it in a way that we have done over the past 40 years.

5 We must do it in a way that ensures safe, 6 effective, reliable electricity supply. Do I think it can 7 be done? Absolutely. Do I think the challenge can be 8 large? Absolutely. No one is suggesting, nor did EPA say 9 that there would not be localized reliability challenges 10 that needed to be fixed.

11 But we're here today to say that we want to work 12 with you. We will work with you. We will work with you to 13 ensure that we provide these public health benefits that the law requires, the science demands and technology can supply 14 15 for us and for the American people, and we'll do it in a way where we both work together, mindful that we don't have to 16 17 choose between the goals of clean air and the goals of a 18 reliable, affordable electricity.

People don't want those choices where he had to demand that they don't need to be made, and we're here to work together to ensure that this administration provides an opportunity for us to provide the American people what they want.

We have a 40-year history of working together. I am extremely pleased with the tone actually and the tenor of this discussion. You're right. I may be bullet-riddled.
But frankly, you can't see any holes. They ain't going
through, and that is because I think actually the tone of
the discussion, for the most part, other than what you might
read in the papers, has been incredibly respectful. It's
been thoughtful.

7 It's recognized the seriousness of the 8 challenges. It's recognized that all of us, whether you're 9 a power plant generator or whether you work as the Assistant 10 Administrator of U.S. EPA, you want to deliver for your own 11 family the kind of public health improvements that I've 12 outlined. There's no question about it.

13 Really, there's no question that reliability needs to be treated seriously, that it is in and of itself 14 15 an absolute goal that must be maintained. But the 16 interesting thing about the dialogue is that nobody is 17 stopping there. We are talking. We're working together. 18 The administration is working together. Stakeholders are coming in and providing comment that is substantive in 19 nature, that is constructive in nature, and that is 20 21 designed, I believe, to tell us to work together to develop a pathway forward, a pathway forward where these rules can 22 move forward as the law requires, the science demands and 23 24 technology can deliver, and to also move forward in a way that will be cost-effective for consumers of electricity, 25

and will provide them the kind of benefits that the Congress
 intended.

3 So thank you very much, and I appreciate the 4 opportunity. Again, thank you for bringing together this 5 great group of people, to treat what is a serious concern 6 with the seriousness it deserves.

7 COMMISSIONER LA FLEUR: Well, thank you so much, 8 Gina, for being here, and we really appreciate. I think 9 that's certainly laid down the challenge that we have to 10 talk about today. Thank you. I'll switch horses and I'll 11 go to our first panel. Thank you.

12 (Pause.)

COMMISSIONER LA FLEUR: Well good morning, everyone. We have an excellent panel to start digging into these issues. Honestly, the first panel will talk about the potential reliability impacts of the new regulations and tools that you address them.

18 Our first panelist is Mark Lauby, Vice President 19 and Director of Reliability Assessment at NERC, and Mark will be sharing with us, do an outline of the results of 20 21 NERC's report this week; Michael Kormos, Senior Vice 22 President of Operations for the PJM Interconnection; Carl Monroe, Executive Vice President and CEO of Southwest Power 23 24 Pool; Tom Farrell, Chairman, President and CEO of Dominion, who's here on behalf of the Edison Electric Institute. 25

1 Mr. Farrell has to leave at 10:30. We appreciate 2 his changing his calendar to be here. When he has to leave, 3 he'll be replaced by Paul Koonce, Executive Vice President 4 of Dominion.

5 Kathleen Barron, Vice President of Federal 6 Regulatory Affairs and Policy at Exelon; Anthony Topazi, 7 Chief Operating Officer of the Southern Company; Vice 8 Chairman David Wright of the South Carolina Public Service 9 Commission; and Chairman Joshua Epel, I'm pretty sure that's 10 right, even though your sign says Joseph, of the Colorado 11 Public Utilities Commission.

Welcome all of you, and we'll start with Mr.Lauby.

14 MR. LAUBY: Good morning, Mr. Chairman. I hope 15 that you're feeling better soon with your back and the ribs, 16 Commissioners, and my fellow panelists. My name's Mark 17 Lauby and I'm the NERC's Vice President and Director of 18 Reliability Assessment, Performance Analysis.

19 NERC's mission is to improve and ensure the 20 reliability of the bulk power system of North America. NERC 21 achieves this mission in many ways, including reliability 22 assessments, a key electrical reliability organization 23 function called for in Section 215 of the Federal Power Act. 24 Reliability assessments are conducted to provide 25 an independent view of industry's plans to maintain

reliability of the bulk power system, and identify trends to
 maintain reliability. Also, we've identified trends through
 emerging issues and potential concerns.

4 By assessing and analyzing historic current and 5 future conditions, as well as emerging issues, NERC develops information vital and managing current and future 6 7 reliability risks, focused on improving bulk power system reliability performance. It's NERC's responsibility as the 8 9 ERO to highlight considerations resulting from emerging system conditions or external events, to ensure that 10 11 suitable plans are in place to maintain reliability.

12 NERC produces every year a long-term reliability 13 assessment, that looks over a ten-year horizon, and then 14 also two seasonal reports, a winter and summer assessment, 15 and finally special assessments as needed. Each year, the 16 long-term reliability assessment or LTRA forms the basis for 17 NERC's long-term reference case.

18 NERC also assesses reliability through structured 19 industry technical committees, leveraging the expertise of the electric industry. Based on a risk assessment of 20 21 emerging issues, special reliability assessments are developed. Comparison of scenario cases to the referenced 22 long-term reliability assessment projections is made to 23 24 identify any significant changes to bulk system reliability, and to identify areas where additional resources or 25

1 additional industry action may be required.

The most recent example of this scenario development is incorporated in NERC's 2011 long-term reliability assessment. But let me first provide you some context to that scenario assessment. In October 2010, NERC released a special reliability scenario assessment, measuring resource adequacy impacts of potential U.S. environmental regulations.

9 The focus of this assessment was to quantify the potential effects of pending environmental regulations on 10 11 future resource adequacy. NERC's scenario took an integrated view of the four rules that were under 12 13 consideration. It's the Clean Water Act, the coal combustion residuals, the Clean Air Act or MATS, and the 14 15 Clean Air Transport Rule, now known as the cross-state air pollution rule. 16

NERC evaluated two scenarios for each rule, strict and moderate cases, to provide sensitivities and boundary conditions of an integrated view of the environmental rules, and their potential reliability effects and considerations.

The results of the October 2010 special assessment can be summarized in three key considerations: timing, tools and coordination. Beginning in 2011, through the process of development our LTRA, NERC continued to

monitor the implications of environmental regulations, as
 greater certainty or finalization emerged around industry
 obligations, technologies, time lines and targets.

4 Upon performing preliminary analysis on 5 industry's long-term resource plans, it became clear to NERC 6 that submitted resource plans had significantly changed. In 7 fact, we noted an additional 25 gigawatts of projected unit 8 retirements, totaling 38 gigawatts since the 2010 study.

9 Also since NERC's 2010 study, proposed rules for utility MATS an 316(b) have been tabled, and of course, 10 11 finalized the cross-state air pollution rule. These considerations triggered a need for NERC to update the 12 13 results of its 2010 assessment, measuring the incremental implications and reviewing our conclusions on reliability. 14 15 This updated assessment is included in the 2011 LTRA that was published earlier this week. 16

Generally, NERC followed the same principles and study designs as our 2010 study, using an updated 2011 reference case. The overarching objective was to identify uncertainties in resource plans, and to better understand what decisions are yet to be made by NERC stakeholders, to address these environmental rules.

As last year, NERC's analysis does not include consideration of carbon dioxide legislation, and assumes there's no risk of future legislation. NERC's analysis of

the integrated impact of these regulations on planning discussions, decisions excuse me, showed 36 gigawatts of projected accelerated retirements and derates in the 2018 moderate case, and 59 gigawatts in the strict case.

5 Based on our assumptions, the primary driver for 6 retirements, in terms of magnitude, is the implementation of 7 the 316(b) rules, which showed margin reductions in certain 8 areas could affect bulk power system reliability, unless 9 additional resources are added.

10 But reserve margins are not the complete 11 landscape. The capacity planning assumes normal operation and maintenance of generating plants. Policy that changes 12 13 normal operations must be understood to appreciate overall reliability effects. More importantly, based on input from 14 15 NERC's regional entities, NERC is concerned about the risk to reliability from retrofitting by 2015, environmental 16 controls in over 500 units, representing over 250 gigawatts 17 18 of capacity driven by the utility air toxics rule.

19 The addition of environmental controls is a large 20 task, and based on feedback from regional assessments, can 21 be challenging to complete in short compliance periods. 22 Time is also required to permit, obtain certain critical 23 materials, add skilled labor and construct environmental 24 controls.

25

Based on the results of this assessment, timing

1 and uncertainty remain the most significant concerns.

Actions that increase certainty and provide additional time
will assist industry in their preparations, while
maintaining bulk power system reliability.

NERC's assessment, therefore, had five key 5 conclusions. The first, timing. Compliance deadlines will 6 challenge electric industry's planning horizons, processes 7 Implementation of the proposed rules, while and schedules. 8 successfully preserving bulk power system reliability, may 9 be highly dependent on the amount of time given to industry 10 to comply with future regulations, and the tools in place to 11 support industry's transition. 12

13 The second is regionality. The fuel mix differs 14 greatly across the country, and each area will face 15 different dynamics. State decisions on rule implementation 16 could greatly influence cumulative impact.

Third, outage coordination. Given the tight window for compliance, many affected units may need to take maintenance outages concurrently, and this can exacerbate resource adequacy concerns and reduce needed flexibility.

Fourth, transmission and operational issues. The retirement of larger units at our strategically situated generating plants will cause changes to power flows and system dynamics of the bulk power system. These changing characteristics may require enhancements to the transmission
1 system, to provide reactive support, voltage support,

address thermal constraints and provide system stability. 2 Fifth, uncertainty. The ambiguity on generator 3 4 final plans, details of the final rules and the timing for compliance resulting in a lack of information and data-5 sharing, vital for sufficient planning. NERC supports 6 7 actions that will provide more certainty and sufficient time to ensure NERC standards are met, thus preserving bulk power 8 system reliability. 9

10 The ERO's reliability standards and regional 11 criteria must be met at all times to ensure reliable 12 operation of the bulk power system. NERC's recommendations 13 for regulators, industry in itself, provide a foundation to 14 ensure NERC standards are met, preserving reliability while 15 industry addresses environmental compliance deadlines.

So for regulators, based on the results of this assessment, due to the concentration of units in specific areas of the U.S., more time is needed to ensure NERC reliability standards can be met. Coordination amongst federal agencies is also necessary, to ensure industry is not forced to violate one regulation meet another.

EPA, FERC and DOE and state regulators working together and separately should employ the tools at their disposal and their regulatory authority to preserve bulk power system reliability. For industry, we say that

industry participants need to follow NERC standards to
 ensure reliability, while addressing environmental
 compliance targets.

4 This includes careful coordination oif the scheduled outages of over 500 retrofits, representing 250 5 6 gigawatts of capacity, the addition of new generation and 7 required transmission reinforcements. For NERC, we see ourselves leading this industry effort in response to 8 measure resource adequacy implications, along with impacts 9 to operating reliability, resulting from proposed and 10 11 pending environmental regulations.

Overlying this potential reliability concern 12 13 stemming from environmental regulations, the power industry is undergoing substantial changes. You heard about some of 14 15 that yesterday, involving a dramatically different resource mix: closer coordination with gas pipelines, attainment of 16 17 clean energy goals, a new model for customer interactions 18 with their utilities, a smarter grid built to address growing cybersecurity concerns. 19

These issues are all included in the 2011 LTRA, and each of these are critically interdependent. Government and industry actions must be closely coordinated, to ensure the future of the reliability of the bulk power system in North America. I sincerely appreciate your interest in NERC's findings, and look forward to the panel's

1 discussions.

Thank you, Mark. We had 2 COMMISSIONER LA FLEUR: 3 given Mr. Lauby a little extra time because of the recent 4 issuance of the report, but I do want to remind folks to keep their remarks brief, so we'll have time for discussion. 5 I think we'll go to Mr. Kormos, and then we'll take Mr. 6 Farrell, because he has to go. Michael. 7 MR. KORMOS: Thank you, Commissioner La Fleur, 8 and thank you, Commissioners, for having me here today. We 9 did provide the written testimony, and hopefully you'll have 10 11 an opportunity to look at it if you have not already. Then that we have talked about the issues with retirements, with 12 13 scheduling outages, with the tools that we have available currently, the studies we've done to try to look at the 14 15 generation at risk and some of the coordination that we believe would be beneficial between the federal agencies. 16 17 I'll be happy to answer questions on anything 18 that was in my testimony. In a couple of minutes I have, I probably would like to concentrate and step back a little 19 bit from the tools, and talk about the issues that we think 20 21 is very important. That is in the actual EPA rule itself. 22 Not that we take any issue with the rule; that is not our role or responsibility. We respect the laws of the 23 24 nation and understand we will have to implement this in the time frames given to us. We do look at how EPA can 25

implement this rule as very important to us, particularly on
 a unit-specific basis.

As mentioned by some of the earlier speakers and some of the Commissioners themselves, there is a lot of uncertainty regarding timing of when units will be able to make retrofits, of timing of when transmission upgrades could be put in place and siting processes and getting new generation on. We're not going to be able to have all that known up front with the certainty that we need.

So one of the things we've looked at is 10 11 ultimately how EPA could implement particularly the penalty provisions, for units that potentially are needed for 12 reliability criteria violations. We proposed what we called 13 the reliability safety valve, which would allow us to 14 15 basically identify units that would be needed to be maintained for reliability beyond the deadlines provided by 16 the EPA. 17

18 Our purpose is in exchange for what we think is 19 important, the more advance notice we get, the more likely we can get the upgrades in place that are needed. 20 So in 21 exchange for that advance notice and that commitment, that 22 if in fact the reliability entities need the units, that they be allowed to stay on, without the fear of the 23 24 penalties or civil lawsuits. We think that's important to get clarified. 25

One thing I am concerned about is that as everybody here has said, this is mostly a timing issue for us, and I would hate to see too much bureaucracy or another regulatory level getting approvals in place. I think FERC has done a great job through Order 890, through FERC Order 1000, having very transparent, open planning processes.

7 I think we should be able to rely on those planning processes to identify these violations, to identify 8 9 the upgrades that are needed, and the units that ultimately 10 would need to stay around, based on those planning processes 11 that the reliability safety valve be implemented on. Ι 12 would hate to see to many layers of approvals or uncertainty in there. The more uncertainty it is, the harder it will be 13 for us to manage this going forward. 14

I do think FERC will play a critical role in this, ultimately as a backstop to those planning processes, but also in looking at the various roles and looking at the remedies, and the reliability challenges that are undertaken by the planning entities, and hopefully having the EPA heed to those studies as we move forward.

I think based on that analysis, again, I think it is, at least in our region, although we expect some of the other regions may have further issues than we do. Again, given enough time, the markets will respond, the transmission upgrades can be put in place. But again, I

think it is critical that we allow the safety valve going
forward. With that, I'll wait for questions.
COMMISSIONER LA FLEUR: Thank you very much, Mr.
Kormos. With Mr. Monroe's okay, we're going to turn to Mr.
Farrell, on behalf of EEI.
MR. FARRELL: Good morning Chairman La Fleur and

Chairman Wellinghoff, other members of the Commission. As
the Chair mentioned, I represent here both Dominion
Resources and the Edison Electric Institute, which I have
the pleasure to serve as chairman, fortunately for only
about six more months.

12 (Laughter.)

13 MR. FARRELL: It's my pleasure here to offer the consensus views of the EEI member companies in the 14 15 relationship between reliability and the utility MAC rule. 16 EEI has provided extensive comments to the EPA to obtain 17 critical modifications needed to maintain reliability, and 18 to protect consumers. We are particularly appreciative of 19 the constructive nature of the dialogue that we've had with 20 EPA.

EEI is not seeking to delay promulgation of the MAC rule, which is due to be issued in about two weeks. But EEI is seeking additional time, a fourth year for all units undertaking investments, and a certain process for more than four units for those eligible units.

EEI believes the Clean Air Act itself can be used to provide longer than four years to achieve these goals, without placing utilities in violation of EPA's rules. This process must be in place at the time the final rule is issued, and EEI wants to assure that efforts to comply with the MAC rule are consistent with our obligations to preserve reliability.

8 The scheduling of this technical conference is 9 particularly timely. It will inform many in the executive 10 branch of the reasonable solutions before us, that do not 11 require legislative amendments to the Clean Air Act. EPA 12 estimates that the rule will affect 1,350 coal and oil fired 13 units at 525 power plants across the nation.

As our RTOs and NERC will discuss today, it will particularly impact power plants clustered in PJM and MISO, and in the Southeast and the state of Texas. Given the large number of units affected, and the complexity of some compliance measures, the compressed three-year time frame for compliance is not sufficient.

20 EPA can grant an additional fourth year and 21 should do so categorically for plants undertaking 22 investments for retrofits or other solutions. Until the 23 rule is final and the provisions for additional time are set 24 forth, however, no one knows precisely which units will be 25 retired, retrofitted or replaced with new generation or

1 transmission, and no one can know the reliability impacts of 2 those changes.

3 Our member companies have an obligation to 4 provide affordable, reliable power, and we also have an 5 obligation to meet our environmental responsibilities under 6 the Clean Air Act. For us to do both, there must be a 7 coordinated, transparent process for an orderly implementation of the MAC rule, and a reasonable opportunity 8 for more time to comply where needed. We must know all this 9 at the time the final rule is issued. 10

11 Key to this transition is meaningful coordination 12 of the units that will be retired, and perhaps even more 13 critical, coordination of the work required to retrofit or 14 replace units including, in some cases, transmission or 15 pipeline solutions. Utilities have already announced about 16 48 gigawatts of coal unit retirements.

But the statements filed today demonstrate that one of the biggest risks we face is trying to coordinate the installation of compliance projects affecting over 1,000 units in three or four years. Organizations such as NERC, PJM and MISO have focused on the importance of coordinating installation of equipment needed for compliance.

This coordination must include the active participation of utilities, public utility commissions, RTOs and NERC regional entities. These entities will vary

according to the market and regulatory structure of the different regions. It is plainly evident, and I believe many of the panelists this morning will concur, that a fourth year is needed for plants undertaking investments, and additional time beyond four years will be needed for some units. There are simply too many affected.

Experience has shown that certain compliance actions, for example, the construction of scrubbers or completion of transmission lines, simply take longer than three or four years to accomplish. I suspect you will hear today about a few proposals that provide for additional time. They are similar in many respects, but each has their own important distinctions.

EEI's proposal has three core features. They are 14 15 a full four years for full compliance for all units where investments are being undertaken to comply. Three years to 16 retire units that will not be retrofitted or replaced with 17 18 new generation or transmission, unless a state commission, 19 an RTO or NERC determines that its shutdown would jeopardize reliability. This is similar to the so-called RTO safety 20 21 valve.

Calling on the President to use the two-year extension authority provided in the Act, to issue an executive order empowering the Environmental Protection Agency to provide more time where diligent measures are

being undertaken to achieve compliance, the technology is not available for the installation of controls, and the appropriate RTO, state commission or NERC determines that the time extension is necessary to meet reliability, or is consistent with a state-approved integrated resource plan. We don't leave it up to the utility.

7 It is essential to exercise this Presidential 8 authority at the time the final rule is issued, to enable 9 utilities to develop their compliance plans. Utilities 10 should not have to choose between reliable service and 11 compliance with EPA rules. Presidential authority provides 12 a method to accommodate both.

EEI recommends that RTOs planning authorities and NERC conduct the needed reliability studies. An individual utility will understand the consequences of their compliance plan on their own system. That one utility has no way of knowing the compliance plans of neighboring utilities, and how they may interact and affect system-wide reliability.

We at EEI recognize that the Commission has no authority to grant extensions of time to comply with the MAC rule. That is EPA's and the President's role. But we urge the Commission to fully exercise your duties to ensure the reliability of the grid.

That can be accomplished by advising the executive branch that compliance activities requiring

environmental controls on generation plants, transmission
 construction, natural gas pipeline construction or other
 measures can take longer than three or even four years to
 accomplish.

EPA should grant a categorical fourth year for 5 6 units investing in compliance measures. Reliability impacts 7 can result from uncoordinated installation of controls, as much as from plant retirements, and the President should 8 apply his authority under Section 221(1)(4) of the Clean Air 9 Act at the time the final rule is issued, to establish a 10 11 process to provide additional time to comply with the MAC 12 rules for eligible units. Thank you.

13 COMMISSIONER LA FLEUR: Thank you, Mr. Farrell,14 and we'll now go back to Mr. Monroe from SPP.

MR. MONROE: Southwest Power Pool would like to thank the Chairman, the Commissioners and the staff of FERC for inviting us to give our thoughts on the reliability risks that we've identified at least to date, with the time line for implementing the approved and pending EPA rules.

It's important to note that SPP's mission statement is helping our members work together to keep the lights on today and in the future. SPP is a member-driven organization with a core ideology to do the right thing for the right reason in the right way. As it relates to implementing these proposed and approved EPA rules, the

1 right way does require more time.

Specifically, we need more time to review and 2 3 understand the final rules for the development of compliance 4 and mitigation plans by each of the generator owners and 5 operators, and for the planning authorities to aggregate 6 those and refine those plans into regional assessments, to coordinate those plans with their neighbors, since some of 7 the allowances are managed at a state level and not at an 8 RTO level, and then to actually have time to implement those 9 10 plans.

11 Once the plans are developed and finalized, with due consideration for reliability needs, it appears that the 12 13 proposed reliability safety valve is also needed to provide time to implement compliance plans. We've been diligent in 14 15 pursuing plans and engaged in collecting a lot of information in performing reliability assessments to 16 17 determine the impact of these rules even prior to the 18 adoption and revisions of the CASPR (ph) rule.

19 SPP's first reliability assessment mid this year 20 regarding the EPA rules focused just on supply adequacy and 21 determined that, under worst case conditions, there was 22 inadequacy in 2013. With that, SPP was asked to perform an 23 additional 2012 assessment, which focused on the interim 24 CASPR rule. It used the IPM model and zero fuel burn out of 25 the IPM model, and identified 5.4 gigawatts of generation

capacity in the RTO footprint that would be unavailable for
 the peak next year.

Preliminary results from this study showed that there were many overloads under the M minus 1 conditions, voltage issues below 85 percent, and non-convergence of many scenarios, which is of particular concerns. These results were shared with the EPA with a September 20 letter from SPP, which was also signed by the SPP regional entity board of trustees.

We continue to have concerns, of course, because of this, so we are in the process of surveying our generator owners and operators to understand their compliance with the plans with the approved and pending EPA. Some of that's been delayed because of the issuance of the MATS order in December and the next two weeks.

But the preliminary results that we've gotten back from some of them show localized reliability concerns for 2012. SPP and the stakeholders also have started a comprehensive assessment of the pending rules, gathering that information that we have to reflect both CASPR and MATS, and other issues that are expected in the 2014-2016 time period.

It's clear that SPP needs to facilitate discussions, coordinate activities and perform reliability assessments to maintain grid security, with due

consideration of economics among our members, stakeholders
 and neighbors for these EPA rules. SPP is confident in our
 ability to address these regulations, with an appropriate
 balance between cost and benefits.

5 But there is need for certainty, as has been 6 mentioned before, on the requirements first, and then to 7 identify and implement the appropriate solutions. SPP is 8 not asking for any changes in these EPA rules or FERC 9 regulations or NERC reliability rules.

10 SPP does need time to develop and implement a 11 comprehensive plan in its region, and coordinate it with its 12 neighbors. SPP also believes that a reliability safety 13 valve is needed to allow rational planning activities and 14 for implementation. These are needed in order to help our 15 members keep the lights on today and in the future.

16 Thank you for this opportunity to speak on the 17 important issues, and I'll be available for questions after 18 this.

19COMMISSIONER LA FLEUR:Thank you, Mr. Monroe.20Ms. Barron.

21 MS. BARRON: Good morning Commissioners, staff 22 and my fellow panelists. Thank you for inviting Exelon to 23 participate in this important conference. In our view, the 24 Commission is asking exactly the right questions of this 25 group. What processes are in place to ensure that emerging

1 issues like the EPA regulations --

Excuse me. What processes are in place to address emerging issues like the EPA regulations, and are there any changes needed to the Commission's regulations or tariff to allow the EPA rules to be implemented in a way that will ensure reliability?

From my perspective, the Commission has 7 positioned the industry well to respond to implementation of 8 the Clean Air Act. In this respect, history speaks for 9 10 itself. The industry has weathered past regulatory and 11 economic challenges, whether related to environmental rules or market fundamentals like swings in fuel prices or shifts 12 13 in demand, and it has maintained the level of service that the Commission and its state regulatory counterparts have 14 15 come to expect.

In recent years, many gigawatts of capacity have been retired, due to reduced demand or low gas prices, and many more gigawatts have been added to the grid, resources of all kinds, requiring all different types of grid configurations. Yet there has been no lapse in reliability as a result of these developments.

This does not mean, however, that the industry does not need a clear path through compliance deadlines in the Clean Air Act, that in some cases may be too short. EPA needs to provide clarity on the front end, as to how units

that need more time will get it. We believe the Clean Air
 Act includes ample authority, including authority of the
 President, to extend the time frames.

Indeed, in the context of the settlement among all the EEI companies, and a commitment not to litigate or seek litigation, Exelon would support the exercise of the President's authority under Section 112.

8 In terms of what FERC should do, we believe FERC 9 should continue to provide expert advice to EPA as it 10 implements the air regulations, and it should also continue 11 to monitor the industry's compliance, to ensure that there 12 are no road bumps, and continue to ask whether there are 13 rule changes needed.

Turning to the questions the Commission has asked, what tools do we have to identify problems and to solve them? There are three main building blocks to that. First, the reliability standards. It wasn't that long ago that the Commission received authority from Congress to appoint an ERO and approve minimum standards for all users, owners and operators of the grid.

For now, we have enforceable standards related to planning, operations, resources and demand balancing, to name a few. You have given industry minimum standards of behavior and have diligently enforced them.

25 Second, planning and assessments. As Mike said

under Order Nos. 890 and 1000 and certain of the standards,
 open and transparent planning processes are held at the
 local and regional level, and various assessments are
 conducted to provide input into those processes.

5 NERC and the regional planners examined the state 6 of the grid under multiple scenarios, highlighting potential 7 areas of need. Pursuant to FERC precedent, planners must 8 consider all potential ways to meet a future shortfall, and 9 share that information publicly.

10 A critical element of this process, however, is 11 adequate information. To determine whether there will be 12 reliability impacts from a particular unit's retirement or 13 retrofit schedule, it is critical that industry provide 14 early notice of compliance plans.

15 Third, market structures. Competitive markets 16 established by the Commission facilitate EPA regulations in 17 two ways. First, forward capacity markets provide unit 18 owners information about whether it will be economic to 19 retrofit, and also provide planners with binding commitments 20 that resources will be available during the planning year.

Second, competitive market signal where resources may be needed, and where sufficient capacity is already in place to meet resource needs. So where does that leave us? I think we can draw three conclusions, based on where we sit right now.

First, we need certainty. The rules need to be finalized. I think you're hearing that from all the panelists, on this panel and the next. EPA needs to implement the rules, and in doing so, needs to tell industry up front how it will address requests for extensions that are needed for reliability.

Second, most unit owners are prepared to comply, whether because of state law or early action. You see that in SEC disclosures, investor statements, state regulatory settlements, other public information. The silent majority of unit owners are well on their way to compliance.

12 Third, for unit owners that cannot retire or 13 retrofit on time because a unit is needed for reliability. 14 That unit should get an extension of time, and protection 15 from liability. It's that simple. Once there is an 16 assessment of a reliability problem, the unit should be 17 allowed to run to address that problem. Thank you for your 18 attention, and I look forward to your questions.

COMMISSIONER LA FLEUR: Thank you, Ms. Barron.
 We'll next hear from Mr. Topazi.

21 MR. TOPAZI: Thank you, Commissioner, and thank 22 you Chairman and the rest of the Commission for giving me 23 the opportunity to participate, and for you conducting this 24 very important technical conference. As an engineer 25 spending 41 years of my life designing, building and

operating the electric system at Southern Company, I have
 never seen a more serious issue than what we're here to
 discuss today.

4 Let me start by describing the magnitude of the issue for Southern, and our capabilities and experience in 5 dealing with this issue. First, coal-fired generation is 45 6 7 percent of our total capacity, 20,000 megawatts of coal. So the issue for us, like other utilities, is not minor. 8 It's 9 unprecedented in its impact to our generating fleet and our reliability. 10

We have 64 coal units. Of those, 58 or 90 percent will have to undergo major change by the proposed rule, and those units are located in 18 different locations across four states, and location matters when you talk about reliability.

We will also have to construct up to 70 different transmission projects and numerous pipeline expansions. Our assessment today is we will be retiring 4,000 megawatts of coal that otherwise would not be retired through 2020.

20 Our capabilities and experience. Southern has 21 installed more environmental controls than any utility in 22 the country, 17 scrubbers, 16 SERs, four bag houses at an 23 expensive of 8-1/2 billion dollars. No one has more 24 experience. We also have one of the largest in the industry 25 engineering and construction organization. We don't farm this out to vendors to do. We oversee the design and the
 construction ourselves.

3 Another key to what we do is our research and 4 development effort that has been ongoing for 40 years. For 5 40 years we have researched and tested technologies for coal 6 emission improvements. We have, in the last six years, 7 undertaken a mercury research center with numerous vendors, to get ahead of the curve and really understand. 8 So we understand what the rules are saying, and we understand what 9 10 it takes to comply.

We also are at this moment in time investing \$20 billion in new generation across the Southern footprint, and an additional \$2 billion of controls that are being required for other existing state and federal regulations. Southern is a registered planning authority like the RTOs on this panel. But we're also a generation and transmission owner and operator, and a load-serving entity.

18 Therefore, we have the capability of assessing 19 dozens of generation scenarios that we have worked through, 20 and then the resulting transmission requirements to keep the 21 system reliable. We've gone beyond the macroeconomic 22 reserve margin calculations, based on numerous consequential assumptions, and we have actually done the reliability and 23 24 the operational analyses as set out in the FERC standards, to fully understand and assess reliability. 25

We have conducted site-specific preliminary engineering, so that of all the sites that we expect to add controls, so that we can eliminate assumptions and replace that with actual data and facts. So all of our experience, all of our work makes it clear.

6 More time for compliance is absolutely required, 7 at least six years in our perspective. Without more time, our reserve margins are projected to go to minus 12 percent 8 9 in 2015, and zero percent in 2016. That means that lights 10 will go out. Our customers will face numerous rolling 11 blackouts, and the likelihood that some customers may have to have service curtailment because of the inadequacy of 12 13 voltage or source circuit for them to perform their operations. 14

15 Outages and the economic consequences from them will have serious effects on our customers and our economy. 16 17 This is not a delay, as others have said. This is the time 18 necessary to do all that we have to do, to obtain regulatory 19 approval, permit and construct 100 generation, transmission and pipeline projects, and the time to coordinate all the 20 21 scheduled outages within our region and on an inter-regional 22 basis, so that we maintain reliability without shedding load or creating events that lead to cascading blackouts. 23

24Timing. The time to comply is the critical25issue. Now the EPA has grossly underestimated the cost, the

time to comply and the reliability impacts of the rule as it is set forth. These mischaracterizations lead to a date that is wholly inadequate. So the risk to the reliability of the grid and to our customers and to this country is very real.

6 With all due respect to this Commission, I urge 7 you to strongly advocate to the EPA and the administration, 8 as Mr. Farrell pointed out, to provide the needed time, as 9 provided in the Clean Air Act. Let me close and say that 10 Southern's motivation is not financial gains; it is 11 absolutely what is right for our customers and what's right 12 for our country. I look forward to your questions.

COMMISSIONER LA FLEUR: Thank you very much.
We're now going to hear from Vice Chairman Wright of the
South Carolina PSC.

16 MR. WRIGHT: Thank you. Chairman Wellinghoff, 17 members of the Commission, good morning. My name is David 18 Wright and I am Vice Chairman of the South Carolina Public 19 Service Commission. I'm also president of the National 20 Association of Regulatory Utility Commissioners.

Today though, I'm appearing in my capacity as a member of the Public Service Commission of South Carolina, and my remarks should not be interpreted as expressing the position of the South Carolina Commission or NARUC. Let me begin by thanking each one of you for holding this technical

1 conference.

This conference is a good first step in a process of identifying the effect EPA's power sector regulations will have on the reliability of the electric grid, and in developing, to the maximum degree possible, cost-effective solutions to the problems identified. We in South Carolina are greatly concerned about

8 the impact the EPA regulations will have, both on electric 9 reliability and the cost of electricity to our retail 10 consumers, many of whom are low income consumers already 11 struggling to pay their bills each month.

A number of studies have indicated that the EPA has significantly underestimated the number of retirements that will result from their proposed regulations. The NERC study released Monday afternoon estimates a range of 37 to 61 gigawatts of economically vulnerable plants that may retire by 2018.

18 That is in addition to the 37.6 gigawatts of 19 announced retirements. So that makes for a potential of 20 98.6 gigawatts to retire. The Southern Company, as well as 21 several RTOs, have publicly warned that the proposed EPA 22 regulations will have severe negative consequences for the reliable operation of the grid, impose time lines that can't 23 24 be met, and will significantly increase costs to ratepayers. 25 For example, MISO recently estimated the cost to

its members for complying with EPA's regulations at

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approximately \$30 billion. I'm particularly concerned about
EPA's failure to address the local reliability impacts of
its rules. After all, local impacts could cascade into
broader regions.

I am one of the state officials that South 6 7 Carolina ratepayers and businesses will call when their 8 lights go out. At nearly every rate case proceeding, I also 9 hear from ratepayers who are now faced with choosing between paying for their medication or paying their electric bills, 10 11 some of whom are simply now living in the dark. Imagine That's actually going on. 12 that.

13 South Carolina law limits communication between 14 our Commissioners or staff in our jurisdictional utilities 15 about any matter that could come before the Commission. One 16 of the ways in which we can discuss these issues is through 17 the IRP process, and we look forward to hearing from all 18 parties and our utilities about plans for their generation 19 fleets in their upcoming annual IRP presentations.

20 We are also exploring other ways to discuss these 21 important issues with our utilities, including scheduling an 22 allowable ex parte briefing with our commission, its staff 23 and our utilities, to discuss the anticipated impacts of the 24 various EPA regulations that will affect the power sector. 25 It is in that spirit that the Public Service

1 Commission of South Carolina and the South Carolina Office 2 of Regulatory staff filed a petition with FERC on September 3 1st of this year, asking for the formation of a joint FERC 4 state board, to assess the reliability impacts of EPA's 5 rules, and the cost to ratepayers to comply with those 6 regulations.

We need a process in which those government 7 agencies that have responsibility for electric reliability, 8 9 at both the state and federal levels, can work with each other and with other parties and stakeholders, to determine 10 11 how the grid and consumers will be affected. State public service commissions have a critical role to play in this 12 13 process, because we are ultimately responsible to retail electric consumers for the safe, reliable and I emphasize 14 15 affordable supply of electricity.

While FERC oversees resource adequacy standards, only the states can directly regulate generation facilities. But it would not be prudent for state public service commissions like our commission to enter into this process alone, as the effect of the EPA rules will be experienced on grids at every level.

Thus, effects in our neighboring states may create effects in South Carolina, but we lack information about what those out of state impacts will be. We need to work together. While I continue to believe a joint board is

1 appropriate, the key is a federal-state process that 2 examines real or potential reliability issues, as well as 3 cost and rate impacts. I am not wedded to the joint board 4 concept. I could support any mechanism by which those with expertise and responsibility for grid reliability, including 5 state commissions and FERC, conduct an open and 6 7 comprehensive process to assess the extent of the problem, 8 and identify solutions.

9 One final point. There's been much discussion 10 about the possibility of EPA adopting a safety valve to 11 address the reliability impacts of its rules, as well as an 12 EEI-supported proposal that contemplates using Presidential 13 exemption powers to allow certain sources additional time 14 for compliance.

15 While these proposals each have limitations, they serve as good starting points for dialogue about possible 16 17 solutions. Under either proposal, a third party 18 verification process needs to be developed for non-RTO states, and in all states, it is absolutely critical that 19 state commissions are provided an opportunity for 20 participation, and that a mechanism for determining and 21 mitigating the cost to ratepayers is established. 22

Finally, it's important that we take the time necessary to study and understand the reliability issues raised by the EPA regulations, including time lines and

costs, so that we all, working together, can design an
 appropriate solution. I thank you for the opportunity to
 provide remarks today, and I look forward to the discussion
 today.

5 COMMISSIONER LA FLEUR: Thank you, Vice Chairman 6 Wright. Thank you for being here. Chairman Epel.

7 MR. EPEL: Mr. Chairman and Commissioners, I'm 8 honored to represent the people of Colorado with this 9 important technical conference. The Intermountain West is a 10 beautiful area with vast distances and a relatively small 11 population. We are so remote we do not have an RTO.

But what we do have is an entrepreneurial spirit and loyalty to maintain Colorado's unique beauty and character, and Colorado has taken the actions necessary to address the concerns of this panel. How can EPA's mercury and air toxics rule and other health-based rules be met in a timely manner?

The voters of Colorado decided to preserve Colorado's uniqueness when they passed a voter-initiated renewable portfolio standard in 2004. The Colorado legislature has twice enhanced our renewable portfolio standard. I've placed in the record another example of Colorado's innovativeness, House Bill 1356, also known as the Clean Air Act, Clean Jobs Act.

25 The Act establishes the framework for significant

emission reductions to meet the mercury and air toxics rules, and other regulations. Also for the record, I have submitted the Public Utilities Commission order that implemented Clean Air, Clean Jobs.

Finally, I submitted into the record comments 5 6 from the Colorado Department of Public Health and the Environment to the EPA on the mercury and air toxics rule. 7 The comments seek the flexibility discussed by this panel. 8 What makes the Clean Air, Clean Jobs rule bill so unique is 9 10 not the fact that it was passed in 30 days, or that it was a 11 truly a bipartisan effort, but how comprehensive an effort 12 it represented.

The legislation required a coordinated effort between Public Service Company of Colorado, the Colorado Air Pollution Control Division, and the Colorado Public Utilities Commission. The legislation required the adoption of a plan that would address regional haze, ozone and what is called foreseeable emission reduction requirements, which include mercury.

The legislation required the Public Utilities Commission to preserve electric reliability, and to ensure reasonable rates. Now a key element of the Clean Air, Clean Jobs was that it encourages the use of natural gas as a fuel, by authorizing the utility to enter into long-term contracts that will benefit Colorado consumers.

Additionally, the legislation required the utility to work with the Air Quality Division, to develop a plan to achieve the required reductions. Remarkably, the plan presented to the Public Utilities Commission by the Public Service Company and the Air Pollution Control Division was developed in less than 90 days.

7 The Public Utilities Commission then held an 8 extensive stakeholder process and issued its order in four 9 months. After adoption of the final order, the Air Quality 10 Control Commission approved a regional HASIP (ph) state 11 implementation plan that made the Public Utility Commission 12 federally enforceable. Full compliance with the order is 13 required by 2017.

The final rules or the final order required Public Service Company to (1) retire 551 megawatts of coalfired capacity at five units between 2011 and 2017, to fuelswitch 352 megawatts of coal-fired capacity to natural gas in two units between 2013 and 2017, and to retrofit 742 megawatts of coal-fired generation with emission control equipment on three units between 2013 and 2017.

The capital costs are estimated at approximately \$890 million, with a bandwidth of about 20 percent. The approved plan is expected to achieve reductions of 88 percent in nitrogen oxide emissions, 88 percent in sulphur dioxide emissions, 58 percent reduction in mercury

1 emissions, and 28 percent reduction in CO2 emissions.

Between the Clean Air, Clean Jobs and our renewable portfolio standard, Colorado has developed a very diverse and balanced fuel mix for power generation. Now having described what we've done, I'd like to end with a couple of caveats.

First, what we've accomplished in Colorado may be very difficult to replicate in other states. Colorado is blessed with an abundance in natural gas, that will enable the industry to enter into a long-term contract for natural gas, and second, the retirement, fuel-switching and controls only apply to Public Service Company of Colorado and a little bit to Black Hills Corporation.

Other utilities that are located in Colorado are subject to the mercury and air toxics rule, and may require controls that are not subject to the Public Utility Commission jurisdiction. Thank you for inviting us to participate, and I look forward to your questions.

19 COMMISSIONER LA FLEUR: Thank you very much, 20 Chairman Epel. I guess I'll start with the first couple of 21 questions, and turn it over to my colleagues. A lot to 22 absorb. I had said earlier that almost all issues, and it's 23 certainly true of this issue, involve dimensions of 24 reliability, cost and environment or safety, and I think 25 that's been -- various of those, and particularly the cost 1 element, have been mentioned by Commissioner Moeller,

Administrator McCarthy and several speakers, most
compellingly Vice Chairman Wright.

4 I think the cost of compliance is a very valid public policy consideration as we go forward. I just want 5 6 to think for today and for this Commission, I want to be 7 very sharp in understanding what we're doing because of cost, and what we're doing because of reliability. I noted 8 9 in the pre-filed testimony that the EEI proposal for a 10 Presidential permit would allow state-approved integrated 11 resource plan to ask for more time, because of the economic 12 impacts of compliance, which I take to be for the cost of 13 compliance.

I just want to explore that, because I think if this Commission is asked to do anything, I mean I understand how we apply our 215 jurisdiction and we say, although it won't necessarily be straightforward, keeping this -closing this plant for retrofit or permanently will cause this or that standards violation.

But if we're balancing costs and reliability, it can get to be much more complicated. So I want to push on that. If the panelists think a reliability safety valve or an extension should be strictly reliability-based or more broadly based, and also related, if it's going to be a reliability-based exception, do you have an opinion on some of the proposals that have been made, that reliability-based extensions allow the plant to be dispatched for reliability, like a reliability-only dispatch like some have called for, or would you allow normal dispatch, economic dispatch operation?

I thought I'd ask once, because by the time we go
down the whole cast, rather than ask a two-part question.
Whoever wants to start.

9 MR. KOONCE: Commissioner, yes, you've asked. 10 The question, I guess, was in a response to comments that 11 EEI made about costs. You know, when we think about costs 12 of compliance and the extension of time, you know, we think 13 about the differing technologies that might be required to 14 comply. For example, DSI-type insulation versus something 15 more complicated.

16 So when we're looking at cost, we're looking at actually the cost of the technology and the time to 17 18 implement that technology. So in its, I quess, deeply rooted form, it really does come back to a reliability 19 question. But clearly, there are costs of technology to be 20 21 compliant, and all that we ask as an industry is that we be able to select the technology that most appropriately meets 22 23 the compliance requirement.

If, for example, a certain type of technology is not available because the workers are not available, then we

would respectfully request that the Presidential exemption recognizes that, so that we don't grab a more expensive technology just to meet compliance, because materials or workers may not be available, but otherwise would meet that need.

6 COMMISSIONER LA FLEUR: That's very helpful. So 7 you would not expect that the exemption request would say 8 rates will go up if we no longer can burn coal here, 9 although that might or might not be true, depending on gas prices and a lot of other things. So therefore, we need an 10 11 extension, but rather it's too expensive to comply in this time line. It will be cheaper if we comply in that time 12 13 line?

MR. KOONCE: If we can -- if it becomes a matter 14 15 of resource constraint. In other words, there's two 16 technologies. One is more expensive than the other. But the more affordable technology is not available because 17 18 either materials or workers are not available. We think 19 that the Presidential exemption authority ought to give us 20 the time to incorporate the most costly efficient 21 technology.

22 So that may be one of sequencing. So if it's one 23 of sequencing, and there's a cost difference but both are 24 compliant, then we think that the Presidential exemption 25 authority ought to apply.

1 COMMISSIONER LA FLEUR: Not to put you on the 2 spot, but while you have the mic, if you had an exemption 3 under the Presidential exemption authority or any other of 4 the various safety valve proposals, would you propose to apply that exemption only, so now a plant is now running 5 6 past what would have been the normal deadline for some 7 period of time, to only run that plant when needed for reliability? 8

9 MR. KOONCE: Well, I think one of the factors 10 that you have to take into account is if you're going to 11 maintain the plant for the extended period of time, then 12 we're going to have NERC compliance costs. We're going to 13 have ongoing maintenance costs. So as long as those factors are taken into consideration, then the plant ought to be 14 15 able to run to recover those costs that are necessary to be 16 compliant with the other elements of regulation.

17 So you know, one view is that if you grant the 18 extension of time, the plant should be able to run to 19 recover those costs. In the absence of that, there ought to 20 be some recovery mechanism that recognizes that.

21 COMMISSIONER LA FLEUR: I mean many plants have 22 various operating restrictions, right? I mean I remember 23 back a 1,000 years ago, when I worked for a company that had 24 power plants that were water temperatures, and you could 25 only run certain, and the control room had to work within

those. So it could be a negotiated exemption of when it was potentially, I mean -- I don't mean for water. I just mean in general, what the operating rules going forward on the exemption were.

5 MR. KOONCE: Well, and I think that would all get 6 incorporated into, and in my case, PJM and how they do the 7 reliability assessment. Again, I think a big part of this 8 discussion and what we've heard today is it's not so much 9 that the industry is not willing to move forward. In fact, 10 the industry is willing to move forward, to bring the public 11 health benefits that Deputy Secretary McCarthy highlighted.

12 What we're talking about here is sequencing in a 13 way that allows us to bring those public health benefits to 14 the marketplace, that embraces reliability.

15 COMMISSIONER LA FLEUR: Thank you. Anyone else? 16 MR. KORMOS: Yes, I'll take a stab at it. I 17 agree a lot with what Paul said. I think overall we propose 18 the safety valve to be based on reliability violations. But 19 we all recognize, and what Paul brought up is how you solve 20 those violations may put cost versus timeliness in conflict 21 with each other.

You may look at a more economic generation solution. That may take longer than the transmission solution, that would be more expensive but could be done quicker. I think we'll have those decisions that will have

to be put forth, and ultimately decisions made as to whether we're willing to spend the money sooner to get these units off sooner.

4 On the dispatch, again I think it's going to be 5 very individualized as to what is the reliability violation 6 that we're trying to deal with? How often does it occur? How predictable is it? In some cases, they may not be very 7 predictable. We have to weigh that against then whatever 8 environmental damage is being done by allowing the unit to 9 10 In some cases, it may be viewed as large. In some be on. 11 cases, it may not be viewed as large, depending on what retrofits they may have already, and what steps that may 12 13 have already been done to try to mitigate the unit, to allow it to continue to run. 14

So I would think we would want -- we've handled it both ways in PJM. There is a benefit to allow a unit to recover in the market money when it's economic, that will offset cost, and ultimately consumers are going to pay to keep the unit around. At the same time, we've had situations where we've had to respect the environmental constraints put on us, just as you said.

We model what those constraints are and we will only operate then. We always have exceptions and been granted exceptions. So I think it's workable. I don't think it's going to be so many units that it needs to be
1 decided up front. I think we can look at this on a case by 2 case basis and make what ultimately is the decisions, the 3 right decisions for each unit. 4 COMMISSIONER LA FLEUR: So any kind of safety valve or an extension would be an individualized 5 determination? 6 MR. KORMOS: Yes, I believe so. It should be 7 based on the individual units' circumstances. 8 9 COMMISSIONER LA FLEUR: The expression "the devil is in the details" is coming to my mind. Anyone else? 10 11 MR. TOPAZI: If I can comment. Yes, The cost does drive the decisions about what 12 Commissioner. we do, unit by unit. In our case, the decision is fairly 13 clear, as I mentioned, the 8-1/2 billion dollars we spent on 14 15 controls. So we call those our flagship units, 12,000 megawatts of coal that already have precipitators, 16 scrubbers, wet scrubbers and SERs. 17 18 But we believe that the vast majority of that will also require baghouses. So there, the decision is 19 20 fairly clear. We must install that equipment. It is economic to install that equipment and to keep those units 21 22 running.

In terms of a must-run provision, it would be absolutely unfair to my customers to take those units that are the backbone of our system, 11,000 megawatts out of

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20,000 megawatts of coal, and not dispatch them

economically, just because I don't have the time to install
the baghouses. That is the critical time component that we
face.

5 For the other units that don't have controls like 6 scrubbers and SERs, those are our marginal units. They're 7 critical for reliability purposes. But those, the case is 8 fairly clear. To control those, it's going to cost more 9 than to retire and convert to gas or replace with gas. So 10 the economics works out fairly clear for us.

11 The constraints, though, that a compressed time 12 frame will put on us, we've looked back and we've projected 13 the amount of labor, craft labor we would need to meet the compliance requirements. Southern is in the fastest-14 15 growing region in the country, and when we look back at the peak craft labor we have ever deployed, we see now under 16 17 these rules we would have to have at least 60 percent more 18 craft labor than we ever had, and the utilities neighboring us would probably be in a very similar situation. 19

Then when you add the bottlenecks on equipment, everybody rushing for baghouses and other equipment, I can expect inflationary pressures on costs that had not been in our projections, and delays.

24 COMMISSIONER LA FLEUR: So to understand the 25 first part of what you said, the bigger, newer baseload 1 units that are the heart of your fleet, it would be -- you would not resist run restrictions. But units that were 2 3 maybe peaky, that were used, the smaller, older units? Τs 4 that -- I mean so if it's like that, and the bigger ones are already mostly controlled, it's kind of a more convenient 5 6 scenario than maybe other places, where there are big 7 baseload units that don't have all the controls that you already --8

9 MR. TOPAZI: Yes, and in general, in general, 10 that would be the case. But even these smaller units, they 11 don't dispatch that much already, because of their higher 12 marginal cost. They are critical for operational 13 reliability and electric reliability.

14 So the times at which they must run, it comes up 15 -- it could come up any minute of any day. So they 16 basically do provide the capacity and the load-following 17 capabilities and the other operational characteristics that 18 we need to maintain reliability.

So I'd say that a must-run is just extra bureaucracy and limitations on the operation of the fleet that is unnecessary if we simply have more time to finish the work of retiring those units, and replacing them with adequate generation, and doing the transmission upgrades that will be required.

25 COMMISSIONER LA FLEUR: Ms. Barron.

1 MS. BARRON: Thank you for the question, and I 2 think the answers highlight the importance of providing 3 early notification of what the unit owners compliance plans 4 I would expect most unit owners would be in the are. position Anthony just articulated. There's not a lot of 5 6 confusion about which technology is going to be the most 7 cost-effective. People have seen these rules coming and they've done the assessment that Southern apparently has 8 already done, and they know what they're going to have to do 9 10 their units, whether they're going to be economic to stay on 11 line, to retrofit and in what fashion, or to retire them.

So if that early notification is provided and there is a process in place for determining what needs to be done to accommodate retiring units by way of transmission investment, then that work can get underway. That would benefit everyone. It would prevent the sort of question that you asked from having to be answered.

But that being said, I do think it's important to note that the different relief valves, so to speak, in the Clean Air Act, that allows standards of time, speak to national security, in the case of the Presidential exemption. They speak to issues of reliability.

23 So if there's a unit that needs to stay on for 24 reliability, then that's, one would think, a justifiable 25 reason to grant an extension. I don't know that the statute

would permit, and when I speak of the statute, the Clean Air
 Act would permit an extension clearly just due to an
 economic concern.

4 There's likewise a provision that would require 5 the agency, when it is granted an extension of time, to 6 minimize the health impacts during the period of extension. 7 That's where a concept like the one you mentioned of run restriction would come into play. Again, assuming that it 8 was feasible. If the unit's needed for baseload, then it 9 But if it's not needed, then it doesn't run. 10 needs to run.

11 That's the case in the situation involving some 12 of Exelon's units in Southeast Pennsylvania that were 13 retired and that are referenced in my testimony and in 14 others, where although the units haven't cleared in the 15 capacity market, they have run for energy in past years.

When we notified PJM of our intent to retire them, and the state of Pennsylvania negotiated a consent decree with the company to keep the units going so that necessary transmission infrastructure could be built, there was a run restriction placed on their operation.

And in fact, they ran less than five percent of the time that they had run the prior year, once that restriction was in place. So they weren't needed for reliability, except during certain periods, and that's when they were allowed to continue running. So I think that's

worked well. As you say, there are other kinds of

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restrictions that apply to units, minimum ramp times, fish
protection statutes, water temperature.

The system operators factor those dispatch limitations into their models, and they can execute accordingly.

7 COMMISSIONER LA FLEUR: Thank you.

8 MR. TOPAZI: If I can add one more comment. A 9 must-run scenario like that is not an efficient mechanism to 10 carry out what we need to on behalf of our customers. You 11 would see combustion turbines, peaking units running as 12 intermediate capacity far too many times, just because we 13 don't have the adequate time to finish all the projects that 14 we need to maintain compliance and reliability.

15 So it doesn't make sense to me that we would 16 further burden our customers for just a little more time to 17 actually get the work done.

18 COMMISSIONER LA FLEUR: Vice Chairman Wright. 19 MR. WRIGHT: Thank you. There's a lot of directions I could go here, but I'm going to try to keep 20 from a commissioner point of view, and maybe the Chairman 21 22 over here will agree with me on some of this stuff too. We've got to look at -- somebody's got to pay for it, and 23 24 you know, it's coming from the ratepayer. I mean that's where it's going to come. 25

1 At what point is it, you know, is it too much too 2 fast, or can they afford it? I mean you're going to be -- I see health and safety, and this is one of the reasons I 3 4 think a dialogue like this is really good. EPA was here, and I appreciate that. But I would like to have EPA at the 5 6 table with all of us, and a dialogue continuous, to try to 7 get to the core and find out what these local reliability problems really are. 8

9 I'm not opposed to safety values or Presidential 10 exemptions or anything like that. But I'm really concerned 11 about the rate impact to the customer out there, who's 12 already hurting, and this is not going to be a rate impact 13 that is going to be levelized across the country. It's 14 going to be regionally significant,. especially in the 15 Southeast and the South, in some of the coal-heavy states.

I just, you know, wonder. Right now we've got people who are on the edge. If the time line is too tight for this, and all these rules coming through, and I'm not opposed to the implementation of the rules. That's not what I'm about here. But at what point does it become a health and safety issue on the other side, when they can't pay the bills, and they're in the dark?

Then at what point after that does it become a reliability issue, because the company is not able to recoup what they would be able to recoup? So there's a just and

reasonable issue here, and I haven't really heard a lot of
 discussion about that, and that's one of the things I wanted
 to bring to this today.

4 COMMISSIONER LA FLEUR: Thank you. I think I'll 5 ask one other question and then I'll turn it over, and we'll 6 see how much time we have to loop around. This is a 7 somewhat narrower question. The safety valve proposal that the five RTOs put forth and talked about, the fact that the 8 9 short notice for generator retirements is a big part of the 10 problem of why it's going to be hard to deal with 11 reliability.

This is coming into focus because of the EPA rules. But does that suggest a bigger problem with how much foreknowledge the planning authorities, particularly the ones that are regional and, you know, not a specific company that would have all of its own business information, have of when a retirement is going to happen? Should the Commission consider examining those notice rules more generally?

MR. KORMOS: I think that's a difficult question, in that many times the retirements are due to economic circumstances, and it's tough to tell a generator, two years ahead of time, tell us economically if you're going to retire two years from now. I don't think they know, and in many cases they don't know.

I think our

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I think our generators have done a wonderful job

to give us as much notice as they can, and why we only require 90 days, we've not had a unit give us 90 days' notice and hold us to it. We have been able to extend units on RMR contracts because they have been predominantly economic retirements, and there are ways we can handle, from a reliability perspective dealing with those.

7 The EPA rules are different, in that there are 8 hard time lines, that units have to shut down or face 9 potentially large penalties. So that's why it was 10 different, and that's why when we put the proposal together 11 for a reliability safety valve, we did tie it back to the 12 advanced notice.

One, we think, as others have testified, generators should know this decision prior, at least two years, if not earlier in advance, as to whether they're going to retire or retrofit, and that they can provide us that now. I don't know going forward, unless we have another incident like this, that that would be necessary at this point.

20 So I think this is a very unique circumstance. 21 We probably would like to go back and look at other ways of 22 handling RMR contracts and units. One of the things we have 23 the benefit of is through RPM, the three-year capacity 24 commitment, is one of the ways we get some very good longer-25 term notice, knowing that units that don't clear three years

1 in advance potentially are at risk.

2 Part of our Order 1000 is to change how we do the 3 planning process, and change how we look at those units, 4 even though they haven't necessarily notified that they will retire. 5 6 COMMISSIONER LA FLEUR: I mean the reliability 7 and must-run contracts have been done in the onesies-8 twosies. 9 MR. KORMOS: Yes. 10 COMMISSIONER LA FLEUR: And they've been an 11 expensive solution. I mean certainly where I come from, they weren't popular. Does that reliability must-run 12 13 construct have the potential to help us here, or does it really need to be --14 15 MR. KORMOS: Well, I think what we would ask for is very similar, I mean that there would be costs that would 16 17 have to be recovered and would be filed at FERC to keep the 18 unit around. I think the other thing we need, though, is 19 the EPA waiver of the penalties. 20 So I think it's a little bit more bigger kind of RMR contract, but at the very basics, we're still looking at 21 22 the same studies and analyses that we do today. Our planning process is very transparent when a unit wants to 23 24 deactivate. The tests we run are the exact same ones we run for our baseline RTP analysis, a Regional Transmission Plan. 25

If violations are found, we clearly identify what those are. We clearly identify what the upgrades are that are needed, and then the time frames that the units would stay. So I think that basic premise is still what we're looking at.

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7 MR. KOONCE: Yeah, if I might add, there's a couple of significant distinctions or a couple of 8 9 observations I'd make. One, this may be an area where EPA and FERC can really collaborate well. One, EPA giving us 10 11 clear advance guidance on how they're going to exercise the extension, whether it's the one-year extension under Section 12 13 112 plus the Presidential exception on the one hand, or the penalty provision, as a safety valve concept sort of adopts. 14

I think EEI member companies would support early advance notice, as long as it's confidential, so that that information can't be gamed in some way. We would certainly work with EPA, I'm sorry with PJM, to give them all of our planning criteria, and as that planning criteria changed, we certainly would commit to update that. In fact, we've already done that in Virginia.

22 So perhaps the one area where EPA and FERC can 23 collaborate, is EPA on the one hand giving us clear guidance 24 on how they're going to deal with additional time that I 25 think universally, everyone at the table thinks is needed.

And then match that up with whatever tariff provisions need to be adopted, to bring parties to the table, to provide early advance notice, so that they can do the planning work that they need, so that they can begin to sequence the different outages that may be necessary to bring about compliance.

7 The one sort of issue I would have with the 8 safety valve provision that the RTOs have put forward is 9 this use of extension of time under Section 113, where you 10 are admitting that you're in violation of the law, but 11 you're in a sense excluded from the penalty provisions of 12 that law.

I think EEI feels very strongly that that would be a bad path to go down, because while PJM may conclude that a plant is needed for reliability purposes, you know, that decision, now that you're under Section 113, and you're in violation of the Act, that has to go before judicial review, which I think would bring in a lot of third parties that would challenge that analysis.

20 So while I think it's a provision that's rooted 21 in good intention, I think would lead us to sort of a real 22 hairball outcome, in terms of litigation and a myriad of 23 results. So while EEI supports the fact that there needs to 24 be analysis, there needs to be a determination of whether a 25 unit is needed, EEI strongly believes that Section 112 and

the Presidential authority or the Presidential exemption gives much greater certainty to the industry, and allows the industry to bring forth the public health benefits that EPA is striving to do.

5 So if on the one hand you get the Presidential 6 exemption known up front, matched with early notification to 7 the regional planners in some confidential fashion, I think 8 that's an area where I think both FERC and EPA can work well 9 together, to bring about compliance.

10 COMMISSIONER LA FLEUR: Thank you. I mean we'll 11 know more what the EPA is going to do hopefully in a couple We're not in control of the President's decision, 12 of weeks. 13 nor whether Congress passes a new law that gives exemptions or, you know, removes reliability risk from people who have 14 15 an extension, as GenOn and others have put forth. So we're 16 looking at things we can do within the current structure we 17 have.

18 MR. KOONCE: Sorry. But as Tom said earlier in 19 his prepared remarks, we would urge the Commission to advise 20 EPA on the need for this clarity up front, as they finalize 21 that rule in the next couple of weeks.

22 COMMISSIONER LA FLEUR: Thank you. I'm going to 23 shut up and turn it over to the Chairman, who has been 24 busily jotting down notes.

25

CHAIRMAN WELLINGHOFF: Thank you, Cheryl. I

appreciate it, and Paul, that's a good segue, because I want to see if I can get some clarity here as to what we have before us, what we can act on. We can act on the evidence in the record here, and I've got to go on the evidence before me.

As I understand that evidence, and the presentations that you all made this morning, and that Administrator McCarthy has made, we have a study done by NERC that's been given to us, and I appreciate it, Mark -it's a great study; I've read it in great detail actually -that clearly does not provide evidence for the need of a blanket exemption of any kind.

13 It talks about certain regions that have some issues, and we'll talk about those regions for a moment. 14 15 But other than that, I don't have any evidence in the record here that I can tell, and correct me if I'm wrong, of a 16 17 study that shows, from a reliability standpoint, that we 18 should be recommending to EPA some kind of blanket exemption. So I'll first of all leave that open for a 19 20 comment, and get comments from everybody.

But you know, I need evidence on my record here, and the evidence I have right now is the NERC study, which as I say, I think is a pretty good study that I want to talk about in some detail. I think we all agree on the macro level that some certain discrete exemptions or safety valve

activity will be required for certain plants in certain
 regions.

But let me first have you address that macro issue and what evidence we have before this Commission on that issue.

6 MR. LAUBY: I would just suggest that the NERC 7 study did include a one-year extension for the MATS rule. 8 So it was to end through December 31st, 2015. We did build 9 that into our study. That was part of the analysis that we 10 did.

11 CHAIRMAN WELLINGHOFF: So that was part of the 12 analysis for the --

MR. LAUBY: And despite what folks suggested, we assumed industry made all these changes, that it was not that the industry didn't act. We assumed industry made all of the, you know, made all of the changes to their units in that four-year time frame, and then calculated what potential retirements would result as well. So we built that into the study.

20 CHAIRMAN WELLINGHOFF: Okay so --

21 MR. LAUBY: It only became clear to us, after we 22 assumed that everybody took all those actions, that when we 23 talked to the regional entities, it became clear that 24 there's this whole issue of scheduling a large number of 25 units to make those changes.

1 CHAIRMAN WELLINGHOFF: Right, right, right. I 2 understand the scheduling issues, and we certainly need to 3 address those. I think those are very significant. But I'm 4 trying to understand the larger issue of, you know, what 5 evidence we have before us with respect to actually some 6 kind of a blanket exemption, and I don't think we have any 7 evidence there.

If I could jump in, and I'm glad 8 MS. BARRON: Mark made that clarification, because it was clear to us, in 9 10 reviewing the study, that there was an assumption that an 11 extra year to install controls would be available, which is 12 what the EPA has made clear from the day they announced the 13 rule, that for unit owners who need extra time, that that fourth year is available in the statute and will be 14 15 exercised liberally.

I don't think that means that the NERC study assumes every single unit needs the one year. So I don't think you're saying two different things.

CHAIRMAN WELLINGHOFF: And again, that's on an
 as-requested basis by --

MS. BARRON: That's exactly right.
CHAIRMAN WELLINGHOFF: That's what I understood.
MR. KOONCE: Yes, and I just want to clarify. I
mean EEI's position is if you're not doing anything to the
plant, it retires in three years. Only those plants where

work is underway is the fourth year, where investments are
 being made is the fourth year extension granted, as
 consistent with I believe NERC's study.

4 CHAIRMAN WELLINGHOFF: And Paul, you would agree 5 there would also be, upon request; in other words, it would 6 have to be requested ultimately --

MR. KOONCE: It certainly would have to be
coordinated through the RTO, in our case PJM, because they
would have to schedule the outage to do the tie-in work.

10 CHAIRMAN WELLINGHOFF: So we can completely take 11 that off the table then, the issue of some kind of a blanket 12 exemption, which I think is good. Go ahead.

MR. TOPAZI: Mr. Chairman, first the NERC study has the assumption, it does assume four years for compliance. But it assumes that the units to be controlled are controlled in four years, at least with regards to Southern's perspective.

That means that our 12,000 megawatts of our flagship units would be controlled by Year 4, and in fact that our specific engineered plan for the control technology to be deployed is going to take between Year 4 and Year 6 to complete. So when you factor in that large a change in our available generation in Year 3 and Year 4, the reserve margins change dramatically.

25 Like I said our reserve margin calculation is the

1 tip of the iceberg. You have to really understand deliverability and stability, and you have to go down to the 2 3 unit level and build it up. We've done that, and that's 4 then what creates the transmission projects. As I said, we 5 have identified up to 70 transmission projects. Ten percent 6 of them will require a new right-of-way, and as you know, 7 transmission projects, we've estimated these to take from four to seven years. They actually take more time than new 8 9 generation.

10 So that is also not factored into the NERC study. 11 But NERC identifies those critical issues, about the 12 deliverability and the stability of the bulk power system. 13 So in our point of view, a blanket You've won your extension 14 is absolutely required, plus an additional two years.

15 CHAIRMAN WELLINGHOFF: But you're only speaking 16 for the Southern Company here. You didn't do a study for 17 the rest of the country; is that correct, Mr. Topazi?

18 MR. TOPAZI: No, I studied our control area,19 exactly.

20 CHAIRMAN WELLINGHOFF: That's -- my question was 21 to the whole country. So we can take that off the table for 22 the whole country. I'm sorry, go ahead.

23 MR. WRIGHT: Mr. Chairman, thank you very much. 24 That kind of speaks to my point earlier, that we do need to, 25 I think, look at it a little broader, maybe look at it nationwide as a study deeper, and they may not be things
 under your control, Commissioner La Fleur.

But FERC can influence, and states can influence. Working together with EPA and understanding, having EPA understand you, have me understand EPA and me understand you, having that dialogue, I think then we can possibly get down to whether or not you need a safety valve or an exemption at all, Mr. Chairman. I agree. I think it's part of the dialogue.

10 CHAIRMAN WELLINGHOFF: And Vice Chairman Wright, 11 I think you probably know that I have agreed to the safety 12 valve for specific discrete requirements. It's probably 13 something we do need to look at, and I want to do that. I'm 14 just talking about this nationwide issue of, you know, 15 pulling back for some period of time.

16 As you can appreciate being a commissioner, you 17 only can go on the evidence you've got before you.

18 MR. WRIGHT: I understand.

19 CHAIRMAN WELLINGHOFF: We asked the evidence to 20 come before us, and this is the only evidence I have. Right 21 now, the evidence I have does not show for me that that's 22 necessary. So I just wanted to clarify that.

23 MR. WRIGHT: Thank you. The NERC study, they did 24 point out that environmental regulations were, I think 25 there's even a line in their study saying it was the number

one risk to reliability over the next one to five years.
 CHAIRMAN WELLINGHOFF: Right. They didn't
 ultimately conclude that it needed to be, have a blanket
 exemption period.
 MR. WRIGHT: I'm not saying FERC needs to do the

study or do a study. Maybe it's something that NERC would
lead and work with everybody, work with the planners and the
states.

9 CHAIRMAN WELLINGHOFF: I think NERC has done the 10 study --

11 MR. WRIGHT: The only thing about that --

12 CHAIRMAN WELLINGHOFF: We need to get some detail 13 on that now.

MR. WRIGHT: I think that one thing that was left out that could be explored was cost, I mean the rate impact to the customer. I think that's something that really needs to -- we need to dig deeper into. Thank you.

18 CHAIRMAN WELLINGHOFF: So Mr. Lauby, if we could 19 talk about your study, and a couple of issues. Again, not 20 to be critical. I thought it was a good study, but I just 21 wanted to delve into some of the assumptions, to make sure 22 that I understood the parameters. One thing I understand 23 you used a growth rate of 1.23 percent; is that correct? 24 MR. LAUBY: Yes.

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CHAIRMAN WELLINGHOFF: And that was nationwide?

1 MR. LAUBY: That's based on the data we have before us from industry. It's a 50-50 forecast. 2 3 CHAIRMAN WELLINGHOFF: But you applied it 4 nationwide? MR. LAUBY: We don't apply the low forecast 5 6 growth nationwide. That's the data that comes to us, and then we measure what the growth rate is. 7 8 CHAIRMAN WELLINGHOFF: Okay. So in other words, 9 it came to you from where? MR. LAUBY: Yes. NERC's long-term reliability 10 11 assessment. It's a bottom-up type of assessment. The data comes to us from the regional entities, who get it from the 12 13 planning authorities. 14 CHAIRMAN WELLINGHOFF: I see, okay, all right. 15 So that then was the result of what was given to you, the 16 average that came through? 17 MR. LAUBY: Exactly. 18 CHAIRMAN WELLINGHOFF: Okay. That's helpful. 19 Then I understand that you used a demand response projection 20 at 4.5 percent of on peak by 2020. 21 MR. LAUBY: Again, we didn't use that. It's 22 again data that's sent to us. So that's demand response that industry has sent to us, that this is the demand 23 24 response that we have available to reduce the load for capacity. 25

CHAIRMAN WELLINGHOFF: Okay, because that number 1 2 seems a little lower than some of the assessments that I 3 think FERC has done with respect to the data that we've 4 gotten back. MR. LAUBY: Remember that it's just forward 5 6 capacity reductions, not the price-sensitive demand 7 response. So it's that type of demand response that is 8 fully controllable, either at the ISO, RTO or by individual 9 organizations. 10 CHAIRMAN WELLINGHOFF: Okay, and then I also 11 noticed that your on-peak generating capacity was projected to increase by 90 gigawatts, which was a significant decline 12 13 from what you estimated in your last year projections? MR. LAUBY: That's correct, and that's the --14 15 you're talking about the 2018 or 2021, I'm sorry, projections. 16 17 CHAIRMAN WELLINGHOFF: Right. 18 MR. LAUBY: And of course we have a variety of degrees of granularity uncertainty there. 19 20 CHAIRMAN WELLINGHOFF: Okay. 21 MR. LAUBY: You're right, that we did see a reduction in the plans for capacity, and our belief is that 22 that's resulting from the lower growth rate. This is one of 23 24 the lowest growth rates we've seen since we've started LTRAS. 25

1 CHAIRMAN WELLINGHOFF: Okay, okay. I think the 2 growth rate was interesting, because I just had TVA in my 3 office, and they told me they're projecting, forecasting 4 their growth rate out at below one percent? 5 MR. LAUBY: Yeah. In some places, it's below

6 one. But in other places, it's higher. You know, for 7 example Texas is growing at quite a clip, so --

8 CHAIRMAN WELLINGHOFF: Now as I understand it, 9 your study indicated that there were two regions that may 10 have, from a macro standpoint, some reserve, planning 11 reserve margin issues, depending upon the scenario and the 12 time frame. One was New England and one was Texas, right?

MR. LAUBY: That's correct, but we have to remember that in a reference case, those two areas had an issue as well. So I wouldn't attribute the capacity reductions there as a result of MATS to, you know. It only exacerbates the situation in Texas and ISO New England. Now we do see reductions in the Midwest as well, not in the MISO area.

20 CHAIRMAN WELLINGHOFF: And as I understand it in 21 your report, though, New England did report to you that they 22 said that they're quoting from your report. "Currently, 23 procedures are in place that would maintain existing 24 reliability."

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MR. LAUBY: Yes. We believe they have sufficient

plans in the long term. This includes conceptual.

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2 Remember, we then reduced that and call it adjusted 3 potential. We'd like to see those firm up over time. 4 CHAIRMAN WELLINGHOFF: So the primary place, from 5 a planning reserve margin standpoint under your study that 6 we need to, I quess, focus on, is Texas. Do you have any suggestions with respect to Texas and what we need to -- how 7 8 we may need to interface with Texas? 9 MR. LAUBY: Well, we know that more resources are 10 needed there, and we're going to be monitoring that 11 situation. Of course, we put a spotlight on it. We hope that that helps, because then if folks are considering 12 13 putting new resources in place someplace, that might be a place to consider. 14 15 CHAIRMAN WELLINGHOFF: Of course, one of the issues with Texas is they're isolated. They don't have 16 17 anybody else that they could lean on. 18 MR. LAUBY: Right. That's right. 19 CHAIRMAN WELLINGHOFF: And I understand, Mr. Kormos, there's actually some discussions between you and 20 21 MISO with respect to MISO's issues, that PJM may be able to 22 help them out somewhat. Could you elaborate on that a little bit? 23 24 MR. KORMOS: Well I think again we've, we are looking at the issues as to ultimately allow, how to best 25

allow potentially capacity transactions to flow between the
 two entities as needed, between PJM and MISO. So those
 discussions are starting.

4 CHAIRMAN WELLINGHOFF: So those are the benefits 5 of being in a widely interconnected system?

6 MR. KORMOS: Yes. I mean we rely very much on 7 our capacity to benefit over our margin, which allows us to 8 carry lower reserves, as well as then in an emergency, being 9 able to import from our neighboring states.

10 CHAIRMAN WELLINGHOFF: And also part of the 11 benefits, I think, of Order 1000, that requires inter-12 regional coordination, and that inter-regional coordination 13 can help with this very issue of trying to plan for these 14 EPA contingencies.

15 MR. KORMOS: I would absolutely agree.

CHAIRMAN WELLINGHOFF: But unfortunately Texas 16 can't do that, because of its isolation. So that's a 17 18 problem. Mr. Topazi, and I am concerned about the data that you bring forward with respect to Southern, and the planning 19 reserve margin, although you did give us basically just like 20 21 one chart. I don't have any other data other than the one chart. What level of demand growth do you forecast in 22 Southern, as opposed to TVA? 23

24 MR. TOPAZI: We have, we're one of the industry 25 leaders in demand response, about 2,000 megawatts.

1 CHAIRMAN WELLINGHOFF: No, I'm sorry. Maybe you 2 didn't understand my question. Your load growth. What 3 level of load growth projections? 4 MR. TOPAZI: I don't know the specific number, but it has come down considerably over the last year --5 6 CHAIRMAN WELLINGHOFF: Higher than TVA's less 7 than one percent? 8 MR. TOPAZI: It's in the one, one and a half 9 percent range. CHAIRMAN WELLINGHOFF: Okay, all right, and you 10 11 know, I can appreciate that maybe you and some other isolated utilities may need some specific exemptions. 12 But 13 with respect to those and with respect to us helping EPA on those, are you willing to have third party verification and 14 15 analysis, by FERC going in, analyzing what you're doing with respect to resource planning and your assumptions? 16 17 MR. TOPAZI: Yes. I mean utilizing the NERC 18 process and standards is what you have to do to maintain 19 reliability and understand that. 20 CHAIRMAN WELLINGHOFF: Right. 21 MR. TOPAZI: Of course, our state organizations, our PSEs and our state environmental agencies also have 22 23 responsibilities to carry out in this regard as well. Mr. 24 Chairman, I would just make one more comment with regards to the blanket idea about an extension, and what we know from 25

1 the NERC study and other studies.

2 Again, we don't really have a picture of 3 reliability until we know below the surface what's going to 4 happen, generation by generation point, and then the That cumulative effect tells you the 5 required transmission. 6 reliability issue. Then it's a matter of what time does it 7 take to fix that problem, and controls will take three to six years; new transmission, four to seven; new generation, 8 five years or longer; new pipeline expansions of four plus 9 10 years. 11 So anywhere where there is coal, and that's 50 percent of the capacity in this country, that's going to be 12 13 the reality. So it's more broad-spread than just Southern. CHAIRMAN WELLINGHOFF: We're certainly willing to 14 15 entertain individual reviews in places where people come forward to us. Again, if we've got planning authorities 16 17 like New England's, who indicated that they've got 18 procedures in place to handle these things, we will monitor 19 that. But we don't think we need to, you know, get 20 21 indepth into their planning activities, and we believe that 22 they're reliable and capable to handle them. We want to

24 necessary to do that. So thank you, Cheryl. That's all I 25 have.

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make sure that they can do that and have all the tools

1 COMMISSIONER LA FLEUR: Any questions, Mr.

2 Moeller.

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(Off mic remark.)

4 (Laughter.)

5 COMMISSIONER MOELLER: Let me try and think of a 6 couple. As I heard the panel, I came away with two themes, 7 largely that the details really do matter. Whether it 8 ranges from potential voltage collapse to where specific 9 units are located. We're not talking about generalities, 10 but the details that I think Commissioner La Fleur alluded 11 to.

12 The second would be that the time line, going 13 back to my initial statement, will be extremely challenging, 14 and it's not about implementing the rules. It's about 15 implementing them on a time line that makes sense, that an 16 industry can react to.

I'm going to go with what Commissioner Wright said. I wish we had EPA at the table all day, like the rest of us, responding to this. So I'm not going to try and mischaracterize the administrator's comments.

But it seemed to me that she held up three studies, which certainly are not completely comprehensive, and then kind of subtlety said that the NERC study was inadequate, because you focus too much on clean water intake. I think you deserve a chance to respond to that, 1 Mr. Lauby.

MR. LAUBY: Well, thank you very much. There are 2 3 a few comments that I'd like to make. One is that, as I 4 said before, we -- that the thought that we suggest that industry didn't do anything was just not correct. We again 5 6 assumed that industry makes all the changes in four years. 7 We also assume that all oil-fired plants would be purchasing the oil that does not have the contaminants in 8 it, so therefore they would not be subject to MATS. 9 Thev 10 would just simply refuel. With regards to the uncontrolled 11 plants, we did not assume that every plant had put on the 12 most expensive control technologies. 13 We looked at what the plants had been burning, based on the fuel sources that they had been purchasing in 14 15 the past and using in the past, and used that as a way to understand what type of technologies that they would be 16 17 using the future. 18 We did, you know, look at the different types of technologies like ESP and DSI, and tried to make an 19 appropriate judgment on those, based on what technologies 20 21 they already had on the plant, and the way forward that they might consider again. You know, as you know, we did end up 22 with some generalities in costs, and many times the 23 24 difference between our moderate and our strict cases is an

25 escalation in cost.

Then also when it came to the 316(b), what we had decided to do is to look at what positions the states had had in the past on recirculating cooling towers, and then we assumed that they would continue to use that same path forward, for example, in California.

It just happened that when we counted up the megawatts, it ended up being 70 percent of the effective megawatts. It just was what it was. So we assumed that because they in the past had considered using recirculating cooling towers, that they would in the future. We feel that's a good moderate case.

As far as a calibration and worse case, and again, we're trying to get guardrails here, then we assumed all plants would go to closed loops. Then we thought that, you know, industry makes decisions on an ongoing basis on investments, be it for maintenance of those units, etcetera, and that's why we thought 2018 was a good date to consider final decisions on, rather than the 2020 date.

So those are some of the areas, you know, that you know, we -- our job as the electric reliability organization is to shine a light in areas where additional resources may be needed. So we don't necessarily propose what resources they're going to use.

We have a list of mitigation strategies, including demand response, that going to the Chairman's

1 suggestions, generation of course, bringing forward less certain capacity and making sure that it becomes more certain, bringing that forward if they are in open markets.

4 So you know, it's not a matter that we assume 5 industry does nothing. I think we assume they do a great 6 deal. Thank you.

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COMMISSIONER MOELLER: Well, we heard yesterday 7 8 from California, and they're looking at 10 to 12 plants 9 going down, and they have nothing to do with coal. This is all about cooling water intake, and there are serious 10 11 reliability implications of that, and the 2016 --

MR. LAUBY: Our studies show that almost two-12 13 thirds of the capacity that's retiring in 2018 was old oil and qas. 14

15 COMMISSIONER MOELLER: Similarly, Mr. Kormos, there was kind of an allusion to PJM thinks everything's 16 okay in your testimony. I just think you deserve to clarify 17 18 that.

19 MR. KORMOS: Yeah. Obviously, we take the seriousness of this very highly. I mean retiring as many 20 21 plants as is expected to retire is going to have an impact 22 on reliability. I would not stand up here and tell you it's It is a timing issue to us. I think again, the more 23 not. 24 advanced notice we can get, we believe many of the upgrades can be put in place, and units can be allowed to retire. 25

Again, a timing issue for retrofits, but we understand maybe not every unit can retrofit in the time period. We have to make some assumptions. Some will be able to, so it's not a blanket exception. It will come down to the devil is in the details. As Kathleen brought up, we had a request from Exelon to retire four units.

Any one of those units we could have let retire at any time. We're always prepared to lose a unit and to hell with it. The combination of those four units, which were at two different stations, very close proximity, did raise some problems that it would take longer than they wanted to do it.

We expect those kind of problems to come out, and that is why we proposed the safety valve, in that we do believe there will be circumstances where again, we will not be able to maintain the reliability standards as we know them, without extending some of the units.

18 COMMISSIONER MOELLER: Well you know, I love 19 talking about Crombe and Edystone, so you know, as pointed 20 out, they only ran five percent of the time apparently this 21 year. But it cost consumers \$83 million to keep them around 22 for a few years.

23 MR. KORMOS: Yeah. I don't know what they 24 recovered in the market during the time they ran to offset 25 that 83 million. But yes, I think the -- 1 COMMISSIONER MOELLER: I mean that's what we're 2 talking about. This Commission has worked for years to get 3 away from RMR contracts, and now we're looking at a whole 4 new wave of them.

5 MR. KORMOS: I think that goes back to the 6 dispatch that Commissioner La Fleur raised. In some cases, 7 we've had units on RMR that ultimately they then cleared in 8 the RPM auction. They've actually run -- because it was not 9 an environmental issue, they've run and made money in the 10 markets, and I would suggest that the cost was not that 11 great to consumers.

In other cases, you said in Crombe and Edystone's, where they're very limited as to when they could run, it's very limited as to when they could recover that Money. But the money is real and needs to be recovered.

16 COMMISSIONER MOELLER: I want to move to kind of 17 the safety valve concept, and Mr. Monroe, you know, I think 18 it's party your demeanor and your gentlemanliness, but your 19 testimony points out that you ran a lot of scenarios for 20 next summer under CASPR, and you can't assure reliability 21 for next summer. You told EPA that. What did they say?

22 MR. MONROE: Well, I don't know that we 23 necessarily heard specifically from them. Remember, the 24 studies that we did was based on the assumptions of the 25 information that we could collect at the time, which was either our own assumptions or the IPM model assumptions themselves, and that's why the concern was raised within SPP to actually go to the generator owners and operators, and ask them for the specific information about how they would operate next summer.

6 We're collecting that, and at least, as I said in 7 the testimony, there's certain areas where there may be 8 resource adequacy issues. That's why part of this 9 reliability safety valve we may be facing next year, just to 10 have those units available to maintain reliability at the 11 time.

12 COMMISSIONER MOELLER: So now do you see it 13 I mean my concern with both the -- both proposals working? that we have out there, both from the RTOs and even from 14 15 EEI, I'm not sure what role FERC has. Yet we're going to be 16 the ones in the middle of trying to solve the problems. 17 We're the ones who will be testifying in front of Congress 18 if there's major outages.

MR. MONROE: Yeah. I think we need to -- I mean part of what we, at least the safety valve was to do, was to identify those issues of where those needed to be applied, you know, where the safety valve needed to be applied, or at least where there were reliability issues that needed to be considered in the implementation.

25 It's actually, in some of the implementation of

the EPA, it has to do with whether a party retrofits or buys allowances, or whether those allowances are even available itself. So in all of those kinds of issues, it may be helpful for FERC to at least understand those issues, and understand, you know.

6 That's why part of the reason we feel we need 7 time, is so that we can get that information from the 8 generator owners and operators, and then bring back the 9 analysis to NERC and to y'all, and say here's where it is, 10 and here's the issue, the specific issues that we have 11 dealing with those.

12 COMMISSIONER MOELLER: So you would bring that to 13 us? You'd bring it to EPA? I'm still trying to figure out 14 --

15 MR. MONROE: I think in the reliability safety 16 valve, at least the proposal was that we would have that 17 mechanism, that if we identified it was an independent 18 agency through our independent planning process, that that 19 would be sufficient. But I believe a backstop for FERC and NERC is to review that, to ensure that we're -- that it's 20 21 both for the necessary maintenance of reliability, and that we've taken all steps necessary to try to mitigate even 22 using that safety valve. 23

24 COMMISSIONER MOELLER: We still have the 25 fundamental conflict of then an entity choosing to violate

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reliability regulations or clean air regulations?

2 MR. MONROE: That's without having some mechanism 3 otherwise, yes.

4 COMMISSIONER MOELLER: So I think I heard from 5 all of you. If not, please correct me, that you would like 6 FERC and EPA -- FERC to advise EPA or the administration on 7 the implications of reliability issues related to these 8 regulations. You want a role for FERC with EPA. David.

9 MR. WRIGHT: I would just restate. FERC can 10 certainly influence. So yes. I think that we've got to 11 figure out exactly what the role would be, but I think you 12 have to be prominent, yes.

COMMISSIONER MOELLER: And how should that role how public should that role be? Should it be a transparent process, where all commissioners are involved, or should it be staff to staff, where we may or may not be informed? I'd like an answer from everyone on that one.

MR. LAUBY: Well, I'd like to start over here. NERC thinks that there should be an open and transparent process, that's very clear and understood right, you know, as soon as the rules become available, so that certainty, a way forward is well understood. You know, we also called for coordination between the federal agencies, including the Department of Energy, and state regulators.

25 So I think that needs to be an open, transparent
process. Certainly with the NERC staff, FERC staff and Commissioners, as well as the EPA staff and the EPA, you know. I don't think they call them commissioners there. But in any event, yes, we think that that needs to be right up front with the rules, so a way forward is clear.

6 MR. KORMOS: I think I agree with Mark, although 7 I'm not sure how you won't need both, to be honest with you. I think some of the details staff to staff needs to work 8 out, and it's probably fine having those details. But at 9 10 some point, I agree with Mark, it has to be open and 11 transparent and very clear, and ultimately probably commission to commission, to make sure we all understand 12 13 what the rules are.

MR. MONROE: I would tend to agree with that, and part of the issue is that to ensure that we have the time to actually implement on the back end too, is that we could spend a lot of time in the discussions the collection of the information, and resolving those through this joint effort with FERC and EPA.

But then we still need that time to both, either on the front end to do the analysis, or on the back end to do the implementation or to do both on the back end, is I just don't want it to become an impediment for us to have to move forward, particularly if we still have this fixed time line to meet the requirements in.

1 MR. KOONCE: Yeah. I think it's the view of EEI that FERC understands these issues, and I think that their 2 3 advice and guidance would be important in this debate or 4 this discussion. You know, I'm still a little bit troubled 5 by are we talking about the blanket exemption or not. I 6 don't see it that way. I see a phased approach, a clear 7 path that is independently verified.

FERC can be a part of that discussion. You know, 8 9 if a plant is not going to do anything to become in 10 compliance, it shuts down. Those plants where investments 11 are being made and that can be verified by the RTO or the 12 state commission, those plants should be granted the 13 additional time needed to complete that work, and where there's a electric transmission as an alternative, or a 14 15 scrubber that takes more than four years. That is 16 absolutely on a case-specific basis.

But working with the RTOs and NERC, if FERC can advise EPA on the need for a clear path for success, and success is compliance without being in violation of the law, that is, I think, a very important role that FERC, as an independent agency that understands these issues, I think can play and should play.

23 COMMISSIONER MOELLER: Before Kathleen, Paul, I 24 do want to get back to the EEI proposal for a moment though, 25 and I appreciate it could be a grand compromise. But I

don't understand how the President would delegate to an RTO
 or a state that kind of authority.

MR. KOONCE: Well, the President would delegate that authority to the EPA, and the EPA would grant that exemption.

6 COMMISSIONER MOELLER: Okay. Again, my concern 7 is what role FERC has, but all right. Kathleen, back to the 8 question.

9 MS. BARRON: I think the staff already has done a 10 good job of communicating with the EPA. But going forward 11 absolutely, as I said in my prepared testimony, there's a 12 role for FERC to continue to provide expert advice to the 13 agency, and that is however you see fit, Commissioners, 14 staff.

I don't think it's necessary to impose or to put FERC in the position of having to approve extension requests or to build a structure where there's a need for a plan to go to NERC and then to FERC and be approved before it can go to EPA. I don't think that's consistent with anyone's desire to have this process move smoothly and expeditiously.

If there are regions that need FERC's help, then FERC should be available to them. But I don't think you want to put a structure in place that would require it to move forward.

25

MR. TOPAZI: I agree with the comments Mark made

The planning authorities, the RTOs and in our 1 earlier. 2 case, the vertically integrated planning authorities, 3 working under NERC to show the full reliability impact, 4 accumulate that so that this Commission has the basis to go and advocate and advise the administration and EPA of the 5 6 provisions for extensions of time under the Clean Air Act 7 that Tom Farrell laid out, and that should be an open 8 process.

9 That's a fair guestion. MR. WRIGHT: It would be 10 nice to know the impact of the rules before they were 11 promulgated, but you know, we may or may not get that But it would be nice to have everybody at the 12 chance. 13 table, whether FERC leads it or NERC leads it under FERC's oversight, to do a more micro look at what the potential 14 15 problems are, so we can figure out what to do going forward.

16 I mean all of us. So the planning authorities, 17 the EPA, the utilities, state commissions, FERC, NERC, the 18 RTOs; everybody needs to be at the table. We would play whatever role we needed to play, to make that happen. 19 But if we -- in that way, we could ensure the best way possible 20 21 and at the least cost possible, the implementation of the 22 rules that would be done in such a way to mitigate compliance issues and minimize cost impacts. 23

24 COMMISSIONER MOELLER: I certainly appreciate 25 your focus on cost, because that really hasn't been a big

1 discussion. Mr. Chairman.

MR. EPEL: Commissioner, I'm not sure what the 2 3 process is, but I think one thing we need to have is EPA 4 needs to be deferential to FERC and the states and the RTOs on the issue of reliability. To give you an example, in 5 6 Colorado, we had, just as Vice Chairman Wright is describing, a consultative process. But it was really the 7 utility, the health department and the Public Utilities 8 Commission came up with a plan to determine our own future. 9 10 However, it is EPA that has to ultimately rule on our state of implementation plan. If they do not adopt it, 11 12 then we are going to go back to zero. So I think at this 13 point, it's really essential that EPA recognize the unique skills that we have, and give us the due deference that I 14 15 think we're entitled to. COMMISSIONER MOELLER: Well, I commend you. 16 You've really come up with a great plan. One of the 17 18 linchpins is you had a local supplier willing to go to that 20 year contract, and not everyone's going to have that 19 opportunity, and you pointed that out. 20 21 MR. EPEL: Absolutely. Without that, we could 22 not have done it. COMMISSIONER MOELLER: Paul, just going back to 23 one of the points that again I'm struggling with in terms of 24 a safety valve, you mentioned the confidentiality nature of 25

perhaps a supplier going to EPA. But it goes to that conundrum that we talked about with PJM, is you want as much information as far as in advance if you're running the market.

5 If you're a supplier, that's information that's 6 economically advantageous to hold back, perhaps. If you go 7 to EPA confidentially with the information, what is FERC's 8 role in all of that? I just think, although I admire both 9 safety valve proposals, it seems like both of them need to 10 be fleshed out a whole lot more, to ask some of these basic 11 inter-agency relationship questions.

MR. KOONCE: Well, and certainly the industry supports early disclosure. I mean we've got a long-standing and great working relationship with PJM. We've built transmission, we've built power plants. We've had those plans integrated into the other maintenance and reliability activities that are happening around the region.

18 So we certainly appreciate the fact that PJM needs to know, so that they can begin scheduling, 19 20 sequencing, all the activities that are needed. So the 21 industry needs to provide information in advance to PJM by January 2013. Frankly, to do a lot of this work, it's going 22 23 to take more than two years. I'm surprised that it's two 24 years, not immediately. But clearly, we need to see the final rule. 25

What do they do in terms of large oil and creating a subcategory for running less than ten percent? It's going to have a major impact on reliability. We don't know how they're going to come out on that? There's a lot we don't know as we sit here today.

6 Once we get the final rule, I think it's 7 incumbent on each utility to look at its generation portfolio, and assess which plants are going to be 8 retrofitted, which plants are going to be retired. 9 In my 10 case, we're converting three old coal plants to biomass. 11 We're converting two coal plants to gas. We're retiring four and we're building a 500 kV transmission line into an 12 13 area of our system that will be less reliable because of retirements. 14

We're doing all of that. We've laid that out to PJM. We've made that known to the marketplace. But the industry needs to get the final rule. They need to make that assessment, and then they need to share that assessment with their regional planning authority, so that that regional planning authority can then begin looking at the nature of the work that needs to be done.

For those plants that are just going to retire, they just closed within the three-year period. those plants where investments are going to be made, we should be provided the additional time to complete those investments.

And then again, where they're siting of high voltage electric transmission, or the installation of scrubbers, things that we know take more than four years, we need to acknowledge that.

5 But that information, I see it going to the 6 regional planner, to look at, verify, confirm the 7 reliability nature of that investment, and then with that 8 acknowledgment, then that information goes to EPA to be 9 granted the additional time needed.

MR. LAUBY: Commissioner Moeller, I'd like to add that NERC, through its planning committee, we've already approved a study scope for next year where we're going to be working with the 81 or so planning authorities, and not all planning authorities are equally affected here, and do a detailed analysis right down to the unit basis if we can get it, so that we can understand the reliability implications.

17 COMMISSIONER MOELLER: Well, I think I've taken 18 enough time, but I didn't even get to natural gas pipelines, 19 inertia, voltage support, black start capabilities. So I'll 20 have to wait for the answers.

21 COMMISSIONER LA FLEUR: Well, I think we'll 22 probably loop back, but in the meantime, we're going to turn 23 to Commissioner Norris.

24 COMMISSIONER NORRIS: Thank you. I think we're 25 coming back after lunch with this panel to give you a chance, Phil, to tee some up again. Thank you all for your
 thoughtful presentations and your prior comments.

We start with, Mr. Kormos, I had a question I want to follow up. In looking at next panel, the Ohio Commission's comments, and Commissioner Roberto's comments, and it follows up a little bit on what Chairman Wellinghoff asked you, one of their recommendations for what FERC could do was to convene a technical conference to consider capacity seams.

10 You should like you are taking steps to look at 11 that issue. Would that be helpful, or what other stumbling 12 blocks are you running into on working on that issue?

MR. KORMOS: I'm probably a little confused, and maybe the next panel will clarify it, because I know one of the proposals MISO's put out that we're struggling with was a universal deliverability for MISO in the PJM, which I understand they may want. But I don't understand how it helps them with the EPA rules.

My assumption would be they don't want to export any into PJM, so why? That is the issue they're concentrating on right now. It's a little bit puzzling to me. That being said, I think we are more than wiling to look at how the firm transmission capacity. I think there is a physical limit as to how much reliably we can transfer back and forth across the seams.

1 There's a little bit of a chicken and egg 2 problem, in that those who get the firm transmission 3 ultimately may not get the nomination in RPM, or may not be 4 come a capacity resources, and then you get a mismatch, and 5 you may have transmission go fallow because those that have 6 it, didn't make the sale, so to speak.

7 I think we could work on that and find ways to better make sure we've fully utilized all of the 8 transmission system, and that may take FERC's help, because 9 10 in some of this, it may go a little against Open Access and 11 OASIS, in that we may need to hold back transmission, to 12 allow these transactions to happen. We may need, if people 13 can't use it, to take it back, so to speak, so it can be There may be some issues there that I do believe may 14 used. 15 be in the future a FERC technical conference could help weigh that. 16

17 COMMISSIONER NORRIS: And also to follow up, not 18 to pick on you, Mr. Kormos; I'll get to the whole panel 19 here, but I'll have you start this then as well, because I 20 think it follows up on what Mr. Moeller just asked, with 21 regards to the confidentiality and the notice and the 22 conflict there it seems we'd better -- we're going to need 23 to resolve.

You mentioned a couple of things. One is you thought is two years; remember where you said two years is a

lot to ask of someone to make a decision on a retirement
 facility?

MR. KORMOS: I think from a normal economic perspective, it may be. I think in this circumstance, it's probably not. I think, and there's others on the panels who can probably speak better than I can, these decisions will have to be made, and probably made before two years.

As Paul said, we have a lot of information now, as to what the current thinking is of our generation orders. We are studying it, we are analyzing it. We just can't go public with it. We actually did share with RFC though, in a meeting. Again, we just asked them to maintain the confidentiality.

Paul's right. We're going to get to a point, though, where it will become an issue, in that we will need to most likely put a transmission upgrade into our plan. When we do that, we have to state what the need is or we'll never get it sited. To state the need, we're going to have to say because we expect the generator to announce.

We're hoping that two years is enough for the majority of the upgrades we see right now. Most of them are lower voltage, voltage support kind of issues versus new right-of-way kind of issues. We do expect, though, that some could go beyond that, and that's why we asked for the safety valve.

1 If we got more than two years' notice, that would 2 hopefully minimize the number of units that we would have to 3 wait.

4 We're also working with our generation owners, 5 and I think, and Dominion is a great example, that if we 6 went to them and said we need to pull the trigger now; we 7 need you to let us announce you're going to retire this unit, so we can get the transmission in the planning, get 8 that process going." My guess is right now, based on our 9 10 history, they would let us, and they would work with us to do that. 11

12 It is an issue. We'd take as much notice as we 13 could get obviously, because the more notice we get, the 14 less we're hoping we would need the safety valve. But we 15 recognize our commercial issues as well, and try to respect 16 that. We thought the two years balanced that as best as we 17 could.

18 COMMISSIONER NORRIS: Okay. I'm going to come 19 back on that. But let me ask some of the other folks, some 20 of the industry folks. Haven't you gamed this out, you 21 planned this out, scenarioed this out? Depending on what 22 the rules are, you'll know what your decisions are for your 23 facilities.

I mean how long is it going to take you to decide if a plant's going to stay, go or to what degree it needs to

1 get retrofitted?

2 MR. TOPAZI: Yes, we have. We've done the 3 detailed analysis. We know, based on the proposed rule, and 4 the conditions today, we know what we're going to do. Now 5 we're in a regulated market, and so our process is already 6 open. It goes before the IRP process at our PSCs, which are 7 open processes.

So yeah, we know today what we'd be retiring, 8 what we'd be converting to gas, what controls we'd be 9 adding, what transmission projects, and again, with some 10 11 variations as we finally see the final rules, and tweak the studies and the analysis. But I would tell you that the 12 13 majority of what we believe is what we're going to be carrying out. So we have already started work in 14 15 anticipation of that.

MS. BARRON: Likewise, I don't know that we need to wait a year from December 16th for folks to announce what they plan to do. I mean 90 days sounds like an adequate amount of time to me, and I think it bears reinforcing what Mike said about the ability to get the transmission reinforcements done in time, if that amount of notice is provided.

I want to thank Commissioner Moeller, who in his House testimony, referred to Edystone and Crombe as a successful example of a retirement. In that case, there

were 18 separate transmission upgrades that needed to be built, and I was surprised to hear Anthony say he was only expecting 70 or 80 for all of his fleet. We have four units and we had 18 separate transmission upgrades, some of which were complicated.

All of them will be done in 29 months, and this is a rule that allows three years for compliance, with an extra year at the unit owner's request. So as soon as you get that notice, you can get that work done, and then you won't have to face the issues that have been raised about the RMR.

12 COMMISSIONER NORRIS: Mr. Koonce, you sound like 13 you've already made a lot of these --

MR. KOONCE: Oh, we have made a lot of these decisions, and we have made them known as part of an integrated resource plan that we file in Virginia. But there are some significant caveats that we're still waiting to find out. Again, I mentioned the large oil subcategory, a rule that would allow large oil units to run some number of hours.

21 We have a very large oil unit just south of 22 Washington, D.C., Possum Point. That could be significant 23 change to the plans that we've announced, if we have to put 24 controls on that unit. We probably wouldn't. We'd have to 25 do something entirely different. Transmission, high voltage 1

transmission in Northern Virginia is very challenging.

So I mean there are some things. There are a lot that we know. There are some that we don't, but we don't see it in anybody's interest to not disclose that as soon as we know it. There are industry participants that think the confidential nature of this information needs to be protected. I respect that.

But I do want them to get that, in this case to 8 I want PJM to know. I don't need to know, but I want 9 PJM. 10 PJM to know what retrofits, retirements, whatever they may I want them to know, so that when I come to them with 11 be. 12 my plans to put in a transmission line, or to do an 13 environmental tie-in, that they've got the benefit of knowing how that would sequence with others. 14

15 So you know, I think we know a lot, but there's 16 still a lot we don't know and won't know until the final 17 rule's out.

18 COMMISSIONER NORRIS: Is there something we need 19 to be doing, to help enable that transfer of information to 20 take place, so that planning can --

21 MR. KOONCE: Well, I mean their tariffs are 22 subject to your jurisdiction. As I said earlier, that may 23 be an area where, you know, EPA and FERC can collaborate. 24 I mean if in fact the Commission, based on the 25 evidence before it, concludes that there needs to be some

1 guidance given to the implementation time line that we've 2 been discussing today, you know, if this Commission based on 3 that evidence would give that advice, there also may be a 4 need for this Commission to look at the RTO tariffs, to see 5 how it addresses this information exchange.

6 COMMISSIONER NORRIS: What's the sequence issue? 7 Should we address that issue? Should we seek input, address 8 that issue before? Would that be useful, productive 9 information or the process to get out of the way before a 10 decision had to be made on whether the additional, the one-11 year kind of blanket extension had to occur?

12 MR. KOONCE: Well, I'm not sure. Maybe I didn't 13 hear the question.

14 COMMISSIONER NORRIS: Yes. You know, it was 15 probably more me than you. Chairman Wellinghoff was asking 16 about is this one-year exemption --

MR. KOONCE: Where work is being done and has been validated by the RTO, it's needed. Yes, that one-year extension. It's not, I guess I don't characterize it as a blanket, because under -- if there's no work being done, the plants close, they go offline, yes.

22 COMMISSIONER NORRIS: Okay.
23 MR. KORMOS: If I could real quick, Commissioner
24 Norris. I may want to wait to see what the final rule is.
25 We asked EPA to include this in their final rule, including

getting us the advance notice. Should we get it through that mechanism, that may be good enough for us. If we don't, I would agree that maybe we would want to look at FERC putting out a rulemaking, that at least for these circumstances, for units that are subject to the EPA rules, that they do provide us the notice, and that we do that through our tariff.

8 If we get it through the EPA, I mean we sort of 9 offered it sort of as a carrot and stick. If generators are willing to give us the notice, they'd get the automatic 10 11 extension, so to speak. But if for whatever reason that concept is not adopted or it's insufficient, I might suggest 12 that that would be an opportunity for FERC, and it's limited 13 to maybe look oat what we could do through our tariffs, to 14 15 get that advanced notice.

16 COMMISSIONER NORRIS: Anybody else on this 17 subject?

18 (No response.)

19 COMMISSIONER NORRIS: Let me ask this for 20 everyone. You've all obviously provided, amongst your 21 testimony and the next group's testimony, numerous tools, 22 recognize numerous tools we have available, capacity 23 markets, planning processes, RMR contracts, DOE Section 202. 24 There's FERC FPA Section 207. Are there additional tools 25 that the industry needs to meet the requirements, and what

more can we help to do? It's just kind of catch-all question for you all to expand upon. Are there challenges, other needed changes to FERC rules and regulations, beyond what we've talked about so far?

5 MR. LAUBY: I mean NERC's view is, of course, our 6 standards need to be maintained throughout the whole 7 transition. So we know we think that sufficient time's 8 needed to make sure that that happens, and that we have 9 clarity, you know, where we now have uncertainty.

10 That includes a clear path forward for industry 11 to, you know, identify the units that perhaps may take 12 longer than the three-year time period that's going to 13 potentially be mandated here, and you know, a clear way 14 forward to ensure that reliability is maintained through 15 this whole transition.

You know, we're talking about a substantial number of units here that may have to go out on scheduled maintenance, probably in a ballet way right at the same time, because they go through this process. Some states have certain approaches, but overall, they kind of come in around the back end of this.

So we've got to make sure that it's choreographed correctly, so that we maintain reliability. So that whole piece almost kind of calls for a regional plan that comes forward, so that we can ensure that it's done in a careful,

1 that we look at the off-peak hours and ensure that

2 reliability's going to be maintained there, even if we have
3 extreme weather.

4 COMMISSIONER NORRIS: Have we indicated somewhere 5 along the line that we wouldn't maintain standards? Because 6 I'm asking what we can, what else can we do, what other 7 tools or regulations or rules?

8 MR. LAUBY: Right.

9 COMMISSIONER NORRIS: Have we indicated somewhere 10 that we wouldn't maintain the standards?

MR. LAUBY: No, no. I just wanted to make sure,
okay. We have the voice for reliability.

13 COMMISSIONER NORRIS: I got you, I got you.14 (Laughter.)

15 COMMISSIONER NORRIS: Anybody else want to --

16 yes.

MR. TOPAZI: Commissioner, no, no other tools is necessary. The tools that we have are adequate. It is simply a matter of having enough time to do the construction work that we have to do to comply, and not risk reliability or curtailments or anything else. So I would agree with Mark. MR. WRIGHT: And if I might, Commissioner.

24 COMMISSIONER NORRIS: Sure.

25 MR. WRIGHT: Number one to Mark, congratulations.

He got his IEEE Fellow. He was recognized. That was a very good thing this week. But to your point, I think it's really -- I think we need to be concerned about allowing or not forcing utilities to choose which regulations they're going to break, you know.

From that standpoint, I believe that FERC can work directly with EPA, and maybe that's the tool you're talking about, something else that you could to help make sure or to ensure that the time line is appropriate, so that we mitigate those compliance problems as best that can be done. But I think that --

12 COMMISSIONER NORRIS: Help me there, because 13 there's some real statutory limitations here. I mean 14 there's statutory limitations that EPA has to deal with, 15 there's statutory limitations about what we can or can't do, 16 in terms of relaxing rules, that EPA or DOE can do.

MR. TOPAZI: Again, you know I'm not -- I don't know that I can get really down in the weeds with you on all of that. But which is all the more reason to, where I think the dialogue needs to take place maybe, and in what form, I don't, you know. What's the form, what's the best way? I don't know.

But I do think some public discussion needs to take place where EPA's at the table, and we can exchange information. Then, you know, maybe we can reach consensus

1 on something that works.

2	COMMISSIONER NORRIS: Mr. Monroe.
3	MR. TOPAZI: Well, there are things that EPA can
4	do to get, provide more time, but as Tom Farrell
5	COMMISSIONER NORRIS: I know. It's just so hard,
6	because all want to talk about what EPA can and can't do.
7	But what can we do? What rules and regulations can we do to
8	help with this?
9	MR. TOPAZI: I believe that to avoid the problems
10	that I think safety valve would incur because of where it is
11	in the law, I think that what has been laid out by the
12	consensus of EEI, the one-year extension by EPA and the
13	administration delegation of that two-year extension, is the
14	adequate tool to provide the time, as is necessary, to meet
15	the requirements
16	COMMISSIONER NORRIS: That tool exists now,
17	right?
18	MR. TOPAZI: And they're in the law, and they
19	provide the protections.
20	COMMISSIONER NORRIS: So that's not an additional
21	tool you need?
22	MR. TOPAZI: It's not an additional tool. There
23	are other things EPA can do, but I cannot think of a tool
24	for FERC in this regard, that would override the tools that
25	EPA has.

1 COMMISSIONER NORRIS: You mentioned, I think Mr. 2 Lauby, you said it has to be choreographed, the timing of 3 scheduled outage. I'll now turn to Mr. Monroe and Mr. 4 Kormos on that. I mean how does that -- give me a little 5 briefing on how that works now, and how it may have to 6 change to accommodate this kind of unprecedented level of 7 scheduled outages?

8 MR. MONROE: Yeah. The interesting thing about 9 what Mike said already about choreographing the retirements. 10 We have to do that same choreographing with the scheduled 11 outages too, and with the number of plants that we're 12 talking about getting done, it just raises to another level 13 that what we've traditionally had to handle.

In other words, traditionally we've had to handle the -- in essence you could say like normal business that everybody wants to do their outages when they don't need the plants as much during the off peak periods of time. So choreographing that, we already have mechanisms in place that require notice of when outages are going to be taking place.

We have to do assessments of where those outages will cause reliability problems themselves. We can do that. The issue with these rules is that as Mark said, they seem to be pushing everybody to do them in the same time frame, and some of those take a longer period of time than we would

1 see a traditional normal outage for a plant like that.

So that's another piece of information that I think that we're going to need from the generator owners and operators. It's not just are they going to retire, are they going to retrofit it, but when are they going to do the work? When do they see the work coming about, and then that's one place I can see the safety valve need, is that we have six or seven that want to do it all at the same time.

9 We say well no, you can't. Well the guy says if 10 I can't do it now, I'm going to be violating the law. So 11 what do we do in that case, except to say, you know, for 12 reliability purposes, we need somebody in that area to run, 13 and that may be getting back to this economic question of 14 which one of those six or seven need to run in that area, in 15 order to provide the reliability.

But we have the tools. We have the mechanisms. We just need the information and the time to both do the assessments and then the time to implement the changes.

19 COMMISSIONER NORRIS: You have the tools. You
20 need to do this in stack order, from an economic efficiency
21 standpoint as well as a reliability standpoint?

22 MR. MONROE: Yes, yes.

23 MR. KORMOS: I think Carl did a very good job. 24 We have the tools. We have the ability to deny outages, and 25 I think it's just it is going to be a point where there -- once we get to know what the outages are, if they can't be fit and if there is no safety valve, that would be my concern. That's where I think we would need to come to FERC at that point.

5 Our hope is with the safety value for units that 6 cannot be done within the initial time frame, we need to 7 roll in the extra year or two. They will get that 8 opportunity to do that through the safety value, where again 9 we'll be able to keep other units so they can go out in that 10 Year 4 and 5 period, and do the retrofits.

Assuming we get that additional tool, I thinkwe'll have what we need in place.

MR. KOONCE: Commissioner, I'd like to just -- we appreciate the RTO view of the safety valve concept, and certainly someone needs to make that determination. So we have no issue with that. I want to just be clear that the safety valve mechanism that the RTOs have put forward is under the penalty provision of Section 113.

19 So I want to always be clear. When the RTOs are 20 talking about an extension of time, they're talking about a 21 utility acknowledging that they're in violation of the law 22 and penalties not applying. We don't think that that is an 23 appropriate way to proceed.

We do acknowledge that there needs to be a third party that identifies and manages the reliability of the

1 grid. But we would strongly urge that that occur under 2 Section 112, and the Presidential exemption, not 113. We 3 just want to be very clear that EEI nor Dominion supports 4 operating in violation of the law, and having that subject 5 to court review and all of the things that come with that. 6 COMMISSIONER NORRIS: Thanks, thanks. I guess I

7 can have one more and then --

8 COMMISSIONER LA FLEUR: Well, just be sure that 9 we also have coordination and flexibility, the Chairman 10 suggested we just quickly run through questions again before 11 lunch, and then let this long-suffering panel go. So do you 12 have another question?

COMMISSIONER NORRIS: Then I just have one more,
and then I --

15 COMMISSIONER LA FLEUR: Sure.

16 COMMISSIONER NORRIS: But I'll turn to our 17 commissioners. Thanks for being here, Commissioner Wright 18 and Commissioner Epel. Do both of your states do IRP 19 process? So we -- this has been telegraphed for a long 20 time, that this is coming out. I'm sympathetic with what 21 Commissioner Moeller said about the devil's in the details.

22 But the law's been in place. There's been a 23 court order telling EPA to get with this for quite some 24 time. Do you in your mind, through your experiences in your 25 states, has there been ample planning done to prepare for

1 this?

2 MR. EPEL: I can't speak for Vice Chairman Wright. 3 We had a unique situation where our legislature saw 4 this coming down the pike, and basically said we are going 5 to address it, and was very prescriptive in the legislation. 6 We handled this basically in ten months. So it was 7 mandated. Fortunately our utility, Public Service Company of Colorado, you know, stepped up and said here's some 8 opportunities we have. 9 But as Commissioner Moeller pointed out, we have 10 11 a lot of natural gas, and we had an option which I don't 12 think very many states have. So we took advantage of an 13 opportunity using an indigenous fuel. There was a tremendous amount of vision and planning on this one. 14 15 But I think our circumstance was unique because of the natural gas that we have stranded in Colorado. 16 17 COMMISSIONER NORRIS: But any plan takes 18 advantage of their natural assets or recognizes their shortcomings. How about you, Commissioner Wright? 19 MR. WRIGHT: Well, the RFPs right now are showing 20 21 retirements and replacements in either natural gas or clean 22 coal. Also, two of our utilities are planning for or are building nuclear units in South Carolina that would absorb a 23 lot of the coal retirements. 24 25 But it really raises issues in our mind of

unintended consequences in natural gas, for example. What's that going to do to cost? You know, is it going to drive the price of gas, you know, up? When you start --Commissioner Moeller didn't get to ask the question, I don't think, but it was going, I think, towards gas pipelines and using it for fuel switching and stuff.

Again, when you start doing that, is it going to drive the cost up for the fuel? So when you're doing -when you're retrofitting your plants, putting back houses, all the stuff that they're doing now, and they're all competing at the same time to get it done in that time period, you're competing for craft labor.

13 COMMISSIONER NORRIS: And was that, have you
14 played that through in your RFP process, to see how this can
15 be done?

MR. WRIGHT: It's becoming more and more, and we're getting ready to go through our next wave of RFPs, and it's beginning next week with some of the utilities. So we are doing that in the month of December.

20 COMMISSIONER NORRIS: You do it every two years?
21 MR. WRIGHT: We do every year.

22 COMMISSIONER NORRIS: Every year?

23 MR. WRIGHT: Yeah. We do --

24 COMMISSIONER NORRIS: In last year's RFP, was
25 there a good conversation --

MR. WRIGHT: Not as much, but you know, that's one of the reasons I mentioned in my testimony that we're looking at an additional allowance ex parte, to bring them in and to talk in a little bit more detail about some of that stuff in the coming months as well.

6 But you know, I've heard it in the testimony 7 here, and what I read in the testimony too, about some of 8 those issues, and those are the same issues that we're 9 talking about.

Internally, we've been talking about it among our staff. But you know, but I think our utilities have adjusted right now because of the nuclear stuff for sure.

13 COMMISSIONER NORRIS: And let me follow up with 14 Commissioner Wright first. I'm very sensitive, and 15 appreciate you, as Commissioner Moeller has noted, pounding 16 on the price or the cost issue. I certainly got my earful 17 at NARUC just a couple of weeks ago on costs associated with 18 FERC ROEs and incentive rates. So I'm sensitive as well to 19 the cost issue.

Have you identified ways through the state regulatory process and IRP process to absorb or spread out some of these costs as they come forward? What can or have you done to help address that?

24 MR. WRIGHT: You know, I would say I don't really 25 know the answer to that question, except that I know that

rate proceedings are more and more numerous, and more
 frequent obviously, and what you're hearing is the -- and
 seeing evidence of is people not being able to pay.

They're having to find other ways to get the bill paid for them, and I have a concern that, you know, all this coming, and is there a way to I'm not saying drag it out, but a way to do it in such a way that you --

If you have to put everything on at one time, then obviously you're going to drive the cost up, because you know, the work needs to be done and a guy's going to say well, I'm not going to pay a penalty to do something with you. I'm going to go somewhere else, where I can get it done the way I want to get it done, the way I want to build it, and the utility's going to have to pay more.

I'm being sensitive on purpose here today for the ratepayer, because I don't know that we have looked and considered the impact to them, especially in some of the regions of this country that are going to be just hammered from a rate perspective.

20 COMMISSIONER NORRIS: Thanks. I struggle with 21 that, because we've got plants out there that got exempted 22 in 1970 from the Clean Air Act, and still have no controls 23 on it. Now we somehow, either as individual utilities or 24 commissions or society wonder how on earth we're going to 25 pay for that now?

I think what you heard from Ms. McCarthy this morning is we've been paying for it for decades on the health costs. So at some point, I mean how much longer do we wait?

5 MR. WRIGHT: Well, and I don't know that I can, 6 want to get into an argument with you about that part of it. 7 But I do want to point out that I think there is 8 a health and safety concern on the other end. If they can't

9 pay the bill, and they're living without power, you know, at 10 what point does it become a health and safety issue for 11 commissions and for utilities, which I do think in turn 12 becomes a reliability issue as well potentially.

13 So there needs to be some concern, I think, paid 14 to that, and I know we're cognizant of it. How we do it, to 15 minimize the rate impact, you know, I mean obviously you 16 have to do negotiations in that proceeding, you know, 17 somehow.

18 COMMISSIONER NORRIS: Commissioner Epel, you can19 follow-up on that comment.

20 MR. EPEL: Thank you, Commissioner. Last week, 21 we adopted a plan or approved a plan to install 200 22 megawatts of wind that we do not need to, either for 23 capacity or for generating, achieving our renewable energy 24 standard. We did it specifically as a hedge against gas 25 price increases.

So there is some interesting dilemmas that we're facing. That was a very tough road for me, but we adopted it unanimously, in particular to make sure, as Vice Chairman Wright was saying, the uncertainty with gas prices, which in the foreseeable future, we see it low. But we have to create some type of hedge, that we're not overly dependent on gas.

8 COMMISSIONER NORRIS: Ms. Barron, you have a 9 comment. I was just going to buttress your point, that this 10 really is a regional issue. Exelon serves over five million 11 electric customers. We serve the City of Chicago and the 12 state of Pennsylvania and the environments surrounding them.

Based on prior work that had been done in our regions, we actually will see slightly lower rates, adjusted for inflation, in both Chicago and Pennsylvania in 2015, after these rules take effect, than we saw in 2010. That doesn't mean that there won't be localized issues that need to be addressed.

But I think it goes back to the Chairman's point, that this really is a very -- the impact and the consequences, and therefore the response of government, should be varied, depending on the specific circumstances. MR. TOPAZI: If I can comment, Commissioner. Our estimate of costs for Southern is 10 to 20 percent increase on rates. 48 percent of our customers make, have household

incomes of less than \$40,000. So the impact is significant,
 as Commissioner Wright pointed out. The economic
 consequences of having that loss of GDP is going to amount
 to significant net job losses in the Southeast and in the
 country.

6 In terms of seeing this rule coming for years, we 7 thought we did. We thought, the industry thought it was 8 doing the right thing, installing scrubbers and SERs and 9 precipitators. No one could anticipate the details and the 10 levels that are in the proposed rule that came out in March. 11 COMMISSIONER NORRIS: No one?

12 MR. TOPAZI: No, I don't think so. The

13 condensable PM, that was a --

14 COMMISSIONER NORRIS: You have colleagues in your 15 industry that have expressed disagreement with that 16 statement.

MR. TOPAZI: Well, I'd accept that. But for the industry members I've talked to, no one saw the condensable PM limit; no one saw that level in mercury; no one saw not having a work practice exception for start-up, shut-down malfunctions; no one saw the continuous emission monitoring for a 30-day rolling average.

These things were not ever contemplated, in my view. So we have been doing the right work. We've spent \$8-1/2 billion. Now suddenly we're looking at issues that are much greater than that, for marginal improvements, I'll stay that. We have approached our state commissions, and trying to get ahead of the curve a little bit on some projects that we know clearly have to proceed as the rule is finalized.

6 Our commissions did not approve those projects, 7 because they have an obligation to ensure that what we're 8 proposing to do is the least cost method for compliance. So 9 therefore, they want to know what is the final rule, to make 10 sure that we're not missing the mark in terms of what we're 11 proposing.

12 Small, marginal changes in some of the emission 13 limits or other characterizations within the rule, would 14 make a significant difference in what we would do. I would 15 be telling you something dramatically different for some 16 small change in one of the emissions, in terms of the 17 reliability that we see today.

So it's important that our commission, our state commission has the final rules to evaluate what we're doing in the public's best interest, and so that's how it is for us.

22 COMMISSIONER NORRIS: I apologize, but we 23 probably got into an exchange here that isn't productive, of 24 course. The tools that FERC has to help address this. But 25 I've got to ask you, have we been too aggressive on

emissions controls, and you're asking for a little bit less, or have we not been aggressive enough?

3 MR. TOPAZI: In terms of the EPA? The EPA has 4 done what its science and research has said it should do to 5 this point. This rule and the other rules were 6 unprecedented impact on the generation fleet and in the 7 history of the EPA. The time to comply is really the issue 8 at heart.

9 We had a number of years under the Clean Air Act 10 and the amendment in the mid-90's, to actually evolve the 11 technologies. You know, we didn't start out really knowing 12 how to build a scrubber and SER and operate those. But that 13 has evolved.

In fact, because of the work we did with our research effort, we actually did something different than the rest of the industry, and we spun the world's largest fiberglass vessel for our scrubbers, and it turned out to be a win for our customers, because the performance is better and the cost is better.

But we had the time to develop that technology. Ms. McCarthy talked about, you know, how industry can respond and come up with technological solutions, and we can and do. But it takes time to do that, and when three years is not even enough time to add a scrubber or the baghouses that we have to add, there's no time to evaluate and do

1 modifications to the technology that would be in our

2 customer's best interest. So that would be a benefit if we3 had a little more time, not a delay.

4 COMMISSIONER NORRIS: Thank you. Thanks. You 5 understand, I don't want you to get an impression. In fact, 6 I consider myself the consumer advocate on this Commission. 7 I'm incredibly concerned about costs and the price of electricity. I think there's some probably unreasonable 8 expectation that costs for electricity and power are going 9 to go down in this country and they're not. 10

We have to make sure we manage the increases and make it most efficient as possible. But I also, and I'm -ask my wife. I'm cheap. I want to pay the least amount I possibly can for my electricity, but I do expect the price to include electricity produced that doesn't cause harm. So that's where we've got to find some balance.

MR. TOPAZI: And you're not getting any argument from anybody up here. Nobody's saying the rules are wrong or that it shouldn't happen. It's just that the speed with which they're coming and all at the same time is going to be a perfect storm for the ratepayer. It's going to be.

22 COMMISSIONER NORRIS: Thanks.

23 COMMISSIONER LA FLEUR: Thank you, Commissioner 24 Norris. I just want to ask one more question, and I want to 25 push on the timing that we've just been talking about. It's difficult to get a handle on. In the pre-filed testimony, just as a point of fact, there were estimates of the installation schedule for a scrubber, ranging from 24 months at the bottom end to 67 months at the top end. So it's hard to get a handle on the real timing here.

I think we've all heard that it's essential that EPA get out the rule in two weeks, so we can plan with some certainty. If we had a magic wand and EPA extended all the MAC deadlines by one year, how many fewer cases would go through the reliability safety value or exemption?

I mean I think there's a concern, and I don't think it's an invalid concern, that it would just take the lump of retrofits and just push that lump of retrofits forward, but not necessarily sequence them in a way that we wouldn't still have a problem when that happened.

16 So if we were to extend it a year, do you think 17 the number, the percentage that would need some kind of 18 onward exception would go down 50 percent, 20 percent? I 19 know this is guess work, but I mean these are issues as we 20 think through what are the choices.

MS. BARRON: I'll go first. I mean I'm not sure that we can answer that question. I think that it's so highly dependent on the unit, first of all, and then on the location that it's in and what the context of the grid is, and what kind of timing is going to be associated with
1 whatever retrofit is required.

25

So I think that the concern that I would have is the same one you have, is that if you just extend the deadline on a blanket basis, without having some sort of staggered process, that you're going to push up against the same problem at the end.

So whether you're better off keeping the deadline where it is, and providing a relief valve for those who need more time, whether it's because of their outage schedule or because of the length of their retrofit, you wouldn't fall into a more graduated process.

I think that is the most likely outcome. In terms of the time for retrofit, I do think there are various different estimates out there, and every unit is different. But you know, there are plenty of examples of scrubbers being constructed in less than three years. There's plenty of examples of scrubbers being constructed in more than three years.

You need to factor in time for design. You need to factor in time for engineering. All the more reason why, you know, as Anthony said, the unit owners that know what they need to do should start doing it, and there are some state commissions that have already had proceedings underway.

There's a settlement announced in Kentucky

recently involving a bunch of new retrofits including wet
 scrubbers, including a new baghouse. The utility there
 filed the case in June, and has already reached a
 settlement, so that regulatory approval schedules can be
 poised to reach a final conclusion in December of this year.

6 So that as the utility said in its filing, all 7 those projects would be completed over the next few years, 8 and by 2015. So there are, you know, examples of it moving 9 faster. There are examples of it moving slower. I don't 10 think there is a standard.

11 COMMISSIONER LA FLEUR: Mr. Topazi.

MR. TOPAZI: Commissioner, with regard to scrubbers, like I said, we've installed 17. The fastest we've ever installed one is 40 months. The longest is 69 months. Our average is 54 months. Now that's the time for a regulated utility to obtain regulatory approval, the design, the permitting and then the construction.

18 If we're just talking about turning dirt, it 19 would be more like three years. But the entire process is 20 going to take four and a half to five years for a scrubber. 21 Keep in mind that if you're controlling, you're talking 22 about probably a scrubber, an SER and a baghouse.

In our cases, baghouses are the critical driver, and we have laid out, with site-specific engineering, what is it going to take to add baghouses. I can tell you by the

compliance date of January 15, we wouldn't have a single
 baghouse in operation.

About 15 to 17 is our estimate of what we have to install. By the end of '15, we'd have three or four completed and so on, until you get to January of 2018. That is a detailed engineering plan. We haven't done the detailed engineering, but we have done enough engineering to understand how we do it.

9 Keep in mind, when I talk about a baghouse, you 10 take a coal plant that has four units, and we're talking 11 about a baghouse for each one of those units in a confined 12 space. You physically can't do all four simultaneously. 13 These plants were not laid out for these controls.

We've already had to shoehorn scrubbers and SERs into the plant itself. Now the baghouse has to be taken and put in place. You have to move facilities, relocate facilities, or you'll have to do what we had to do at our Plant Sherer, which is the nation's largest coal plant, actually build a baghouse a quarter of a mile away, and then duct and forced air to make it fit.

Then that increases the demand at a station service to provide that service, and transformers alone take a two-year lead time. So I would be delighted to talk indepth about the time it takes to comply.

25 COMMISSIONER LA FLEUR: But if -- thank you for

1 that. If, I know we can't do it, but if EPA were to say now 2 instead of January 2015, with a one year extension, now it 3 will all be off one year, do you think -- I mean do you --

What do you think about Ms. Barron's comments that that wouldn't necessarily sequence, where we would use the whole time to get things done, or do you think it would just push the process forward? That's not a very articulate guestion, but you know what I mean.

9 MR. TOPAZI: Yeah, I do. We're not talking about 10 a push or a delay. We've laid out the most efficient plan 11 that we can execute to be in compliance. Now I'm talking for Southern, and so if you recall the numbers that I cited 12 13 in our reserve margin calculation projections, 2016, our reserve margin would still be zero. That's after I've 14 15 called about 2,000 megawatts of demand response for every hour, and hopefully the customers will respond, because it's 16 17 voluntary.

18 So I'm actually in the negative in terms of 19 supply to meet demand, even with a blanket one-year 20 extension.

21 MR. KOONCE: Commissioner, you know, part of our 22 compliance is predicated on building a greenfield 500 kV 23 transmission line near Williamsburg, Virginia, and on down 24 to Virginia Beach. We're going to have permitting 25 challenges, we know, but we also have identified the need,

1 and we're prepared to work with PJM and prosecute that.

I think Kathleen's right. I think each situation is unique. What is important is that the industry is poised to move forward. The industry is not asking for another study. The industry is not asking for a delay. The industry is asking for an implementation path that allows us to be compliant.

8 When you think about getting filing at the state 9 corporation commission to get the necessary CPC in, and then 10 doing the actual construction, four years where investments 11 are being made. Again, I want to emphasize where 12 investments are being made, four years, we believe we can 13 accomplish a lot. I share your concern, as being a part of 14 PJM.

I do think there is some early notice requirements that need to come with that, so that they can predictably manage these sequences, because I don't want to have a neighboring utility that's creating reliability problems for me, because they waited.

So I think that we can accomplish a lot in the four-year period. But we need to use the four-year period, and the industry is prepared to use the four-year period to get that work done.

24 COMMISSIONER LA FLEUR: Well, thank you very 25 much. Did you have any other questions, Mr. Chairman?

CHAIRMAN WELLINGHOFF: No.

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2 COMMISSIONER LA FLEUR: I guess we'll turn it 3 over to Commissioner Moeller.

4 COMMISSIONER MOELLER: I recognize that stomachs 5 and bladders are being challenged throughout this meeting, 6 so I'll try and be brief, but I appreciate Commissioner 7 Norris mentioning the transmission incentives, and how we get heat for that, and that is going to be a drop in the 8 bucket compared to an Olympic-sized swimming pool in terms 9 10 of the costs we're talking about here. So I guess we can 11 get ready to hear more about it, whenever we see our friends at NARUC. 12

Briefly want to bring up an issue that arose yesterday, and that part of all of this context, we're going to have to be very cognizant of the interdependency that's growing between electric and natural gas. I look to New England, and they're clearly trying to phase out oil, as is New York City on a different time frame, in terms of burning oil.

That's good. But once you lose your dual fuel capability, it limits your options in the middle of winter for reliability. That's where I go to the questions on pipeline expansion, and whether it's adequate, whether there are changes that we may need to consider, to assure that there's adequate expansion, especially at the end of the

pipe up in New England. I did pose 22 other questions that
 I won't go through now.

3 (Laughter.) 4 COMMISSIONER MOELLER: But I would hope that people will answer them, particularly related to black start 5 6 capability, and I hope that people will take a look at other entities' answers, because we're already seeing a lot of 7 8 fascinating complications that probably weren't initially 9 anticipated, about the again timing of implementation, of 10 not just one but four rules that impact different fuel 11 sources differently. That's what we're talking about. 12 It's back to 13 the time line, and what's manageable. Thank you. COMMISSIONER LA FLEUR: Well, I want to thank the 14 15 panel -- oh, I'm sorry. 16 COMMISSIONER NORRIS: Thank you. 17 COMMISSIONER LA FLEUR: I thought this was the 18 last time --19 (Simultaneous speaking.) 20 COMMISSIONER LA FLEUR: Commissioner Norris. 21 COMMISSIONER NORRIS: I want to commend you. Ι mean to some degree, I've played, I've tried to make sure I 22 was providing some balance to Commissioner Moeller today, so 23 we'd all have a good, robust discussion. 24

25 So maybe I played a little devil's advocate. But

I want to commend you, because I do think you came in here, and I think everyone came in here with the notion of we're not trying to delay this. How do we go forward and do this most efficiently.

5 I feel safe, speaking for my colleagues, that 6 that's what we want to do as well. There is the three-year extension. There is a three-year -- there is the one year 7 extension. There is the two-year Presidential extension. 8 That can be extended again, obviously with a report to 9 Congress and justification, and I've got to presume no one 10 11 in the EPA or the administration wants to be present when 12 the lights go out somewhere.

13 So I assume that all those tools will be 14 exercised when necessary. So just one last shot here. What 15 is it that has to change?

MR. KOONCE: Well, I do think that EPA has the tools, within the Clean Air Act, to allow utilities to be compliant. But it's incumbent upon EPA to use those tools. Whether it's work practice standards, whether it's use of surrogates, whether it's the use of the time flexibility that they have within the Clean Air Act.

22 So I don't think that we need necessarily more. 23 I also believe that on the FERC side, the tools are in 24 place, as Kathleen in her opening comments said. You know, 25 we have reliability standards. We have regional planning.

1 We have good market structures that send price signals. 2 So the pieces are there, in my view, for the 3 industry to have a successful outcome. It is EEI's hope 4 that they use those tools constructively, so we can get 5 there. COMMISSIONER NORRIS: Thanks. 6 COMMISSIONER LA FLEUR: Thank you, Commissioner 7 Norris. I want to --8 9 (Simultaneous speaking.) COMMISSIONER NORRIS: I was just having fun with 10 11 you. COMMISSIONER LA FLEUR: I want to really thank 12 13 the panel for their really excellent and thoughtful comments, and for their patience with this process this 14 15 morning. Because of the size of the group that's here and in the other room, we're going to take a one hour break for 16 I'm not the FERC Zagats, but I don't think you can 17 lunch. all fit into the Sunrise Cafe. 18 19 So there's Phillips Cafe, just one block out to the left. You can go down to Union Station. We'll 20 reconvene at 1:30, and we're going to come back -- I'm 21 22 sorry. We will dismiss this panel and come back for the other panel. Thank you. 23 24 (Whereupon, at 12:29 p.m., a luncheon recess was taken.) 25

AFTERNOON SESSION

(1:35 p.m.)

3 COMMISSIONER LaFLEUR: Well welcome back 4 everyone. Thank you for sticking with us. I think we had a 5 very productive morning and look forward to continuing the 6 conversation.

We are going to be continuing our discussion of processes to address reliability impacts coming from power supply changes with a focus on multi-state processes and different processes in different parts of the country and how we might take this forward.

Again, we have a very expert panel to begin with opening remarks on this. When I said this morning that it was all-hands-on-deck, there was one important constituency I forgot to mention, which is the Department of Energy. We are fortunate to have Pat Hoffman, Assistant Secretary for Electricity Delivery and Energy Reliability from DOE.

18 Gerry Cauley, who loved it so much yesterday he
19 came back--

20

(Laughter.)

21COMMISSIONER LaFLEUR: --President and CEO of22NERC.

Nick Akins, the CEO of American Electric Power.
Clair Moeller, the VP of Transmission at the
Midwest ISO.

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1 We will be hearing from Chairman Betty Ann Kane from our Commission right here in D.C. 2 3 Commissioner Cheryl Roberto, from the Public 4 Utilities Commission of Ohio. Eric Baker, the President and CEO of Wolverine 5 6 Electric Power in Michigan. 7 And Debra Raggio, VP of Government and Regulatory Affairs at GenOn. 8 9 As before, we would appreciate folks keeping their comments brief so that we can take this forward. 10 11 Thank you very much. I will wait a minute. I guess I had not thought 12 13 this through. We are not going to do new opening statements, right? 14 15 (Negative nods.) COMMISSIONER LaFLEUR: We have so many chances to 16 17 rattle on, we will let you start, Ms. Hoffman. 18 MS. HOFFMAN: Well, Commissioner, I think this 19 morning's discussion was fantastic, and I hope this 20 afternoon continues to follow on from that discussion from 21 this morning. 22 Thank you for the opportunity to join you today. I believe everybody in this room shares a commitment to 23 24 ensuring the reliability of our Nation's electric grid. Together, we are committed to ensuring the safe and secure 25

delivery of electricity to consumers, and together we share a commitment of doing this in a way that is economically viable, affordable, protects public health, and is environmentally sound.

5 Historically the electric sector has had a strong 6 track record for protecting the reliability of our Nation's 7 electric grid. Working collaboratively with federal and 8 state government, we collectively have developed 9 technologies, tools, processes, and procedures that protect 10 our Nation's critical infrastructure.

11 That record is one that we all should be proud 12 of. Continuing this record is a shared goal, which is why 13 we continue to assess the ability of our utility partners, 14 as well as the potential impacts of standards on the 15 industry.

An area of conversation at this conference has 16 been that the standards that the Environmental Protection 17 Agency has put into place, or is currently developing, that 18 would apply to the electric sector. These are appropriate 19 20 and necessary steps to protect human health and the environment that can, and indeed must, be implemented in a 21 way that maintains reliability of the electric grid. After 22 all, maintaining the grid's reliability is important to 23 24 public health and the health of the U.S. economy.

25

The Department of Energy is committed to working

with the EPA and other stakeholders to successfully implement these environmental regulations and maintain grid reliability. A number of analyses have been conducted by industry groups and others with a goal of predicting what impact EPA regulations could have on the overall resource adequacy of the American electricity supply and the U.S. economy.

8 These studies have produced varying results and 9 varying estimates of affected generating capacity. They are 10 often based on different sets of assumptions. Some of those 11 studies have been based on earlier, incomplete predictions 12 about what EPA rules are that have not yet been finalized.

Despite these differences, I think we are beginning to see a consensus emerging that, generally speaking, the EPA rules will not create a widespread resource adequacy issue.

The Department has developed as well a model, the Conservative Stress Test Scenario, for 2015 that is deliberately more stringent than the new EPA rules. We did another one of those studies that was more stringent than what potentially could come out.

22 While that review is available soon, it confirms 23 what many have said: Assuming prompt and responsible action 24 by regulators and generators, the timeliness associated with 25 the construction of new generation capacity and installation of pollution control retrofit would generally be compared to
 EPA regulatory timelines.

With respect to local reliability issues, the Department believes that where localized issues could arise, mechanisms already exist to address those concerns on a plant-by-plant or more local basis. And the Department of Energy is willing to provide technical assistance throughout the process.

9 The Department realizes the important role that 10 the Regional Reliability Coordinators, the ISOs, the RTOs, 11 the State Public Utility Commissions, NERC, and FERC have in 12 conducting these detailed iterative analyses. We recognize 13 that it is not a single analysis that we will be doing 14 detailed iterative analysis as more information comes out.

We can work together using existing statutory, regulatory, and other mechanisms, and it should be sufficient to address any potential localized grid reliability concerns. But once again, if used in a timely manner we should have the flexibility. So let's take timely.

I think some of the points have been made thismorning, but I want to emphasize:

The issue on notification: Notification is critical. In order to make timely decisions to do the proper analysis, to have the proper review, we need to have

timely notifications for scheduling maintenance, for
 outages, to analyze concerns, and to make sure that we are
 assessing grid reliability on a continual basis.

4 We also need to ensure that the reliability analyses are reviewed by a neutral body. This neutral body 5 can consist of stakeholders from the states, from the 6 7 Federal Government, from reliability entities. But the important thing about having this neutral body is to 8 actually take a look at some of the seams issues to be able 9 10 to actually take one step back and look at it and make sure 11 there's not something more missing, as well as to assess the timeliness of the implementation of solutions. 12

For plant operators that anticipate reliability concerns, we need to pursue the flexibility mechanisms by EPA: the requests for available extensions, even consent decrees discussions that should begin sooner rather than later.

And finally, the Department also believes that as a tool of last resort the Federal Power Act does provide a vital legal tool for ensuring grid reliability. Under 202(c), the Secretary has the authority to order a generator to operate in emergency conditions.

23 While the Department has only exercised this 24 authority on six occasions, we should be prepared to act in 25 a timely fashion to ensure conditions for grid reliability 1

are maintained as EPA regulations are implemented.

2 So thank you, and I look forward to working 3 together and a good discussion.

4 COMMISSIONER LaFLEUR: Thank you, very much,
5 Secretary Hoffman. Mr. Cauley.

6 MR. CAULEY: Thank you, Commissioner LaFleur, and 7 Chairman, and Commissioners:

8 I really appreciate the opportunity to speak 9 today, and also even that the conference today is being 10 held. I think it is a significant milestone in progress in 11 the dialogue, and I thought even the quality of the dialogue 12 this morning was excellent and it was a good hearing of 13 issues.

I also want to express my appreciation for the EPA and the dialogues that they have had with us on reliability issues, and some of the constructive dialogues we have had with them to try to address some of the issues, or make them aware of those issues.

I want to point out a specific citation from Section 2.15 of the Federal Power Act because I think it is relevant to a question that is on the table: What is the role of the Commission? And what changes need to take place?

24 Section (g)--it's Article G of Section 2.15. It 25 says: The ERO shall conduct periodic assessments of the reliability and adequacy of the Bulk Power System of North
 America.

3 I think it is very clear in that statement in the 4 legislation and Section 2.15 that there was an intent that 5 there would be a reliability assessment role for the ERO. 6 And I think implicit in that from a legal perspective, the Commission has oversight of that, and oversight of that 7 assessment role, and oversight of reliability clearly. And 8 9 I will come back to that when I have a suggestion for 10 exactly what that means in terms of some suggestions for the role of the Commission. 11

The second point I would like to make is that 12 13 NERC really began doing reliability assessments 40 years It was roughly in 1970. It has obviously evolved over 14 ago. 15 the years, and over the years we have also institutionalized rigorous procedures, methods of validating the data, and 16 17 assumptions that go into those assessments. And I would 18 argue today that there's probably no organization on the planet more qualified to assess the future reliability of 19 the Power Grid in North America than NERC. 20

I think with 40 years of experience, the way the process works we collect information at the individual unit, transmission owner/operator level, and it rolls up into a planning authority, and regional plans, and the data is validated, and all the assumptions are validated, and it

1 rolls up into plans.

It is a similar model to what we have seen with the EPA report that was discussed earlier today. But my point of reminding everybody of that is, I think we have processes in place to deal with the reliability concerns that are in front of us.

And if we discuss what is NERC's role, and what is the Commission's role in that process, my sense is that the Commissions share some of the same jurisdictional limitations that we have. We cannot direct--the Commission cannot direct construction, or alteration of siting and plans to build something, and we can't do that, as well.

Our job is to identify the problem, shine a light on the problem, and inform the issue. But we can't direct the construction on the system.

In terms of a process forward, which is what I would like to suggest here, is I think at the risk of raising Commissioner Norris's question again, it starts with the NERC standards, defining operating standards are the basis. And my suggestion for a process is that we retain the current institutions that we have as much as possible, because I think they work very well for reliability.

The issues of what is needed for an exception, or a safety valve, the question really begins at an individual unit level. But the solutions are aggregated solutions 1 across a planning footprint.

2 So one generator may think it has a problem, but 3 the solution might be just to build transmission, or the 4 solution might be there might be an alternative resource, 5 another generator. So we have to have a holistic view of 6 what the reliability impacts are.

7 There are other questions, other than just 8 capacity, like who is going to provide the black-start 9 capability? Who is going to provide the spinning reserves? 10 And who is going to provide regulation? And those kinds of 11 things. Those only come together in an aggregated study.

My sense is the 81 planning authorities that we 12 13 have today in North America are the right place. Not all 81 are affected by the EPA regulations in the same manner, so 14 15 there is some subset of those where it is relevant. And T 16 think that they can bring together plans to demonstrate to us and the NERC regional entities and the Commission if 17 18 there are impingements of the EPA regulations that cause actual reliability impacts, that they should be able to 19 20 demonstrate those in plans that we can review and validate 21 the assumptions, validate the data, what decisions are you making or not making in that process, and do a 22 reasonableness test and assessment of whether that is a 23 24 valid conflict between the rules and what is your alternative proposal to solve that problem, and how are you 25

1 going to fix that problem.

2 And I think within the existing framework of 3 reliability assessment under Section 2.15, that capability 4 to do that review and assessment is there today. Ms. Hoffman mentioned the DOE role. I think 5 6 there is also a role for DOE on the must-run perspective on 7 an emergency situation. We've done that before when there are extreme cases. I view that as a little bit different 8 question. The planning perspective is looking more at the 9 10 longer range one-year, two-year, three-year, four-year 11 perspective, but if there is a near-term emergency I think we have an existing backstop as well in the DOE in terms of 12 13 emergency action for a Must-Run view. So my suggestion to the question raised earlier 14 15 on the FERC's role and what can change: 16 We have the ability, the technical talent, the 17 tools, the framework to assess whether reliability is 18 impacted or not. I think we should utilize them. 19 What has not existed in the past is the Commission itself taking a more active role in that 20 21 assessment. So I think there is an opportunity here for the 22 Commission, as these assessments come in, noting the need 23 for exceptions on a case-by-case basis, and they are 24 reviewed by NERC and/or regional entities, that there is an opportunity for the Commission through its staff to look at 25

those and say that those make sense, they do look like
 there's concern.

And secondly, as the national agency responsible for reliability, to communicate those messages clearly to the EPA and allow the decisionmaking process at the EPA to take place.

7 What would the EPA have to do? They would have 8 to, in addition to timely revealing the rules and 9 requirements as we expect them to do, but also lay out a 10 clear decision path for these safety valve types of 11 exceptions to take place at the EPA.

12 So with that I will reserve further comment for 13 questions. Thank you.

14 COMMISSIONER LaFLEUR: Thank you very much,15 Gerry. Mr. Akins.

16 MR. AKINS: Thank you, Commissioner LaFleur, Mr.17 Chairman, fellow Commissioners:

18 Good afternoon. I am Nick Akins. I'm President 19 and CEO of American Electric Power. AEP is one of the 20 largest electric utilities in the United States. We rank 21 among the largest electric generators, and with nearly 22 38,000 megawatts of generating capacity, about 25,000 23 megawatts of that is coal-fired capacity over 11 states, and 24 3 reliability councils, PJM, SPP, and ERCOT.

25

We also operate the Nation's largest transmission

1

system, about 39,000 miles of transmission.

2 So I guess our position is probably well known. 3 We have been very public about it. I do want to talk about 4 some of the issues that it brings up.

5 I just want to go on record as emphatically 6 saying, after extensive analysis that AEP has done of its 7 own system, and obviously to carry forward to other RTOs and 8 seams issues, and things like that need consideration, but 9 we can emphatically say that the timing of these rules is 10 the problem. And, that reliability will be impacted.

11 We have done a very extensive analysis across our system based on our experience of not only the measures of 12 13 operationally what we would require to run from a stability, from an operational integrity standpoint, from a 14 15 transmission standpoint, also from the real-world issues of 16 construction cycles, in-state regulatory recovery approvals, 17 permitting, those types of activities; workforce development, as well as supply chain activities. 18 We have mapped all that out. And for our system, it would take 19 until 2020 to get this done. 20

I believe there should be serious considerations about safe harbor provisions. If you use a time less than that, I believe 2018 safe harbor provisions could work. But there has to be a mechanism in place where we can adequately plan and go through the process. In many cases today, scrubbers and SCRs require approval even from a CCN process
 from our in-state regulators. So those are really issues we
 have to take care of as we go forward with the system.

4 So I do want to address some of the 5 misconceptions that have been in the press and other areas 6 around our plan and what it means to the electric system.

First, I've heard that enough capacity remains and there's adequate reserve margins to address reliability needs. That claim ignores the locational nature of grid reliability. For example, a generating unit that operates in western Pennsylvania cannot provide voltage support for systems in southern West Virginia, for example.

And I think it is important to know that many of these units, of the 6,000 megawatts that we've talked about retiring, many of them provide black-start voltage support and system security concerns. So we have to be able to have time to either replace that capacity or evaluate the solutions, including transmission solutions, to obviate the need for the building of new capacity.

Second, it is true that of the 6,000 megawatts of announced retirements, AEP has already planned to retire and retrofit 2,000 megawatts according to our New Source Review and Consent Decree.

The real issue though is, even our Consent Decree provides more flexibility than what the EPA requirements

1 are. And when you look at it, only one third of that 6,000 2 megawatts is included in the Consent Decree, and only about 3 600 megawatts was required to be retired before the MAC 4 deadline.

So the Consent Decree is an overlay, but it is 5 6 less demanding than the requirement of the cumulative impact 7 of the rules. So the proposed EPA timeline forces us to compress our schedule as much as possible, and in the end we 8 would wind up either delaying units, and basically idling 9 10 units and it would have the same effect from a reliability 11 standpoint and those units would not be available for dispatch. 12

These units--and I just want to reiterate--the 6,000 megawatts in many cases, there's been discussion about the capacity factors of these units aren't that high to begin with, less than 15 percent--that's just not true. Of the 6,000 megawatts that ran in July, that generation was connected 72 percent of the time to the system, and it had a 52 percent capacity factor.

So when you look at those kinds of activities associated with the running of this generation, and in many cases they are Must-Run type of generation, it is important to understand what you are doing and taking away from the system, particularly when you truncate a set of generation like that.

1 The construction time for an FGD has been claimed to be 24 to 44 months. I think you have heard several 2 3 testify that it is much longer than that. AEP has extensive 4 experience. We have spent \$7.2 billion replacing scrubbers and STRs so far, with another \$6 to \$8 billion to spend, and 5 6 we can tell you it takes upwards of 50 to 60 months to go 7 through the regulatory approvals, the in-state regulatory approvals, the permitting, the engineering procurement, and 8 9 the erection of the FGD itself.

I think Tom Ferrell of Dominion stated that three recent FDG projects took him about 54 to 67 months, and Anthony Topazi of Southern says that they require about 54 months. So we are all in the same frame, and we all understand that that is the process that we go through for putting these in place.

In many cases, there are more work hours to put a scrubber and SCR on a unit than it is to build the unit itself. So you really have to understand, it is not just a box you stick on the back of a tailpipe. It literally is a fundamental change to the way these generators operate. And in fact, when the scrubber doesn't work, the unit doesn't operate. So that is a key point.capacity.

23 So EPA certainly understands the environmental 24 issues. FERC understands the reliability issues. And as an 25 operator of facilities, we have to meet our environmental

objectives while ensuring the reliability of service to our
 customers.

3 So we strongly recommend FERC set the parameters 4 for a compressed, multi-year analysis from the industry. 5 You heard several say that there may or may not be a 6 problem. We don't know. That is the issue: They don't 7 know.

8 I think that is the problem we have to get 9 through to an adequate analysis process to fully understand 10 before we change the backbone of industry in the U.S. and 11 everything we do in our lives; we need to understand what 12 the implications are.

13 So that analysis should include not only NERC, 14 the RTOs, and the generation owners, they also need to 15 include the states where unit-specific siting, integrated 16 resource plans, and regulatory approvals are managed. With 17 this coordinated approach, we would be able to handle CSBR 18 and the MAC Rule and avoid endangering any reliability 19 implications to the grid.

20 So there is a better way. AEP's proposal gets us 21 where AEP wants to go, and really I want to make this point: 22 When we talk about 2020, we are not saying run units until 23 2020. We are saying we would continue the process in a very 24 aggressive fashion based upon the real-world implications 25 that we deal with, and we would continually reduce the

1 emissions.

2	We have already reduced SOx and NOx over 85
3	percent, and you are really chasing that other 10 to 15
4	percent. And then as we make progress on that, the
5	equivalent of that 2020 year plan is the equivalent of one
6	year of emissions. Because you are gradually reducing
7	instead ofit wouldn't be any better to truncate in 2018 or
8	2020 than it would in 2014.
9	So those are the kinds of issues that we would
10	like to get resolved. It takes slightly longer, but it
11	results in the equivalent of one year's emissions. It also
12	provides grid reliability, provides a safe and productive
13	work environment. Because in many cases we have looked at
14	it from a workforce development standpoint.
15	We had 8500 contractors on our property at one
16	time doing scrubbers and SCRs, and we were the second-
17	largest construction program of anyone in the U.Snot just
18	utilities, anyone.
19	And to do what the EPA is asking us to do, we
20	would have to have upwards of 25,000 on our property at one
21	time. That is just not manageable. And not achievable,
22	based upon the work sites themselves. So you really do have
23	to think about how you stage this out.
24	So I think really it is also about sustainable
25	job creation and a transformation that is already occurring

int he industry. We are not saying keep our coal units
 running. We are saying: Enable us to make that
 transformation that's already occurring in the industry
 based on shale gas activity, and so forth. That is
 naturally occurring.

6 But we can certainly be more aggressive about it. 7 So our approach is three-pronged:

First, the industry needs an achievable time 8 9 frame and a blanket extension, because it is okay to deal 10 with one-offs in terms of getting DOE approval and 11 everything like that, but if you have multiple units across 12 a system and interconnected with one another, and having 13 those effects that aren't mutually exclusive, you really do need to have a blanket mechanism to provide the flexibility 14 15 for us to do adequate studies to make sure that the options are well considered across the seams, and so forth. That is 16 17 important.

18 Second, RTOs and non-RTO reliability organizations need to obtain complete, detailed plans from 19 20 all generators in order to perform a comprehensive analysis 21 and produce a multi-year compliance plan. We are okay 22 living with a compliance plan. We already have one. We have it out there publicly. And we are willing to live by 23 24 that. And as MISO has noted, there are significant concerns as to how RTOs will manage the staggering number of planned 25

outages occurring within a small time frame requiring to tie
 in all the new retrofit builds.

3 So when I talk about units that take 50 to 60 4 months to do, just the tie-in outage portion of that is 5 between 15 and 20 weeks. So just think about it. If you 6 have multiple units around and you're having to schedule 7 them all at one time, you have to mark these units 8 "unavailable" and they are not available during long periods 9 of time. And the cascading effect would be tremendous.

10 Third, we seek a safety valve backstop mechanism 11 for those generating units that are so critical to grid reliability that removing them from the grid for compliance 12 13 reasons would create a reliability issue. That safety valve would also include an emergency authority to address short-14 15 term needs resulting from an unexpected generation or transmission outages that have immediate impacts on 16 17 reliability.

I continue to maintain that there needs to be not only load-flow studies, but security studies, dynamic stability studies. Because when you take this level of generation out, you really do need to look at the first and second contingency outages associated with that.

23 So it also should include units that are located 24 at critical points on the grid which cannot be removed 25 immediately.

We have had conversations with the RTOS, NERC, the Regional Reliability entities, the DOE, and others on this issue. Our own intensive analysis, as well as input received from these organizations, indicate that simply providing additional time will allow EPA to achieve its environmental goals while achieving five important goals for the electric grid, as well.

8 It will provide the time utilities need to 9 install environmental retrofits with minimal idling or 10 derating of generating units. It will allow unit 11 retirements to occur even over a more reasonable time frame, 12 which is needed to address and minimize grid reliability 13 issues.

14 It will support a stable and safe workforce over 15 a longer period of time. It will provide the industry 16 assurance that material procurement, qualified craft labor, 17 permitting, and regulatory approvals can be obtained in an 18 appropriate manner.

And lastly, it will give local communities time to plan for the potential economic losses, which will be significant.

22 So all this said, it's one thing to have these 23 one-off solutions. It's another to have an adequate 24 analysis so that we all understand the steps that we need to 25 take and we can aggressively pursue that, and certainly AEP

1 is willing to do that. 2 Thank you. 3 COMMISSIONER LaFLEUR: Thank you very much, Mr. Akins. Mr. Moeller? 4 MR. CLAIR MOELLER: It gets a little bit--5 6 COMMISSIONER LaFLEUR: No relation, right? 7 (Laughter.) MR. CLAIR MOELLER: Sometimes we agree, sometimes 8 not so much. 9 10 (Laughter.) MR. CLAIR MOELLER: The evaluation that MISO 11 understood was to investigate two questions. 12 13 One is, on an aggregate macro basis what do the rules mean? 14 15 And then secondly, what can we do to facilitate compliance with those rules? 16 Unfortunately, as has been noted, there is some 17 turbulence in what the rules mean. Our initial 18 19 investigation around the rules included the then-current 20 thinking that the mercury rule would be "maximum 21 achievable." It moved subsequently to "best available 22 control technology, " which had a dramatic effect on how many units would be economically out of the market should they 23 24 have to comply.

So that kind of turbulence has made it difficult

1 to get a clear idea on what compliance really means. The 2 process that the FERC uses with a notice of inquiry, and the 3 notice of proposed rulemaking, and a rule, is more 4 deliberate and gives more horizon to those questions. And the advice I might give would be to be more deliberate about 5 6 those kinds of rules so that it is more easy to see those 7 rules coming and what they might mean.

8 There are short-term issues that are economic in 9 nature, and market-rule in nature as a result, and that is 10 dominantly the compliance with the cross-border state--they 11 keep changing that name, too, CSBR, anyway, and it has to do 12 with the uncertainty around the price of the Emissions 13 Credits.

There is a true-up after the fact so that folks can buy their way into compliance, but if you need to make an offer in a market and you don't know what your marginal costs are you've got risk of leaving a lot of money on the table, and perhaps not sufficiently funding your operation and you won't know that until some months after you made the offer.

So those market rules. And around what "mustoffer" means in our market, what "economic withholding" means, what "physical withholding" means, is going to be an important short-term element that we are going to have to investigate and work on so that our asset owners aren't

found noncompliant when what they are trying to do is conserve their Emissions Credits. So that is a 24-month kind of problem that we are going to have to work our way through.

5 Most of the compliance technology that works for 6 the mercury rule mitigates that plan, but we do have this 7 short-term problem of what that means in the marketplace 8 because folks don't know what their marginal costs are.

9 The long-term problems are a bit more 10 complicated. They fall into a micro problem and a macro 11 problem, so I will try to describe the character of the 12 problems rather than give you a lot of specifics.

13 The micro problem has to do with maintaining NERC reliability criteria in a specific location. The safety 14 15 valve is really good at that kind of problem. We have one plant in the Upper Peninsula of Michigan. If it retires, 16 17 the lights go out in the Upper Peninsula of Michigan. We 18 had to build \$500 million worth of stuff so that that That is really definable; not hard to 19 doesn't happen. 20 figure out. It takes some time to accomplish, but it's not 21 hard to figure out.

The more complicated question is the one of resource adequacy. The states, at least in the MISO, the states dominantly have a statutory obligation to ensure resource adequacy. They have outsourced that through our

1 Tariff in modeling and resource adequacy. Historically, how 2 much generation you need in that risk pool or that insurance 3 pool has been dominated by three or four hot days in the 4 summer. So the risk of insufficient resources really only 5 occurs across 72 hours or so every season.

6 As you think about how much generation you can take out of service at any one time, you start to take risks 7 of insufficient resources in those other months--April, May, 8 So the notion of how much of the 61,000 megawatts of 9 June. 10 steam that we need to take outages on in order to allow them 11 to retrofit, we have to manage that against that backdrop of 12 how big your insurance pool is. That is a complicated 13 animal. We can figure it out, but it is not a trivial amount of calculation to figure. 14

15 How much risk is the right amount of risk to 16 take? My experience is if the lights go out, you took too 17 much.

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(Laughter.)

MR. CLAIR MOELLER: So we need to be very mindful 19 about how to do that arithmetic and understand how much risk 20 21 we are taking. And the states and the state commissions have a strong voice in that risk profile because that is 22 typically their statutory obligation to maintain. 23 So we 24 need to bring the state commissions into this conversation, as well. 25

1 The other thing on the macro has to do with the physical distribution of that generation. If for example we 2 3 conclude we can take in the MISO market 15,000 megawatts out 4 at any given point in time, it can't all be in Indiana. Right? So the distribution of those outages, as well as the 5 6 magnitude of those outages are things that we are going to 7 have to work through and do some serious engineering around what that means. 8

9 The back-of-the-envelope kind of arithmetic would 10 indicate we'll need between three and six outage windows, 11 which take between two and three years if everyone has the 12 supply chain things in place.

13 So what our market participants are telling us is 14 that nominally this is at least a four-year adventure to get 15 your control equipment, if you haven't got any supply chain 16 issues. Then we have the outage management that is another 17 two to three years.

18 So the pragmatic approach to achieving this is, 19 as Mr. Akins pointed out, a deliberate compliance plan that 20 we can all see well and have some horizon on.

There are some economic issues in the middle of all that. Who has to go first? So whoever goes first increases their costs and decreases their efficiency so they're not in the market, while the guys that haven't done it yet have better efficiencies and are in the market. So

you've got some economic dislocations that happen through
 this compliance period that are nontrivial.

3 So that is a market rule question that we are 4 going to have to understand. That is another place where 5 we're working with this Commission. We can help mitigate 6 those kinds of results.

And then the last economic thing has to do with ensuring we don't have artificial barriers to trading capacity across market boundaries. Mr. Kormos talked about that a little bit this morning. That is another place where we think FERC can help encourage moving that up our collective priority list.

We have some tariff barriers to transactions between the markets that we essentially solved inside the markets when we created the markets. Inside the MISO when we created the market everyone now has network service. You don't have to have a point-to-point kind of tariff transaction in order to move capacity within the markets.

We currently still need that point-to-point kind of activity between the markets. If we can solve that same problem between the markets that we solved within the markets, we think that can help ameliorate the prices and keep the cost down so we've got an efficient market and we do this as economically as we can.

Those are the high points. I trust your read my

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1 testimony. I look forward to your questions.

2 COMMISSIONER LaFLEUR: Thank you, Mr. Moeller. 3 That was very interesting. Chairman Kane, a frequent 4 visitor to our conference, and we appreciate you being here. DCPSC CHAIRMAN KANE: Thank you. Thank you, very 5 6 much. It is a pleasure to be here. I have to say my disclaimer first that our General Counsel requires that I am 7 speaking for myself and not for the entire D.C. Public 8 9 Service Commission. And except in the instances where I will be citing a NARUC resolution, obviously speaking for 10 11 NARUC, or where the commission has already filed something on the record with FERC on this issue. And, that nothing I 12 13 say has anything to do with any case open before the D.C. Commission. 14 15 I do not have a prepared statement that I sent for the record, but I did have three documents that I will 16 17 refer to. I know there are copies of those out there. 18 The first is a resolution that was passed by the National Association of Regulatory Utility Commissioners at 19 their summer meeting in Los Angeles July of 2011. It is a 20 resolution on increased flexibility for the implementation 21 of the EPA rulemakings. And I will cite some things from 22

23 there, the kind of collective position of the State Utility 24 Commissions.

25

The second is correspondence from PJM to me in

1 September 29th of this year regarding the announced closure 2 of the Potomac River plant in Alexandria, which has been crucial to downtown D.C., and the end of a history of I 3 4 think D.C. has been the poster child for the experience of 5 the clash between air quality requirements, state air 6 quality requirements, federal air quality requirements, and reliability concerns. And some of the history I know GenOn 7 is here on also and will be speaking to some of that also. 8 I want to say a little bit about sort of what we learned 9 10 from that.

And then the third is a document, a presentation that was made by the Energy Zone's Work Group, which I am a part of, for the Eastern Interconnection Planning Council, better known as "Icepick," which is the one matter that the Department of Energy has required EIPC to address, and that is planning for Energy Zones in the entire Eastern Connection, the 39 States and the District of Columbia.

18 And I wanted to bring that up because I think throughout this process one of the things is to be aware of 19 20 how much work is being done by the EIPC organization and the 21 EIPC states, and then together with the planning authorities in terms of looking not only short-term on transmission and 22 generation but all the way to 2030; that the planning, the 23 24 scenarios, the modeling, both for traditional and for Energy Zones, is going out that far. And I think that process, 25

which has got about another year and a half to go, hopefully
 will provide some very useful information both to the states
 as they go forward and to the federal agencies.

4 The resolution passed by NARUC this summer, which was strongly debated and hotly debated, and was finally 5 6 passed, points out, number one, that there are many 7 strategies available to the states and utilities to comply with EP regulations. It points out what others have said, 8 9 that a retrofit timeline for a multi-million dollar project 10 may take up to five years; that sometimes these timelines 11 may be lengthened by the large number of multi-dollar projects that will be in competition for the same skilled 12 13 labor and other resources; that NARUC recognizes that flexibility with the implementation of EP regulations can in 14 15 the long run lessen generation cost increases because of 16 improved planning, et cetera.

17 That some generators that will be impacted by the 18 new rulemakings are located in constrained areas or supply-19 constrained areas--transmission constrained or supply 20 constrained areas:

And that, recognizing that FERC has authority over electricity system reliability and is in a position to require generators to provide sufficient notice to FERC, to system operators, and to state regulators of the expected effects of the oncoming, forthcoming health and

1 environmental regulations.

And so the resolution, the RESOLVED section, 2 3 calls upon efforts by state and federal environmental and 4 energy policies that will allow the utilities to coordinate 5 the closing and retrofitting of existing units in an orderly 6 manner to ensure the continued supply of electricity, will 7 allow power generators to upgrade their facilities in the most cost-effective way, while at the same time achieving 8 efficiency gains and environmental compliance; and primarily 9 asks that the commissions, that is state commissions, should 10 11 encourage utilities to plan for EPA regulations. And, most 12 relevant here, that FERC should work with the EPA to develop 13 a process that requires generators to provide notice to FERC, to system operators, to state regulators, of expected 14 15 effects of the forthcoming regulations, and that NARUC and its members should actively coordinate their environment 16 with their environmental regulatory counterparts, and our 17 18 state environmental agencies who also need to be recognized as part of this process, with FERC and with this power 19 sector so that there would be flexibility. 20

21 On the issue of flexibility and on the issue of 22 notice, we at the D.C. Commission note that PJM, which we 23 are a part of, has supported or filed regarding a two-year 24 notice period for a generation retirement. We have filed 25 actually in previous proceedings at the FERC, in 2005 for example in a RPM proceeding, supporting a two-year minimum
 notice requirement, not only for this EPA rulemaking but we
 think for any generator retirement.

4 Our own experience, to move to the Potomac River 5 plant, in 1999 when we were required by state law to have 6 our incumbent operator divest itself of its generation assets and become simply a distribution company, we were 7 advised that the three plants that we rely on--two in the 8 District and one across the river in Alexandria, Potomac 9 River--they included Must-Run units, and activation of those 10 11 units would create reliability concerns.

And so in our settlement on divestiture, we 12 13 actually required a five-year notice for the retirement of those plants. And that was done in 2007. The owner of 14 15 those plants informed us that Benning Road and Buzzards were going to retire in May of 2012. And that is on track to 16 17 happen. And that has given us enough time to have the 18 alternative 230 kV lines that needed to be built so that those plants, which are just peaker plants, would not be 19 20 needed anymore. Even though we waived a six-month notice 21 period that's required for our Department of Transportation, it still has taken, will take a little over three years to 22 build just those two 230 kV lines from Benning Road, just 23 24 north of here, out to Richie, which is out in Prince Georges County, out in the Route 50 area. So just a fairly simple 25

project, underground. It involves two jurisdictions, the District, crossing Kenilworth Avenue, going along Route 50. It's going to take a little over three years, and we waived a six-month requirement to do that.

As I said, this five-year notice requirement in 5 6 the settlement agreement included Potomac River. But in 7 August of 2005, essentially on August 24th, we got two days notice that that was going to close. And as I know you are 8 all familiar with the history of that, I would just say that 9 10 ultimately that was to be closed because of alleged 11 violations of the Virginia--by the Virginia Department of 12 Environmental Quality of the Clean Air Requirements.

13 We filed immediately to ask FERC and DOE to order the plant to continue to operate. It was crucial to the 14 15 downtown sector of the District, including the White House 16 and other important agencies. And voluntarily the company 17 did put it back online. It was not until December 20th of 18 2005, and January 9th of 2006, that we did get orders from FERC and from DOE requiring that it be put back on line--and 19 until there would be construction of again lines that could 20 21 bypass that.

In that case it took only 18 months to get the two additional 230 kV line, transmission lines, and two 69kV lines built, but that was partially because we already had the conduits under the river. So that was not a typical 1 case.

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Staff tells me--I wasn't on the commission at the 2 3 time--but they were praying every day that there was not to 4 be any peaks during that time. This was August going into 5 September, and we were fortunate that that did not happen. 6 So most recently in that case we then were 7 notified--well, environmental groups this summer began 8 pressuring very hard to have the Potomac River plant closed 9 again. And we then asked PJM to do a study on the 10 reliability implications of that. We had been told that 11 with these lines being built we would be okay, but that was 12 several years ago and we wanted to be sure with the growth 13 in load, et cetera, that that was still the conclusion. And we did receive a letter from PJM saying that 14 15 it would not cause a problem if it was closed in 2012. And there were reliability concerns that would occur, start to 16 17 occur in 2016, but that the work-arounds and the additional 18 transmission and other things that needed to be done, some were in the pipeline already, and the rest could be done by 19 20 2016. And then as you know, just about a month later, 21 22 the owner of Potomac River announced they were going to close, reached a settlement with Alexandria in October of 23

25 process going all the way back to 2005, and it had a year-

2012. But it was only because we had already had that

and-a-half to build the lines that were needed, which were completed in June of 2007, that we then had enough time. And I bring that up because there are small plants. The distances are very small. And yet it took quite a bit of time in order to be able to meet those deadlines.

6 And then finally, as I said, we also believe that state public utility commissions, and state environmental 7 regulators and other stakeholders need to be involved in the 8 9 RTO reliability and safe harbor process. In the District and in many other states, not just the state commission has 10 11 a role in siting, and transmission, in generation siting, et 12 cetera, and it is also very often the state environmental 13 department and other regulators.

And finally, we say that any retirement process should be coupled with firm construction schedules and timelines which are enforceable and monitored to ensure that adequate generation and transmission facilities, or demand side solutions, exist in the future to cover whatever needs to be taken, or what will be taken out of service.

And let me come back again, just briefly, to Icepick, because the Department of Energy has invested, is investing \$14 million in this process. There are 39 states and the District of Columbia and the City of New Orleans, which is an independent utility regulator, to the surprise of many people have actually been working together and has

actually reached agreement on nine scenarios with eight
 sensitivities each. So 72 different combinations of what ifs for planning all the way out, for transmission planning
 all the way through 2030.

The base case and the basic assumption in all of 5 6 those is that the EPA regulations will be in place. That 7 was just an assumption that's made and is built into all the results and all the scenarios there. Other things, such as 8 carbon trading, et cetera, are sometimes in and sometimes 9 10 Price of gas, et cetera. And there's very extensive out. 11 work being done on the Energy Zones.

Ultimately, one of the tools that is available to 12 13 states to cope with -- and to utilities to cope with the effect of the rules, the EPA rules on plant retirement -- are 14 15 alternatives such as renewable energy, such as demand 16 response, such as energy efficiency. We have a sustainable 17 energy utility that's been established in the District. Tt. 18 is required by contract to reduce energy consumption in the District--overall energy, not just electricity--by one 19 20 percent a year for each of the succeeding years. Goals like 21 that.

And also, enforceable RPS standards. So there are tools in the toolbox. This can be an opportunity, if there is enough time and if there's enough flexibility. Thank you. COMMISSIONER LaFLEUR: Thank you very much,
 Chairman Kane. Next we will call on Commissioner Roberto of
 Ohio.

OHIO PUC COMMISSIONER ROBERTO: Thank you,
Commissioner LaFleur, Chairman Wellinghoff, Commissioners,
and colleagues:

7 My name is Cheryl Roberto. I serve as a 8 Commissioner on the Ohio Public Utility Commission. In 9 appearing before you today I represent both myself and my 10 commission. We have filed comments in this docket.

11 The Ohio Commission welcomes this opportunity and 12 expresses its gratitude for this Commission's leadership. 13 Our commission has much to share regarding the authority and 14 relationships that it can contribute to resolving 15 reliability issues.

Ohio is a coal state. Ohio safeguards its natural environment. We do not find these statements to be mutually exclusive. The mission of the Ohio Commission, as well as that of other state commissions around the country, is to support the economic and environmental policies of our state while we assure customers access to adequate, safe, and reliable utility service at fair prices.

23 Ohio is reliant upon coal-fired power, and 24 particularly vulnerable to reliability and price impacts 25 from plant retirements. As such, Ohio must be a principal architect of its own destiny when it comes to mitigating the
 local reliability risks presented by impending and expected
 power plant closures.

The Ohio Commission has the authority, relationships, and the will to engage constructively in investigating, evaluating, and selecting solutions to unitspecific reliability risks. These solutions will require multiple strategies, collaboration, and time.

9 For that reason, the Ohio Commission is 10 supportive of the RTO's safety valve proposal, but with 11 modifications. In restructured states like Ohio, the RTOs are best suited to identify the criticality of a specific 12 13 retiring power plant. They are capable of quantifying the location and magnitude of the reliability problem. However, 14 15 the optimum solution to the reliability challenge may be outside of the RTO's authority. 16

17 If all potential solutions, including but not 18 limited to the retrofits, transmission reconfigurations, 19 energy efficiency, demand response, distributed generation 20 including looking at combined heat, power, and waste energy 21 recovery opportunities that may be available to resolve the 22 reliability problem, then states must conduct the evaluation 23 of alternatives.

Our residents, commercial, and industrial facilities are those who will bear any harm from reliability

risk, and the cost of risk mitigation. The Ohio Commission
 is in the best position to determine that resolution for its
 constituents.

4 A safety valve proposal should be modified to direct the RTO to refer the reliability critical situation 5 to our state commissions, together with its recommended 6 The state can undertake its evaluation and select 7 solution. the optimum solution for its state on behalf of its 8 9 citizens. A state commission should advise the RTO of the selected solution, and only then should the entity 10 responsible for implementation proceed. 11

12 This Commission could advance this result by 13 directing the RTOs to amend their tariffs to provide 14 explicitly for the integration of state commissions into the 15 solution-selection process.

My colleagues at the Ohio Commission and I thank 16 17 you for the opportunity to participate in this technical 18 conference. As I mentioned, we have filed more 19 comprehensive comments, and I would be pleased to try to answer any questions that you may have on those comments. 20 21 Thank you. 22 COMMISSIONER LaFLEUR: Thank you very much. Mr. Baker. 23

24 MR. BAKER: Commissioner LaFleur, Chairman, and 25 other Commissioners, thank you for this opportunity to

1 provide highlights to my written comments.

My name is Eric Baker. I am the President and CEO of Wolverine Power Cooperative. Wolverine is unique in that we are a Michigan-based not-for-profit generation and transmission co-operative, and we are one of just a handful in the United States that are privately financed and regulated by this Commission.

8 We have been a MISO member for many years, and we 9 have recently acquired generation assets and load-serving 10 obligations in the PJM region. My comments today will be 11 brief, I promise, and will focus on the safety valve 12 approach, a proposal as outlined by various RTOs in comments 13 to the EPA.

First, Wolverine applauds FERC for recognizing the importance of RTOs and a broad regional view of transmission grids and power markets. We encourage FERC to continue to look to RTOs to facilitate regional planning. On balance, MISO's efforts to enhance regional markets and regional planning in the Michigan area have been an enormous step forward.

Now on the safety valve itself, Wolverine generally supports the safety valve concept to ensure reliability while continuing the march toward improving our mission profile in our industry.

25 As has been said before many times today, time is

1 of the essence. Transmission generation and environmental 2 retrofit solutions are all going to take many, many years to 3 accomplish. Wolverine is painfully aware of this multi-year 4 approach. We are in the sixth year of the permitting phase of a solid-fuel plant. Construction of that plant could not 5 6 be completed for at least an additional five years from now. The location of that plant is situated such that it can 7 greatly improve the reliability, greatly reduce transmission 8 congestion and losses, and yet it's a decade-plus 9 alternative. 10

Wolverine believes the RTOs are in the best position to evaluate the reliability impacts of individual unit shutdown, and they are in the best position to make safety valve determinations.

Michigan in particular, and most of Michigan, is comprised of three transmission owners, two reliability organizations, and two peninsulas, neither of which rely on the other or look to the other to provide reliability support in any meaningful way. And this is a problem. And I know that MISO is deeply involved in this conversation.

I would like to also add two cautions regarding the safety valve. First is, this cannot be the vehicle to kick the can for future--or to delay future environmental retrofits. The industry has to come to grips with the fact that we can retrofit, we need to retrofit, and it will take time and it will take a lot of money but we have to come to grips with that. And so the safety valve can't be the kickthe-can to hope and pray for some new legislation, or regulation that mitigates the need to do this.

5 Second, new projects have to be considered in the 6 safety valve determination. It can't continue to look at 7 only existing power plants as the vehicle to maintain grid 8 reliability. Having said that, we have to contemplate that 9 new supply must be constructed to maintain the grid 10 reliability that is second to none in the world in our 11 industry.

12Thanks for this opportunity to provide comments,13and I look forward to questions and further dialogue.14COMMISSIONER LaFLEUR: Thank you very much, Mr.

15 Baker. And lastly, Ms. Raggio.

MS. RAGGIO: Thank you, Commissioner, and goodafternoon Chairman and Commissioners and staff:

18 Thank you for giving me the opportunity to 19 address an issue that is near and dear to my hear and my 20 company's heart--in particular, my CEO.

The issue is not intended to influence the upcoming EPA regulations or the timing of the regulations. This is a separate reliability issue. Since it's a panel on reliability, it's the perfect time to raise the conflict that arises when a generator is unable to run because of an environmental limit, but then is subsequently ordered to run
 by DOE for an emergency under the infamous Section 202(c) of
 the Federal Power Act.

DOE has used this authority twice for generation assets. Both times, Mirant Corporation--my predecessor company--ran solely to keep the lights on and would not have otherwise run, due to environmental limits on the plant, which it would not have violated.

9 At the San Francisco Petraro plant, Mirant ran to 10 keep the lights on in 2001. There was quite a bit going on 11 then in California. We had permit waivers from both EPA and 12 the State Air Board saying please run. Keep the lights on. 13 We did.

We were subsequently sued by an environmental 14 15 group and the City of San Francisco for violating our permit 16 in keeping the lights on. In 2005, at the Virginia Potomac 17 River plant, the plant shut down temporarily due to 18 environmental limits in Virginia. And then due to the D.C. PSC's petition and DOE's order, the plant ran to keep the 19 lights on in D.C. And we were subsequently fined by the 20 21 State Environmental Agency and received a NOV for exceeding an environmental limit, which we would not have exceeded but 22 for the DOE Order. 23

I am glad that order worked out for DOE and for the DCPSC--

1

(Laughter.)

2 MS. RAGGIO: --but it didn't work out that well 3 for us. If we had violated a permit in running over a 4 Potomac River, we would have had the same citizen lawsuit 5 liability that we faced in San Francisco, and that involved 6 big dollars.

7 The conflict between 202(c) and the Federal Power Act and environmental statutes will become more prevalent as 8 environmental regulations are ratcheted down and plants are 9 needed for reliability, or for cybersecurity reasons. 10 There 11 could be a reason a plant needs to run for cybersecurity, and it can't because of an environmental limit. 12 You are 13 going to have this conflict arise again.

I have to disagree with my panelist from DOE that 14 15 202(c) protects you from reliability when you can't run 16 because of an environmental permit. Although a case of 17 first impression and not decided in the court, statutory 18 construction and our legal advice directs us that the Clean Air Act actually would trump the Federal Power Act legally 19 20 because there is no carve-out for reliability in the Clean 21 Air Act, which came after the Federal Power Act. And plus, 22 the Federal Power Act has been amended, and there was no 23 carve-outs included. The theory is, Congressional intent 24 was that there shouldn't be a carve-out; that the Clean Air Act should trump no matter what. My personal opinion is: 25

1 Nobody thought of this.

And it just started happening, now that you're getting to lose your head room on environmental emissions because they're getting ratcheted down.

5 The conflict is unfair. And more importantly, it 6 creates a reliability issue. In order to run for 7 reliability, a company must not face liability for something 8 it would not have done "but for" a DOE Order to run.

9 Now this doesn't mean a company can operate 10 outside of environmental compliance with impunity, and it is 11 not the intent. Compliance with environmental laws is 12 paramount. But blackouts also create environmental and 13 health issues.

For example, running the Potomac River plant did result in one three-hour NAX violation. But a blackout in D.C. would have resulted in a sewage treatment plant dumping raw sewage into the Potomac River. And as we have learned, people die when there are blackouts, which I think would constitute a clear public health issue.

20 So to be clear, this issue comes into play for us 21 when there is a true emergency: an action must be taken to 22 avoid a blackout, usually with a limited amount of time.

23 With enough time and advance notice, there may be 24 credible safety valves or ways to protect a company that 25 must operate for reliability reasons. I am not opining on

that here. There would have to be a solid legal basis to make me comfortable with that, but there may well be. But in recent discussions with these regs, and again on this panel, section 202(c) has been cited as a cure-all or an ultimate fail-safe to protect reliability. And this is not true.

7 In a true emergency, Section 202(c) will not 8 ensure that a plant operate if doing so subjects it to 9 unlimited citizen lawsuit liability and enforcement action. Since reliability is a key issue right now, it is the 10 11 perfect time for FERC and EPA working together, and DOE, to support some kind of amendment so that Section 202(c) can in 12 13 fact be used to protect reliability during an emergency, and provide a true reliability failsafe during emergencies. 14

We can work together. We can work on--we've heard Ms. McCarthy say together we should be working together as groups. I think this is a perfect opportunity to do so. And I am happy to answer any questions. Thank you.

20 COMMISSIONER LaFLEUR: Thank you very much,21 Ms. Raggio.

I guess I will start with Debra's anecdote because it is so fresh in my mind. I guess I have a couple of questions for the other panelists.

25 Is this issue of needing protection from citizen

suits, or multiple layers of government--I mean, because I
had thought if the EPA gave compliance flexibility, they
generally do it with their corresponding state
environmental, but apparently that wasn't the case--well it
certainly wasn't the case. You didn't go through the EPA in
Virginia. And in San Francisco, when even then you had the
state environmental, you faced other liability.

I quess I have two questions that I'm interested 8 9 in thoughts on. Is this an issue just with 202(a)? You know, the limited backstop? Or would this need to be 10 11 something that was addressed for other types of safety valve or failsafe measures which would be a broader issue? 12 And my second question is, and with all due 13 respect to--I know we have members of legislative staff and 14 15 all in the audience--given the difficulty of getting anything passed right now, is there a non-legislative 16 solution to this issue? 17 18 (Pause.)

19Those are easy questions. Why isn't anyone just20stepping up?

(Laughter.)

21

22 MS. RAGGIO: You're going to have to repeat the 23 first one for me.

24 COMMISSIONER LaFLEUR: The first question is: Do 25 you need this just when you have the 202 Order from the

Secretary of Energy? Or if we had another kind of safety
 valve, would you still--like say the Presidential permit
 thing that EEI wants went through, would you still have this
 citizen suit potential, or not?

5 MS. RAGGIO: I've got it. My understanding is, 6 with the Presidential provision in EEI that that is covered 7 in the statute. So you do have a statutory ability to 8 control that. And then you're not in violation--

9 COMMISSIONER LaFLEUR: In the Clean Air Act, 10 rather than we just found out not that powerful a statute--11 MS. RAGGIO: In the rules that are coming out. 12 You do have that ability with respect to HAPMAC alone. 13 Now I think you have the problem with--a 202(c)

14 problem, or would ultimately become a 202(c) problem, 15 because let's say you have a unit that needs to run for 16 reliability, and you say I'm going to issue you an RMR 17 contract. And they say, fine and dandy, but I can only run 18 600 hours this year.

19 If you want them to run more than 600, you have 20 this problem. And you have ruled, FERC has ruled that your 21 Must-Run obligation does not require a unit to run in 22 violation of a permit.

23 So somebody would say: I'm sorry, I'm not going 24 to run in violation of a permit. So the next step you would 25 take would be--someone would take, would be to go to 202(c)

for an emergency order. Or, as the DCPSC did do, they filed for action by you under 207 of the Federal Power Act, which by the way you've never used, and it allows you to assure adequate power, adequate electricity if a state agency asks you to do so.

There are legal arguments saying that -- I don't 6 want to get too in the weeds--but that would protect you 7 because it's mandatory on your part to do something, rather 8 than discretionary. DOE's authority is discretionary. But 9 10 once again, when you're a company facing this and you've got 11 to make a split decision, these are all arguments that you get to make when you're being sued five months later. 12 13 They're not things that you have happen.

And I would say you run a real risk of a company saying, you know what, I'm going to go into court and have them tell me what I should do before I run or violate the Clean Air Act.

18 COMMISSIONER LaFLEUR: So is there a non-19 legislative solution? Or do we need to amend--you're 20 amending the Federal Power Act?

MS. RAGGIO: Well we really do need an amendment to make it clear. I know that's difficult, but one thing you could do would be support it. I think if everyone got together and went in and tried to push for something where you ultimately had protection in a true emergency, that

1 would be very helpful.

You know, I guess your RMR contract could provide 2 that you reimburse the company for penalties it incurs or 3 4 for a citizen lawsuit liability it incurs if you make them They still have the black mark of having a violation, 5 run. 6 which no company wants. 7 COMMISSIONER LaFLEUR: And defending the lawsuit. 8 MS. RAGGIO: Yeah, but you could reimburse them 9 for that. 10 (Laughter.) MS. RAGGIO: I mean, if it's monetary--11 COMMISSIONER LaFLEUR: They still have to defend 12 13 the lawsuit, knowing it's the customers' money, it's not perfect. 14 15 MS. RAGGIO: Yes, exactly. But I guess I was thinking that, sitting out in the audience, take it for 16 17 that, but I was trying to come up with another option. 18 COMMISSIONER LaFLEUR: Does anyone else want to 19 step into this? 20 MR. CAULEY: Well obviously I'm not qualified as 21 a legislative or regulatory attorney, but I'll phrase my 22 comment as a question and hopefully everybody will take it 23 that way. 24 It seems that the idea of a Must-Run Unit seems to be a last resort; that there seems to be a more rational 25

planning and sort of forward-looking process that would work. And I think there is an opportunity within the EPA regulatory process to have allowances for such mechanisms to kick in.

So I don't think we are trying to solve world 5 6 hunger, all environmental issues, and all permitting issues, all places, and all times right now. The question is the 7 8 impact of the EPA regulations on reliability. So it seems 9 like there is an opportunity within the EPA rulemaking 10 framework to have certain allowances for reliability 11 exceptions or safety valve mechanisms within their rulemaking framework. At least get relief from those rules 12 13 that they are proposing, and that was framed as a question, not being a lawyer. 14

15 COMMISSIONER LaFLEUR: Well thank you. My second question: Somebody this morning--I don't remember which 16 17 panelist it was--said they hoped that whatever we come up 18 with to bring some flexibility and coordination into 19 implementation challenges, whether it's a safety valve, or a 20 permit, or just working it through the EPA enforcement, 21 flexibility that they have, whatever we come up with not be 22 bureaucratic, and it be simple and not bureaucratic, which I mean how can you disagree with that in principle. 23

24Over the course of the day I think I have heard25at least seven different parts of government that should

play a role in some respect. You know, the states have
 roles to play. Everyone agrees. NERC has a role to play.
 FERC may have a role to play. The RTOs have a role to play
 in the parts of the country that are organized. And these
 issues are very iterative.

6 It is not as if, you know, you just can say is 7 there a reliability issue? Well it depends on what 8 assumptions you make about other resources and when they are 9 coming in and all, which then ties to the new regional 10 planning under Order No. 1000 and so forth.

11 So I am wondering if people have a sense of --12 ultimately I know the next shoe to drop is what comes out in 13 the MAC Rule, but is there a simplicity we can bring to this process through either the Regional Planning process, 14 15 through the NERC umbrella as Gerry suggested? I am not trying to cut anyone out. I just fear that if it's a very 16 17 multi-faceted thing, it will be exactly the kind of kind of 18 bureaucracy we talked about not wanting.

MR. AKINS: I definitely agree with that. Dealing with multiple agencies is not an easy proposition, and I think it is important for us to have a clarity. I mean, we already have the processes in place to evaluate these things from a regulatory and from a reliability perspective. So that is why, you know, the blanket extensions of the year extension the EPA could give, plus

the two years that's in the EEI model makes a lot of sense because you're not dealing--you start the process when you go through the existing process and procedures to get that done, and then I think it is important that the way you do that we'll be able to manage around.

6 Because I think there's probably some adjustments 7 that the EPA can make that would mitigate those back-end years as well. I think it is important, though, for us as 8 operators to be able to send it to the RTO, and the RTO can 9 10 do it from an independent fashion, the analysis. Get us the 11 approval back so we could submit a plan to the RTO. 12 Everyone submits their plans to the RTO. Do the 13 evaluations. And then get back with us on what it is we can achieve under what time frame, and then we take it back to 14 15 the states.

That seems like an obvious answer.

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17 COMMISSIONER LaFLEUR: Well, but for the 202 or 18 207, you know, one-off, the real exceptions, the backstop to 19 the backstop, it's an EPA decision and everyone else in some 20 way, shape, or form is an advisor? I mean, the RTO is 21 saying here is a plan we have. Or NERC is saying we think 22 there's a problem here?

23 MR. AKINS: I think the EPA certainly for the 24 extensions of time, and the President obviously. And then 25 outside of that, it's the RTOs because obviously--I don't

1 think the EPA wants to take any units offline that are going to truly impact reliability. The RTOs are in place because 2 3 they are independent bodies to evaluate that. 4 And certainly under FERC authority, too, that 5 exists. 6 COMMISSIONER LaFLEUR: And you operate in both 7 RTO and non-RTO regions, right? MR. AKINS: Well, we're--8 COMMISSIONER LaFLEUR: You're multiple RTOs. 9 MR. AKINS: Yes, multiple RTOs. 10 11 COMMISSIONER LAFLEUR: But there are of course 12 non-RTO regions. 13 MR. AKINS: That's right. COMMISSIONER LaFLEUR: Pat? 14 15 MS. HOFFMAN: Commissioner, if I can add to that, 16 one of the important things that we need to think about is 17 how can we develop a level of transparency, the right amount 18 of transparency that's required for the right entities, so it's having the right information with notifications. 19 It's

doing the proper analysis in a timely fashion. It's getting that analysis to the appropriate entity so that the decisions can be made whether it is by EPA in a coordinated fashion with a set of units, that it may potentially have reliability concerns; or it is to a state if the regulations go under Title 5 and under the SIP thing then they have the

1 decision authority with the extensions.

2 So it is making sure. And unfortunately it is 3 going to involve many agencies. But if we can all build off 4 of the same fundamental set of information and the analysis that's required, then I think we can actually streamline 5 some of the decisions that need to occur. 6 7 COMMISSIONER LaFLEUR: Commissioner Roberto? OHIO PUC COMMISSIONER ROBERTO: Thank you, 8 9 Commissioner LaFleur. I guess I would like to suggest that, while it 10 11 seems to be bureaucratically overwhelming to include all of the entities that have something to contribute, excluding 12 13 anyone of them, including the state commissions, excludes potential solutions. 14 15 I would suggest -- and my colleagues at the Ohio Commission suggests -- that we have authorities and 16 17 relationships on a statewide basis that allow us to sit down 18 with the colleagues that we have inside of the state, 19 including the Ohio EPA, the Ohio Air Quality Development Authority, the Ohio Department of Natural Resources, the 20 21 Ohio Department of Development, our Power Siting Board, our 22 commission. Those are the agencies that together can create solutions and put together innovative ideas. 23 24 We are concerned that relying exclusively on the

RTOs for both the issue identification and quantification

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and the solution will require the RTOs to reach into the tool bag that they have, which is transmission. If you give it back to the state, we have the opportunity to understand what is the gap that needs to be closed, and how can we close it?

For instance, in Ohio we could determine the --we 6 7 could be told: Here is the area that you have a geographic shortfall. Here is the type of shortfall that you have. 8 Then we could go out, working among our colleagues in the 9 10 state and with our larger customers and find out, for instance, that we may have industrial units who are facing 11 12 mass industrial boiler regs in April that will create for 13 them the need to make new investment. Perhaps we can piggyback on that need for investment and our own state's 14 15 desire to move into renewables and energy efficiency to 16 encourage the siting of distributed generation that can help 17 fill that gap.

We also have energy efficiency portfolio standards that are imposed upon our distribution utilities, and we can partner with them for possibly localized energy efficiency efforts.

What we are suggesting is that it's not perhaps a single solution to a reliability problem in a location. It can be a package of solutions. And that the states are in the best position to get people at the table because of the

1 bureaucracies.

2 COMMISSIONER LaFLEUR: But most of what you have 3 said is not pertinent just to these dealing with an EPA 4 regulation power supply changes. Do you feel those processes are--do they already have a voice in regional 5 6 planning in, for example, non-transmission alternatives, or 7 through regional states? I mean, because regardless, even if the EPA were not changing rules, power supply is changing 8 9 for all kinds of other reasons, and transmission is being built for all kinds of other reasons. 10 11 And a lot of what you just said about the state and the distribution resources and coordinating would apply 12 13 to those things. Is there a -- you must have a voice in some respect in regional planning through the stakeholder 14 15 processes? Is that resonating at all? 16 (Laughter.) 17 OHIO PUC COMMISSIONER ROBERTO: Thank you, 18 Commissioner LaFleur. Please understand, in a restructured market we don't do integrated resource planning top to 19 bottom as my colleagues in Colorado and South Carolina do. 20 21 So in proposing to this body that we should have a role in the reliability solution, it is for the limited 22 purpose of identifying the solution to that particularized 23 24 problem. 25 COMMISSIONER LaFLEUR: Thank you. I stand

corrected. And I am from a restructured part of the
 country, but there still are debates in how the ISO model
 transmission because the states can provide this or that,
 but thank you.

5 DCPSC CHAIRMAN KANE: I might add on that, and I 6 would agree, we are totally restructured, too. We are 7 actually prohibited by law from regulating retail sales of 8 electricity in the District.

9 But it is again timing. We do participate 10 through OPS in the other states in the PJM process, but in 11 addition to the impact of the EPA rules, there is a problem with the fact that there is only a 90-day retirement notice 12 13 under the PJM rules. And you can't do anything in that time You can't look at--you can't reference your 14 period. 15 colleagues in other states. You can't look at supply side. You can't look at demand side distributed generation. You 16 17 can't look at what's coming down the line.

18 The other problem is that in the RTO process the transmission process, which is an ITEP process--this is five 19 20 years, they do five years out--that is why we know that when 21 they said there would be a problem with Potomac River shutting down in 2012, the problem would occur in 2016, you 22 can look in the ITEP and see, okay, some of those things 23 24 that are needed are already in there. And we know there's enough time. 25

On generation, it's very different. It's not tight. It's uncertain. Generation plants come out of the queue. They can move up. So you really do need a lot more time, and you need a lot more than 90 days' notice that something is going to close, for whatever reason.

6 COMMISSIONER LaFLEUR: I know you weren't here 7 this morning, but we had a lot of conversation with Michael 8 Kormos from PJM on their proposal on that.

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Mr. Moeller.

10 MR. CLAIR MOELLER: This is one of the spots 11 where regional differences really do amplify themselves. In 12 the MISO states, they are all traditionally regulated except 13 for Illinois and a little bit of Ohio that is still within 14 our market.

In those other states, they are decisional in terms of what the utilities will do in terms of generation or DSM or whatever it might be. So in that model, in fact they are the last point in the decision. The RTO advises. And it's the states that decide what is in fact in the public interest.

Another point I would like to make is that there is no amount of transmission that can replace a generator. The transmission can increase the size of the risk pool and reduce the required reserves, but they don't replace each other. So the notion that an RTO would go to the only tool

1 it had, which is transmission, it can't fix the resource 2 adequacy problem with transmission. It's just technically 3 not achievable. 4 COMMISSIONER LaFLEUR: You mean, to transmit. 5 Yes. 6 (Laughter.) MR. AKINS: Just a quick point. Commissioner 7 8 Roberto is one of my Commissioners, so I'm just adding on to 9 her point. 10 (Laughter.) 11 MR. AKINS: Just to give you an example, the 6,000 megawatts that we've talked about having to retire, 12 13 we're only replacing 1,500 megawatts of that. The rest of it is really based upon transmission solutions and, as well, 14 15 energy efficiency, demand-side management, those kinds of 16 things. So it does argue for--and we believe--the RTOs 17 18 and the state should be working together because for those 19 issues that we have to go back to the in-state regulator for cost recovery, they definitely have to be involved with that 20 So they'll have to understand the issues that the 21 process. RTO is dealing with as well, particularly if you get into 22 seams issues where there's a larger transmission solution 23 that's effective as well. 24

MR. CAULEY: Sorry to belabor this one, but I

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think it is a crux type question. Because I think we too
 would like to see it be as simple as possible.

3 The difficulty is the issues themselves are 4 extremely complex, and there's a lot of different facets of making a technically reliable system. But the process is 5 There's a lot of stakeholders. 6 also complex. There's different models about how the decisionmaking process takes 7 place. And there's a lot of different way states are 8 9 engaged and so on.

10 So my suggestion is that the simplest approach, 11 even though it may seem complex on the surface, is to use 12 the mechanisms we have in place, the decision-making 13 frameworks we have in place today, the involvement of the 14 states, the involvement of the RTOs, the planning 15 authorities, NERC's review of assessments. I think 90 16 percent of it is better.

You can conceptualize a one-stop shop to go, and you can conceptualize that that might be simpler, but at that point you're ignoring all these other decision processes that really have to take place. So you are making it more difficult and more complex.

Probably the only two things I think have to change from current state is I think there's an opportunity for the Commission to acknowledge where reliability issues do seem to be of concern, and communicate those to the EPA;

and for the EPA to have a regular transparent process for
 accepting those findings and taking action on those.

3 COMMISSIONER LaFLEUR: Well thank you very much.4 Mr. Chairman?

5 CHAIRMAN WELLINGHOFF: Ms. Raggio, just to follow 6 up a little bit with some trepidation on this issue on the 7 202(c) as far as its effectiveness or noneffectiveness and 8 the need or not-need to amend it:

9 I'm just curious. You indicated that you were 10 ordered or--hypothetically, not you, but a company was 11 ordered to run a unit for emergency under 202(c), and they 12 knew that they could be subject or would be subject to a 13 potential lawsuit or penalties because of environmental 14 violations they likely then would not comply with the DOE 15 Order? Is that what you were saying?

MS. RAGGIO: I think that is a risk. I know when we were faced with the issue, we worked together with DOE and EPA and had the choice of being enforced against or reportedly being put in jail for violating the Federal Power Act.

CHAIRMAN WELLINGHOFF: Well that was my question,
I guess. What are the penalties under the 202(c) side?
(Laughter.)
CHAIRMAN WELLINGHOFF: If you don't comply with

25 DOE?

1 MS. RAGGIO: Well, you know, it's ironic I'm having to say which thing I want, penalty or jail --2 3 CHAIRMAN WELLINGHOFF: The lesser or the higher 4 penalty. MS. RAGGIO: Yes. If you're going through that 5 6 analysis, I would argue that jail under the Federal Power 7 Act would be for a knowing and willful violation. 8 CHAIRMAN WELLINGHOFF: Right. 9 MS. RAGGIO: And you've got an agency ordering 10 you to violate another agency's federal law. And I don't think that would be "willful." 11 CHAIRMAN WELLINGHOFF: 12 No. 13 (Laughter.) CHAIRMAN WELLINGHOFF: Hopefully not. 14 15 MS. RAGGIO: I'm a lawyer, and I didn't want to make that statement affirmatively, but, you know, I feel 16 17 pretty confident that that wouldn't happen. But that was 18 the threat. But as a practical reality, our job is to keep 19 the lights on. That is how we're bred. That's what we do. So turning down and saying, nope, I'm just going to let the 20 lights go out in D.C., that's not something that any company 21 22 takes lightly--at least no company I know that does this for a living. 23 24 CHAIRMAN WELLINGHOFF: And I wouldn't want to put any company in that Hobson's Choice, either. I don't think 25
that's an appropriate thing to do, and if we need to look at amending the law in that regard so that 202(c) section can be used effectively in ways that don't put you in double jeopardy, then I think that's a reasonable thing to do. And just as an aside, are you related to anybody

6 in Nevada?

MS. RAGGIO: I'm not, but my grandfather had 17
brothers in Italy, so--

9 CHAIRMAN WELLINGHOFF: Okay, because Bill Raggio, 10 Senator Raggio is sort of a very well known person in the 11 legislature in Nevada, and I just wondered if you had any 12 relationship to Mister--to Senator Raggio. But thank you.

The next thing I wanted to go into is to discuss some--and I think this last discussion we had was very good, although I want to kind of back into it again sort of from the top down, with where we need to start on looking at addressing these EPA issues.

Let me start with you, Clair. Mr. Moeller, as I understand your testimony and what MISO is proposing here today, you are supporting the safety valve provision? Is that correct?

22 MR. CLAIR MOELLER: Yes, sir.

23 CHAIRMAN WELLINGHOFF: But you're not 24 specifically asking for any type of a blanket extension? Is 25 that correct?

MR. CLAIR MOELLER: We are not, although we 1 2 recognize that the compliance calendar of three years is 3 likely unachievable by the majority of our generation assets 4 in our footprint. But it's up to them to ask for that, not 5 to me. 6 CHAIRMAN WELLINGHOFF: So it would be up to them 7 to ask on a case-by-case specific basis their needs to get the extension from EPA? 8 9 MR. CLAIR MOELLER: As it currently exists, yes, sir. 10 11 CHAIRMAN WELLINGHOFF: Okay. And so then let me 12 go to you, Mr. Akins, because I think you are the odd man 13 out here with respect to the blanket extension. Again, I need to look at the evidence on the record. Do you have any 14 15 evidence that you can present to me that would indicate that a blanket extension is necessary for all utilities 16 17 throughout the United States? 18 MR. AKINS: I think a blanket extension is necessary based on our situation. We have heard of others. 19 CHAIRMAN WELLINGHOFF: I understand that. 20 MR. AKINS: As far as the entire U.S. 21 22 CHAIRMAN WELLINGHOFF: But you're not testifying 23 on behalf of Exelon, or on behalf of Nevada Power, or on behalf of --24 25 MR. AKINS: No.

1 CHAIRMAN WELLINGHOFF: Okay.

2 MR. AKINS: It's not needed by everyone.
3 CHAIRMAN WELLINGHOFF: Okay. All right. Okay,
4 so that helps me there.

So then the next thing I would like to talk about 5 6 is the safety valve issue and how it works. And I think my 7 fellow Commissioner from Ohio has tee'd up the issue in a 8 way that is interesting to me. Because I do believe very much in the things that you were saying, and that is that 9 the states have many times much better in their control and 10 11 under their purview ways to look at solutions that we do not 12 up here at the federal level. And anything we can do to 13 help facilitate the states to be participants in that process I think is a good thing. 14

15 But I also want to go to Mr. Cauley's comment. And that is, that if we can we should probably use existing 16 17 structures. And so the existing structure I am looking at 18 is something called Order No. 1000. And so what I want to know from you, Commissioner Roberto, is whether or not you 19 think it would be possible to do the things that you're 20 21 suggesting. Because Order No. 1000 and the predecessor Order No. 898, does very specifically say that these RTOs 22 are not to just look at transmission. They are supposed to 23 24 be looking at things beyond that like distributed generation, like energy efficiency, like demand response. 25

And believe me, I expect them to. That is certainly my
 expectation.

And I also expect them to have a very open table; And I also expect them to have a very open table; to have state commissioners be able to come to that table, and state environmental agencies, and the Federal EPA to come to that table; and anybody else who needs to come to that table for them to do their planning job effectively.

8 So I guess my question for you is whether you 9 think you can work within the constructs of Order No. 1000, 10 or whether you think we at FERC need to create something 11 else, or help you with something else so you can better 12 participate in these planning processes to do what I think 13 needs to be done, and that is to look at all solutions to be 14 able to address these problems.

OHIO PUC COMMISSIONER ROBERTO: Thank you,Mr. Chairman, for the question.

I think my hesitation in relying on Order 17 18 No. 1000 is my conception of the temporal nature. I mean, I think of that effort as being longer range planning, and the 19 need to address the very narrow issue of unit-specific 20 21 reliability is much smaller. And that is where our 22 suggestion came from that, rather than a wholesale, large, long-term discussion around all the issues that you raised, 23 24 perhaps we're really talking about drawing a circle on the map and saying, okay, what is the real need that we need to 25

1 deal with, and how can we move most nimbly to address it.

CHAIRMAN WELLINGHOFF: Okay. I just want you to 2 3 know that in my concept of Order No. 1000 is that it 4 wouldn't exclude that; that it would allow for that kind of 5 a, you know, drawing a circle around this particular problem 6 as well as doing these other longer range problems, that it 7 all could be part of that I hope. And I think that, Clair, hopefully you would agree that in MISO it could be that 8 9 inclusive as well.

10 MR. CLAIR MOELLER: Our process tends to be that 11 inclusive. For small problems like that, we set up specific 12 stakeholder conversations around that small problem. There 13 is a timescale issue on some of these. However, the closer 14 we get to the need for a unit to retire, the fewer options 15 you have in order to maintain NERC kind of reliability 16 criteria.

17 It's the utility that gets fined for NERC, not18 the other stakeholders in the meeting.

19 CHAIRMAN WELLINGHOFF: And that comes back to 20 Betty Ann's issue of, you know, notice. And I think I fully 21 agree that we need to look at this notice issue and figure 22 out how, you know, if EPA--I think it was mentioned this 23 morning, and I think it's been requested in the EPA rule 24 that there be some structure to help give them some 25 incentive to provide further notice.

1 But if that is not taken care of there, I think 2 we have the ability potentially to take care of it over on our side on this notice issue. 3 4 So, Betty Ann, I would agree with you there. If 5 you want to comment, go ahead. 6 DCPSC CHAIRMAN KANE: Limiting it to the District--it's red [the microphone] when it's on. That's 7 what's confusing me. Thank you. 8 CHAIRMAN WELLINGHOFF: It is red when it's on. 9 That's correct. 10 11 DCPSC CHAIRMAN KANE: I was waiting for it to turn green. D.C. may be unique, but I don't think we're 12 13 totally unique in that after next May we will be totally dependent on generation in other jurisdictions. As a matter 14 15 of fact, one of the issues and one of the complications, and one of the pressures is the Potomac River situation back in 16 17 2004-2005. That plant only served the District. It does 18 not serve any customers in Virginia. It only has lines that go over to Blue Plains and back. So that was another reason 19 you had the folks in Alexandria who were concerned about the 20 air pollution, air quality, were very anxious to say we 21 don't need it. It doesn't help us. 22 23 But there are these other--except for what we do

with rooftop solar, we will be totally dependent on bothtransmission and generation in other states. And one of the

1 things that we started talking about within OPSI is what we 2 call a state agreement option, a voluntary state agreement 3 option. We're currently talking about it in terms of 4 transmission planning, but could also certainly be on 5 generation where if a number of states determined for public 6 policy reasons, other reasons, that something is needed, a 7 way for them to voluntarily agree to support it. And then 8 if it gets through the process, to agree they would share 9 the cost because they would all be benefitting from it. And I think more and more as we look at 10 11 renewables, we look at off-shore wind in this area of the 12 Eastern United States, there's going to be a need for more 13 of that multi-state agreement both through the RTO process as well as other kinds of consultation. 14 CHAIRMAN WELLINGHOFF: Thank you. 15 I don't have any further questions, Cheryl, thank 16 17 you. COMMISSIONER LaFLEUR: 18 Thank you. Commissioner 19 Moeller. 20 COMMISSIONER MOELLER: Thank you, Commissioner 21 LaFleur. I would like to start with our colleague from 22 Ohio. I think what you are calling for is essentially an open and transparent process that involves the state and the 23 utilities and the markets. 24 25 Perhaps NERC, perhaps EPA, perhaps FERC. I think

the challenge, as Commissioner LaFleur said, is all those entities play a role. We can't have 48 of these going on, or 49, counting the District. We need an open, transparent process where everyone's interest and jurisdictions are kind of able to be expressed and mutually discussed, I guess. What are your thoughts?

OHIO PUC COMMISSIONER ROBERTO: Thank you,
Commissioner Moeller. I would concur. The only distinction
I draw between the wider range planning that we have all
been talking about is the scale in both region and time.

I think if what we're talking about today is what types of reliability issues we expect to arise as a result of EPA regulations, all I've heard is that we're expecting very regional, localized, unit-specific problems. And it is only because of that very small scale of the geography and the time that I'm suggesting a more robust role for state commissions.

But I don't disagree with what you're saying at all. It should be transparent. It should bring everyone to the table who has something to contribute.

21 COMMISSIONER MOELLER: Debra, I want to thank you 22 for bringing up those points that I previewed this morning. 23 I mean, I think it's pretty obvious that you've been saying 24 for quite awhile here you're the company that's actually had 25 to face these challenges, actually had to face them. And it

1 wasn't a good experience in either case.

2 And that is the roadmap that we're going to be 3 putting people in unless we can get things clarified. Tt. 4 seems so obvious. It would have been nice to hear the nonindependent agencies reference that in their testimony. 5 6 MS. RAGGIO: Well, that's true. 7 (Laughter.) MS. RAGGIO: It's true it was unpleasant. And it 8 is true that ultimately if you need to pull out the big 9 10 guns, like people keep referring to it as the all-be-it 11 failsafe, well, we've always got 202(c) -- and I go, oh, no, you don't. 12 13 But for that, there may be ways with enough time and enough planning to do something--and in all honesty, 14 15 because we really haven't investigated--but the safety valve, or what's being proposed by EEI, they may have a 16 17 legal basis to protect you where EPA comes in, there's a 18 consent order, you know, there's a consent order negotiated, and that cuts off the citizen lawsuit liability. 19 Now, you know, negotiating a consent order with 20 21 EPA is interesting. I mean, you know, they have a lot of leverage in a negotiation like that, especially if you've 22 already violated something, or are going to. But there are 23 24 other possibilities. But if you really want the failsafe, you need to fix this so that you have it. 25

1 COMMISSIONER MOELLER: Gerry, I want to go back 2 to your 81 planning areas. How do you envision that process 3 playing out? And to what extent will that be an open and 4 transparent process that the rest of us who have some kind 5 of jurisdictional requirement to pay attention can be 6 involved?

7 MR. CAULEY: I think, first of all, even though 8 there are 81, I think the impacted areas would be a smaller 9 number, which is another reason I think that concept is more 10 efficient and simpler building off the existing 11 capabilities.

I think to the Chairman's point with Order No. 1000 and its requirements for inclusion and transparency and regionality of the process, I think just existing today there are opportunities for stakeholders in that process to engage.

17 So that is one of the reasons I am really a 18 proponent of that being the place where the challenges are 19 recognized and proposed solutions are put on the table, because I think that is the logical place to solve the 20 21 technical problems, as well as all the stakeholder 22 interests, and look at alternatives that might be viable. So I think that's the solution generation arena I 23 24 think is at that level.

COMMISSIONER MOELLER: But, I mean I voted for

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Order No. 1000, and I supported it, but the compliance plans aren't due for a year. And it's going to take us at least a year to be going through them. That's two years from now that we're giving people guidance as to what we find acceptable or not. I just don't see the timelines adding up.

I think what I'm suggesting is that 7 MR. CAULEY: we're not looking for a step change in process. But we have 8 9 processes now where there's continuous annual and seasonal planning that's taking place now. Order No. 1000 is an 10 11 advancement. It's an improvement. But we have planning 12 taking place today. And it is not necessarily on a weekly 13 or monthly basis, but it is on an annual basis, and a subannual basis where we're looking at plans continuously 14 15 for how we're going to move forward successfully and have a reliable system two years from now, five years from now, and 16 17 so on.

18 So my proposal is that we really leverage that 19 capability that exists already today. I would disagree a 20 little bit with the Commissioner from Ohio. I think some of the regulations might impact isolated units, but I think the 21 22 issue is more problematic and widespread. It is definitely regional, but loss of a particular unit might influence 23 24 voltage support, regulation, or other issues that have to be solved beyond that single unit. 25

1 So I think it is at the planning, at the larger 2 level. I think the proposal from the ISO/RTOs to deal with 3 at that level is very consistent with the planning 4 authority's proposal as well. 5 COMMISSIONER MOELLER: Moving to Ms. Hoffman,

thank you for being here. You've had a good career at DOE,
so we've worked together before.

8 I do have to challenge a couple of things, 9 though, that you say. I guess first is, you say you want 10 the reliability analysis to be reviewed by a neutral body. 11 Can you elaborate on what would be a neutral body?

MS. HOFFMAN: I left flexibility there because I think this discussion is having a debate of what a neutral body should be. Given that if you're talking about reliability plans that say come from a planning entity, a neutral body could be comprised of those associated state entities: FERC, NERC, DOE. That could be the composition, looking at that.

Looking at it across seams issues, it could be a different body. So the flexibility I think should be there, but I think it is going to be built off of the analysis as the anchor point of how one should determine a neutral body. COMMISSIONER MOELLER: I presume you were not implying that NERC's assessment released yesterday was not a non-neutral body?

MS. HOFFMAN: NERC's assessment was an assessment. When I talked about a neutral body, what I was talking about was the detailed iterative, very specific plant-by-plant reliability analysis that's required to move forward.

6 COMMISSIONER MOELLER: All right. So Clair 7 Moeller--and as far as we know we're not related; we haven't 8 checked--

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(Laughter.)

COMMISSIONER MOELLER: Here are the numbers from 10 11 MISO: 72,000 megawatts of coal capacity; 62,000 will require retrofit investments or replacements. 62,000 out of 12 13 72,000. You've basically said the jam comes in the fall of 2014. And how does that reconcile with your statement that 14 15 the timelines associated with construction of new generation capacity, installation of pollution control retrofits would 16 17 generally be comparable to EPA's regulatory compliance 18 timelines. They just don't add up.

MS. HOFFMAN: Well the statement, I said "generally." As we were looking across, there are issues that should be investigated when the details and the information comes out. Once the rules come out, the analysis should be done. And then the exceptions should be looked at.

COMMISSIONER MOELLER: And you would apply that

1 reasoning to what ERCOT and SPP are saying about next summer
2 with GSPR II?

MS. HOFFMAN: (Nods in the affirmative.)
COMMISSIONER MOELLER: Okay. No more questions.
COMMISSIONER LaFLEUR: Commissioner Norris?Tha
COMMISSIONER NORRIS: Thank you.

Let's see. Well, Ms. Raggio, I am not sure how
to ask the same question more creatively, so let me just say
I stand ready to help however I can.

10 I so appreciate that. Thank you. MS. RAGGIO: 11 COMMISSIONER NORRIS: Absolutely. I think it is obviously an injustice that needs to get addressed, and I am 12 13 hopeful that either through Congressional action or EPA rules or somewhere we can do that. So wherever you can help 14 15 to point us in the right direction, I will work on these 16 guys and I don't think it will take much work to try and 17 support that.

MS. RAGGIO: I appreciate your support. COMMISSIONER NORRIS: So, Mr. Moeller, you had actually I think pointed to some direct things that we may or need to do, or can do. I just wanted to flesh that out a little bit more.

You heard me this morning talk about the question that Commissioner Roberto and Ohio raised in their comments about suggesting maybe a technical conference to consider

capacity seams that Mr. Kormos got a chance to respond to.
 Does that relate to in your testimony where you say the
 Commission should direct RTOs to eliminate these barriers to
 low-cost compliance for end-use customers?

5 MR. CLAIR MOELLER: Yes, sir, I think that's the 6 first important step to do that. There is an open docket 7 about joint and common market between us and PJM. That 8 would be a vehicle that we could use regulatorily to move 9 that forward. But the first conversations at a technical 10 conference to explore the value of that and other things I 11 think would be a valuable thing.

Other interesting things this Commission could do 12 13 in that same kind of technical conference, or notice of inquiry, is verify some of the schedule questions that are 14 15 popping up around what the actual physical time scale is to comply. Those sorts of things the Commission could build a 16 17 record around so that we would all be working from the same 18 set of facts, rather than from our individual impressions of what the facts might be. 19

20 COMMISSIONER NORRIS: And then you also mentioned 21 in your comments here today that we may need to look at 22 market rules, and it sounds like a queue reform.

23 MR. CLAIR MOELLER: I reform the queue every year24 or so.

25 (Laughter.)

1 MR. CLAIR MOELLER: We want to be careful that we 2 don't have a generation interconnection queue that ends up 3 being in the way of resource adequacy. We are hopeful that 4 reviews and changes we have made will ensure that the firstready, first-done, the combustion buildout, those kinds of 5 things, we can avoid that. So that's an issue we need to be 6 7 careful of so that we haven't got administrative protocols 8 that cause lots of time. So that is really important, as 9 well.

10 COMMISSIONER NORRIS: Yes. So has MISO begun to 11 look at some suggestions of market rules that may help 12 address which retrofit goes first, and how they are treated?

13 MR. CLAIR MOELLER: No. Frankly, if there were quidance on whether or not that was going to be our job in 14 15 the long run, we would launch some pretty significant work 16 around that. We are no stranger to a public multi-17 stakeholder cacophony of voices telling us what's right, in 18 spite of the fact that they don't agree with each other. 19 Because we are a not-for-profit public interest organization, we believe it is our obligation to listen to 20 21 all those voices and try to discern the path through those competing interests that best serve the public. 22

We think that would be a good thing. So the notion that the place where that choreography comes together as an RTO we think could be an appropriate way to help us

1 manage through the transition period of compliance.

2 COMMISSIONER NORRIS: I didn't mean to imply that 3 you should have looked at that by now. We have certainly 4 given you enough to do lately, but I just was more curious. 5 MR. CLAIR MOELLER: On the market rules, if I

might embellish, the issue in the short run is lack of
clarity around how and if there will be a liquid market for
emissions credits.

9 Anecdotally, in conversations we've had with some 10 of our market participants, they do not intend to sell their 11 spare credits. Credits are bankable. They like to hold 12 those and use them in a future year, if it's to their 13 benefit.

So the notion that a generator has to run, 14 15 exceeds the emissions credits that they have, waits till next March to buy the emission credits they don't have, and 16 there's no clear forecast of what those emission credits 17 18 might cost, lead that same generator to want to not run 19 inside the market. And yet they've got a Must-Offer requirement inside the market. If they choose to not run, 20 they run afoul of the Market Monitor. If their bid is too 21 22 high, it's economic withholding. If they refuse to bid, it's physical withholding. And those things are in conflict 23 then with the tariff. 24

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So that they have a legitimate economic problem.

1 They don't know what the cost is. They've got a compliance 2 problem if they don't put something out there. So there 3 will be a bunch of turbulence as we work through what are 4 the minimum--what does the must-offer look like when the 5 market participant literally can't know what the cost--his 6 marginal cost is. So that is something we have not got a 7 proposal for yet, but it is on our to-do list to try to 8 figure out how to mitigate that problem, and we expect we 9 will be back here talking about that.

10 COMMISSIONER NORRIS: All right. And then one 11 final thing, Mr. Moeller.

You mentioned the majority of the units in MISOcan't make the retrofit in three years?

MR. CLAIR MOELLER: That's what the market 14 15 participants tell us. They say that between the -- they have to make their decision. They are reluctant to make their 16 decision until the final rule, because we have seen some 17 18 turbulence in what the rules will say. They might get They might get harder. CSPR started out easier. 19 easier. In our analysis we have the easier version. 20 The rule came 21 out harder.

Mercury has gone from very hard to not quite that hard. So that turbulence causes them a decision-making problem. They need to then address that question with their commissions. Again, in our states they are virtually all

integrated resource planning states, with the exception of
 Illinois. So they have to go through the regulatory process
 to get permission. Is it a baghouse? Is it a scrubber?
 That sort of thing.

5 Once they get a green light, they feel 6 economically in a good position, then it's the standard 7 engineering design, construction, or procurement 8 construction. Just to think about it, we are going to have 9 as a Nation something like 100,000 megawatts of steam plants 10 order a baghouse on the same day--because they all have the 11 same compliance clock.

Now I don't have observability on the supply chain issues, but that would be another thing that an investigation by this Commission could help us with in terms of getting some facts on the table as to just how big a problem that is or is not.

17 COMMISSIONER NORRIS: But the certainty of the 18 rule will help people make that decision when they go 19 forward.

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MR. CLAIR MOELLER: Correct.

21 COMMISSIONER NORRIS: Let me combine some 22 comments that, Mr. Cauley, you made where you laid out well 23 the process by how this all can play out. And, Mr. Baker, I 24 think you made the comment the RTOs were in the best 25 position to evaluate the safety valve. And you mentioned that FERC needs to--what I want to get to here is, are you saying--first Mr. Cauley, and then Mr. Baker--is there some validation role that we need to go through to validate an RTO analysis of a safety valve necessity that will help process-wise the EPA in their decision-making process?

6 MR. CAULEY: Yes, Commissioner, that is exactly There is a validation role. And my 7 what I was saying. reference to the Section 2.15 is I believe there's the legal 8 authority to do that assessment and validation now. 9 And my 10 suggestion is that we do our assessments today which look at 11 the adequacy going forward, and emerging issues, and report on them, but there's no operative action sort of provoked by 12 13 our report specifically.

But if somebody is looking at proposing a plan 14 15 that is feasible from a reliability perspective but it requires some exceptions to EPA compliance, then there is 16 some action required. And I don't believe that the 17 18 Commission itself has the authority to take that action, but could as its responsibility as the Nation's reliability 19 agency, recognize that, acknowledge that, and carry the 20 21 message to the EPA. Then it becomes really a decisional 22 point at the EPA on the tradeoff. They've been noticed that there is a reliability issue by a competent process and that 23 24 the Commission agrees with that, and the EPA needs to make a decision. 25

1 I think that shifts the burden that the 2 Commission has done its due diligence and responsibility of 3 noting the reliability issue, sharing that with the EPA. 4 The EPA then has an opportunity to act on that. But at least I think that's the way I would see it working. 5 6 COMMISSIONER NORRIS: Mr. Baker, is that how you 7 envision it as well, or how do you see this playing out? MR. BAKER: Well first, I don't have an opinion 8 on the secondary overview from the RTO. My comment was more 9 10 along the line that in Michigan in particular, where we have 11 two reliability organizations, three transmission owners, 12 Wolverine, and then two independent transmission owners, ITC 13 and ATC, we have a solution that needs a broader perspective. It needs somebody that can step back. 14 And I 15 think in our region, MISO is in the best position to do 16 that.

17 The process that I am concerned about, however, 18 is that what's lost in our industry that started out is this wonderful harmony of robust transmission and generators has 19 20 sort of evolved to a new entrant to the generation market, 21 the supply-side market, is the pariah in the industry. And, that these solutions that are often the first solutions 22 23 today are what do we do with transmission upgrades? Can we 24 have additional loops? Or do we rebuild lines? 25

And what we would have done, very simply and

1 smartly 20, 30, 40 years ago in our industry is said: Do we
2 need a generator in the middle of this 300 miles of line
3 with no generation right now? And that is probably what the
4 solution would have been.

5 And I am concerned that today's process ignores 6 that aspect of it that is really fundamental to our 7 industry. We cannot have generation without transmission, 8 but we can't have transmission without generation.

COMMISSIONER NORRIS: That's all I have.

10 COMMISSION LaFLEUR: Thank you, Commissioner 11 Norris. At the risk of being a glutton for punishment, 12 which I think I have already shown I am--

13 (Laughter.)

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14 COMMISSION LaFLEUR: --I just wanted to give each 15 panelist a chance, if there is anything they want to say to 16 the Commission or, you know, something that are next steps 17 you think the Commission should take. I know various people 18 have alluded to different things as we went along, but I 19 just wanted to give you each an opportunity.

20 MS. HOFFMAN: I guess I would just add one 21 comment on the 202(c) authority since I when I was raising 22 my hand nobody noticed me.

23 (Laughter.)

24 MS. HOFFMAN: The Emergency Order--the devil is 25 in the detail when it comes down to looking at and doing an

emergency order. I think Attachments E and F shows the complicated nature of some of the questions the DEQ is asking of Mirant in their operation protocols and their operations, and how they were operating at plant.

5 But in the order we did have--and the language is 6 out there, and it is up on the website under how the plant 7 was going to operate, there was an 8-8-8 system where it was 8 run for any given 24-hour period 8 hours at its maximum 9 level, 8 hours at its minimum level, and 8 hours where it 10 does not run.

It hink what it is coming down to as we look at emergency orders, as we look at backstop, is the reliability analysis and the criteria under which a plant will run will be absolutely critical to have clarity to to make sure that we're successful.

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So thank you.

17 COMMISSION LaFLEUR: Thank you.

MR. CAULEY: I would just add that, although I think to the Chairman's point, there hasn't been a specific argument about a blanket extension. In the NERC assessment we did include the presumed one-year extension that we believe would be viable and allowed.

That said, I believe with the information we have that there will be a need to have a process to deal with exceptions on either a regional or a localized basis. I think I feel pretty strongly that that is going to be
 necessary.

3 So it is going to take--this has been a great 4 conference, and I think a great sharing of ideas, but I 5 think it is going to take some further action to put those 6 mechanisms in place. I am hopeful that the EPA will address what it can in its finalization of the rules in terms of 7 what options it can provide for those exceptions. But also 8 I would ask the Commission to consider what its role can be 9 in terms of asserting the actual reliability impacts that it 10 believes it sees from the information. 11

MR. AKINS: Well as an operator of assets, and probably not seen as independent in this process, I'm hoping that you get some feeling of we as operators are certainly focused on trying to do the right thing relative to reliability, cost to our customers, and across the board dealing with the real-world issues, as opposed to dealing with multiple agencies with long processes of approval.

We have billions of dollars in these projects. And for us to have five-year projects that are a billion a piece, trying to work through a morass of a difficult process to get approval, it's just going to slow down the emission reductions that we're all trying to achieve.

I think--and the Chairman asked me before about the blanket for the country, I don't know if a blanket is

needed or not. I just know that from our perspective, and others in the industry have said that they need that kind of flexibility. And I think, based on what the discussion has been today among multiple parties, we don't even have the answers.

6 So I mean how can we even know what the true 7 reliability implications are unless we get that analysis, understand it, and then we are all able to execute around it 8 9 in concert with the state commissions and others that we are beholden to. And I just think, before you do anything, we 10 11 had a lot of discussion about how long these projects take, but the EPA clock is ticking. It is the end of 2014, unless 12 13 you get the year extension, and then to 2015. That is not long enough, period. And it could be much more of a 14 15 flexible process that we all can achieve and get to the emission reductions that the EPA is asking for. 16 17

17 So I just implore you to think about the real-18 world implications of what we are dealing with as we go 19 through this process.

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COMMISSION LaFLEUR: Thank you.

21 MR. CLAIR MOELLER: So, yeah, real-world 22 implications are what keep me up at night, too.

I would like to visit two subjects, one that the panel this morning talked about and this one hasn't, but I would like to visit the notion of unit retirements just for

1 a second.

There is a lot of confusion about how many units must retire, how many units will retire, those sorts of things. We in our report unfortunately confused a lot of people when we tied carbon costs to some of the retirement analysis we did.

7 What that really said was that at a \$50 carbon 8 cost, only a fool would retrofit those plants; they would 9 instead replace them. But we concluded, nonetheless, that 10 there's over 12,000 megawatts of steam plants that we expect 11 to retire.

Let me give you an analogy for why we think that is. These units are like the 1992 Ford Escort you let your daughter drive to school. If somebody showed up and said it's \$14,000 to fix it, or you can buy a new Ford Focus for \$16,000, which would you do? You would buy the new Focus.

These are 58- 52- 55-year old plants, less than 300 megawatts. A lot of them have lots of work to do, in addition to just the retrofit. So that's why I think that the economic choice around retirements gets you to a bigger number, rather than a smaller number as you work your way through that.

And then the second thing that I hope we all work hard to avoid, and this has been a good conference, but we need to remember that the generation asset owner runs a risk

of being stuck between the Federal Power Act, NERC Rules, EPA's Rules, and their state's IRP requirements. We can't put them in a place where they have to choose between their regulatory agencies in terms of what they're going to comply with. We're going to have to work really hard and quite promptly to make sure that we don't have that kind of a situation.

8 We have heard a lot of talk that says, well, 9 there all these other tools that we might use. Cold comfort 10 if you're sitting today trying to decide what you're going 11 to do with that generator. What "might be true" is really 12 hard to get into a decision analysis because you have to 13 decide quickly in order to make your four-year window in 14 terms of compliance.

15 So let's keep the conversation going. Let's keep 16 working hard to make sure we don't put the generation owners 17 in that kind of a conflict and cause them to get out of the 18 game too soon.

DCPSC CHAIRMAN KANE: I would echo the request to see if we could solve this 202(c) process and conflict. While it wasn't pleasant for the company, it wasn't pleasant for the commission, either. And nobody wants to be in a position particularly to have to go to a federal agency and ask them to do something that's either going to violate what another federal agency ordered them to do, or what a

neighboring state has ordered them to do. So the more we
 can work on whatever fix is needed there.

3 Secondly, I would say again, echoing NARUC, that 4 we do need a process requiring generators to provide notice 5 to FERC, to system operators, and to the state regulators of 6 the expected effects of the EPA regulations, and with enough time to plan. I think that with enough time before these 7 retirements, there will be alternatives that can be worked 8 Not in every case, but there's a lot changing and a 9 out. lot coming down the road that reinforces the work that 10 11 Icepick is doing, and the information will be available in 12 the alternatives that are being looked at there, and the 13 scenarios.

But nobody wants to get into a crisis, whether it's 90 days' notice, or 2 days' notice, or even a year's notice, it's not enough time to avoid conflict and wasted energy on an emergency situation that could have been avoided.

OHIO PUC COMMISSIONER ROBERTO: I would just like to express the gratitude of the Ohio Commission again for being invited to this conversation, for your leadership in hosting it. The simple message that I would like to leave you with is that state commissions, even in restructured states like Ohio, have many, many tools, and we have many, many relationships, and that we need to be part of the

1 solution selection.

2 Thanks again for having us here. 3 MR. BAKER: I would also like to thank you for 4 this opportunity. We as an industry can make, and with a regulatory body, working together we can make very 5 6 meaningful advancements in our industry as we go forward. 7 We absolutely have to have some certainty to this 8 I would take exception to Mr. Moeller's analogy, process. 9 because we can't today buy the new Focus in most instances. It's not allowed. You can't build it. So we have to 10 11 somehow get comfortable as an industry in embracing the supply side again because we simply cannot continue to 12 13 retrofit and have those be the only locations for generation. 14 15 We have to have some comfort establishing new sources of generation. And it will be much more cost 16 17 effective and enhance reliability in the grid. 18 Lastly, the notion of the reasonable timelines. 19 No matter how hard we work in a multi-stakeholder process, we cannot take a five-year process and fit it into a three-20 21 year compliance window. So thank you again for this 22 opportunity. MS. RAGGIO: And in closing, I want to thank you 23 24 for letting me talk about the issue and empathizing, and reaching out with your support. 25

1 We do need support to fix this type of situation. We want to run reliably. We want to run in environmental 2 3 compliance. I think most every company does. It is 4 difficult when you are placed at choosing between the two, but I think more importantly you should take away from this 5 6 that, yes, we ran and we got fined and that's so sad for Mirant or GenOn, but this is not failsafe reliability tool 7 that you have. It is not there. 8

9 I encourage you to read the Virginia DEQ's 10 comments in response to the DOE Order. Because, although 11 they did clothe their NOV in a claim of criteria under which 12 we would run, and that we didn't follow the exact bells and 13 whistles, from the beginning they opposed DOE and said they 14 did not have the authority to issue an Order that we would 15 run in violation of an environmental law.

And they were in all the discussions. And throughout, they continued to stick to their position. So when we did have the violation, they had no choice but to issue the NOV.

20 So you are going to have a company say: Either 21 I'm not going to do it, which is less likely, I'm not going 22 to run; or, I'm going to go to court. And in the meantime, 23 you need the lights on. You don't have time to fiddle with 24 this. So that's what I close with. Thanks, very much. 25 COMMISSION LaFLEUR: Well I want to thank this

excellent panel for sharing their thoughts. I think they are real real-world examples of how these things work, and what the challenges are that we have to collectively solve.

I started out today by saying I thought we needed more flexibility and coordination in carrying out the new environmental regulations, and I will say I am much more convinced of that now, that there's going to be a lot of need for flexibility and coordination going forward.

I am very encouraged by the spirit of the day, and the commitment of everyone to comply with the new environmental--both their environmental and their reliability obligations.

I think in the end of this process, I know a process never ends, it's always evolving to the next thing, but we will end up with a better and cleaner fleet of resources both supply side, demand side, and others in the United States. It is just a question of getting there.

Based on what I have heard today, I do think we can get there. There are a lot of good ideas. I understand much better than I did before the Presidential Exemption idea; the need for the, I'll call it the "GenOn legislation" which I'll support; NERC's proposal, which I think is really productive in its simplicity of using the existing planning authorities and the existing 2.15 work; and I also respect

1 the role of the state commissions.

I think the next big step that we're going to-other than getting comments on December 9th; you all know where to send them--but beyond that, I think we will be really looking forward to the details of the MAC Rule on December 16th, which I think will be the next puzzle piece as we work this out.

8 It is not entirely clear what the role of this 9 Commission will be, but I do think there will be one. And I 10 certainly pledge myself as an individual to help solve this 11 problem in any way that I can, whether through a formal FERC 12 rule or not.

13 The only other thing I would mention is that we 14 have been in discussions with NARUC for a new ongoing 15 FERC/NARUC workshop to look at this problem as part of our 16 triennial funfest.

17 (Laughter.)

18 COMMISSION LaFLEUR: Commissioner Moeller and I 19 are going to chair it to bring a little bipartisanship to 20 the issue, and working out the details, but again that is 21 not the panacea but I think it will be good to have a check-22 in at least over the next several NARUC meetings as this 23 takes root.

24 So again, I thank you for being here and turn it 25 over to--I think you [Chairman Wellinghoff] are going to

1 close, so, Commissioner Moeller.

2 COMMISSIONER MOELLER: Well I want to thank both 3 panels, all the people who came here, all the people who are 4 watching on the Internet, for your interest in the issue and 5 the dedication of the staff of the Commission in putting 6 this together, as well.

7 My concern from the beginning, as I stated this 8 morning, is not that these are not doable; I am not trying 9 to pretend that they should go away; but that all the 10 evidence that I have gathered says that the timelines that 11 EPA is proposing are not workable with this industry. It is 12 doable, but not in the timeframes that they have suggested.

And, that there are serious reliability issues. And I think all of you have outlined those. They affect different regions more than others, but that is the point. It is a complicated grid. These are tough issues. I just don't have the confidence that EPA is giving the complexities of reliability adequate import.

19 So I am very encouraged by our NARUC 20 collaborative that we will be working on. I appreciate the 21 Chairman endorsing that. And I think we will all be working 22 on this, whether we like it or not, for the next six to 23 seven years. This is a multi-year process of transforming 24 our grid, getting a lot of the older, dirtier generation 25 out, but it is going to play differently in New England than

California, than Indiana, than Texas, than Arkansas, and we
 have got to be cognizant of those complexities.

3 So again, it has been a very helpful day. I 4 appreciate you chairing it, Commissioner LaFleur.

5 COMMISSION LaFLEUR: Thank you. Commissioner6 Norris.

7 COMMISSIONER NORRIS: Thank you. Let me add my 8 thanks to this panel and the previous panel for what I 9 thought was a very informative and helpful discussion. I 10 look forward to follow-up comments that we may receive here 11 in the next I guess 10 days.

I hope there will be some follow-up. I would ask folks, you know this is an issue that obviously falls to a great degree on us in terms of reliability, but these are the EPA rules. And the timelines are frustrating. They are set by statute. So EPA is following the statute.

I think what we hope we can do, what I say I pledge in my help is to stand ready to help educate, help inform, but more importantly work within our jurisdiction and our rules and our regulations to address issues that come forward once we know what the rules are and they are in place.

As I mentioned this morning, I am not sure another study is going to help, or more analysis--I know you called for that, Mr. Akins--but the rules are going to be in

place in a couple of weeks. I am not sure it does any good
 to study more, or analyze more hypotheticals or assumptions.
 We will know what they are. So now it is about getting to
 the work of making this happen.

I think we have heard some testimony today. 5 6 We've received comments. I'm sure we'll receive additional comments about how the timelines, how the exceptions process 7 can play out to create enough time that we don't have to 8 9 face, as I said this morning, I don't think it's in anyone's 10 interest, no one wants to see the lights go out. And I 11 believe there are tools in place for an exemption process, both from the EPA, DOE, the Administration, that we can make 12 13 sure the lights stay on.

But also as I mentioned this morning, this is a four-decade-old law. It's over two decades since the Clean Air Act Amendments. This really should not come as a surprise to anybody. And it does not make it easier, but I hope folks, as I've heard today, are really on board with making this happen now. There's good benefits to come from these changes.

As Mr. Moeller mentioned, we've got a whole lot of plants out there that were built when Harry Truman was President. And they have no environmental, essentially, equipment on them. That's a little frightening for me, that over 50 years later we haven't addressed that. So it is

1 time to address this.

2 Let's hope we can as an industry change--as you 3 mentioned, there's a lot of change here. But we are a 4 society that I think is very adaptive to change. Technology is rooted in our success. So enough of the rah, rah speech, 5 6 but I think we can do this. I think it is the right thing 7 to do, and if we all work together and communicate about the needed safety valves and exemptions, and make this system 8 which I think is in place work, and commit to making it 9 10 work, we can keep the lights on and do this in the most 11 efficient way possible. 12 Thanks. 13 COMMISSION LaFLEUR: Before I call on the Chairman to close, I just want to thank Christy Walsh, John 14 15 Carlson, Sarah McKinley, and others from staff for--I think this was an unusually complex technical conference to pull 16 17 together, so thank you. 18 Mr. Chairman. 19 CHAIRMAN WELLINGHOFF: I would like to thank all of our staff, as well, in the Reliability Office, and OGC, 20 and the other offices that participated. I really 21 22 appreciate all the support that they provided with respect to this conference. 23 24 I would also like to thank the panel today and this morning, and Administrator McCarthy, and not only that 25
but the panels yesterday. You have to remember, this is our
 third annual reliability conference for FERC, so let's put
 this all in context.

4 I think the context yesterday was good. Gerry 5 Cauley offered us the great progress that NERC is making in 6 the priorities that they have set out and are moving forward with. And I think we have a good way to hopefully reduce 7 the amount of directives that we give to NERC, and do that 8 in a more focused way and hopefully assist NERC also in 9 ensuring that they can more timely process and develop 10 11 standards for us so we can get those standards in place.

12 I also was very encouraged by the North American 13 Transmission Forum and the information we got about the activities there of the industry on a voluntary basis. 14 Ι 15 think it is very important to get that voluntary component back. That is actually where we started before the 2003 16 17 blackout. It was all a voluntary process. Then under 2005 18 and the Section 2.15 it became mandatory to FERC. And FERC does has, as Gerry indicated, we do have that statutory 19 responsibility for reliability not only for enforcement for 20 21 also for accountability.

And so we have to take that responsibility and make sure that we--because it is in our trust, we use it in a way that can ensure the reliability of the system for the American public.

1 In that regard, with respect to the particular 2 issue that we have, today I felt we had a tremendous amount 3 of information and testimony that was very useful to me. Ι 4 think we can agree that analysis needs to be done in a number of planning authorities, and they are doing that 5 6 analysis that will provide us with information. And hopefully we can ensure that there is a process for the 7 states to participate, because I think the states do need to 8 participate in that process. And it is, as Gerry pointed 9 out, an ongoing one. It is not simply Order No. 1000 that 10 11 we are going to review the compliance plans in one year. 12 But it is under Order No. 890 and the previous Orders of the Commission, and the continuing planning activities of those 13 planning authorities that we would encourage the states and 14 15 other stakeholders, including the EPA and others, and we have been encouraging EPA for over the last two years, to 16 17 participate in and become involved in.

18 So I think we can continue to encourage that. Ι think the one thing that came out to me today I think that's 19 20 most telling is that we do need to use our existing tools. I think there is a lot of call for that. 21 In fact, I was taken by the last statement by the gentleman from EPA just 22 before lunch who said we do not need more pieces. 23 They are 24 in place. We need to use the tools we have constructively. I thought that was a very, very constructive statement, and 25

I think the evidence on the record makes it clear that if we do use those tools constructively we do have the opportunity to meet this particular reliability challenge as we do the other reliability challenges that we discussed yesterday with respect to integration of renewables and others.

6 We do have to look at FERC's role in what we can 7 do, and I think we got some good suggestions. I am very 8 interested in this 202(c) issue, and I think it is one that 9 we certainly ought to talk to our appropriate Congressional 10 people about and see if there's some interest there.

I am also interested in the issue that Chairman Kane brought up, and have been interested in this issue previously--and that is, the one of making sure that we have adequate and timely notice of retirements.

And then I think Commissioner LaFleur brought up a very interesting point that goes to a concern I think of Commissioner Moeller and mine, as well, and that is these RMR costs and how to minimize those. One way is this environmental dispatch concept. I want to look at that a little bit more, as well.

21 So we have a lot to look at. We have a lot to 22 do. We have a lot to go through in the record here, and I 23 look forward to the Commission doing that and looking to our 24 next steps and moving forward. And again, I want to thank 25 you all.

1 And at this time, if I can ask all the panelists 2 to leave their seats, and the staff on the side, as well. 3 We are going to have a press conference at this point in 4 time. Thank you.

(A brief off-the record discussion.) 5 6 GLEN BOSHART: I am Glen Boshart with SNL Energy. Through the conference today, there was a 7 My question is: lot of discussion about what could FERC's role be in all of 8 this. And it seemed to come down to use your influence to 9 educate and coordinate with other agencies, and to inform 10 11 people. And my question specifically is more towards EPA, 12 and whether EPA was asked to maybe co-chair this, or maybe 13 co-participate in this?

14 If not, the other question is: How much ongoing 15 discussions has FERC had with EPA? And have you found EPA 16 staff to be amenable to coordinating with FERC, and 17 discussing some of the issues such as arose today?

CHAIRMAN WELLINGHOFF: 18 I will speak to that. EPA was not asked to co-chair, I mean in the sense that we are 19 independent regulatory agencies, and that is a structure 20 21 that we need to respect. So from that standpoint, it is necessary for us to determine how to act independently in 22 that regard. And it was necessary for us to have an 23 24 evidentiary record here with respect to these issues so we could decide what we need to do as an agency and how we need 25

1 to react.

25

2 With respect to staff and their interactions with 3 EPA, I think it has been a very cooperative atmosphere, as 4 far as I know, and there has been a number of discussions back and forth. 5 6 MR. CANO: Next question? Hannah? 7 HANNAH NORTHEY: Hi. Hannah Northey with Greenwire. I wanted to ask about this possible amendment. 8 9 It sounds like it could be a federal amendment--please 10 forgive me if I misspeak--to protect utilities from fines or 11 lawsuits if they violate environmental regulations while running for reliability reasons. 12 13 Chairman Wellinghoff, you said that that sounds reasonable? I just want to make sure I understand, to get 14 15 that clarified and exactly what that might mean, and what 16 that might entail. CHAIRMAN WELLINGHOFF: Well it would mean that 17 18 under Section 202(c) DOE can order a--excuse me, I'm going 19 to have to sit down here--can order a generator to run. And 20 as we had the lady, Ms. Raggio from GenOn indicated that 21 there are situations where they have done that and then have been liable for environmental violations. And that seems to 22 be sort of a Hobson's Choice that we really shouldn't be 23 24 putting entities into.

So I think it is worth exploring, and I certainly

1 would be interested in exploring it.

2 Cheryl? 3 COMMISSION LaFLEUR: There's a specific 4 legislative proposal that's in Ms. Raggio's prefiled testimony. It is narrowly tailored to an organization 5 6 that's ordered to run under Section 202(c) by the Department 7 of Energy under the Federal Power Act. It's not a generic exception like if you need it for reliability you don't have 8 9 to follow the environmental laws. It is very narrowly 10 tailored. So that is in the record of this proceeding. 11 MR. CANO: Next question? Esther? ESTHER WHIELDON: I will throw a softball at you 12 13 to start--oh, I'm sorry, Esther Whieldon with Platt's. This co-chair thing that's coming up, can you 14 15 explain to me what you would be co-chairing? Like what would the forum discuss? I'm assuming these issues, but... 16 COMMISSION LaFLEUR: Well it is still in the 17 18 planning stages. We talked about it and met on it when we 19 were in NARUC a few weeks ago. There have been other collaboratives where there's an emerging issue where FERC 20 and NARUC, the National Association of Regulatory Utility 21 22 Commissioners, decide to have regularly scheduled meetings on an issue. 23 24 There is one right now on Smart Response, and one

24 There is one right now on Smart Response, and one 25 on Emerging Issues that Commissioner Norris is chairing.

1 There is frequently one person from FERC, and then a NARUC 2 leader. Phil and I stepped up to do it together because we 3 thought, because of the controversy around this issue, it 4 might be good to have a bipartisan leadership. And I think 5 the concept is that at every NARUC meeting--they're, what, 6 in February, July, and November--we would take a couple of 7 hours to have a forum much like we did today to talk about these issues. But it is still being organized 8 organizationally. 9

10 COMMISSIONER MOELLER: I would echo those 11 comments entirely. I think a lot is going to be changing in 12 this front month to month, and the fact that we get together 13 with NARUC three times a year will provide a relatively 14 regular way to update how things are changing. We usually 15 have pretty good representation from the regional markets at 16 NARUC meetings, and certainly from various interests.

17 So it should be a good forum to stay updated on 18 really the state of play and the challenges as they evolve.

19 COMMISSION LaFLEUR: And it is an opportunity for 20 us to have really all 50 state commissions there at one 21 time, which is very valuable.

22 MR. CANO: Pete, first.

PETE BEHR: Thank you. Pete Behr with
ClimateWire. Is it a fair summary of the choices that you
have heard to say that one option is to stay on an

aggressive schedule with an effective exemption and safety valve process versus extending the deadline significantly and relying on kind of the existing effective planning processes to get the industry through that?

5 Is that kind of a fair summary of the two major 6 choices? And if so, could you tell us where you would come 7 down on either of those two options?

8 CHAIRMAN WELLINGHOFF: Pete, let me make it clear 9 that those aren't our choices to--

10 PETE BEHR: Pardon?

11 CHAIRMAN WELLINGHOFF: Let me make it clear that 12 those aren't our choices to determine. Those are EPA's. I 13 mean, ultimately--

14 PETE BEHR: No, I mean just in terms of your 15 response to what you're hearing, does one approach seem more 16 helpful than the other?

17 CHAIRMAN WELLINGHOFF: What I'm hearing is that 18 the industry wants clarity. And the best way to have 19 clarity is to get an EPA rule out, so ultimately they know 20 what they have to comply with. I am also hearing that from 21 the evidence we have had today, that basically we need to 22 look at the tools we have.

23 Generally, I think even EEI, as I indicated, said 24 that we probably have enough tools, we just need to make 25 sure that we use them constructively and use them in ways 1 that can ensure the types of transparency and the types of 2 information flow in an efficient manner that can make the 3 process work.

So from a process standpoint, I think we need to move ahead with the EPA Rules, and also continue to work with them and work with the stakeholders, the planning authorities and the states to ensure that we can make the process operate smoothly and effectively.

9 COMMISSIONER MOELLER: Well I think it depends on 10 the region. I think New England has told us that they think 11 they can do it in the next three years. But I think we 12 heard from MISO that it's basically impossible to meet the 13 timelines and manage 62,000 megawatts being out at once.

14 So I think my answer is: It depends on the 15 region and the resource base, but the people who are most 16 dependent on retrofits and fuel switching need more time.

MR. CANO: Any other responses?

17

18 COMMISSION LaFLEUR: Well as the Chairman said, 19 this is a decision for EPA to make. I think we heard today 20 that--well, I think it is essential that, or it would be 21 extraordinarily helpful for the details of the final rule to 22 be known so that plans could start to be made, and hopefully 23 that will occur in a couple of weeks.

I think that I believe we can design a process of coordination and flexibility, even without a blanket change to the deadlines that works. The closer the deadlines are,
 the harder it will be to design that process. But that is
 why we are having meetings like this.

4 COMMISSIONER NORRIS: I am just going to repeat 5 what the Chairman said. These are EPA's rules to enact, not 6 ours. But as I mentioned before, I mean the Clean Air Act 7 mandates a three-year compliance timeframe. The consent 8 decree says that they should have these issued by November 9 of 2011, subsequently extended to December of 2011.

10 So I mean this is really about EPA coming up with 11 what are the right restrictions, because statutorily and by 12 court order the timeline in the process is pretty well set.

And going back to your first question, why wasn't EPA here? You saw the discussion. So many people want to focus on the EPA's process, and focus on frustration with the statutory timelines, that we had a hard time--I tried several times to get out of folks, what is it that we can do in our rules and regulations to help with reliability?

19 So if we bring EPA to the table, it would be even 20 harder in my mind to get something constructive to know what 21 we could do as a Commission to our rules and regulations 22 that might help the reliability process.

23 BOBBY McMAHON: Bobby McMahon, Inside E.P.A. 24 Thinking in particular about the EEI proposal and the PJM 25 and other RTO proposals for some sort of concerted plan for

extending compliance timelines, are you satisfied with FERC's role in those two proposals? And if not, what other involvement do you think the Commission needs to have in order for these approaches to be effective?

5 CHAIRMAN WELLINGHOFF: Are you referring to the6 safety valve proposal?

BOBBY MCMAHON: The safety value proposal coming
from PJM, and then the EEI's proposal for the use of a
Presidential Exemption with those three diligent--the
technology doesn't have to be available, but I believe--

11 CHAIRMAN WELLINGHOFF: Sort of a safety valve-12 plus. I've already gone on record of supporting some type 13 of a safety valve process. And certainly, again, it is going to be up to EPA. They are the ones who are going to 14 15 enact something. They have the safety valve before them. PJM and those other RTOs have submitted that to them as 16 17 something to consider.

18 So, you know, to the point that they put that in 19 place, we'll then have to work out the details. But I 20 certainly would be--I personally am in support of the 21 concept.

22 COMMISSIONER MOELLER: Well I like the concept, 23 but I don't know what our role is. I am concerned in all of 24 this that there are reliability implications that land on 25 our lap based on EPA's rules. And, you know, their approach toward it creates reliability and economic issues for us as
 regulators. And I want our role to be more formalized
 versus less formalized. I want a role for all five
 Commissioners to be voting on things so that it's not staff
 to staff. This is too important.

MR. CANO: Brian.

6

7 BRIAN WINGFIELD: Brian Wingfield with Bloomberg 8 So we heard from several utilities today say News. 9 essentially that they would like FERC to use its heft to influence the Administration to extend the rules. So just 10 11 to be clear, does FERC support that position or no? CHAIRMAN WELLINGHOFF: I didn't see any evidence 12 13 in the record that would support their position today. I

14 mean, again, we need studies to support that. There weren't 15 any. NERC did indicate a one-year, as-requested extension 16 that they factored in, but it would be requested by the 17 particular utility.

Again, I think the general concept of the safety valve and some way to ensure that when we have specific problems that can be effectively addressed is the best approach.

22 COMMISSION LaFLEUR: Well I think we heard from 23 several people that they want FERC to use its stature in the 24 energy world to bring attention to this need for 25 coordination in the challenges that we will be facing over the next several years. And I would say, honestly, that was part of the reason we held the session today, to do just that, to shine a light on this and get the people together and have an exchange of views on how it would work.

5 So I feel like this was partly doing our job 6 today. And I'm not sure what our role will be going forward 7 because that will be determined by how the EPA exemption 8 process is written in their final regulations, and how that 9 evolves over time.

I tend to believe our role will be more rather than less because of the complexity and importance of these issues. I think they will be heavily controversial and therefore many people will be kind of asking for help. But that will evolve in the future.

BRIAN WINGFIELD: Just to follow up, Mr. Farrell indicated that anything that needs to be done should be done before the December 16th deadline. So nothing will happen before then?

19CHAIRMAN WELLINGHOFF: I'm sorry? Who indicated20what?

21 BRIAN WINGFIELD: Mr. Farrell indicated that 22 anything that needs to be done, anything that will delay or 23 extend the compliance period needs to be done before the 24 final rule comes out in December. So are you saying nothing 25 will be done before then?

1 COMMISSION LaFLEUR: I don't plan in the next two 2 weeks to ask the EPA to delay. I know the EPA was here all 3 day today, and I'm sure they're watching, and I think our 4 views of how this should work are now quite clear--at least 5 I hope so.

6 CHAIRMAN WELLINGHOFF: And not only do I not plan 7 on asking the EPA to delay, but again there's no evidence 8 today to support that. So it just doesn't make any sense.

9 COMMISSIONER MOELLER: You know, it's a little 10 bit of a technicality, but when you say "does FERC support" 11 something, we speak through our Orders. We vote on them. 12 There are other ways that we as a Commission can speak, but 13 we really speak individually, outside of the Order context.

And some would argue that EPA has a little more flexibility than just the statutory timelines. And we don't know what other evidence will be entered into the record, but I go back to my question which is that we have a market operator saying they cannot comply by the fall of 2014. They cannot do it.

Does EPA have a different opinion, that they can? Well, let's find that out before it's a problem that's a lot bigger than a safety valve that's in front of this agency in the summer of 2014.

AMY HARDER: Amy Harder with National Journal. A couple of questions. EPA has said that companies should be

1 ready for these rules. They've been in the making for 20 2 years. So do you think that your Commission is ready for 3 these rules? And do you think you've done enough, or given 4 enough power to do what you think you should do?

5 And Commissioner Moeller has mentioned that he 6 would like to have a more formalized process. Mr. Chairman, 7 do you agree with that? And do you think that the 8 Commission should have a more formal role in the reliability 9 issues?

10 CHAIRMAN WELLINGHOFF: Well I think we are ready 11 for the rules in the sense that we do have Order No. 890, 12 Order No. 1000 in place. I think those are tools, the type 13 of tools that people talked about.

I think we are also gathering additional information to determine whether or not there's other things we need to do to get ready, like issues regarding length of notice of retirements that Commissioner Kane talked about, which I think is a very important issue.

With respect to a more formal process, I think certainly at the point in time that EPA incorporates into their rules some type of a safety valve process--I'm hoping that they do, and again I've indicated I'm supportive of it--then we will have the opportunity for a more formal process. There's no question about that.

25 MR. CANO: Yes, please.

RYAN TRACY: Ryan Tracy with Dow Jones Newswires. 1 So Commissioner Moeller, could I just ask you to clarify, 2 because two colleagues to your right said they didn't think 3 4 EPA should delay, do you think they should? COMMISSIONER MOELLER: It kind of depends on what 5 6 you're talking about by "delay." We've talked about this 7 one-year--8 RYAN TRACY: Delay in the near-term, I quess, you 9 know, should they delay issuing the final rule in the next couple of weeks? 10 COMMISSIONER MOELLER: You mean instead of -- the 11 delay of the final rule is less important than the 12 13 implementation timeline involved. I think there is an argument to getting it out there, but then it depends on 14 15 what is in there, what's in the rule. So delaying the rule is less important than the 16 17 timeline involved in allowing compliance with the rule. And 18 that I think should be longer, clearly. 19 RYAN TRACY: Thanks. 20 MR. CANO: We have time for one last. Anyone who hasn't asked a question? Otherwise, Esther. 21 22 Esther, you get the last question. 23 ESTHER WHIELDON: Can I make it a two-parter, 24 then?

25 MR. CANO: Quickly.

(Laughter.)

2	ESTHER WHIELDON: Okay. So, Commissioner
3	Moeller, you were discussing FERC having a more public role.
4	And perhaps I was reading too much in to it, but perhaps
5	FERC being more involved in the safety valve decisions.
6	But there was some serious concern raised by one
7	of the panelists about adding someone else to have to make a
8	ruling on this is just going to put more time on when this
9	is decided, and timing is really important here to them.
10	I mean, don't you think that would actually slow
11	down the process for fixing things?
12	COMMISSIONER MOELLER: Well no, I don't, because
13	I thinkI mean, at least how I envision it, we get some
14	kind of a safety valve where it's probably going to be plant
15	by plant, specific as to the reliability analysis, that
16	perhaps needs to be vetted by our engineers, as another set
17	of eyes, to make sure that it passes muster; from the
18	Regional Planning Entity. And then at that point, it
19	probably goes into an RMR contract, and we need to have that
20	rule to judge whether that's a justifiable economic
21	decision.
22	So maybe it adds a little bit more, but it
23	provides so much more accountability and transparency that I
24	think it is worth the tradeoff of a little extra time.
25	ESTHER WHIELDON: And the second part was also a

1 timing issue. There was some discussion over whether, if I 2 understand right there is currently some tariff requirements 3 for a 90-day notice? I heard that from someone. T don't. 4 know if that's quite accurate or not. But so a two-year notice is what the safety valve would say, but someone was 5 6 arguing that a two-year notice really only works for like 7 the first time these rules are implemented. You can't necessarily do it on a consistent basis. 8

9 Does FERC have any kind of idea what kind of 10 timeline you would want to give for advance notice if you 11 did a rulemaking on that? Or any kind of concept of what 12 you would like?

13 COMMISSION LaFLEUR: I think what you're 14 referring to is the reliability safety valve proposal that 15 the five RTOs filed and asked for requiring a two-year 16 notice if a plant was planning to retire. And I know I am 17 on record supporting something like that safety valve 18 proposal. I believe my colleagues are, as well.

I think what you're thinking of is somebody said that doesn't necessarily work for every kind of retirement, an economic retirement, but for these environmentally focused retirements where there's a clear compliance deadline, they should have two years' notice.

24 ESTHER WHIELDON: I'm talking about putting it in 25 the tariffs permanently.

1COMMISSION LaFLEUR: That is something we will2have to consider, I think.3COMMISSIONER MOELLER: I mean I think the carrot

and stick behind the proposal is that if you want to get the safety valve option where you can recover your costs, you have to give two years' notice. But the flip side is, if that's not something you want, how do you make someone give two years' notice if they decide in 90 days they're going to shut down? MR. CANO: Mr. Chairman and Commissioners, thank you very much. (Whereupon, at 4:25 p.m., Wednesday, November 30, 2011, the proceedings were adjourned.)