

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22

BEFORE THE
ILLINOIS COMMERCE COMMISSION
PLANNING FOR THE FUTURE POLICY SESSION
2015-2016 WINTER PREPAREDNESS &
RESOURCE ADEQUACY IN THE AMEREN
ILLINOIS FOOTPRINT

Thursday, November 19, 2015

Chicago, Illinois

Met, pursuant to notice, at 10:00 A.M.,
at 160 North La Salle Street, Chicago, Illinois.

PRESENT:

BRIEN J. SHEAHAN, Chairman

ANN MCCABE, Commissioner

SHERINA E. MAYE EDWARDS, Commissioner

MIGUEL DEL VALLE, Commissioner

JOHN R. ROSALES, Commissioner

SULLIVAN REPORTING COMPANY, by
PATRICIA WESLEY
CSR NO. 084-002170

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22

AGENDA

PART I. WINTER PREPAREDNESS

I. Welcome Remarks

a. Chairman Brien Sheahan,
Illinois Commerce Commission

II. Overview/Importance of
Winter Preparedness

a. Commissioner Sherina Maye Edwards,
Illinois Commerce Commission

III. National Perspective

a. Chris McGill, Vice President,
Policy Analysis, American
Gas Association

IV. RTO Perspective

a. Todd Ramey,
Vice President, System
Operations & Market Services
Midcontinent Independent
Operator (MISO)

b. Rich Mathias,
Senior Consultant, PJM Interconnection

V. Illinois LDC Perspective

a. Gas Supply: Scott Glaeser,
Vice President, Gas
Operations & Development,
Ameren Illinois

b. Energy Efficiency: Tina Yoder,
Director Energy Efficiency,
Mid-American Energy Company

c. Customer Service and Outreach:
Michelle Rindt, Vice President,
Customer Service, People's
Gas/North Shore Gas

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15
- 16
- 17
- 18
- 19
- 20
- 21
- 22

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22

AGENDA (continued):

- VI. Closing Remarks
 - a. Commissioner Sherina Maye Edwards,
Illinois Commerce Commission

1 CHAIRMAN SHEAHAN: Good morning. Welcome to the
2 Illinois Commerce Commission's planning session for
3 the future. This session is convened pursuant to
4 the Illinois Open Meetings Act, and our guest and
5 panelists should be aware that a court reporter is
6 present. A transcript of this session, along with
7 auto and video, will be posted on the Commission's
8 website.

9 With us are Commissioners McCabe,
10 del Valle, Edwards, and Rosales. We have a
11 forum.

12 I would like to thank this morning's
13 presenters for sharing their perspectives on winter
14 preparedness, as well as this afternoon's panelists
15 for their contributions to the discussion on
16 resource adequacy in MISO's own forum.

17 Finally, I would like to offer a
18 special thanks to my colleague, Commissioner
19 Edwards, and her policy advisors for their efforts
20 in organizing and posting today's session.

21 The purpose of Part I of today's
22 session is to assure Illinois ratepayers that the

1 upcoming winter demand can adequately be handled by
2 hearing from --

3 CHIEF CLERK: Are the microphones on at the
4 bench? We are not hearing you in Springfield.

5 CHAIRMAN SHEAHAN: Sorry. Is that a little
6 better?

7 CHIEF CLERK: That's much better. Thank you.

8 CHAIRMAN SHEAHAN: The purpose -- I'm sorry. The
9 purpose of Part I of today's session is to assure
10 Illinois ratepayers that the upcoming winter demand
11 can be adequately handled by hearing from the gas
12 industry, Regional Transmission Organizations and
13 Illinois Local Distribution Companies.

14 Given that another Illinois winter is
15 fast approaching, the Commission must ask how the
16 U.S. natural gas market is positioned to meet this
17 winter demand, whether there is adequate
18 coordination between gas and electric markets, how
19 RTOs anticipate overcoming challenges to ensure
20 electric reliability, and how LCDs plan to refine
21 gas for its facilities.

22 The purpose of this afternoon's

1 session is to address resource adequacy in the
2 Ameren Illinois blueprint due to its
3 energy-generating capacity in MISO's Zone 4 and the
4 narrow timing of MISO's planned resource auction.

5 The question remains whether MISO's
6 market construct is appropriately designed to
7 reliably meet demands in Illinois. The discussion
8 is intended to explore the benefits of ensuring
9 long-term adequacy -- resource adequacy in
10 Ameren-Illinois's footprint and discern which
11 entities are best positioned to serve reliably.

12 The ability of MISO to ensure capacity
13 during peak times and just and reasonable rates is
14 critical and we look forward to hearing everyone's
15 perspectives on that question.

16 This afternoon's session will be
17 supplemented by a policy session on December 10th to
18 specifically discuss potential solutions to resource
19 adequacy. The conversation will also include
20 representatives from MISO and the utilities, as well
21 as other relevant stakeholders, and is intended to
22 weigh the costs and benefits of proposed solutions.

1 met.

2 Having endured the coldest winter
3 months in history just last year, the performance
4 and capacity of natural gas and electricity system
5 is more important now than ever before.

6 The coordination of supply, demand,
7 storage, pricing, and various pipeline operations is
8 vital to ensure winter readiness and I look forward
9 to hearing from our panelists about the development
10 and processes implemented after the Polar Vortex to
11 meet the needs of the State of Illinois and our
12 great consumers.

13 Now, as indicated in your agenda,
14 hopefully you have before you, the Commission is
15 asking the representatives to address a few issues
16 for today's presentation, including how the U.S.
17 natural gas markets is positioned to meet the
18 2015-16 winter demand, whether appropriate
19 adjustments have been made to coordinate gas and
20 electricity markets, challenges and trials faced by
21 the RTOs with respect to assure electric
22 reliability, assure access to gas supply, and how

1 transmission pipeline operating restrictions and
2 similar issues have been addressed.

3 Please allow me to introduce our great
4 panelists. Giving the natural perspective will be
5 Chris McGill, Vice President of Policy Analysis at
6 the American Gas Association.

7 Next we will hear the RTO perspective
8 from Todd Ramey, Vice President of System Operations
9 and Market Services at MISO, and Rich Mathias,
10 Senior Consultant at PJM Interconnection.

11 Following the RTO perspective will be
12 the Illinois LDC perspective on gas supply, energy
13 efficiency, and customer service and outreach
14 presented on behalf of Scott Glaeser, Vice President
15 of Gas Operations and Development at Ameren
16 Illinois; Tina Yoder, Director of Energy Efficiency
17 at MidAmerican Energy Company; and Michelle Rindt,
18 Vice President of Customer Service at Peoples
19 Gas/North Shore Gas.

20 Please give a round of applause to our
21 panelists as we look forward to today's session.

22 (Applause.)

1 MR. MCGILL: Good morning, Mr. Chairman and
2 Commissioners. I am Chris McGill. I am
3 representing the American Gas Association, and today
4 before Scott and others talk specifically about
5 Illinois and about the Midwest, I was going to try
6 to set the stage for where we are nationally with
7 respect to natural gas supply in the marketplace and
8 what expectations have been set up for this winter
9 heating season.

10 I am going to go through a set of
11 slides very, very quickly. It is this natural gas
12 market in the United States and North America and
13 more broadly a very big space ship. It's got a lot
14 of buttons, and I'm going to just push a few of them
15 today and try to give you a sense of where we find
16 the marketplace and where we find the value really
17 for consumers.

18 Domestic natural gas production is the
19 biggest piece of gas for the supply to consumers in
20 the United States. A little more than ten years ago
21 the country produced about 50 billion cubic feet per
22 day.

1 Today we produce over 70 billion cubic
2 feet per day, to give you a sense of scale of how
3 things have changed, and the production market,
4 unlike the demand market that goes up and down,
5 stays relatively the same day-to-day, so we are
6 producing 70 billion, 71, 72 billion cubic feet per
7 day in the United States every day, and gas goes --
8 historically goes obviously to consumption.

9 Finally, in 2015, as you can see by
10 the curve that's represented here, the production in
11 the country has flattened out a little bit.

12 We have been oversupplied for quite a
13 bit of time. The market has responded to that,
14 prices are down, producers are a little less active,
15 and we have finally seen the production curve turn
16 over and flattened out, and this is an indication of
17 the ability to produce. It's a response to the
18 marketplace, actually a very rational response.

19 The expectation -- in this case this
20 is from Bloomberg Energy Finances -- we are going to
21 continue to see gas production in the U.S. and North
22 America in general increase as we go forward.

1 Perhaps by the mid-2020s we will see it flatten out
2 in small ways actually, but the expectation is that
3 natural gas supply, as well as demand, is going to
4 grow, and we won't get this picture of growth going
5 forward unless the market is demanding it.

6 The reason this has all come to
7 fruition goes back to something I know you read
8 about, heard about, or familiar with, and that is
9 the production of unconventional resources in the
10 United States based on various technologies that
11 have been employed.

12 Essentially since 2006, about ten
13 years ago, we have seen growth in natural gas shale
14 production. Now that matters because that
15 production is coming often from places not generally
16 viewed as major producing areas in the country.

17 The Eastern United States, for
18 example, the Marcellus and Utica shales, had a great
19 impact on the infrastructure that moves natural gas
20 around, but, as you can see, in very tangible terms
21 what was virtually no production from these
22 resources, essentially because it wasn't technically

1 recoverable, as it is today, has grown to be half of
2 what the country produces.

3 Now the Energy Information
4 Administration actually expects shale production in
5 the United States to climb about one percent in
6 December compared to November of this year. Again,
7 this is the productive curve rolling over a little
8 bit and reacting to the marketplace, but the growth
9 we have seen in domestic natural gas production has
10 been extraordinary, and I'm old enough to have seen
11 gasoline lines back in the 1970s. Fossil fuel in
12 the United States with this kind of growth has been
13 an extraordinary story.

14 This is supported by what the industry
15 views and others as a very, very strong resource
16 potential here in the U.S. and in Canada. This
17 happens to be just in the United States, technically
18 recoverable resources from the potential Gas
19 Committee from the Colorado School of Mines.

20 They have assessed the resource
21 evaluation once every two years taking into effect
22 the technology as well as the economics of producing

1 gas. And the important thing to look at at this
2 table or this graphic presentation is perhaps to
3 look at the 1990s and 2014, again, technically
4 recoverable resources. The shale resource indicated
5 by the PGC in 2014 by itself is larger than the
6 total estimated resource base back in 1990.

7 Again, that gives you some sense of
8 how the economics and the technology associated with
9 producing these resources has impacted the natural
10 gas industry. This is what we refer to as natural
11 gas abundance here in the United States.

12 Commissioners, when I first saw this
13 slide -- it came from Bloomberg -- it was written in
14 Japanese. It was for a presentation in Tokyo. I
15 didn't have to be able to read Japanese to get an
16 idea of what they were trying to show.

17 This goes back to what I mentioned
18 before. We are having extraordinary increases in
19 molecules in natural gas supply coming from
20 historically areas that have not necessarily
21 produced that much natural gas, specifically the
22 Marcellus and the Utica shales in the East.

1 The expectation going forward
2 incrementally is that these are in DCF per day, that
3 we expect to see more growth from those areas. That
4 also ultimately impacts the Midwest.

5 Infrastructure has been developed and
6 will continue to be developed really to the point
7 where Illinois, which has traditionally received its
8 gas supply from the west and the south, is also
9 going to begin receiving its gas supply -- potential
10 supply from the Eastern United States, and it's been
11 an extraordinary turnaround.

12 Looking a little further ahead, 2020
13 to 2030, those increments are expected to continue.
14 Those increases are expected to continue perhaps not
15 quite that dramatic a scale, but perhaps most
16 analysts think the next unconventional resource
17 opportunity is going to be occurring in Western
18 Canada and that we are going to see growth in
19 natural gas there also which will be available not
20 only for projects such as on the exports to the
21 Pacific Rim but to particularly the Northwestern
22 United States.

1 All of this has occurred -- if you
2 look at this graphic -- in 2013, 14, 15, and natural
3 gas prices, market clearing prices are relatively
4 low compared to history, maybe even extraordinarily
5 low compared to history.

6 Our general view is that we will
7 continue to see relative price stability at whatever
8 range you want to, but relative price stability
9 going forward and that supplies will be met, that
10 the market will demand natural gas, and that these
11 relative costs -- these relatively stable costs will
12 continue.

13 I'm asked often is a \$2 gas price
14 enough to sustain a producing segment, really even
15 the whole value chain in the United States; probably
16 not. Prices probably need to go up a little bit.
17 Market is trying to adjust to this right now. We
18 will see, but that stability within a range of
19 pricing is what our expectation is, not just going
20 forward for a year or two, but for many years to
21 come.

22 I put on this slide very quickly

1 because we are all aware that oil prices have
2 fallen, too, and we've had a domestic oil production
3 renaissance in the United States, millions of
4 barrels of oil, more we are producing now than we
5 did ten years ago.

6 With that oil comes some gas
7 production. If you slow down oil production, does
8 that mean you slow down gas production from that
9 associated relationship of oil? Yes, you do. But
10 is it going to really hurt the gas market? In my
11 analytical view, it's probably not going to. There
12 are too many gas resources around the country that
13 are accessible and relatively inexpensive.

14
15 I just had a recent discussion with a
16 group from Wood MacKenzie who does analysis of gas
17 supply in all basins around the country who do
18 detailed analysis of those basins and looked at the
19 cost of lithium gas. They saw, going forward,
20 900 trillion cubic feet of natural gas that could be
21 developed in the United States for less than \$4 per
22 million BTUs, an extraordinary amount of gas at a

1 history of a very relatively low price.

2 So my expectation is that the oil
3 market is not going to dramatically impact natural
4 gas around the country. One of those reasons is if
5 you can look at a place like Pennsylvania, and in
6 early 2015 in Pennsylvania, there were still 2,400
7 natural gas wells that weren't hooked up. They
8 stopped drilling in Pennsylvania and still have
9 thousands of wells to hook up and be able to market
10 the gas. Pennsylvania producers are hoping that
11 that changes in time, but we still have that
12 situation.

13 We know that pipeline projects are
14 growing from some of these new productive areas.
15 Some of those pipelines again turning gas from east
16 towards west, and those pipeline projects are really
17 imminent in terms of those things that are going to
18 be -- have already and are going to be adding
19 capacity to help move gas from these new growing
20 market areas for production to consumers in the
21 United States.

22 Part of the picture that we'll be

1 discussing today, again by Scott and others, is the
2 storage picture around the country. I checked a
3 number EIA this morning. For the first time in
4 history, the working gas level in the United States
5 was 4 trillion cubic feet at the end of last week.
6 That's it. That's a lot of gas in storage.

7 ADA started this weekly storage
8 reporting. In fact, I started to report myself back
9 in December of 1993, and I could not have believed
10 to have seen that volume of gas in storage beginning
11 the winter heating season, so it is an extraordinary
12 event, and I was alive to see it.

13 (Laughter.)

14 What are we going to have in
15 expectations, and that will be discussed certainly
16 for the coming winter heating season. To put some
17 context in the numbers, I'm going to talk to you
18 about from EIA. There's a very strong El Nino event
19 going on in the Pacific right now, the Weather
20 Service says as strong as in '97, '98 events. That
21 generally means warmer temperatures in the Pacific
22 Northwest and the Midwest on average for the winter

1 heating season, slightly below in the South. And if
2 you look at it from a precipitation standpoint,
3 generally more in the South and a little less in the
4 North.

5 Now putting numbers to that then and
6 looking at natural gas as far as opportunity for
7 consumers and what expectations nationally are for
8 bills, we will go through some numbers here very,
9 very quickly.

10 We know that the demand for natural
11 gas per household has dropped. In 1970 there were
12 38 million residential natural gas meters for
13 customers in the United States. Today there are
14 over 65 million. Those two groups of customers use
15 the same aggregate volume of gas, that is, the 65
16 million customers here in the United States in 2015
17 used the same aggregate volume as only 38 million
18 customers did in 1970.

19 Natural gas has been the poster child
20 for efficiency, and customers are using less in an
21 age of climate change, and so many other things that
22 we hear around the energy industry we find natural

1 gas a great opportunity for Co2 emission savings,
2 too.

3 We are expecting to see incremental
4 growth in gas demand, as I showed you before on the
5 supply picture, going forward. We at AGA try to
6 look forward then at residential bills by surveying
7 our customers.

8 When we surveyed our customers in
9 September of 2015, 83 percent of our companies said
10 they did not expect any increases in bills for the
11 coming winter heating season. It's probably -- if
12 we surveyed them again today, it would be even more
13 dramatic than that.

14 As we looked at it in early October,
15 we saw the potential for 5 to 7 percent reductions
16 in bills nationally. We saw the opportunity for
17 perhaps having the second lowest bills that we have
18 seen in a decade, and we certainly saw a great value
19 for customers.

20 The Energy Information Administration
21 at the same time was looking at bills about
22 9 percent less than normal in early October. They

1 just revised their November short-term outlook and
2 they're talking about nationwide bills 13 percent
3 less than what we saw the previous year.

4 So, again, extraordinary value
5 proposition for natural gas for consumers going
6 forward. Part of those reductions in bills are
7 dependent upon the weather forecasts, of course, but
8 the other part of that goes back to this relatively
9 low-pricing situation that we have seen, not only
10 what we see today but think back -- perhaps Scott
11 will touch on this -- historic picture this summer
12 refilling storage, less cost than what we saw in
13 2014. So all of those things will help moderate
14 some of the consumer impact that we see for the
15 coming winter heating season.

16 Ladies and Gentlemen, those are my
17 remarks. If you have any questions, I will be happy
18 to answer them.

19 COMMISSIONER MAYE EDWARDS: Thank you so much,
20 Mr. McGill. I do have one question, and then I will
21 defer to my colleagues to see if they have anything.

22 MR. MCGILL: Yes, ma'am.

1 COMMISSIONER MAYE EDWARDS: On the slide where
2 you say you did the AGA survey, you remember 17
3 percent said no -- as of September 2015 -- I'm sorry
4 -- 17 percent said yes and the group that said yes,
5 were they kind of in one area of the country or do
6 you not know the details?

7 MR. MCGILL: I do not remember the details
8 frankly. I'm sorry.

9 COMMISSIONER MAYE EDWARDS: Okay. No, that's
10 okay. I was just curious.

11 Anybody?

12 COMMISSIONER ROSALES: Yes, I do.

13 In your last statement about the
14 storage would be less expensive than it was the year
15 before, why is that?

16 MR. MCGILL: The average cost of gas -- again,
17 I'm speaking nationally -- on average in 2014 was in
18 the mid \$3, looking at a long period during the
19 storage refill season in 2014. This year it was
20 under \$3, so there's some difference between what it
21 cost to put gas in storage this year compared to
22 last year. Perhaps a comment from one of the other

1 speakers.

2 COMMISSIONER ROSALES: No, I understand.

3 MR. MCGILL: Okay. Thank you.

4 COMMISSIONER MAYE EDWARDS: With that, thank you
5 very much.

6 We will now turn to our RTOs. Thank
7 you.

8 MR. MCGILL: Thank you.

9 (Slide presentation.)

10 COMMISSIONER MAYE EDWARDS: One more. If you
11 keep going past, but you are going backwards though,
12 and then another. Yes.

13 MR. RAMEY: Good morning, Mr. Chairman,
14 Commissioners. My name is Todd Ramey. I'm
15 currently responsible for control room operations,
16 overseeing the reliability of the local energy
17 system in the MISO footprint, and I want to thank
18 you for the invitation to joining this discussion
19 today.

20 Twice a year in MISO we engage our
21 stakeholders in preparation for peak load operation
22 conditions for both the summer and the winter peak

1 load operating seasons.

2 We recently completed in October our
3 assessment of the upcoming 2015-2016 winter season.
4 Results of that review is stakeholders showed that
5 we are positioned well to serve load reliably this
6 upcoming winter.

7 Looking at the generation side, we are
8 currently forecasting to have a 41 percent planning
9 reserve margin. That is a very healthy reserve
10 margin as compared to the minimum requirement we
11 have in MISO of just under 15 percent on a planning
12 reserve basis.

13 The reason for that relatively large
14 reserve margin is it's not unusual for us to see
15 that in the winter conditions -- for the winter
16 season, because in the Midwest we're typically a
17 summer peaking system so we have a much higher load
18 to serve in the summer. The system is built out of
19 a planning basis to meet that higher load, so we
20 traditionally have higher margins for the
21 wintertime.

22 In addition taking a look at the

1 supply side, we also do an analysis to the
2 transmission system to ensure that we are aware of
3 any challenges to having sufficient transmission
4 capability and again ensure reliable operations over
5 the peak conditions.

6 In addition, I will give some examples
7 of the lessons we learned from the severe winter we
8 had in 2013, 2014 Polar Vortex in January 2014,
9 severe operating conditions present a lot of
10 opportunities for review and made improvements to
11 processes and procedures going forward. We were
12 certainly able to do that over the last couple of
13 years. As mentioned, a couple were previously put
14 in place since that time.

15 What I am showing here are typical
16 daily load shapes on the left for a typical peak
17 summer day. On the right is the load shape for a
18 typical winter day. Just the shape of the load
19 throughout the day in the wintertime creates
20 operating challenges that are unique to the winter.

21 It's not completely obvious, but if
22 you notice in the wintertime, we actually have two

1 separate peaks that occur on the system. We have
2 coming up in the daylight hours we have that first
3 peak you see ramping up and levels off through
4 midday, then we have a pretty significant evening.
5 It's about generally a 10,000 megawatt pickup. When
6 folks are leaving work and going home, I see a
7 pretty significant pickup.

8 The operating challenge is presented
9 by the steepness of the load pickups on those two
10 curves. If you compare the steepness of the pickup
11 of the summer curve to the left, you are going to --
12 in the summer you are going to start out in the
13 morning with low loads and it will build gradually
14 throughout the day and will lead to a higher peak
15 late in the afternoon, but it's a relatively gradual
16 pickup, and it's relatively predictable, and it's a
17 little easier to manage from an operations
18 perspective.

19 The steepness of those two pickups in
20 the wintertime can create challenges, because the
21 number of generators that have to be scheduled and
22 planned to be staged and come on-line throughout

1 that four-or-five hour morning pickup period is
2 critical to make sure that we have sufficient
3 resources to keep up with that increase in demand.

4 We can see in the wintertime is that
5 extreme cold weather can create challenges for
6 maintaining high reliability and individual
7 generating plants in the footprint.

8 The cold weather we saw in the Polar
9 Vortex can lead to short notice forced outages of
10 generators, generators becoming aware close to the
11 morning pickup periods that they won't be able to
12 come on-line due to some reasons associated with
13 cold or even slow-to-start conditions will create
14 challenges. This was an issue both in our footprint
15 and I know in the PJM footprint during the Polar
16 Vortex event.

17 So part of our focus for the last two
18 years in preparing for the winter operation is to
19 work with our asset owners in the footprint in
20 advance of the winter to make sure you are ready to
21 address the unique challenges that you are facing in
22 the wintertime.

1 I mentioned we have reviewed, and
2 designed, and implemented several enhancements over
3 the system Polar Vortex two years ago. This
4 references both market enhancements that we designed
5 to put in place to make the improvements, but, in
6 addition to that, we spent a lot of time focusing on
7 improving control room to control room situational
8 awareness as we are planning the operating time
9 frame to meet those high-load days during the winter
10 period, so a lot of focus has been placed on
11 improving in the area of gas/electric coordination.

12 We have developed strong relationships
13 with pipe operators in MISO's footprint. It's been
14 beneficial certainly to my control room, and I
15 believe it's beneficial from a situational awareness
16 perspective in terms of pipe operation in the
17 footprint, so we spent quite a bit of time building
18 those relationships and improving our communication
19 with the gas pipe operators.

20 One of the other things that we found
21 during the Polar Vortex is that the drivers of
22 slow-start events or even late notice forced-outage

1 events it was difficult to analyze and understand
2 fairly well what those drivers were, so we've also
3 spent a lot of time working with our asset owners in
4 developing new cause codes, rapid effective analysis
5 of less driving challenges, again, in support of
6 situational awareness both for MISO concurring with
7 staff, as well as supporting information to help us
8 plan better for the upcoming winter.

9 In terms of specific market
10 enhancements that have been placed over the last
11 couple of years, we have implemented and improved a
12 price formation algorithm that improves the
13 transparency of price information which is useful
14 for supporting decision-making of individual asset
15 owners as they prepare for and implement operations
16 during the winter season.

17 We have implemented a new coordination
18 procedure with the RTO to our south and west, the
19 south power pool. That helps certainly in
20 coordinating the reliable operations of facilities
21 along that the same SVP where both our crews have an
22 impact and coordination with.

1 Other market enhancements that we are
2 working on to help delivery for future winter
3 periods include along there a ramp product. A ramp
4 product is a market-based mechanism on an operating
5 time frame basis 15, 20 minutes ahead specifically
6 reserving enough rampable capacity on the system to
7 help us manage better the availability capacity for
8 the need to grant two pickups during the winter
9 days.

10 As I mentioned, our primary focus has
11 been on improving information exchange in support of
12 situational awareness for control room operators.
13 We greatly expanded the list of pipelines operating
14 in the MISO footprint we have relationships with.

15 We have implemented a fuel survey of
16 the asset owners of the MISO footprint. We did that
17 for the first time prior to last winter. We are
18 currently underway with the second fuel survey of
19 our asset owners, and, again, it's something MISO
20 built a better awareness of the potential
21 implications of fuel reliability for the individual
22 generators in the footprint. This is very

1 beneficial to have that information as my staff is
2 preparing for operations all along an operating day.

3 Combining that information with
4 information we are getting from the pipeline
5 operators is very helpful and allowing us to make
6 sure we have a reliable plan the day before
7 operations to meet the operating challenges
8 intra-day the following day.

9 We have, as I mentioned, increased our
10 information sharing with pipelines, even automated
11 communication systems that we have traditionally had
12 to communicate with our asset -- generation assets
13 operators in our footprint. We have included some
14 of the pipeline operators on that automated
15 communications as well. Pipeline operators have
16 visibility of what's going on in the system as well
17 as, as I mentioned, communication in the other
18 direction.

19 We have recently added two personnel
20 to the MISO control room staff who have a deep
21 history of operations of the gas pipeline industry,
22 so we are finding that as we learn more and more

1 about the challenges and details of operating both
2 pipeline systems, again, that's very supported for
3 my control room operators and their ability to have
4 information that helps them analyze from a
5 situational awareness perspective, and so we added
6 one member to our team last year and this year we
7 have another person on board to help us with that
8 information.

9 So the bottom line is we're looking
10 forward to this winter. We are confident that we
11 have sufficient generation resources and marketing
12 needs to operate the system reliably. We have not
13 identified any serious transmission issues to give
14 us concern, certainly nothing around the Illinois
15 area that we thought would cause concern in regard
16 for Illinois. We've completed our transmission
17 analysis and our generation analysis as part of the
18 winter readiness assessment to stakeholders.

19 The other areas of focus, as I
20 mentioned, we have been working with our asset
21 owners in the footprint as we consider and talk
22 about winter readiness and winterization to make

1 sure the fleet is ready to operate during those
2 coldest days of the winter where we certainly saw
3 that in the Polar Vortex.

4 Last winter we had several days that
5 were extremely cold as well. Having those
6 conversations in advance of last winter, we didn't
7 see much improved performance that we have to
8 provide a new perspective.

9 So that concludes the remarks I was
10 going to make, and I'll be happy to answer any
11 questions.

12 CHAIRMAN SHEAHAN: Mr. Ramey, can you speak to
13 the impact of planned or announced -- planned or
14 retirements on readiness for this winter in Zone 4?

15 MR. RAMEY: For Zone 4 for this winter, we think
16 again we have sufficient generation to meet the
17 requirements for Zone 4. No concerns are there for
18 this winter.

19 We have seen across the footprint
20 11,000 megawatts of generation retired in response
21 to environmental regulations that have gone into
22 effect in recent years. That is coming from a

1 position -- first of all, it's a very healthy
2 planning reserve margin for the footprint, so we
3 still have reserve margins, especially in the
4 wintertime, well in excess of minimum requirements.

5 Again, looking forward -- looking back
6 a little bit to senior retirements, looking forward
7 we have seen potential pressure for additional
8 retirements, so for this winter we don't have any
9 concerns. We will continue to engage our strategy
10 for next year. We understand the process is about
11 ensuring reliability in the future.

12 CHAIRMAN SHEAHAN: Thank you.

13 COMMISSIONER MAYE EDWARDS: Mr. Ramey, what is
14 your determination or MISO's determination that
15 there is sufficient generation based on? Is it
16 MISO's surveys? Is that how you generally determine
17 that there's sufficient generation?

18 MR. RAMEY: Yes. We do conduct surveys of our
19 assets and our load servers on their plans for
20 procuring firm resources to meet their obligations
21 on a going-forward basis. That's typically looked
22 out several years, but what we are doing to the

1 winter assessment for the upcoming season, we
2 certainly know what generation is available on the
3 system today, and combining that information with
4 our understanding of retirements, and/or additions,
5 we are able to forecast an expectation of resources
6 for the upcoming winter season.

7 COMMISSIONER EDWARDS: Okay. The reason I asked
8 is because my concern is always with the MISO
9 surveys and that is as far as it comes.

10 I don't want to crossover into this
11 afternoon's conversation, but, as far as the State
12 of Illinois is concerned, there are many entities
13 that we don't necessarily have jurisdiction over.
14 We have a lot of alternative suppliers that don't
15 necessarily respond or have an accurate response.
16 You know, day-to-day they
17 didn't -- that changes for them and then there's
18 also municipalities.

19 So how are you -- and I think for the
20 past year I was kind of informed that they didn't
21 respond to the survey, so how are you --

22 MR. RAMEY: I think from our perspective we were

1 satisfied with the response that we received on our
2 surveys and, as I mentioned, so we are saying in
3 October our forecasting expectations for just a few
4 months out we have a very good feel for what's on
5 the system today, and we've worked with all of those
6 asset owners to make sure, as best we can, which
7 we're -- I'm saying we are satisfied that we have a
8 good handle on what's going to be available when it
9 comes to winter. With our relationship with the
10 asset owners and MISO and our understanding of their
11 plan over that near term, we feel very confident
12 that we have a good view of what's going to be
13 available this winter.

14 COMMISSIONER EDWARDS: Thank you.

15 Any other questions?

16 COMMISSIONER ROSALES: Yes. How does the market
17 in Southern Illinois in MISO's Zone compare to
18 Northern Illinois PJM, including with respect to new
19 building in terms of energy capacity?

20 MR. RAMEY: To answer your question, first from
21 the energy market perspective to the process that is
22 used in Southern Illinois and Northern Illinois are

1 very similar in design. So the decisions and
2 processes that are used to make decisions of which
3 generators to ask to be on-line the following day
4 with a commitment decision and inter-day which units
5 are dispatched to meet the requirements of the
6 system are very similar.

7 I mentioned the coordination process
8 that's relatively new in MISO with our RTO neighbor
9 to the southwest SVP. MISO and PJM have had a very
10 similar pretty sophisticated coordination process in
11 place since 2004. Part of that coordination process
12 also allows the fact that there are different
13 markets that you will get generally similar outcomes
14 processing across that state, so it's a pretty
15 robust, effective coordination process we have at
16 PJM.

17 In terms of market-based processes to
18 provide for a larger resource planning process,
19 there are differences in those designs, and that's
20 part of the subject matter for the afternoon
21 session, but there are significant differences there
22 that's worthy of taking a look at and discussing

1 with stakeholders in Illinois about implications of
2 those differences and what we might want to do to
3 address that.

4 COMMISSIONER ROSALES: So what entity has the
5 responsibility for resource adequacy in Southern
6 Illinois?

7 MR. RAMEY: Well, I could tell you that MISO has
8 resource adequacy obligations across -- MISO serves
9 all parts of 15 states and we have a single tariff
10 that provides for those processes across those 15
11 states. For the bulk of the footprint, I would
12 describe the partnership or the responsibility as a
13 partnership between MISO, and the states, and the
14 utilities within those states.

15 Again, the question is for Southern
16 Illinois, given Southern Illinois has a competitive
17 retail construct, is the balance different enough
18 between that partnership to suggest that we may need
19 to make modifications on how we approach resource
20 adequacy in Illinois.

21 COMMISSIONER MAYE EDWARDS: And I think that,
22 too, a lot of that will be kind of addressed this

1 afternoon as well, so we will have further
2 discussion about that.

3 MR. RAMEY: I look forward to that.

4 COMMISSIONER MAYE EDWARDS: Next and last, but
5 certainly not the least from the RTOs, we have
6 Mr. Rich Mathias who also is the former chairman of
7 this great Commission.

8 MR. MATHIAS: Good morning, Chairman and
9 Commissioners. My name is Richard Mathias. I
10 represent PJM Interconnection, which is a Regional
11 Transmission Organization, which operates in parts
12 of all the 13 states and District of Columbia. We
13 manage the transmission assets which are owned by
14 Commonwealth Edison.

15 PJM has been asked today to comment on
16 PJM's ability to keep the lights on in the 2015-2016
17 winter season, to address our winter preparedness,
18 the ability to meet winter demand.

19 I would like to cover three things
20 today, three matters in addition. The first one, of
21 course, one must consider is the common sense
22 indicators of what everyone in the room can

1 understand and transmission managers are challenged
2 in the transmission system and the RTOs are
3 challenged to keep the lights on.

4 Secondly, I'll address the resources
5 that are available in the PJM footprint to meet the
6 winter demand, and the third I will comment on some
7 of the changes that we see and the resources that
8 are available and will become available to PJM in
9 the coming years.

10 I note that many of the comments that
11 I will make will be a mirror of what Todd Ramey just
12 said. We have a very similar perspective, a very
13 similar experience, and I know that there's --
14 sometimes there's a discussion about what's going on
15 with PJM and what's going on in MISO and whether
16 they're similar.

17 I would always say that from control
18 room to control room there's never a question as to
19 what the obligations and responsibilities, and
20 that's to keep the lights on.

21 And so I think we do a very good job
22 in cooperating together to keep the lights on in the

1 Midwest and mid-American area. So I echo what Todd
2 just said, the coordination between PJM and MISO is
3 on a day-to-day operating basis.

4 Let me comment and go back to what I
5 covered in May of this year when we talked about
6 summer preparedness and just cover briefly some of
7 the common sense indicia that everyone in this room
8 can understand, and why and how RTOs, such as
9 PJM and MISO, can be challenging those various times
10 of the year.

11 I mentioned in May at the other
12 meeting that obviously the season of the year is a
13 determining factor in how RTOs operate. Obviously
14 in the summer -- as Todd mentioned earlier -- can
15 have very high load factors, and we must keep the
16 lights on at that time as well as the winter has
17 double peak, two peaks, similar challenges between
18 PJM and MISO, and, of course, we have the shoulder
19 months which are usually the September, October,
20 April and May when we have a lower load, but
21 frequently the transmission owners and the
22 generators -- generation owners will take their

1 assets out of the operation and do maintenance and
2 winter maintenance, and so we have to make certain
3 as an RTO that we don't take off the wrong generator
4 or the wrong transmission line for those shoulder
5 months as well.

6 I mentioned in May the day of the week
7 makes a difference as to how the transmission system
8 is operating. If you have a very, very hot wave of
9 heat coming in on a Thursday night and ends on
10 Monday, it's much different than having that heat
11 wave start on Monday and end on Thursday, much
12 different.

13 The loads on the weekends are much
14 lower. Usually people go home in hot weather on
15 Friday afternoons early so it's much less stressful
16 on the grid operator if you have that hot weather or
17 cold weather getting -- or cold weather going
18 through a weekend rather than through weekdays.

19 The duration of the heat wave or cold
20 wave also makes a difference. The longer that heat
21 wave or cold wave continues the more of a challenge
22 it is. Things break, and that certainly can happen

1 when you have a long running challenge.

2 There's also noted the damage to the
3 transmission system, the distribution system from
4 ice storms or tornadoes include real problems for
5 grid operators and the transmission owners.

6 I know one time in Southern Illinois
7 there was a very, very severe ice storm, and I think
8 in the tree-cutting business, because it just
9 couldn't get to the facilities, that many of the
10 tree services had a field day, I'm sure, on both PJM
11 service territory and MISO.

12 I also mentioned some of the operating
13 challenges, and Todd mentioned these earlier, and
14 that is summer and winter presents different
15 challenges, challenges nonetheless.

16 Summer obviously usually is very hot
17 weather with a single peak. Interestingly enough,
18 generation assets usually operate quite well in the
19 summer. They're not a problem, but transmission
20 assets can sag and a transmission line can sag due
21 to overheating. You can have -- you have greater
22 congestion in the summertime as well, as against

1 wintertime challenges with different challenges.
2 Transition system usually operates very well in the
3 wintertime. Cold weather they don't necessarily
4 overheat. Generation assets can have a tremendously
5 difficult time coming on-line starting -- operating
6 with frequently can be and have been in the past.
7 Natural gas availability challenges from coal-fired
8 generators to coal piles can freeze, conveyor belts
9 can freeze, so, whereas in the summer, generation
10 assets frequently operate very well and in the
11 wintertime generation assets can have real problems.

12 I would like to cover just the second
13 item, which I mentioned, and that is the forecast
14 for the winter months from the PJM perspective and
15 when we would be able to meet the winter demand.

16 I believe Christopher McGill mentioned
17 that some people are advocating that this will be an
18 El Nino-type of winter where it could be warmer, and
19 we see the same thing. We also have some reflects
20 the Great Lakes States could be a very cold winter,
21 so take your pick, El-Nino or a very cold weather in
22 the coming months.

1 The fact of the matter is PJM has to
2 prepare for both, just as an independent ISO for
3 warm weather as it does for cold weather. Here's
4 what we show with our so-called 50/50 forecast.
5 This is a forecast that we believe is most likely to
6 occur, and that is we will have an unrestrictive
7 forecast and that's defined in the bottom of
8 132,000 megawatts, and we'll address that with a
9 total of what we saw in the past year about 177,000
10 megawatts.

11 And just as Todd mentioned, frequently
12 we would have greater surplus, greater accesss, so
13 to speak, in the wintertime than we will see in the
14 summer because summer peaks are usually much more
15 severe.

16 I should note that in 2014 our
17 unrestricted actual high-load compressors were 4,000
18 megawatts, so pretty close to what we anticipate
19 this year.

20 Just as Todd mentioned, with PJM and
21 MISO these are the number of entities, the number
22 and so forth, PJM meets with equally number of

1 outside interests to go to our load forecasts.

2 You look at what the challenges might
3 be for the winter, you can see the summer as well.
4 You can see the PJM study and daily requests which
5 are internal to PJM and its members.

6 We have reliability coordinating the
7 winter preparation meetings, and these are with a
8 human person. Notes are taken, and sometimes there
9 is an actual transcript of these meetings when there
10 are serious concerns. And then I'll look at the
11 very next topic, which is the gas/electric
12 coordination, and I'll come back to this.

13 I would note that the Chairman asked
14 at the beginning of this meeting if the coordination
15 between the gas and electric industry is adequate.
16 I don't know that I would put a value judgment on
17 it, but I would say it's much better than it was two
18 years ago.

19 I see a lot of people in this room who
20 are with gas companies who I and others who PJM have
21 dealt with over the past several months to make that
22 coordination much better and both are more than

1 adequate, but I will come back to this.

2 Just as Todd mentioned, just as MISO
3 has generation retirements, PJM also has. This
4 indicates this occurred within PJM over the past
5 year. We have had almost 11,000 megawatts of
6 generation that retired. Much of this has nothing
7 to do with the so-called green power. It really is
8 mercury air toxic standards that go into effect over
9 this past year, and we see a number of coal-fired
10 generation facilities in the PJM footprint retiring
11 due to the concerns about the cost related to
12 complying with clean air toxic regulations.

13 We also note that in addition to the
14 retirements that coal-fired plants are primarily, we
15 have seen this year that the cold resources amount
16 of supply -- generation supply that is provided by
17 coal-fired generators is down about 8 percent,
18 whereas, gas-fired generators have -- supply
19 provided on gas-fired generation significantly
20 increased.

21 This slide shows the new generation
22 which has come into operation within the

1 PJM calendar year. We note that there's been a net
2 decrease of 8,000 megawatts. Overall, however, for
3 the last few years, we expect this to have a slight
4 increase in the amount of new generation in the PJM
5 account.

6 This has to do with a discussion
7 concerning gas and electric coordination as well as
8 requested in the meeting notice. We note this type
9 of coordination didn't exist two years ago.

10 We really have made progress I think,
11 well, at least adequate. We would like to do better
12 than adequate, and we note that these are ongoing
13 discussions that occur weekly, daily, and ongoing
14 within PJM and natural gas pipelines and the
15 load-serving LDCs in Illinois and throughout the
16 United States.

17 As you see an increase occurring in
18 the amount of natural gas generation, it is
19 absolutely critical that PJM and other RTOs
20 understand the natural gas business and it's also
21 incumbent on the natural gas business to understand
22 the generation business. They are quite different

1 business models.

2 And if you really look at how natural
3 gas pipeline operators interested in having the
4 natural gas grow 15 to 20 miles an hour through the
5 natural gas pipeline 24/7, 365, the local
6 distribution company wants to accept that natural
7 gas, put it in its reservoirs to provide natural gas
8 to their customers for heating reserves.

9 Many of the natural gas generators
10 want to buy as much of natural gas tomorrow as they
11 possibly can and they want to pay for it on a work
12 basis, so two very different businesses, two very
13 different business models, and they obviously clash,
14 but there are ways and we have seen the ways that
15 they can be well coordinated.

16 And the final two slides have to do
17 with generating capacity within PJM. This is
18 installing capacity as of the end of 2014, coming
19 out of natural gas producers and natural gas
20 generators that have been significantly reduced --
21 excuse me -- significantly increased out of coal
22 generation would be significantly reduced and

1 expected to go down with the implementation of the
2 coal-fired plant.

3 And, of course, in Illinois, you can
4 see that in Illinois the PJM footprint has a third
5 of the loops in PJM. Natural gas has 8,000, 9,000
6 megawatts and 57,000 for the PJM footprint, and that
7 number 57,000 megawatts in the PJM footprint is
8 expected to increase significantly in the next few
9 years.

10 So what I suggested is this, that we
11 all observe the common sense indicators that PJM has
12 easily determined whether it's a challenge on the
13 transmission system from the Transmission System
14 Operator, the Regional Transmission Organization and
15 managing in terms of operating systems depending on
16 hot weather/cold weather season, and we think that
17 PJM would be able to meet the winter challenges that
18 are coming this winter.

19 We have more than enough generation
20 resources and we also note that we see a continuing
21 change in the type of transmission generation
22 resources that are available, and each one of those

1 changes from gas, or nuclear, or coal we are
2 monitoring and evaluating how this change will
3 affect the transmission system.

4 COMMISSIONER del VALLE: You had the Polar Vortex
5 pipeline challenges within PJM. What has changed
6 since then?

7 MR. MATHIAS: As far as pipeline challenges, I
8 think that, number one, I see, as I mentioned,
9 friendly faces and familiar faces in the audience
10 here, number one, natural gas pipelines and the LDCs
11 and distribution companies of natural gas certainly
12 understand PJM and generators much better and what
13 their operating characteristics, as well as PJM and
14 generators in the footprint certainly understand
15 what the challenges are of the pipelines and the
16 LDCs.

17 So I think, number one, there's much
18 more of an acknowledgement and understanding of the
19 business models and their practices of the different
20 industries.

21 PJM also preserves a much longer --
22 from a discussion, PJM has a new reliability pricing

1 model proposal where the generators who will be
2 termed capacity resources for PJM have no excuses
3 for their capacity resources. They must be able to
4 perform, and that was not the case two years ago
5 during the Polar Vortex. When capacity resources
6 less performed and generators had to perform, there
7 was basically an excuse that they had for
8 nonperformance which was their inability to obtain
9 natural gas. Now capacity resources do not have
10 that excuse. They must perform, and if they don't,
11 there's significant financial penalties and
12 corresponding financial incentives to be able to
13 perform.

14 COMMISSIONER MAYE EDWARDS: Thank you very much,
15 Mr. Mathias. Thank you, Mr. Mathias.

16 With that aside, we will hear from our
17 LDCs.

18 MR. GLAESER: Good morning, Chairman and good
19 morning, Commissioners. My name is Scott Glaeser.
20 I'm Vice President of Gas Operations and Development
21 for Ameren Illinois, and I'll be here representing
22 all the gas utilities in the State of Illinois, so I

1 will be presenting our gas supply resources, our
2 capacity resources, our storage inventory, all the
3 preparations to meet this winter's demand.

4 I see the Commission's time is
5 impeccable. This Saturday will be snow, I believe,
6 the first time this season, so the timing for the
7 presentation is right on the button.

8 First, I wanted to cover two of our
9 core strategies and finding objectives for the LDCs
10 in the state. Our core mission, and the most
11 important thing to do, is safely and reliably
12 deliver natural gas to our customers at an economic
13 price throughout the year, especially during extreme
14 winter weather conditions associated with conditions
15 experienced here in Illinois and Chicago.

16 Some of the methods we used to ensure
17 that reliability include having intrastate pipeline
18 transportation capacity under firm contracts that
19 have production basins in the United States, having
20 both on-system storage resources and lease storage
21 resources of pipelines, and also balancing the peak
22 resources all designed to meet these peak demand

1 days, but also be able to ramp down to normal
2 operating days and be able to meet those warm winter
3 days that we experience each winter.

4 Another critical point and part of our
5 strategy is diversity. We are very lucky in
6 Illinois. We are literally the crossroads between
7 pipelines in the U. S. Many of the major pipelines
8 across Illinois are delivered to the Chicago area.

9 All of the LDCs in Illinois are able
10 to take advantage of this and have multiple
11 interstate pipelines connected to the system,
12 multiple capacity resources, lease storage
13 resources, access to multiple production basins.
14 It's an important part of our alternatives.

15 At the same time during winter
16 operations, we work very hard on a day-to-day basis
17 and a monthly basis to optimize those resources. So
18 once we have all this infrastructure, all this
19 capacity resource, supply resource in place for
20 winter, daily we're optimizing this optimal supply
21 solution versus cheaper production basin that day,
22 that week. We are investing in storage, keeping

1 that PGA cost -- that PGA-related cost for our
2 customers safe.

3 Finally, as Chris mentioned, gas
4 supply resources in the country are plentiful. The
5 shale gas evolution has been a huge boom to energy
6 in this country. We have less low gas prices, but
7 that does not mean that we should stop hedging. It
8 does not mean to stop price hedging. As a matter of
9 fact, it's actually a signal to put on more price
10 hedging to lock in those low prices for the longer
11 term.

12 Chris didn't mention these prices may
13 be too low for a lot of gas producers because they
14 cause some disruptions in production for some
15 companies prior to be bankrupt. So locking these
16 low gas prices now, they probably will move up in
17 the forward term, but right now the forward market
18 -- I checked this morning -- over the next three to
19 four years they're trading below \$3 the next three
20 or four years. That's an amazing low price gas
21 environment.

22 Just taking a quick review of the last

1 winter's operations, as you recall, the Polar Vortex
2 occurred in the winter of 2013-2014, specifically in
3 January and February, where we also set new record
4 peak systems on demands.

5 Last winter less cold. It was about
6 8 percent colder than normal, but we didn't have an
7 extreme peak experience in the Polar Vortex. The
8 overall peak day for last winter was on January 7th
9 for all the Illinois utilities. We hit about
10 7,550,000 MMBU, which is 7.5 BCF.

11 The low today was about 8 or 1.840
12 BTUs, and I believe this was pointed out here,
13 because one of the key operational aspects of what
14 we see is I don't think that peak design day or else
15 we will ramp down our resources to meet that lower
16 demand which could literally occur within days of
17 having a peak design day, so a lot of effort and
18 energy goes to designer resources, our off-systems
19 storage, lease storage, our gas supply resources,
20 and ramp up and down to meet these warm days and
21 meet the peak design days on a monthly basis.

22 Looking forward to this coming winter,

1 we have listed here the projected peak design days
2 for all of the Illinois LDCs. They total about
3 9.893 billion cubic feet, and to kind of frame that
4 in context, Chris mentioned our production of
5 natural gas in the U. S. in total is about
6 72 billion cubic feet. So Illinois being almost
7 10 BCF out of 72 production, we have a major load
8 center of natural gas remaining here in the State of
9 Illinois, so an interesting fact.

10 The next columns are the capacity
11 resources used to meet those peak design days this
12 coming winter, and you'll see for our interstate
13 pipeline capacity, that firm transportation
14 capacity, in our lease storage we're building we're
15 about 4.426 billion cubic feet this coming winter,
16 and then our on-system storage resources are 4.178
17 BTU.

18 This is an important point. Not only
19 is Illinois blessed with being a crossroad to
20 pipeline operations, but we are also blessed with
21 tremendous storage resources, tremendous storage
22 reservoirs. Ameren Illinois has 12 reservoirs

1 alone. Nicor has huge facilities. These are
2 tremendous storage resources, and, as you see on a
3 peak design day, the average temperature is
4 15 to 20 degrees below zero. Half of our gas supply
5 resources coming not only from within the state but
6 on each utility's system that's directly controlled.
7 That's a huge advantage for LDLs. That's a huge
8 advantage for the state as well.

9 The last resource, which is just as
10 important, is what we call our third-party
11 deliveries. These are really our industrial
12 customers or our third-party commercial customers
13 that transport their own natural gas. They buy
14 their own natural gas. They deliver it to their
15 system or to the market for the system, and that
16 goes into our system as part of the resource to meet
17 the overall system needs. That's up 1.288 BCF.

18 Why that's important is that those
19 markets -- those transformers needs for serious
20 operational technical problem, so that's why we
21 count that as a resource.

22 In terms of our four gas supply

1 strategies, all of the LDCs in Illinois during the
2 winter period, November to March, and especially
3 during the colder winter of December through
4 February, and all of their gas supply resources are
5 firm contracts. A lot of those gas supply resources
6 are coming from all the different production basins
7 in the U.S., primarily from producers and some of
8 the larger marketers. They're all looking for a
9 current base of suppliers that have supply, physical
10 assets, and credit worthiness, and financial
11 strength to go through any type of future winter
12 situation, high price environment, low price
13 environment, for Illinois gas. That is part of our
14 overall forward planning and procurement cycle as
15 well.

16 We are looking at usually two, three,
17 four years in the future for natural gas supply
18 resources and price hedges to help supply each
19 winter.

20 On the gas supply resource base, the
21 first part of our strategy, as I mentioned before,
22 is to have that firm transportation capacity back to

1 each of the major production basins and large market
2 centers in the U. S.

3 Again, we are well positioned. We
4 have many, many pipelines across Illinois and it
5 gives us access to all the major production basins
6 and into Canada.

7 If you look at that map on the upper
8 right-hand side, those red dots are producing fields
9 in all major basins. So in Pennsylvania and Ohio
10 all that red are gas production fields and, as Chris
11 mentioned, six, seven, eight years ago it wasn't
12 totally anything being produced there, now it's not
13 only one of the biggest producing basins in the
14 U.S., it's one of the biggest fields in the world.

15 So one of the things that we have been
16 working on as an LDC in Illinois is getting access
17 to that new supply from the Marcellus and Utica
18 basins. We also have access to production basins in
19 gulf states, Texas, Louisiana, Gulf of Mexico
20 offshore, the Permian Basin in West Texas, the
21 Bakken Basin, Rock and Shale in the Dakotas. So you
22 can see Illinois is sitting dead smack in the middle

1 with access to all of these gas suppliers that use
2 production basins.

3 This is a better graphic of how that
4 gas goes in the state. These are all the major
5 pipelines that cross Illinois, including some to
6 Chicago.

7 We start in the upper left-hand
8 corner. We are getting direct access to Western
9 Canada supply and Bakken shale. We have pipelines
10 at the border. They're getting direct access to
11 Lockheed Gas, Eagle Rock Pipeline. They're getting
12 direct access to Permian, from pipelines from
13 Permian and Eastern, Gulf of Mexico supplies from
14 Trunkline, and finally coming from the East, and it
15 starts east is Marcellus gas, Utica gas coming in
16 from Rocks and Crest. Rocks and Crest just
17 basically came on the system just this summer. That
18 pipeline was originally built for Rocky Mountain Gas
19 to the Rockies all the way to the east coast, and
20 now because of Marcellus Shale and Utica, they
21 basically reversed it in a bidirectional flow as a
22 competitive system flow in both directions. And

1 guess what? That Rocks and Crest and Marcellus gas
2 is coming right to us in each direction.

3 COMMISSIONER McCABE: That's a lot of new supply
4 coming to Illinois. How much of that has increased
5 the demand? We don't have a lot of natural gas
6 generation. How much is that for storage? How much
7 for just access?

8 MR. GLAESER: It's a combination of it all. Some
9 of it is new generation resource in a key way. Some
10 of it's for storage injections. Some of it's
11 traveling through us to Indiana or to Missouri
12 north.

13 So basically we are sitting kind of on
14 the hub of the grid. The grid is like a hub. We
15 are kind of sitting at the hub of the operation, so
16 gas comes to us, but it's also traveling through us
17 as well.

18 On the next slide, as Chris mentioned
19 this, there is quite a few pipeline expansion
20 projects, and all of these projects listed here will
21 directly impact Illinois.

22 ANR has a major expansion during

1 almost half of the UCF per day, Marcellus gas is in
2 the Midwest. I mentioned Rocky Express has a
3 bidirectional flow of 1.8 million cubic feet on the
4 system and has a high demand for bidirectional flow.
5 There's really no expansion project on the east to
6 the Midwest. Now for another .8 BCF. That will be
7 in operation in October of next year.

8 NGPL's license expansion coming from
9 the Rockies, all of that new supply coming there
10 north to Chicago is 4 BCF.

11 Finally, one of the monster projects,
12 Energy Transfer Partners, the Rover Project 3.25 BCF
13 new gas supplies from Marcellus, Utica, coming both
14 west to Ohio, Indiana, Illinois, and also upper
15 Michigan, so these are just some of the major
16 construction projects going around the country.
17 These four in particular will directly impact
18 Illinois.

19 The impact of both the gas supply
20 resources and the shale and all pipeline structure
21 you can see here on NYMEX futures this graph dates
22 back to the 2002 time frame. As you can see

1 historically before we had the shale gas revolution
2 any major events in gas history caused significant
3 price spikes whether it be late season cold or
4 hurricane, low price spikes, recession, all that
5 created a great level of Co2 in the natural gas
6 history.

7 Once the shale gas revolution started
8 in about 2009-2010 time frame, this stabilized gas
9 prices significantly, and even with the Polar Vortex
10 back in 2013-2014, which is one of the significant
11 winter events in decades, prices didn't even hit \$6.
12 In the futures market, you see in red, it doesn't
13 even get above \$4 for the futures, a tremendous
14 price difference for the long term.

15 As I mentioned, this doesn't mean we
16 should stop price hedging or stop trying to work to
17 have a stable PJM for our customers. We
18 still -- and so on behalf of all the other LDCs in
19 Illinois, all this started from 50 to 75 percent of
20 our normal demand to be hedged in some form or
21 another of price volatility and price spikes.
22 There's a combination of tools. Storage is the

1 largest ones. Almost half of our gas supply
2 resources for the entire winter comes from storage
3 that's fixed in the price of gas in the ground.

4 And, as Chris mentioned, the gas
5 prices that summer were very low throughout the
6 summer injection season. Our storage and content
7 were quite low and mostly been in years. Our
8 customers recommended absolute withdrawals.

9 We also use other methods to control
10 price volatility both in the NYMEX futures market
11 and also financial marketers.

12 Turning to our current preparations
13 for the upcoming winter, storage inventory levels
14 both our E-storage and on-system storage fields will
15 be on target and filled within five -- the majority
16 of our fields are already full, actually drawing
17 away on some to somewhat smaller fields turnaround
18 to forward download in December.

19 All our gas supplier sources are
20 potentially completed, and I think one or two of the
21 LDCs have one or two small patches maybe for
22 January, February, March completed, but essentially

1 99 percent are under contract and the same for the
2 pricing hedging.

3 As I mentioned before, our
4 high-capacity resources are all under contract and
5 all contract peak design days. Mostly the pipeline
6 capacity resources we have is under contract for
7 three to six years or even longer.

8 This storage graph is just for
9 Ameren Illinois storage entry levels. The green is
10 the storage we have for the pipelines. The yellow
11 is our on-system storage resources. This gives you
12 a good feel for how we started last winter and how
13 we depleted every winter, includes the peak design
14 day, January 7th, almost completed fields by April,
15 and beginning of April robust injection plan all the
16 way up to this week. Our facilities are basically
17 full. We are fully ready for this winter, and
18 actually have extra for cold weather.

19 I did want to make a few points about
20 the gas/electric coordination. The LDCs have been
21 participating in FERC's docket, that's RM 14-2,
22 which is the coordination combining the gas

1 industries. We do work very closely with the AGA.
2 In fact, the AGA represents us before FERC in our
3 positions that we support.

4 We didn't potentially make one key
5 point and some of us have generation on our system.
6 We do not have very much generation like Peoples and
7 Nicor do, but there's a common theme and that some
8 of the power generators that operate in Illinois do
9 not have firm capacity resources or storage to
10 ensure firm delivery during the wintertime.

11 And so when the interstate pipeline
12 becomes restrained, in other words, when LDCs
13 themselves utilize capacity and lose capacity,
14 there's no interruptible capacity available for
15 those generators to utilize and that's caused some
16 problems in the past with gas generation in the
17 wintertime.

18 So we firmly believe that these
19 generators -- not all of them -- there's some that
20 do overcapacity, but the ones that do not intend to
21 run in the wintertime the RTOs need to count on for
22 generation for the winter do need to have firm gas

1 supply resources and past resources lined up to
2 ensure operation in the wintertime, some do not, and
3 because there are constraints, some on the LDCs,
4 some on the pipelines, there might have to be some
5 expansion projects to see how this works for all
6 generations out there, but the pipelines will
7 not stay in the system without long-term contracts,
8 so this is an issue that we want to bring forward in
9 this forum.

10 And, again, one other point is many of
11 our LDCs they were designed with the theme of a
12 residential/commercial heating load and they were
13 not designed to have generation facilities operate
14 during the wintertime, so that same impact of that
15 demand during wintertime as generators on the LDCs'
16 system may need or require expansion projects to be
17 able to handle this load as well.

18 Finally, to summarize, again, natural
19 gas prices are expected to be relatively stable and
20 flat for the foreseeable time frame up to the 2020
21 time frame. Our gas supply position, our hedging
22 are basically complete for our very first winter.

1 Our storage injections are on schedule and full due
2 to a Leap Year.

3 Based upon current market conditions
4 and current storage and our price hedging, we expect
5 our PGA rates for this winter to be 10 to 20 percent
6 lower to our customers.

7 Again, our customers' bills are
8 dependent upon the extreme cold. The overall bill
9 will be higher with the PGA rate lower than normal.

10 That concludes my forward remarks.
11 I'll defer to any questions.

12 COMMISSIONER MAYE EDWARDS: I think you did a
13 great job. Looks like there's no questions.

14 MR. GLAESER: No questions.

15 COMMISSIONER MAYE EDWARDS: With that, we will
16 move on to Tina Yoder.

17 MS. YODER: Thank you. Good morning,
18 Mr. Chairman and Commissioners. I am Tina Yoder,
19 Director of Energy Efficiency at MidAmerican Energy,
20 and I'm here today -- sorry. I'm here today on
21 behalf of the Illinois Utility to Share Energy
22 Efficiency presentation related to winter

1 preparedness.

2 During our presentation, we are going
3 to focus on the communication channels used to share
4 information about energy efficiency programs and
5 other initiatives we have underway that will help
6 customers save energy and reduce their bills.

7 We also are going to discuss the
8 actions that utilities take within our programs to
9 ensure consumer protection when using the programs
10 and how the utilities' energy efficiency outreach
11 and education efforts help customers prepare for the
12 winter and higher winter bills.

13 So although energy efficiency programs
14 have only been in Illinois for around five years,
15 Illinois' energy efficiency programs are being
16 recognized as the leaders in industry across the
17 country.

18 The 2015 AAA score card actually
19 ranked Illinois in the top 10 and gave kudos for
20 being seen as the leaders in pushing the boundaries
21 in regards to energy efficiency and how our efforts
22 can be enhanced through policy and regulations.

1 Illinois was actually only one of two
2 states to receive a perfect score for its efforts
3 around building energy codes and compliance, and, as
4 a result of these efforts, energy savings in new
5 buildings and existing buildings continue to
6 increase and result in overall energy savings to all
7 customers.

8 As you can see on the slide,
9 throughout the year, Illinois utilities use multiple
10 channels to deliver our energy efficiency messages
11 to our customers, our trade ally partners and other
12 stakeholder. Each utility has a mass media campaign
13 that helps to increase overall recognition and
14 awareness about available programs. We all use
15 programs specific campaigns to further reach
16 specific segments or niche markets and we continue
17 to use a variety of other customer communication and
18 community events to reach customers directly and
19 then Byron said they either participate in or live
20 upon.

21 But the important part I think to
22 remember here is that no matter what the channel of

1 communications that we use, our message is
2 continuing to always focus on the ease of
3 participation, the actual rebate bill savings that
4 customers will achieve by participating and what
5 add-on values their actual equipment improvements
6 will bring to their homes and businesses across this
7 state, and it's really important that all of our
8 customers understand the things they do today will
9 not only save energy for this winter but for winters
10 to come.

11 All of us strive to bring
12 best-in-class programs to our customers that will
13 maximum our energy savings, realize in our homes and
14 businesses in the state. The safety of our
15 customers in delivering sound and quality --
16 high-quality programs are our priority. To ensure
17 that we do this, we use things like upfront
18 screening and have a very sound planning process
19 that will help maximize the value of individual
20 measures actually bring to our customers.

21 We also require that our products that
22 are being rebated are Energy Star labeled. This

1 helps to ensure quality and energy savings being
2 recognized. By completing training and certifying
3 contractors and completing post implementation and
4 third-party EM&E, we help to ensure that we have
5 quality services, proper installation and sound
6 energy calculations all of which are items that help
7 protect the customers while using our programs and
8 to ensure that we are good stewards of ratepayers'
9 money.

10 Additionally, customers' testimony,
11 public recognition and support from elected
12 officials help to build customer confidence,
13 awareness and trust in the programs.

14 The utilities continue to work
15 together to deliver joint programs to common
16 customers. By partnering with each other, we lower
17 the cost of programs and in essence help lower the
18 cost of all of our customers in our service
19 territory.

20 Obviously, the winter is the right
21 time to have the energy efficiency message out in
22 front of our customers. It's when the gas usage is

1 the highest and it's at the forefront of your mind
2 the perfect time for customers to hear all of the
3 energy messages on how and what actions they should
4 take now to help themselves in the future.

5 As we discussed earlier, we have a
6 variety of avenues that we use to reach the customer
7 groups throughout the year and using all of those
8 channels become really important during the winter
9 and when consumption climbs and the higher bills are
10 landing in our customers' mailboxes.

11 We use additional efforts in the
12 winter, such as targeting campaigns to school-aged
13 children. There are utility kid programs like
14 SuperSaver, Kids Action, and E-Smart Kids to help
15 kids understand what they can do to help manage
16 their families' energy consumption during the
17 winter.

18 Like any big business, the utility
19 wants to talk to the customer at the right time with
20 the right message, and we believe all of the things
21 that you see on the screen are ways that we help to
22 demonstrate that we are helping our customers

1 prepare for the winter season before it arrives.

2 Let's face it, we know that winter can
3 be harsh for many of our customers, therefore,
4 utilities work together to deliver best-in-class
5 energy programs throughout the year and to
6 communicate with customers on how these programs can
7 help them minimize the winter impact before it's
8 upon them.

9 Sharing information frequently and
10 through multiple channels helps to educate our
11 customers. It helps to also educate family members
12 and the communities that they live in to further
13 understand the programs and services that we have
14 available to save energy and reduce their bills in
15 the winter months.

16 Our programs bring highly-skilled and
17 well-trained work forces to their doorsteps to
18 assist them in making the necessary improvements in
19 their homes and businesses that will not only save
20 them dollars this winter but for winters to come and
21 also helps them maintain low energy costs.

22 Customers don't necessarily want to

1 think about winter, nor do they want to think about
2 our programs at all times, but the programs are
3 there and our continuous communication efforts
4 through education helps these customers that really
5 want to manage their costs and that want to look at
6 ways of improving efficiency in their homes and
7 businesses to know who to go to and how to make the
8 most effective improvements to their homes.

9 We offer opportunities through
10 low-cost and no-cost opportunities, as well as
11 providing capital investment directions, and the
12 large presence that we provide through our trade
13 ally network also gives them a direct link to those
14 people that can help them and also understand how to
15 use the programs effectively to minimize the cost to
16 customers.

17 So that is the end of our
18 presentation, but we are here to answer any
19 questions that you might have.

20 COMMISSIONER del VALLE: You indicated that the
21 programs are there, but, as we talk about winter
22 preparedness, one program that's not there is the

1 Supplemental Low Energy Assistance Program the state
2 supplements. Do you know when the federal dollars
3 are going to run out and when the customer --

4 MS. YODER: I know that much of that is going to
5 be covered in the next presentation.

6 COMMISSIONER del VALLE: Okay. Then I'll wait.

7 MS. YODER: It's going to be covered there, and
8 think we were trying to keep from overlapping, but I
9 do know that many of us are going to be impacted
10 with that and what funding is available, so I think
11 I'm going to leave most of that to come with the
12 next conversation.

13 COMMISSIONER del VALLE: Thank you.

14 COMMISSIONER McCABE: You discussed a variety of
15 programs, devices and networks, and I realize this
16 is increasing over time, but do you have any sense
17 of the impact it's having in terms of research?

18 MS. YODER: Well, we have a large -- we have
19 looked at making that -- the Illinois utilities have
20 put together as part of the same team a document
21 regarding savings. I think we have statements there
22 that like time savings are well over 7.2 billion kwh

1 at this point in time that we feel like we have a
2 large impact to the economy.

3 I don't have all of those numbers
4 directly in front of me, but I do believe we could
5 share the SAG documents as well along with --
6 sharing the same documents with the Commissioners as
7 well.

8 COMMISSIONER MAYE EDWARDS: Thank you, Ms. Yoder.

9 Moving on to Michelle Rindt.

10 MS. RINDT: Good morning. Good morning, Chairman
11 and Commissioners. I am Michelle Rindt, Vice
12 President of Customer Service for PGL and North
13 Shore, and I'm here this morning on behalf of all
14 the LDCs in Illinois to address customer service and
15 outreach.

16 Some of the key topics I'd like to
17 discuss this morning are financial assistance and
18 support for our low-income customers, customer
19 experience, looking at how we deal with our
20 customers, our challenges, of course, safety and
21 certainly energy efficiency, as we heard from Tina,
22 is certainly a cornerstone of our communications and

1 outreach, and thank you for including that in your
2 presentation this morning.

3 So financial assistance in 2016 the
4 federal LIHEAP funding for Illinois will be \$149
5 million. That compares to 151 million last year.
6 In proportion to that, Illinois ranks fourth in
7 general fund levels, and that certainly doesn't come
8 without the efforts of many of the Illinois LDCs as
9 far as engaging with the National Energy Utility
10 Utility Affordability Coalition, the American Gas
11 Association and other trade utility organizations to
12 really raise awareness around our low-income needs
13 for our customers and our households.

14 LIHEAP advocacy is a year-around event
15 certainly but really culminates on March 2nd when
16 there's a LIHEAP action date, and advocates are
17 there working with the congressional process to make
18 sure that the funding is there.

19 In August we also have a LIHEAP action
20 month and that supports our efforts to keep the
21 LIHEAP topic in mind, so, again, that's really
22 important for our customers to make sure we get that

1 funding. Approximately 300,000 customers in
2 Illinois receive a LIHEAP.

3 Financial assistance in addition to
4 LIHEAP --

5 COMMISSIONER del VALLE: So I can get the answer
6 to my question, you didn't mention the state
7 supplemental amount.

8 MS. RINDT: Right. So this --

9 COMMISSIONER del VALLE: What's that amount
10 normally?

11 MS. RINDT: Normally that amount would be -- I
12 believe that's \$75 million, and then 7 million in
13 addition for weatherization.

14 COMMISSIONER del VALLE: Seventy-five million?

15 MS. RINDT: Seven million.

16 COMMISSIONER del VALLE: I'm sorry. Seven
17 million for weatherization?

18 MS. RINDT: Yes, so the total would be
19 \$82 million.

20 COMMISSIONER del VALLE: How much fewer
21 individuals will you be able to assist as a
22 result --

1 MS. RINDT: Right. I'm not sure that there will
2 be --

3 COMMISSIONER del VALLE: -- of the state's share?

4 MS. RINDT: I'm not sure there will be fewer
5 individuals. I think there will be less money
6 given. I mean, I don't know what the ultimate -- I
7 guess depending upon how many customers apply, but
8 the customers that are applying for LIHEAP right now
9 do receive a reduced amount due to the state -- some
10 of the state's challenges, so I think we are going
11 to continue to monitor that. I don't know if the
12 other utilities have any other specific information
13 or plans with regards to that.

14 So, in addition to LIHEAP, we also
15 have -- each of the utilities have financial
16 assistance programs, and these are very important to
17 our customers as well. Up on the screen you can see
18 each one has a different name to the program, but
19 really serve our customers that in the same way and
20 is providing additional funding on top of the
21 LIHEAP, and the guidelines for LIHEAP is at or below
22 150 percent of the federal poverty level. These

1 programs are at or below 200 percent of the property
2 level.

3 We are pleased to say that so far in
4 2015 the utilities is first at \$1.87 million, even
5 better I think is that there's still \$1.5 million
6 remaining. So to the extent our customers don't
7 need those dollars for assistance, that money is
8 available, and we expect the same level of funding
9 for next year from various utilities.

10 Certainly having the money there is
11 key but making sure our customers understand that
12 those dollars are available so we put a lot of
13 emphasis on outreach and making sure customers
14 understand where to go versus how to do that. We
15 make sure that we offer information through various
16 sources, whether it's printed information, events,
17 partnering. We have some attachments and
18 presentations that actually highlights some of the
19 specific events, and I can touch on a few of those
20 later, but, again, making sure that we use all
21 different types of media to communicate to our
22 customers and give some examples out there.

1 We also look from a customer
2 experience standpoint to make sure, again, we are
3 reaching customers through various channels.
4 We know all customers don't hear information the
5 same and don't have the same access to all
6 information, so, again, you know, some prefer the
7 website, some IVR, some like phone calls, so again
8 using those various sources that we can reach all of
9 our customers.

10 Kind of the message through all of
11 this is really, you know, start early with us, call
12 us, contact us. We can't work with you unless you
13 reach out to us, and, again, we are trying to reach
14 out to them as much as possible but work with us
15 early on. That's when the funds are available and
16 that's why we can help them the most in the sense of
17 really getting on the right track for the winter
18 months, you know, giving our call centers, for
19 example, refresher training so when they are talking
20 to a customer they are really probing as to whether
21 they need assistance, do they need help managing the
22 bills, getting to the billing programs, all types of

1 things, before our customers start to experience
2 financial challenges.

3 Another area, and certainly safety is
4 a year-around activity and a focus for all of the
5 utilities, but one of the things we want to make
6 sure is that this time of year we really call
7 attention to some of the key challenges or concerns
8 you have during the winter months. I think we can
9 all become complaisant sometimes, but the risk of
10 the carbon monoxide build up, ice and snow removal
11 and fire prevention is extremely important, so we
12 want to again emphasize these on whether it's
13 through print ads, radio, different events, again,
14 some of the things are highlighted on the screen.

15 Again, some of the efforts are listed
16 in the appendix, and I will speak to that as well.
17 And although this is not a winter issue, we also
18 want to take time to address the possibility for
19 scams. I think investment in the natural news is
20 certainly no different for our customers in
21 Illinois, so highlighting that to make sure that as
22 far as being safe, that's another concern that we

1 need to be aware of and raise that awareness and
2 customers can be very trusting. We want to make
3 sure that they are safe at all times.

4 So, again, here are some examples of
5 another selection of outreach messages. So, again,
6 we want to make sure we're focusing on bilingual,
7 again, different ways for customers to obtain
8 information around financial assistance,
9 weatherization, various programs that we offer.
10 So some of the winter programs, and you can read all
11 those, and I will highlight just a couple of them.

12 The fourth bullet talks about Nicor
13 Gas reached more than 16,000 customers through 32
14 community events to educate them on ways to control
15 costs before the heating season. Nearly 1500 free
16 energy saving kits were distributed through the
17 energy efficiency program at the start of the
18 heating season.

19 The sixth bullet down talks about in
20 October MidAmerican Energy produced a home check
21 program video. It was via U-Tube, Facebook and
22 Twitter, and it's also a monthly residential

1 newsletter. A video will remain on the U-Tube and
2 promote throughout the winter a customer newsletter
3 and social media.

4 On the next slide, on the third
5 bullet, Peoples Gas along with Congressman Danny
6 Davis, the Community and Economic Development
7 Association of Cook County, on December 5th are
8 partnering a utility source fair to provide
9 financial assistance, billing support, and energy
10 efficiency advice at Mark T. Skinner Classical
11 School, and Ameren Illinois will reach out to more
12 than 12,000 teachers through Kids Act on an energy
13 program with information about electric and gas
14 safety.

15 Our teachers have the opportunity to
16 order materials and access lesson plans which is
17 regarding energy safety, and more than 50,000
18 students will receive this information this year,
19 so, again, some great examples and more highlights
20 up there as well.

21 So with that, any questions regarding
22 customer service outreach?

1 (Whereupon, the proceedings
2 commenced as follows:)

3 Good afternoon, everyone. I want to
4 make sure I deliver on my promise to start promptly
5 at 1:03, just like I said. So good afternoon.
6 Hopefully everyone had a good lunch, and is stuffed,
7 and is warm all over again.

8 So welcome to Part 2 of the Planning
9 for the Future Policy Session. In this portion of
10 the policy session stakeholders will discuss issues
11 surrounding resource adequacy in the Ameren Illinois
12 footprint.

13 I would like to begin by thanking all
14 of our panelists for their participation in what I'm
15 sure will be an engaging and informative discussion.

16 When it comes to a discussion of
17 resource adequacy, Illinois is unique in a few ways.
18 First, while most of other MISO states are
19 vertically integrated, Illinois is a restructured
20 state which can make price signals and long-term
21 planning processes less difficult.

22 Additionally, Illinois is a donut hole

1 state as some of us like to call it. We are part of
2 both PJM and MISO, which each have their own price
3 forecasting and capacity auction mechanisms.

4 One also could not overlook the
5 unprecedented changes in the electric industry
6 nationwide. Such a shift in generation and the
7 introduction of renewable resources and how such
8 changes can impact capacity markets and price
9 signals. These factors, and many others, make the
10 resource adequacy topic more than ripe for
11 discussion.

12 The purpose of today's session is to
13 bring relevant stakeholders to the table to discuss
14 and identify potential resource adequacy issues that
15 should be addressed in Illinois so all of us can
16 continue to work together to best serve the
17 consumers in our state.

18 We will begin this afternoon's session
19 with some brief background comments from MISO, which
20 each panelist is invited to respond. We will then
21 move into a roundtable discussion of the following
22 questions, which will remain displayed on the screen

1 throughout.

2 Those questions are, "Is long-term
3 Resource Adequacy being adequately addressed in the
4 Ameren Illinois footprint?"

5 What are the benefits of ensuring
6 long-term resource adequacy in the Ameren Illinois
7 footprint?"

8 Which entity or entities by design or
9 default should be responsible for ensuring that
10 long-term resource adequacy?

11 Assuming MISO is the responsible
12 party, what improvements or changes should they be
13 making to that construct?

14 And what are the primary concerns
15 stakeholders have with long-term resource adequacy?

16 Please join me in welcoming our seven
17 panelists, Jim Blessing, Senior Director of Power
18 Supply and Infrastructure Development at
19 Ameren Illinois; Dean Ellis, Vice President of
20 Regulatory Affairs at Dynegy; Bill Berg, Vice
21 President of Wholesale Market Development at Exelon;
22 Susan Satter, Public Utilities Council at the

1 Illinois Attorney General's Office; Anthony Star,
2 Director of the Illinois Power Agency; Todd Ramey,
3 Vice President of System Operations and Market
4 Services at MISO; and Jim Dauphinais, Managing
5 Principal at Brubaker & Associates, Inc., here on
6 behalf of Illinois Industrial Energy Consumers.

7 And, as you see, we have a dynamic
8 panel here that is probably ready and waiting for
9 all of the questions that we will be throwing at
10 them, so thank you. And if you could give them a
11 round of applause for me, we will get this going.

12 MR. RAMEY: Thank you, Commissioner, Chairman and
13 Commissioners. Good afternoon, and hello, again. I
14 will be, as mentioned, going through some brief
15 comments just to kick off our conversation.

16 I will start by giving an overview of
17 what resource adequacy is and the important role it
18 plays in supporting the RTOs' mission of ensuring
19 the delivery of reliable and efficient energy in all
20 points of operations.

21 I will then go into a discussion or a
22 brief description about MISO's resource adequacy

1 construct to-date, how it's designed, what the
2 underlying premises are, and that will lead into a
3 discussion about potential or rather if MISO's
4 current construct is sufficient to meet the needs of
5 the Ameren Illinois footprint.

6 So with that, again, the core mission
7 of any RTO is to oversee the bulk electric system,
8 manage the assets, both generation transmission, to
9 ensure the delivery of reliable and efficient energy
10 to all the members of the RTO.

11 Sounds easy enough, but in the
12 operating time frame fortunately for those states,
13 it is a pretty straight-forward process. There's an
14 operational planning period where the RTO works with
15 the asset owners through a market-based mechanism to
16 make selections about which generating resources
17 could be instructed to bring their units on-line
18 primarily in the next operating day, and the energy
19 schedules from those committed units would be
20 sufficient to meet that requirement of the
21 delivering reliable, efficient energy.

22 So what's resource adequacy and how

1 does it play a role in that process?

2 We all understand the concept of
3 reliability. In reality, reliability is delivered
4 to loads in the RTO footprint every day in
5 real-time. Resource adequacy refers to the
6 processes, the systems that are in place before the
7 operating time frames leads a party or parties that
8 have a responsibility to analyze and make important
9 investment decisions about those generating
10 resources that will be in place in future time
11 periods to make sure we have a reliable electric
12 supply.

13 Why is it important? Those investment
14 decisions include both investments in existing
15 assets that need to be made to ensure that those
16 resources are available to meet future delivery
17 obligations. It can include retirement decisions
18 before making the decision not to make those
19 investments in existing resources for future
20 availability.

21 It includes decisions on procurement
22 so contracting to receive additional firm generation

1 resources to meet load obligations, and it includes
2 the decision to make investments in new generating
3 resource, decisions made today for future delivery
4 and assurance of that reliable systems operation in
5 the operating time frame.

6 It's important for customers for a
7 couple of reasons. One, if we get the balance
8 incorrect and we make insufficient investments in
9 resources needed to reliably meet load obligations
10 in future time periods, we could have reliability
11 problems in the future.

12 The second area of why it is so
13 important is that the investment decisions that I
14 was just describing involve large amounts of
15 dollars. These are huge capital investment
16 decisions undertaken by large companies that
17 unnecessarily are large given their requirement to
18 be able to finance these investment decisions.

19 So inefficiencies and information that
20 causes poor decision-making in the investment time
21 frame could have a potential large dollar impact on
22 customers.

1 CHAIRMAN SHEAHAN: Todd, can I ask you a
2 question real quick. You discuss the what and why,
3 but the important threshold question for us here is
4 one that I think Commissioner Rosales touched on,
5 what is the who? Who ultimately is responsible for
6 determining resource adequacy?

7 MR. RAMEY: I'll speak to that on the slides and
8 see if I get you the answer to that question.

9 Balancing act -- I talk a little bit
10 about the day-to-day process of ensuring reliability
11 in an operating time frame. At that point decisions
12 on investments have been made in the past and the
13 operator is left with the outcomes of those
14 decisions which are arrived on an operating time
15 frame.

16 Long-term reliability is a process
17 that MISO administers under its tariff. MISO's
18 design premise for ensuring resource adequacy in a
19 planning time frame is premised on the notion that
20 it is a shared responsibility between MISO and the
21 states and utilities in the RTO footprint.

22 Now it is premised on the notion that

1 it's shared with deference to individual states on
2 their preference for the level of participation they
3 would like to engage in in resource adequacy.

4 So I mentioned earlier today MISO
5 serves all or parts of 15 states. The majority of
6 our footprint exist in states that have
7 traditionally utility regulations, fourteen states
8 that's largely true, exception being Illinois.

9 The answer I get from those 14 states
10 or MISO gets on their preferred level of
11 participation, the acceptance of accountability for
12 the resource adequacy process, is they want to be
13 heavily involved with that and they would prefer
14 that MISO make up the difference which is mostly
15 limited to being a vehicle for providing information
16 and transparency.

17 The reason that MISO -- one of the
18 reasons MISO's recently analyzing producer-issued
19 statements related to the process for
20 Ameren Illinois is that if the expectation is that
21 MISO should play a much larger role in that
22 responsibility, MISO has concerns that the current

1 resource adequacy constructs that we directly
2 administer may not be sufficient. It may not have
3 the attributes that you would expect to be in place
4 if you really wanted to rely on MISO's mechanism to
5 ensure resource adequacy for Ameren Illinois.

6 CHAIRMAN SHEAHAN: That's kind of the crux of the
7 problem, right, going forward is unusual to make,
8 presents some challenges? Illinois is restructured.
9 It's not the ICC's job to identify and, you know,
10 determine this question.

11 So given that, ultimately who signs
12 off? MISO with FERC's kind of approval?

13 MR. RAMEY: Yes.

14 CHAIRMAN SHEAHAN: Thank you.

15 MR. RAMEY: Caveat, yes, with the understanding
16 MISO needs to have the understanding of Illinois'
17 preference for their level of participation in that
18 process. It could be zero. MISO stands ready to
19 take care of the balance.

20 MR. BLESSING: Jim Blessing with Ameren Illinois.
21 I want to thank the Commission for taking on this
22 issue, because this is a very important issue for us

1 and our customers who are concerned with long-term.

2 The thing that I just want to add,
3 too, that is I agree with what you were saying that
4 it's a shared responsibility, and I think a
5 utility's role and a state's role, given that we are
6 a choice state, is we need to be very diligent in
7 looking at the markets that are in place today and
8 the policies that are in place today to make sure
9 that they work for our customers on a long-term
10 basis to ensure resource adequacy.

11 If the markets don't work, we need to
12 be advocating for the right market designs. If we
13 cannot achieve those market designs, we need to take
14 it back internally and look to internal state
15 policies for their legislative changes or some other
16 solution would get us there.

17 I think we have -- all of us in the
18 room have a significant role in making sure that the
19 Illinois policy is correct for our customers.

20 MR. RAMEY: So the question comes up of why now?
21 Resource adequacy construct has been in place. MISO
22 is not different or materially different from the

1 construct that has been in place for a number of
2 years now.

3 What's changing? Well, the
4 environment in which we are thinking about resource
5 adequacy in the near term is changing. I mentioned
6 earlier that the result of recently enacted
7 environmental regulations, primarily the match rule,
8 resulted in about 11,000 megawatts of coal
9 retirements over the last few years in the MISO
10 footprint, and we look forward in analyzing pitch
11 limitations of the clean power plant as an example.
12 We think that another 10 to 15,000 megawatts of
13 generation of footprints could be distressed as
14 well.

15 So in MISO we're asking ourselves what
16 are the processes in place to make sure that we
17 shrink from what had been actual reserve margins in
18 the footprint that had substantially exceeded
19 minimum requirements. They're starting to see that
20 pull back already where the actual is coming back
21 towards the minimum requirements.

22 As you approach minimum, the

1 importance of the information that these parties
2 rely on to make those investment decisions becomes
3 more and more critical. That's the environment that
4 we believe that we are looking forward to.

5 So we have got retirements, and
6 another reality that affects resource adequacy in
7 MISO is internal generation of the MISO footprint is
8 seeking to sell their capacity to load outside of
9 the MISO footprint essentially removing them from
10 being a potential capacity resource to meet those
11 future obligations within the MISO footprint, so
12 it's not just a concern with retirements. You have
13 choices that are being made by a set of owners on
14 which loads they would like to serve which some of
15 their decisions being made to serve load outside the
16 MISO footprint.

17 So, as I mentioned earlier, MISO has
18 kicked off conversation internally with our larger
19 stakeholder group. We have developed an issue paper
20 trying to raise and highlight this issue. Are the
21 resource adequacy constructs available in the MISO
22 tariff MISO processes today sufficient to meet the

1 needs of proper information and incentives to lead
2 to good investment decision-making in the Ameren
3 Illinois?

4 As I mentioned earlier, we do provide
5 and give deference to states on their preference.
6 Part of what we are listening for here is to make
7 sure that MISO doesn't make any assumptions about
8 the preferences of how these processes are handled
9 in Illinois.

10 We think we have a good understanding,
11 but we are certainly looking forward to the
12 discussion today to make sure we are on the right
13 track what we think those preferences are.

14 COMMISSIONER MAYE EDWARDS: When you say "the
15 state," do you mean all of the relevant parties or
16 relevant stakeholders in the state? Do you mean the
17 Commission when you say the "state's preference?"

18 MR. RAMEY: All of the above. So state policy in
19 total adds up to define the preferences of
20 individual states on how they would like to engage
21 in this, so you think of a traditionally-regulated
22 retail state, you have state jurisdictional

1 utilities that own generation load. The states
2 themselves certainly regulate those utilities and
3 traditionally have been involved in the investment
4 decisions that those utilities make.

5 Those utilities have long-term
6 planning departments. They're engaged in
7 implementing their process, how they administer
8 resource adequacy through those planning processes,
9 processes through state legislation or regulation in
10 place where those utilities are in advance seeking
11 an opportunity to recommend their investment
12 preferences with their regulators with some feedback
13 and prior approval, including an agreement for
14 recovery of those capital investments assume that
15 they're deemed to be prudent.

16 So a state may not have explicitly
17 said I want to take this on myself with those
18 regulations and statutes were put in place, but the
19 end result is that the state is very involved at
20 that level in making those decisions.

21 So a state like that would look to
22 MISO and say I don't know that my state has an issue

1 that I need you to solve, MISO. So in that case we
2 will say, okay, we will provide information that's
3 supportive to you or your utilities in making those
4 decisions, but we won't presume that we need to
5 deliver solutions for problems your state doesn't
6 have.

7 CHAIRMAN SHEAHAN: So how do you balance those
8 interests? How, on the one hand, do you sort of
9 respect the other states' authority to make those
10 decisions in kind of the unique circumstances that
11 we have in Zone 4?

12 MR. RAMEY: You want to try that one?

13 MR. BERG: I'll try this. I'm Bill Berg.

14 As I think about this, I think about
15 the analog. When I look at Southern Illinois, I
16 think it looks a lot more like Northern Illinois in
17 terms of market construction. There's retail
18 choice; there's competitive markets; there's
19 reliance on wholesale prices, both in energy and
20 capacity market, to support resource adequacy.

21 So if you believe that premise and you
22 look at the state's role with respect to PJM, the

1 state's role with PJM was one of -- and it was in
2 Exelon's interest. I think we met with all -- about
3 capacity market performance that was going on with
4 PJM, because we wanted you to have awareness of
5 problems we were trying to solve to take any
6 feedback that you had on that, and hopefully when
7 the filing was made at FERC, in that case by PJM,
8 and hopefully in the next case by MISO, there's an
9 awareness, and an understanding, and ideally support
10 for the objectives that the market design is trying
11 to create. That's how I kind of view that balance.

12 The guiding light post for what
13 constitutes success, in my opinion, is are you
14 producing -- in Southern Illinois as in PJM, are you
15 producing competitive, just and reasonable rates
16 that support the efficient exit of generation
17 resources and retention of existing resources that
18 are economical, and competitive, and attracting new
19 resources. That should be our guide post when we
20 are trying to design a competitive wholesale market
21 to support resources adequacy.

22 MR. RAMEY: To answer your question,

1 Mr. Chairman, I think MISO is in the business of
2 trying to make sure we understand the critical
3 issues that the membership faces and exploring --
4 once there's an agreement that there are issues that
5 MISO is in a position to help address exploring
6 solutions that could meet or mitigate those issues
7 once they're identified.

8 MS. SATTER: If I may --

9 COMMISSIONER MAYE EDWARDS: Of course. Actually,
10 Sue, excuse me. Actually we are kind of definitely
11 in the discussion phase, so if you wouldn't mind --

12 MR. RAMEY: Thank you.

13 COMMISSIONER MAYE EDWARDS: So go ahead.

14 MR. RAMEY: To sufficiently kick it off and bring
15 it to a close, I mentioned the issue statement that
16 we released for review by the larger stakeholder
17 group. That was last month. We followed up
18 discussion items.

19 Again, I think the risk of the
20 footprint and the feedback we are receiving
21 understands that the concerns and issues in
22 Ameren Illinois are unique and were being discussed

1 potentially and addressed, so let the discussion
2 begin.

3 COMMISSIONER MAYE EDWARDS: Sue.

4 COMMISSIONER ROSALES: Well, actually,
5 Commissioner, I have one question for clarification.

6 Under the footprint, as of June 6th,
7 2300 megawatts MISO committed to PJM. I'm kind of
8 -- help me here. Does capacity move when it wants
9 to move?

10 MR. RAMEY: Yes, under certain rules. So PJM,
11 neighboring RTO runs a market-based auction process
12 to procure in advance capacity that they need to
13 meet their resources adequacy requirements.

14 A generating unit outside of the
15 PJM footprint is eligible physically and
16 commercially to provide that service to the load
17 within PJM. That's what this is referring to. PJM
18 runs an auction process to procure capacity three
19 years in advance and 2,000 megawatts of generation
20 owned by independent power producers in Illinois
21 offered their capacity in 2013 into the PJM Resource
22 Adequacy Planning Auction and cleared three years in

1 advance their obligation to delivery beginning on
2 June 1st of 2016.

3 Capacity can only serve one load, so
4 those 2300 megawatts for this time period, at least
5 for that year, is probably longer, is not eligible
6 to be capacity resources to serve MISO.

7 MR. BERG: Commissioner, just to add real
8 quickly, I have a slide at my desk that I would like
9 to walk through and kind of why now a supply and
10 demand, and you will see how those exports impact
11 the overall exports to PJM and impact reliability
12 timing.

13 MS. SATTER: Thank you, Commissioners. I just
14 wanted to comment briefly on the Chairman's
15 question, given that Illinois is different from the
16 other MISO states, how should we approach that, and,
17 just in a general way, without getting into
18 specifics, yes, we have chosen as a state to rely on
19 markets, and I think the first step is to look at
20 those markets and say are they working, do we have
21 sufficient resources today, have we had sufficient
22 resources since the inception of the market, and how

1 were we doing.

2 There are different levers when you
3 have a market situation than when you have a
4 vertically-integrated state, and there are several
5 of them. One of them is certainly what goes on in
6 MISO, but the other ones are quite simply the
7 bilateral contract that makes up the vast majority
8 of the energy supply in this state. Those
9 contracts, which can go two, three, five years,
10 provide signals to generators, provide assurance to
11 consumers that electricity and power is available to
12 them.

13 We do have a different structure, and
14 I think that we have to be careful not to say, well,
15 if it's an either/or, it's a PJM model or it's a
16 vertically-integrated model.

17 Southern Illinois is a little bit
18 different. MISO has a different structure for its
19 capacity market. They have different prices. The
20 power that's available to Southern Illinois from the
21 MISO pool is different than the power that's
22 available in other PJMs.

1 PJM looks east where there are
2 resource adequacy problems. MISO is more central
3 where we -- I think it was commented this morning
4 for MISO as a whole there are not resource adequacy
5 problems as we are sitting here today.

6 As far as the Commission is concerned,
7 this Commission, the state decided that you would
8 not be responsible for generation, but there are
9 other important policies that you are responsible
10 for, such as encouraging demand response programs,
11 encouraging energy efficiency, things like that,
12 that would then also provide resources to the state
13 and have a side benefit of having a price-to-pricing
14 effect.

15 So I just wanted to set that kind of
16 state so that we don't look at it as an either/or or
17 a binary choice. There are a lot of options for us.

18 And, finally, the federal government
19 through FERC, but also through the energy policy, as
20 of 2005 has placed responsibility for resource
21 adequacy nationally with the NERC, National
22 Electricity Reliability Council, and they issue

1 reports. They issue standards. They have the
2 authority to impose penalties, so there are all
3 these different avenues available to examine this
4 issue.

5 Thank you very much.

6 CHAIRMAN SHEAHAN: Thank you, Sue.

7 I don't know if there is or isn't, but
8 is it your office's position that there is not a
9 resource adequacy problem in Zone 4?

10 MS. SATTER: Today we do not believe there is a
11 resource adequacy problem today. What we have found
12 through our analysis is that there is sufficient
13 capacity.

14 CHAIRMAN SHEAHAN: By "today," you mean in the
15 foreseeable future?

16 MS. SATTER: Yes. Yes. And, in fact, the NERC
17 report, which is from MISO as a whole, and not just
18 for Zone 4, does not see a resource adequacy problem
19 in their analysis, and it goes out to 2004. Now
20 this is a year old.

21 At the same time, we recognize power
22 plants out there. We recognize that there are

1 changes in the market as a result of the low natural
2 gas prices and availability of natural gas, but
3 changes that are happening are happening
4 incrementally, and we certainly can and should
5 respond to those changes as they manifest.

6 I think the changes right now are just
7 to equate to where we would really be able to make a
8 policy, particularly when we are sitting in a
9 situation with 20 percent reserve. So Illinois is
10 actually in pretty good shape.

11 I think our problem is more of a
12 problem of market design, whether it's the MISO
13 market design, and I think everybody knows we have
14 complaints before FERC on that and that we have
15 concerns about the existence of a pivotal supplier
16 in that zone, but what we don't have concerns
17 sitting here today is about lights going out.

18 CHAIRMAN SHEAHAN: I wonder if any of the other
19 panelists would kind of take on that question. Are
20 there current market signals adequate for
21 maintaining capacity?

22 MR. BERG: No, they're not. We have been in

1 industry. We have been through capacity market
2 debates for 10 or 15 years, 10 in MISO and the rest
3 in the balance of the country.

4 We know we have developed what a
5 functioning capacity market looks like and the
6 prices and revenues that it should generate. We
7 have learned as an industry the hard way on what not
8 to do when designing capacity markets, and MISO's
9 capacity market currently has many of the flaws that
10 all the other RTOs have already been through,
11 suffered the consequences of, and fixed, so that is
12 where we are at.

13 If I can, I would like to talk about
14 resource adequacy in Zone 4. I think it is possible
15 I can walk you through that.

16 MR. DAUPHINAIS: And I could respond to this as
17 well.

18 MR. BERG: I look forward to it.

19 MR. DAUPHINAIS: If I could respond to what was
20 just offered.

21 CHAIRMAN SHEAHAN: Please.

22 MR. BERG: And I want to go back to this notion

1 that there's a bilateral market out there which
2 would solve all the world's problems in a
3 deregulated resource choice state. That's factually
4 incorrect.

5 What we have seen historically is the
6 bilateral market uses as its reference point
7 clearing prices from capacity markets.

8 Why would I pay bilaterally a just and
9 reasonable rate of a hundred dollars a megawatt day
10 when I can just buy it from MISO for 1.50 a
11 megawatt.

12 So unless you have a well-functioning
13 wholesale market that is producing prices that are
14 just and reasonable and support resource adequacy,
15 you will never get a bilateral market, and the
16 resource adequacy problem will just occur.

17 All of a sudden there would be no more
18 bilaterals. There would be not enough supply in the
19 capacity market and then it's too late.

20 COMMISSIONER MAYE EDWARDS: Sue, it sounds like
21 you are saying that market design issue and
22 ultimately reliability, which actually are two

1 separate issues, but eventually doesn't that --
2 right?

3 You are saying that, for example, the
4 part that you reference, which was a year ago, you
5 think it would still have the same results even
6 though this year's capacity auction resulted in --

7 MS. SATTER: Yes. I don't think that the
8 capacity auction drives the NERC's analysis.

9 COMMISSIONER MAYE EDWARDS: Okay.

10 MS. SATTER: If the price is so much higher in
11 Illinois in the last auction that it -- if anything,
12 it would imply that there would be more capacity
13 available, right?

14 MR. BERG: In Zone 4? Who's building in Zone 4?
15 All I see in Zone 4 are retirements.

16 MS. SATTER: I standby what I said.

17 MR. DAUPHINAIS: There's 2000 megawatts in the
18 MISO-generation interconnection queue that has
19 proposed in certain cases 2020 our generation is
20 considering building in Illinois.

21 MR. BERG: In Zone 4?

22 MR. DAUPHINAIS: In Zone 4.

1 MR. BERG: I have seen generation queues. I
2 mean, there's probably 50,000 megawatts of
3 generation in the MISO-generation queue, probably
4 just as much in the PJM queue, and only a fraction
5 of it gets built. There's plenty of evidence to
6 highlight that generation queues are not a good
7 indicator of future resource adequacy.

8 MR. DAUPHINAIS: They're indication there is
9 interest in investing in an area, and that's what
10 they do indicate. I think it's important -- first
11 of all, I want to thank the Commission for providing
12 an opportunity for Industrial Energy Consumers
13 today. Illinois Industrial Energy Consumers
14 consider reliability under resource adequacy a very
15 important issue, but there's another side of this
16 and that is cost, and that has to be balanced.

17 Within the past nine years we have had
18 differences in how capacity resource adequacy is
19 addressed in PJM versus MISO. In PJM we view it --
20 I would view it as high-belt suspenders, a lot of
21 rules. You have to do a lot of things well in
22 advance, and there's various mechanisms to help prop

1 up the prices.

2 If we compare what customers in
3 Illinois and Southern Illinois pay for resource
4 adequacy versus Northern Illinois in the past nine
5 years -- and I have been through those numbers --
6 for a 50 megawatt large industrial customer, it
7 would cost a million dollars more a year in order to
8 pay in the south if they had to pay for capacity the
9 way it's paid in the north.

10 For a residential customer with say a
11 3 kilowatt equal contribution at \$61 a year capacity
12 nine years, they would have paid more.

13 So it's very important to look at
14 resource adequacy to see what we are really getting,
15 if we had additional rules, what does it do besides
16 raising the price? Do you actually get a benefit
17 that's worth the price?

18 I would also note that it's not a
19 foregone conclusion that PJM is the only way to get
20 at resource adequacy.

21 I would note in the State of Texas,
22 the independent system operator has been operating

1 with no capacity requirement whatsoever during this
2 entire period. They had debated the possibility of
3 a capacity market, and the Commission has
4 consistently down there determined they don't need a
5 capacity market and that market -- it cannot be said
6 that PJM's outperformed their top market in terms of
7 resource adequacy as studies showing that. I think
8 that's what I wanted to get on the table.

9 Along with it, I did provide a handout
10 from Burbaker Associates, and on the bottom that
11 does layout the facts regarding where we have been
12 the past 13 years in resource adequacy in Illinois,
13 and where we are now, and what the projections are
14 through 2020.

15 And, yes, the clean power plants come
16 in 2022, the clean power plants carefully studied,
17 the limitation plans have moved forward. Unless we
18 understand that, there are likely market change
19 rules, not just resource adequacy but in all aspects
20 of market design for MISO and PJM.

21 COMMISSIONER MAYE EDWARDS: Thank you.

22 Dean.

1 MR. ELLIS: Commissioners and Chairman, thank you
2 very much again for having the meeting today. I
3 think it is very important to have these discussions
4 for a variety of reasons. One is there just seems
5 to be so much confusion over as documented patently
6 the market monitor for MISO.

7 No one has ever really identified what
8 the objective function is of a MISO capacity market
9 and that's leading to a lot of these issues, against
10 the different constructs between the states, and we
11 in Zone 4 we don't want to intrude on the other 14
12 out of 15 MISO states' right to oversee resource
13 adequacy in their vertically-integrated construct,
14 but we have to get the design here correct.

15 Just to respond to a couple of points
16 that were made, it is true that Air (phonetic)
17 Pericot did not have a capacity market. Air Pericot
18 also has much higher energy price caps, and that's
19 the energy price going much much higher, upwards of
20 \$10,000.

21 We don't have operations in Air
22 Pericot. I can't speak directly to it, but we rely

1 -- as an independent power producer, we have no cap
2 with customers. We have no cap. We have no rate
3 base. We have no customers that we can pass these
4 costs on to. That leaves us two sources of revenue,
5 and that's energy or capacity, and we do have
6 different channels to those two markets.

7 We can sell out bilaterally, and we
8 do. We have retail business. We sell to that
9 retail business and, equally as important, we rely
10 on the market, and we also rely on the market to
11 send the appropriate price signal to key off the bad
12 bilateral market, so it is true that (sic) Air
13 Pericot does not have a capacity market.

14 I don't think the ratepayers,
15 beginning with the industrials, would have tolerance
16 for \$10,000 prices in Southern Illinois, energy
17 prices that is, and that's one reason we have the
18 construct that we do, the combination of capacity
19 market and energy market working together, and just
20 one more point, then I will turn my time over.

21 This has a very similar construct.
22 They went through seven years of its capacity

1 market. It has a vertical demand curve for its
2 capacity market and it had excess supply, and excess
3 supply masks the real problem, and all of a sudden
4 when the floor came up, the administrative floor
5 came up, the generators were forced to potentially
6 clearing zero dollars for their capacity, there was
7 a wave of retirements. That pushed demand
8 fundamentally on the other side of this curve and
9 all of a sudden now there's a shortage of SME never
10 having to catch up.

11 So all we ask is to -- there's a
12 constructive design in MISO's own floor, and I
13 think, as folks have said today, Zone 4 is different
14 and we do encourage the Commission here to instruct
15 stakeholders to find solutions.

16 Now we have passed the incident, I
17 think the next question is the when. A lot of these
18 issues have been pending for upwards of five to six
19 years. The market has been working in different
20 forms and fashions for upwards of nine years, but I
21 think a lot of these issues have been festering for
22 a long time, and under the guise of the complaints

1 that have been filed at FERC, I think now is really
2 the time to act and we like to see something done by
3 the 17th, 18th of the year.

4 COMMISSIONER MAYE EDWARDS: That's actually a
5 good point, Dean.

6 So, Todd, how much of a priority is
7 this Ameren Illinois Zone 4 for this issue to MISO
8 and what's the time frame look like as far as when
9 it would be addressed?

10 MR. RAMEY: We understand that's a high-priority
11 issue for stakeholders in the Ameren Illinois zone.
12 We are currently working through the stakeholder
13 process on resource adequacy improving opportunities
14 generally.

15 We have currently identified four
16 issues that we are working with stakeholders right
17 now to move forward. There are identified issues
18 that were greater than four. Three were initially
19 selected, and this is the fourth issue around
20 resource adequacy with MISO working with
21 stakeholders to move forward in an expedient manner.

22 I don't know exactly what the time

1 frame is, but I think it's fair to say that MISO
2 has, through the publication of our issue paper,
3 articulated our concern that there may be issues
4 around supporting efficient retirement investment
5 decisions in Ameren Illinois are critical, so we do
6 think it's a high priority. This is part of the
7 conversation moving this issue forward.

8 COMMISSIONER MAYE EDWARDS: I definitely think
9 that time is of the essence. That seems to be my
10 phrase of the week, but I definitely think that
11 efficiency is extremely important, and I know being
12 the Illinois representative on OMS and dialoguing
13 with some of my colleagues around the other states
14 who are members of the MISO region, obviously,
15 they're concerned that whatever happens in Illinois
16 maybe remedy our issue and will have a negative
17 impact on them, so that, obviously, becomes, you
18 know, some political ramifications.

19 Is that perhaps a reason why MISO's
20 not moving along?

21 MR. RAMEY: Well, I would characterize it as we
22 are moving along. That is certainly a concern that

1 we are looking, and there's a large stakeholder
2 process where we have different concerns, and I
3 would say first, and foremost, MISO is not in the
4 business of delivering solutions that members don't
5 have. Some members will have issues that other
6 members do not.

7 Most of the time there are rules that
8 are established through our tariff and business
9 practices that apply broadly across the footprint.
10 It doesn't have to be, so you are right. There are
11 many members of the MISO footprint today that have
12 concerns that MISO is attempting to deliver
13 solutions to problems they don't have.

14 It's not our objective to do that. In
15 fact, we want to be very careful, and diligent, and
16 transparent to give assurance that we are not
17 delivering solutions to problems that members
18 don't have.

19 COMMISSIONER MAYE EDWARDS: Actually I recognized
20 I believe Jim first, and then Bill, and then Todd.

21 MR. BLESSING: I just want to circle back to the
22 Chairman's question. He asked the panelists whether

1 they thought the current markets properly address
2 the issue, and Ameren Illinois' concern is that the
3 current market is being in balance.

4 A lot of what we are concerned with is
5 price stability issues that the current MISO markets
6 are very short term in nature, and we are concerned
7 that these very low prices could explode through
8 extremely high prices at some point in time to
9 finally consent construction of new generation.

10 So will these markets eventually
11 construct and set that construction? I think they
12 will. I think you can look back to the late 90s
13 where there were no capacity markets at that time.
14 There were only energy markets before MISO had their
15 energy markets, and at that time we saw energy
16 prices spike to 3 to \$6,000 a megawatt-hour in the
17 Midwest and we saw much higher forward-looking
18 prices that spurred a significant amount of
19 generation build-out in the Midwest, including in
20 downstate Illinois.

21 Fortunately, for our customers at that
22 time it was when we were in the midst of a

1 transition period with retail choice. They were
2 largely shielded from those prices. That's not the
3 case today. The nature of the way we procure for
4 our customers is very short-term to where we are
5 only procuring a hundred percent of the need in a
6 matter of months before the operating period.

7 Today our customers would be subject
8 to those volatile prices, and we're concerned just
9 sitting and waiting. I'm very hopeful that the next
10 report is right.

11 The problem is 2024 we have a lot of
12 time. What if that report's wrong? Do we want to
13 wait until the last minute and fix a problem that is
14 out there? I don't think the current markets will
15 address resource adequacy.

16 MR. BERG: And just picking up on what Jim said
17 about if MISO's report is -- the next report is
18 correct, in all of the well-designed capacity
19 markets, if there is, in fact, a 24 percent reserve
20 margin, prices are very low, and it is -- and so if
21 that does come true, you would expect capacity, even
22 in New England PJM, one of the more functioning

1 capacity markets, capacity prices will approach
2 zero.

3 If you are wrong, if we wait, if that
4 aggregate capacity in MISO, which I agree in
5 aggregate in MISO, it will be there simply because
6 of the fact that 14 of the 15 states are vertically
7 integrated. They will build power plants. They
8 will charge their customers. Resource adequacy will
9 be remained.

10 The question is will that occur in
11 Zone 4, and there are physical import limits into
12 Zone 4 that need to be considered.

13 In terms of timing that Dean hit on,
14 we believe this issue has been around for awhile and
15 that time is of the essence.

16 From Exelon's perspective, we recently
17 deferred a decision on one of our nuclear plants
18 located in Southern Illinois for one year and that
19 was done in part because of some of the prices we
20 saw in the last auction and the fact that the ICC
21 and MISO have begun to engage in this discussion and
22 recognize there's a problem.

1 Implementation in 17, 18 really gives
2 us stakeholders six or seven months to talk about
3 this issue and develop a design that works. For
4 that to happen, there would be a filing needed at
5 FERC in the summer of 16 that would give FERC six
6 months or so to debate and take comments and make a
7 decision to launch in May of 17. That's the process
8 we envision.

9 CHAIRMAN SHEAHAN: Let's assume that there is a
10 need for this at some period, you know, whether it's
11 short run or medium run. What's the lead time for
12 resolving and how long does it take to cite or
13 permit and build a capacity that would respond to
14 the problem whenever it occurs?

15 MR. BERG: So if you need new generation, there
16 is a -- it depends on how far along, but I would
17 assume three years or so, but I don't think anyone
18 imagines it's good for customers to replace the
19 entire fleet that's already there.

20 So the question is are you providing
21 enough money so that efficient generators that are
22 currently located in the zone continue to invest in

1 facilities versus shutting them down?

2 So over the next three-to-five years
3 we think reliability can be maintained if the prices
4 are there to support it.

5 There was approximately 3,000
6 megawatts or so that did not clear the last PRA in
7 MISO 15 and 16, and those are priced of \$150, so you
8 can -- even to Jim's point about there's 2,000
9 megawatts in generation, is it going to come in for
10 less than \$150? There's a price associated with
11 retaining existing generation and incenting, and I
12 think with what we saw from the last auction in 15,
13 16 is that price is higher than 150.

14 COMMISSIONER MAYE EDWARDS: And ultimately if the
15 market price signals are not adequate to maintain
16 the generation to lead to retirement, then we'll
17 have major issues.

18 MR. BERG: Six-month retirements in MISO, yes.

19 COMMISSIONER MAYE EDWARDS: Thank you.

20 Anthony. Oh, sorry.

21 COMMISSIONER ROSALES: Pricing is it constructive
22 if you have an apple-to-apple comparison to compare

1 prices in Zone 4 to prices in most other MISO states
2 that rely on rate-based revenue to maintain
3 resources?

4 MR. RAMEY: As part of the concern that we have
5 with the current market construct MISO administers,
6 whether it is designed and facilitates appropriate
7 price formation for Southern Illinois. I say that
8 because it's a single market that generates prices
9 by zone. We have seen zone prices can be different
10 within the MISO footprint, but to have a state that
11 relies on regulated planning processes to make
12 decisions on retirement and investment in cost
13 recovery competing, that entity doesn't need to rely
14 as heavily on efficient pricing for market-based
15 mechanisms to ensure resource adequacy.

16 An area that doesn't rely on
17 traditional or historic regulated mechanisms to
18 ensure resource adequacy is in a position of being
19 reliant from megawatt zero all the way to their peak
20 or market-based mechanisms to provide information to
21 support investment retirement decisions.

22 It's critical for that entity to have

1 processes producing prices that are efficient,
2 efficiently represent the incremental reliability
3 value, additional capacity or incremental reductions
4 in capacity.

5 It is the primary mechanism that those
6 parties rely on to make those decisions. If that's
7 all you have, if that price outcome is inefficient,
8 then necessarily the concern is you have got
9 inefficient investment retirement decisions to
10 occur.

11 If that's happening, Commissioner Maye
12 mentioned, you get reliability issues, you get
13 inefficient capacity, or you could end up with
14 costly mitigation schemes, or you recognize it late
15 and you scramble to correct that reliability
16 situation or inefficiency, or it could be very
17 costly at that point.

18 MR. BERG: If I understood your question,
19 Commissioner properly, what is the cost of capacity
20 in a regulated state versus a deregulated state and
21 how do they compare? Did I get that right?

22 COMMISSIONER ROSALES: Yes.

1 MR. BERG: One of the challenges you have with
2 that is there's not a lot of transparency into
3 exactly what customers are paying for capacity in a
4 regulated state, but there have been several studies
5 out there, and the bargain in a regulated state is
6 customers pay 100 percent of the capacity cost which
7 in a market analogue is gross cone, but they receive
8 all the energy from those plants at full cost, and
9 the market construct begins with gross cone number
10 that subtracts out the energy margin the plant
11 receives.

12 So in a regulated state, and it does
13 vary around the country, we have seen studies on a
14 net basis of apples to apples anywhere from \$250 to
15 \$400 a megawatt day net in a regulated state
16 compared to what we have seen in PJM and MISO, which
17 is lower than that, but that's the apples to apples,
18 so that's what customers are paying for capacity in
19 regulated states.

20 MR. DAUPHINAIS: Talking about new capacity?

21 MR. BERG: That's average embedded.

22 MR. DAUPHINAIS: Added embedded in some cases

1 they're being pursued for energy cost purposes, not
2 just resources adequacy purposes.

3 MR. BERG: I did deduct energy. I can provide
4 you some information on that to supplement that.
5 There's plenty of data out there.

6 MR. DAUPHINAIS: One thing it would be good for
7 the Commission to understand how the customers in
8 the market now react to prices for capacity and what
9 their behavior is. There's not so much discussion
10 about that. One is Air Pericot (sic) allows spot
11 market prices in their energy market of \$9,000 per
12 megawatt-hour. With MISO actually you go up to
13 \$3500 per megawatt-hour, and, in fact, they have a
14 mechanism that when operators are purchasing they'll
15 actually artificially induce that price.

16 There's another piece to this and that
17 is the risk that the auction for capacity will clear
18 \$250 per megawatt-hour a day gross cone. That's a
19 very significant risk in many ways. That's more of
20 a price risk that even exist in Air Pericot (sic).

21 So what you have is large customers
22 out there that are out there right now and they're

1 having to weigh whether to lock into a price or not
2 in the auction, and the auction can be attractive at
3 times, but you'll always have to have in the back of
4 your mind is something unexpected going to happen,
5 so they are actually managing that.

6 I can tell you that the numbers that I
7 see are actively soliciting from bilateral contracts
8 to fix the price capacity out four years, and they
9 weight that versus the risk that they see in the
10 auction and they make decisions for purchases that
11 way.

12 The most recent auction I have
13 actually put a number on the bilateral capacity in
14 Illinois. If you look on zero price swap, which is
15 a good proxy of the likely bilateral contract,
16 70 percent of the capacity meet the Illinois zone
17 and MISO was met by bilateral contract not by the
18 auction, so there are people bilateral contracting.

19 It's true it is important that we have
20 good information going out to the market so that we
21 have the right price signals, and that's not just
22 what happens in the PRA. It's also about what the

1 projections are showing.

2 There are things that MISO could do
3 right now that they're not doing that would really
4 help on this and improve the situation, which isn't
5 a serious problem right now, but it certainly can be
6 improved. One way would be to sending its own MISO
7 survey.

8 Illinois and Missouri are the only two
9 zones in MISO that are not reported separately by
10 MISO in regard to projections of resource adequacy
11 through 2016 and 2020.

12 Why do we have to mask what's going on
13 in Illinois? We want a full market to see what's
14 going on in those projections, so that's the
15 important thing that could change.

16 Another thing is that we found out
17 information today about capacity exporting into PJM
18 in 2016-2017. Well, a lot of that information is
19 known in advance, because of clearing into auction
20 or incremental auctions at PJM, and that information
21 could be put out and made available by MISO for 2020
22 so that we have a capacity situation of a

1 supply-and-demand basis seen out of bilateral
2 markets better than it is now. It is seen but it
3 could be seen better.

4 So there are things that could
5 improve, but in this bilateral market all the need
6 prior to having a planned resource auctions started
7 up about three years ago, before that it was a
8 hundred percent bilateral market capacity in the
9 southern part of Illinois.

10 It can work, and we give better
11 information, so we shouldn't jump to the conclusion
12 that we need to make significant changes to the MISO
13 planning resource auction to make it a lot like what
14 PJM has now.

15 MR. STAR: I think I would like to follow up on
16 this issue of information. I think one of our
17 challenges is very limited information. There's
18 also the auctions once a year. You have to have a
19 few datapoints.

20 I think what's interesting here though
21 is sort of a contrast between discussion about Texas
22 where you don't have capacity pricing and

1 energy-only markets more violative and we have
2 places where full pricing capacity is built into a
3 regular construct, so two different end points in
4 the middle.

5 There's a lot of correlation somehow
6 perfect that, obviously, if you have less price
7 embedded in the cost of the price of capacity you
8 would begin to affect the price of electricity and
9 vice-versa.

10 As capacity prices go up, you tend to
11 see at least some reduction in electricity prices,
12 so think about from a consumer point of view and
13 what auctions you might have to manage these costs,
14 but, ultimately, I think that's a very important
15 issue. Obviously, we need to ensure generators are
16 operable, but the other thing we need to make sure
17 electricity is supportable.

18 One of the things that's interesting
19 about like in the Texas market where you have energy
20 only these auctions are available to customers
21 responding to pricing signals is going to be much
22 greater if much more limited opportunities to do

1 that as more and more costs of equity and capacity
2 coming out in these various lumpy once-a-year
3 results, and we only have very little information on
4 it. You mentioned your members are doing bilateral
5 procurements and those prices usually are not
6 public.

7 So the information we have about what
8 capacity going forward in Zone 4 is limited, so
9 there's also PRA, PIP. We did hedge half of the
10 expected capacity needed for the ultimate retail
11 customers for next year. Again, these are very,
12 very limited datapoints, so the ability for
13 consumers to make choices and to direct pricing
14 capacities and, you know, you want to buy it now,
15 you want to wait for PRA, we just don't have the
16 information, too, as well.

17 MR. DAUPHINAIS: One of the things that we had
18 brought up on MISO Zone 4 in the past that didn't
19 seem to get very far is the idea of trying to
20 explore bilateral trade exchanges developed for
21 long-term bilateral contracts and capacity.

22 What we seem to be missing is that we

1 should have energy is that frack is the trade
2 practice forced indices as surveys of energy trades.
3 What we really need to do is find a way to try to
4 extend that similar type of survey publishing the
5 results to help bring greater transparencies to
6 long-term forward markets. The long-term forward
7 market is the key to resource adequacy as well as
8 having very efficient results in regard to energy
9 markets as well, because all of what resource
10 adequacies is doing is making sure we have
11 effectively power in the ground, and that's going to
12 be the key to demand response. That's not going to
13 be necessarily based on generation, so you need good
14 price signals both in longer markets or capacity for
15 energy as well.

16 MR. BLESSING: I wanted to add one thing on the
17 discussion around bilateral markets using that as
18 part of the solution.

19 In retail choice it's very difficult
20 to rely on bilateral contracts simply for the reason
21 for Ameren Illinois we really don't know what it is
22 going to be a week from now or three weeks from now,

1 because of retail choice, or five years from now, so
2 we supported the ITA process for many years
3 maintaining a robust portfolio of long-term capacity
4 contracts, but we understand and agree with a lot of
5 the methodology that was put forward with very
6 limited amounts of bilateral capacity contracting
7 just because there's not so much risk around how
8 much load we'll serve, you know, three years from
9 now. So I agree to be part of the solution. Retail
10 choice limits that as a solution.

11 MR. BERG: I just wanted to pick up on something
12 Jim said about resource adequacy being a peak
13 product and demand response peakers.

14 What we have seen and bring in energy.
15 If you look at a customer's bill, probably 80
16 percent of the competitive side, probably 70 to 80
17 percent of their bill is energy costs with the
18 balance being capacity and some other services.

19 What we have seen since 2008, and I
20 have this material in there, is the energy prices,
21 which are the largest component of a customer's
22 bill, have fallen dramatically, and that is why you

1 see a nuclear plant up here saying it's very
2 important we get capacity markets right today
3 because it's the only lifeline we have. That's why
4 you are seeing coal plants in jeopardy.

5 The people who are not complaining are
6 the peakers, because their capacity -- you know,
7 they're not as dependent on energy revenues as they
8 have fallen, and we shouldn't be picking winners and
9 losers; nuclear plants win, coal plants lose; demand
10 response wins, vice-versa.

11 What we should be doing is accurately
12 defining what we need, what constitutes success, and
13 ensuring that there are comprehensive outcomes which
14 support the efficient exit and entry of -- and
15 retention of needed investments. That's what we
16 should be doing.

17 MS. SATTER: I would like to make a few comments
18 kind of starting from the top. I think the first
19 question that you, as the Commission, and all of us
20 have to ask is what is the problem, and when I heard
21 the problem being from that end of the table is that
22 the prices aren't high enough, and, you know, we

1 have gone to a market system, a market system
2 meaning that prices can go up, but it can also mean
3 that prices can go down, and where we are today,
4 because of I think the unexpected success of
5 fracking is that prices are very low now for energy,
6 and that is benefiting our state tremendously.
7 As a restructured state, we have embraced the
8 effects of -- sometimes the unexpected effects of a
9 market, and we're benefiting.

10 Now if the problem is that the
11 generators don't think they have enough money, I
12 think you have to step back and say is that a
13 legitimate problem for you to address.

14 If the problem is we don't have enough
15 electricity to serve our load, your lights are going
16 to dim, we are going to have rolling blackouts, we
17 are going to have brownouts, we are going to have
18 problems, there's truly not enough juice, if you
19 will, let's address that. But sitting here today,
20 that's not the problem. Sitting here today in
21 Illinois, whether it's because of our market
22 structure or whether it's because of MISO, whether

1 it's because of demand response, I can't say, but
2 sitting here today in Illinois, we have sufficient
3 capacity at a 23 percent level, which is quite,
4 quite high.

5 At the same time, as a clean power
6 plant is taking effect and is being considered and
7 being analyzed, we, as a state, will be looking at
8 things to stretch our capacity, such as demand
9 response, which will, you know, mean that if we are
10 not stressed today for resource adequacy and we are
11 doing energy efficiency to control our demand, we
12 are doing demand response to control our peak, we
13 need to be very careful defining a problem before we
14 rush to a solution because we need to define the
15 problem very quickly.

16 The problem is the generators don't
17 think they have enough money to build more. Let's
18 discuss that. Is that a legitimate question? If
19 the question is -- if the problem is we don't have
20 enough electricity, let's discuss that, but there
21 are a lot of levers that you, as a Commission, have
22 and that other entities in the State of Illinois,

1 whether it's the ITA, whether it's the Illinois EPA
2 in developing a standard implementation plan for
3 which one key component is reliability, whether it's
4 the load-serving entities, whether it's the Attorney
5 General filing an action at FERC because we see some
6 error in a construct.

7 I mean, there's no one single actor in
8 Illinois, and maybe all of those actors working
9 together is a good thing and is getting to where we
10 need to be which is sufficient power at a reasonable
11 price.

12 CHAIRMAN SHEAHAN: Sue, in your opinion, what
13 leverage does the ICC have?

14 MS. SATTER: I would say the ICC has several.
15 One is promoting policies that promote demand
16 responses.

17 CHAIRMAN SHEAHAN: Which is not available in Zone
18 4.

19 MS. SATTER: Demand response is available for
20 consumers in Zone 4. Now whether it's reflected in
21 the capacity market is another question, and that's
22 a design issue that may have to be brought up at the

1 FERC, but you, as a Commission, have participated at
2 the FERC.

3 So, for example, in 2011 when the MISO
4 capacity auction was first being discussed, the
5 Commission filed comments saying specifically that
6 said that MISO fails to provide any meaningful
7 evidence that its capacity market is necessary or
8 superior to the existing circumstances. So the
9 notion of a capacity market in 2011 was something
10 that you questioned.

11 But the point is that you make your
12 opinion known at FERC.

13 CHAIRMAN SHEAHAN: Well, that's not a tool the
14 ICC has. That's not a tool FERC has.

15 MS. SATTER: But I'm saying you can encourage
16 demand response available to consumers and that will
17 shape you. Whether it's reflected in the capacity
18 market, the capacity construct, you have to go
19 through FERC, because in Illinois the ICC's
20 responsibility for generation has been essentially
21 removed.

22 CHAIRMAN SHEAHAN: I totally agree.

1 MS. SATTER: It's a restructured state, and
2 states that have tried to reclaim that role --
3 rightly or wrongly, I'm not saying -- have been
4 preempted by the federal courts.

5 Now there are two cases. Those cases
6 are currently before the U. S. Supreme Court, but in
7 New Jersey and Maryland when in one case it was the
8 PC state and then the other case it was by statute,
9 the state tried to incent and mandate additional
10 generation. These are the states that have much
11 higher prices than we have, and states that have
12 capacity problems that were driving prices too low
13 that the public felt were unjust and unreasonable,
14 notwithstanding the court said those wholesale
15 markets are federal, wholesale markets are subject
16 to FERC, and you, whether it's the General Assembly,
17 or the legislature of New Jersey, or the PEC in
18 Maryland, you are preempted. You can't do it.

19 So I question whether we are in any
20 different position than Maryland or New Jersey
21 before the Supreme Court. We will see what the
22 Supreme Court does.

1 So I don't want to give you the
2 impression that it's a particularly settled issue,
3 but there are -- you are somewhat, but at the same
4 time I think that you can participate at the federal
5 level. You can participate in the development of
6 the state implementation plan with the Illinois EPA
7 to make sure that reliability is not compromised.

8 There are -- you know, there's market
9 information, like Mr. Dauphinais passed out, making
10 that more available would be good in general,
11 although I don't know if there's legal impediments
12 to that or not, but I think those are the kind of
13 levers you have, but to say we need -- our goal
14 should be to increase capacity charges so that
15 there's more generation, I think it's the wrong
16 question and it's the wrong --

17 COMMISSIONER MAYE EDWARDS: I want to be clear,
18 but the ICC has not made that statement.

19 MS. SATTER: Thank you.

20 CHAIRMAN SHEAHAN: I would like to ponder.

21 MR. ELLIS: I am glad Susan brought up the 2011
22 OMS filing. I'm sure Susan has that OMS Advisory

1 Resource Adequacy Principles for the 2010 year
2 before.

3 So under that document, it says "OMS
4 principle number four revenue generation for cost
5 recovery recruiting investment prospect and research
6 should be a byproduct of efficient market design,
7 not a specific goal of resource adequacy."

8 There's a footnote at the bottom that
9 goes on here, and it says, "The ICC does not support
10 this principle. The ICC supports the principles
11 provided as follows, quote, "sufficient resources
12 must be maintained to meet resource adequacy
13 standards."

14 MR. BERG: Just picking up on that, it's not
15 raising price to incent more generation. It's
16 raising price to secure enough generation to meet
17 reliability. That's the objective, and I don't know
18 if it's the right time. We've heard a lot about
19 there's a problem. There's no problem.

20 On Slide 2 of my --

21 MR. BLESSING: Before you get into that, I have
22 one thing I want to make. I agree with Susan that

1 the Commission should not, as their concern, have do
2 the generators have enough money. That's not a
3 valid concern the Commission should be considering,
4 but what they should be considering is if that lack
5 of money does not enable those resources to continue
6 to operate and they begin to be removed from the
7 market, whether it's through retirement or through
8 finding ways to get to other markets, then you end
9 up with that reliability issue that the Commission
10 should be concerned with.

11 So we need to make sure that the
12 market is structured such that the generation that
13 is needed in the future will be there whether that
14 be the existing generation or another generation in
15 the market. I'll stop with that. Thank you.

16 MR. BERG: I would like to continue with that.

17 COMMISSIONER MAYE EDWARDS: Yes. Yes.

18 MR. BERG: So the way we look at this is it's a
19 supply-and-demand question, and the green bar on the
20 left is MISO's Zone 4 demand, and this information
21 was taken from MISO's 2016 Loss of Load Study, so
22 this is MISO's data, and it says this is 2021, and I

1 checked, and you can see the demand in 2021 is 12.2
2 gigawatts. That's how much Zone 4 needs to be
3 reliable, and I would note that even though this is
4 2021, that's only 200 megawatts higher than the
5 demand we just saw in 15, 16.

6 So, for all practical purposes, the
7 demand you see here for 2021 is roughly equivalent
8 to the demand that you saw in 15, 16. There's not a
9 lot of peak load, so don't take comfort that we have
10 got lots of time, because the demand is here, and
11 maybe you move over to the supply side.

12 And I want to start at the bottom.
13 You see there that's the zone for capacity. So the
14 Ameren Zone 4 is part of MISO and absolutely they
15 should receive the benefits of being part of the big
16 power plant, both in terms of energy, as well as
17 capacity. So the number that you see here is Zone 4
18 can physically import 4.2 gigawatts of 12.2.

19 MR. DAUPHINAIS: Question. Is that the 2016
20 number, right?

21 MR. BERG: No. Actually I gave the benefit
22 probably to you. This is the 2021 number. It's

1 gone up 1200 megawatts from the last.

2 MR. DAUPHINAIS: 4200 megawatts you are saying is
3 the capacity in Portland and MISO estimated for
4 2020?

5 MR. BERG: Right.

6 MR. DAUPHINAIS: No, that's not. It's 6,000
7 megawatts is posted in the most recent Illinois
8 working group presentation.

9 MR. BERG: Well, fair enough. I stand corrected.
10 It is 1.2 gigawatts higher than what we saw in 15,
11 16. That much I know.

12 MR. DAUPHINAIS: For 16, that's correct.

13 MR. BERG: And so the next blue segment there
14 is -- this is the capacity that cleared \$150 a
15 megawatt day, so I assume if prices continue to
16 remain, that generation is not at risk, then you
17 move into the orange section in Exelon. There's no
18 science to this. We looked at all coal plants that
19 were less than 500 megawatts in size.

20 If you look across the country, if you
21 will look at what didn't clear the last PRA, I think
22 you will find that it is small coal plants that are

1 the most economically challenged, and those are the
2 ones that are retiring, so we label those as at
3 risk.

4 You can see the great uncertainty with
5 what will those resources do. They were not
6 retained at \$150 a megawatt day, and then we have
7 added our Clinton generation station, which we have
8 said we deferred the retirement decision for one
9 year. That gets us into 17, 18, and without a path
10 to profitability, which does not currently exist in
11 MISO, the plant would be retired, so there's a
12 gigawatt.

13 You have Dynegy's recent announcement
14 for the River Plant of 500 megawatts and you have
15 the exports to PJM, which again we have
16 conservatively estimated at 2 megawatts. By 2021
17 without there being a price signal to stay in MISO,
18 you can expect generation owners to continue to
19 build and invest in transmission to get out of MISO
20 into PJM and support that.

21 So we think there is a fairly
22 compelling case that there is a need, the need is

1 here, and that we should work towards solving this
2 problem before the 17, 18.

3 MR. DAUPHINAIS: There's two things that are
4 disputable --

5 COMMISSIONER MAYE EDWARDS: Excuse me. I
6 apologize. We have a lot of on-line listeners,
7 which is a good thing, and they're trying to follow
8 along, so if you could just state your name before
9 you --

10 MR. DAUPHINAIS: Oh, I'm sorry. I'm Jim
11 Dauphinais from IIEC.

12 There's two issues that we have, one
13 we already covered, which is it's missing 1.8
14 gigawatts of 2020-2021 capacity import limit that
15 would be present is coming from MISO, hopefully the
16 project will be at your service before 2020 goes
17 into transmission projects, and that will increase
18 the import capability into the zone, so there is ONE
19 gigawatt missing.

20 In addition, the market -- MISO hit a
21 market monitor, as well as Illinois Industrial
22 Energy Consumers, and there are other parties as

1 well have raised the issue of exports at PJM and
2 counting them towards the import limit into the
3 Illinois zone, and that's actually being litigated
4 before FERC, and it may very well be that we'll be
5 able to count the exports. They're still physically
6 in Illinois. They're still providing power
7 physically from a business perspective in Illinois.

8 So as far as meeting the local
9 requirement, you can count towards meeting that
10 local requirement and reach the import limit on how
11 much we import from the rest of MISO. So there are
12 things that -- this looks weaker than it is, at
13 least from my perspective. It's not missing -- it's
14 missing a couple of factors.

15 MR. BERG: Just briefly, the export units will be
16 under PJM's dispatch control. That is the
17 requirement. Let's just play it out. I do have my
18 footnotes here. The 4.2 gigawatts did come from
19 26-27, so I'll take it that it will go up. Now,
20 you're still short, and let's just play it out to
21 its extreme.

22 Let's say the import capability was

1 12.2 gigawatts. Is that good for Illinois to have
2 power plants that create a lot of jobs, a lot of tax
3 base, and the position is that to benefit to do well
4 in a clean power plant environment.

5 So raising the import limits is kind
6 of a mix sort. It gives back. On the one hand, you
7 might get access to lower prices and, on the other
8 hand, you are impacting the State of Illinois and
9 its customers in a meaningful way.

10 That being said, as all the other
11 states in MISO they are regulated states, I can
12 assure you they will not be building power plants to
13 meet Illinois need and charging customers to support
14 that need, so that's just a --

15 COMMISSIONER MAYE EDWARDS: So you are kind of
16 wrapping up at this point?

17 MR. BERG: Yes. Thank you.

18 COMMISSIONER MAYE EDWARDS: So I guess the next
19 question might be directed toward MISO or maybe
20 anybody, but next steps. We have the parties here.
21 You talked about the issue. We talked about who is
22 the relevant party, right, that needs to address the

1 issue, but what should we -- what are our next
2 steps?

3 MR. DAUPHINAIS: What I would offer is if the
4 Commission wants to explore this further, I think it
5 just needs to carefully consider and not jump to
6 conclusion that a solution that has been offered.
7 Is this a solution to plunge into it right away?
8 They should better understand how the market
9 currently works and explore that.

10 For example, there seems to be some
11 misunderstanding. Unfortunately, the Chairman
12 stepped out, but you mentioned there was no demand
13 response. Well, there is a demand response, and, in
14 fact, IFC members participated as interruptible load
15 and take credit for the interruptibility in the
16 existing MISO environment, so it does exist,
17 however, I'm sure --

18 COMMISSIONER MAYE EDWARDS: He may have been
19 speaking of commercial, and I'm not speaking for
20 him, but he may be speaking of commercial. I
21 believe that's what it was.

22 MR. DAUPHINAIS: Actually, I'm getting to that.

1 What I think there is, and your account service
2 providers I'm sure will love to speak about this, is
3 they have barriers in trying to do that and the MISO
4 market aggregates smaller customers. I think that's
5 a worthy discussion to have, and this is another
6 area to explore, so the more -- the more demand
7 response we can find, certainly that would help
8 improve the situation further as well, and we don't
9 think there's a problem right now. We don't think
10 there's a problem in the future in 2020.

11 Clean power plants create
12 complications. They may do that in the area, but
13 certainly there's room for improvement even though
14 there's not a problem now.

15 We're all in favor of talking about
16 things that we've done for improvement. We just
17 don't want to see moving or jumping into what I
18 would call "radical changes" to make us look a lot
19 more like PJM, which from a perspective IIEC member
20 doesn't look like a good bargain. It doesn't
21 necessarily improve reliability or maintain
22 reliability better than what we have

1 now.

2 COMMISSIONER MAYE EDWARDS: And we actually will
3 have someone in the last part of the session
4 discussing demand response and could that be a
5 potential solution and how, so we will kind of get
6 into that as well.

7 Did you want to --

8 MR. ELLIS: Sure. Thank you, Commissioner.

9 So, as far as the next steps go, the
10 one question that we asked is timing. A lot of
11 these issues we said were, in fact, denied, and I
12 think there's a number of things that have been
13 around the table today that are masking some of the
14 underlying problems, so I don't think it's an
15 adequate strategy for us to just keep kicking the
16 can down the street.

17 I think, again, it's kind of a fool's
18 game to just think some of these issues are out
19 there and potentially cause a problem well before
20 2020.

21 We have been talking about these
22 issues, for, again, somebody said, goes back to

1 2010-2011. The low gas environment I think masks
2 some of these issues, somebody asked excess supplies
3 masks the issues.

4 I think one MISO stakeholder going
5 back two weeks ago, one of the vertically-integrated
6 states or vertically-integrated utilities in one of
7 those states, said it best. I have seen MISO
8 markets broken. When prices are low, you have
9 resource adequacy shortages; and when they're high,
10 you have excess capacity so that the market's
11 completely upside down and that's not good for
12 consumers and suppliers alike.

13 COMMISSIONER MAYE EDWARDS: Sue.

14 MS. SATTER: As far as the next step, I think
15 it's important to continue to monitor the auctions
16 as they proceed, monitor the information that's
17 available and NERC reports, be involved in the
18 development of the clean power plant SIP, and an eye
19 towards protecting the reliability, and basically
20 just, you know, continue to promote policy, such as
21 demand response available to consumers.

22 And, finally, the Commission has

1 historically participated at the FERC and I think
2 has been an important an active participant and you
3 have been responsible for various decisions in the
4 7th Circuit Court of Appeals as a possible location
5 among the RTOS.

6 That is a very important role that
7 you, as a Commission, play, and you have got great
8 resources here, and we -- although we, the Attorney
9 General, do get involved to a great extent, we are
10 very happy to see you taking the lead, and you have
11 historically, so that would be just one other avenue
12 of activity that I think would enable you to
13 continue to be informed and enable you to
14 participate on the federal level where these issues
15 are discussed.

16 So thank you very much for the
17 opportunity to participate today.

18 MR. BERG: Just one more thing on Illinois --

19 COMMISSIONER del VALLE: Could you elaborate a
20 little bit. There's been discussions about the role
21 of the ICC in terms of clean power plants. Could
22 you elaborate a little more on that. I know you

1 focused on reliability, but can you say more.

2 MS. SATTER: The clean power plant focuses on
3 emissions, so, in that respect, it's outside your
4 immediate responsibility, but because it's the
5 electricity system and you are responsible for
6 aspects of the electricity system, technically the
7 delivery side, energy efficiency programs,
8 development of demand response programs, those sorts
9 of policies, use of Smart Meters, for example, how
10 can that technology be used to reduce emissions, to
11 reduce demand, to reduce emissions, how should the
12 allowances be allocated, should there be allowances,
13 should there be trading, if there are trading
14 allowances, what policies should they be using to
15 support -- to protect the consumer and to promote
16 energy efficiency and demand response, so those are
17 things -- once the stakeholder process gets started
18 in Illinois, which it hasn't, but once that process
19 gets started, it seems that those would be the kinds
20 of things that you are expert in and that you could
21 use and really make an important contribution,
22 because remember the state implementation program is

1 for the entire state, so it's reliability for the
2 entire state, investment for the entire state, and
3 emissions for the entire state, so it's really going
4 to be a pretty major planning process, and it seems
5 like it would be an opportunity.

6 MR. STAR: With regard to that, I see Illinois
7 ITA is the primary interest in developing that, for
8 whatever it's worth.

9 One way the Commission can play a key
10 role is go beyond renewables and manifestation of a
11 renewable portfolio center in Illinois. Largely,
12 and I'm not entirely sure how they come to the
13 Commission, so depending on how Illinois EPA chooses
14 to put that together and how it all plays out,
15 that's probably one place where the ICC has the most
16 leverage.

17 MR. ELLIS: Commissioner del Valle, if I could
18 broaden the question a little more, one of the
19 arguments go beyond the clean power plant. We are
20 facing a number of other environmental regulations
21 right now, both federal and state, so in the federal
22 level facing equitable guidelines, revenue issues

1 and those type of compliance timelines effectively
2 beginning now, we need those investment decisions.
3 We can't keep delaying those any longer, but we also
4 have real estate obligations right now.

5 As most of you are aware, we have an
6 obligation to finish a sulfur dioxide scrubber.
7 It's upwards of a 4 to \$5 million project that we're
8 about halfway into, so the balance of the project is
9 about \$200 million. We are obligated to finish that
10 by 2019. We need to make those investment decisions
11 now, even though the completion of the project isn't
12 scheduled until 2019.

13 MR. BLESSING: To the question of next steps, in
14 thinking through that, I'm trying to think of what
15 we all agreed to on this panel, and I think the only
16 thing that I could point to that we agreed to is
17 that we are relying on wholesale markets for
18 resource adequacy. Is that a fair assessment? You
19 all agree with that?

20 So, in my mind, the next step is that
21 we need, as the State of Illinois and policymakers,
22 to decide whether we're comfortable, for example,

1 with the current market resource adequacy, and the
2 question can be kind of two-fold, the mechanics of
3 the market addresses and, two, does the supply and
4 demand to give us the ability to do something later
5 or earlier. In my mind, the next step is we need to
6 figure out whether there's a problem here or not.

7 I look at the stakeholders of Illinois
8 as a utility who my customers are going to be
9 looking to me if the system's not reliable, and I
10 cannot think of one thing that I can do as a company
11 to ensure that the resources will be there long
12 term.

13 The ITA appears on our behalf.
14 There's very little they can do to do that. The
15 Commission generally like in a regulated integrated
16 state, usually the utility propose the plan, and the
17 Commission approving and providing feedback for the
18 plan.

19 In a choice state, you guys don't have
20 anything to do about it. We are kind of at the
21 mercy of the market as it exist today. We need to
22 decide does this market work for the long-term

1 adequacies or not.

2 I think the next steps would be for it
3 to take place. If the entire answer is, yes, it's
4 more comfortable with risk of extremely high prices
5 down the road some day or resources not being
6 available, then we are done.

7 If we are not comfortable with living
8 with that risk, we then need to move and look
9 forward to solutions. Thank you.

10 COMMISSIONER MAYE EDWARDS: Oh, thank you. My
11 apologies. Did you want to add something?

12 MR. BERG: I really like what you said and how
13 you framed it. I go back to where we started this
14 conversation, and resource adequacy responsibility
15 falls to MISO.

16 I appreciate you engaging in this
17 debate, because, as Jim said, this is our state.
18 These are the realities that our state is facing and
19 we need to address them, and so I think the Illinois
20 Commerce Commission has taken the right first step
21 which is you scheduled this forum. You scheduled
22 the next forum, and we still have time and we should

1 all be working with MISO working together to
2 overcome our differences, and I think we should
3 answer Jim's question, is there a problem or not,
4 and if there is, we need to fix it soon. Thank you.

5 MR. DAUPHINAIS: This is Jim Dauphinais, Illinois
6 Industrial Energy Consumers.

7 I think what Jim Blessing is proposing
8 is a reasonable approach. The key is not to jump
9 into conclusions that there is a problem but rather
10 take a careful look at it before making that
11 decision, because going in with an open mind,
12 because you are hearing conflicting information, so
13 there's a lot more information to look at as we sit
14 here before jumping into something.

15 MR. RAMEY: This is Todd Ramey from MISO.

16 So the question's next step I would
17 throw out is we are in the middle of one of those
18 steps, so this process is being administered subject
19 to the generation management process we have with
20 MISO and begins with articulation of an issue.

21 With that issue statement comes the
22 presumption that since this issue statement came

1 from MISO, MISO is also saying that based on our
2 current analysis and thinking that the issue, if
3 it's real, is of sufficient priority that we need to
4 move forward expeditiously to address solutions and
5 mitigate the issues that have been identified.

6 First step is really defining what we
7 believe to be the issue, and we are listening and
8 engaging stakeholders so we can make an informed
9 decision ultimately whether we think our issue will
10 be stated as valid.

11 Clearly we are very interested in the
12 feedback and comments from Illinois stakeholders,
13 given the issue is primarily focused on results of
14 the loads. This is part of that discussion, so to
15 me this is a MISO stakeholder discussion I'm
16 looking forward to. It's very valuable to get input
17 from stakeholders. Those questions -- should we
18 reach the conclusion that the issue is valid,
19 there's a general agreement or understanding that
20 there is an issue, then we start to exploring
21 solution pathways.

22 For what it's worth, I would

1 characterize MISO's current position as one where we
2 believe that ARES that are highly dependent upon
3 market-based processes to provide for resource
4 adequacy investment retirement decision-making is
5 critical, if that market price be economically
6 efficient.

7 There are lots of items there to be
8 discussed, but the nature of the issue statement
9 that we developed and published gets to questions on
10 whether the current market process MISO administers
11 are planning resource options has the construction
12 elements that you would expect or need to be in
13 place to reliably produce efficient pricing through
14 this market-based process.

15 We have raised issue with where we
16 think it has challenges in doing that, so that is
17 the issue we have before stakeholders, and we're
18 discussing now, and ultimately we will need to make
19 a decision as a stakeholder community with MISO, and
20 whether that issue is legitimate, and whether we
21 need to move forward and explore the mitigation
22 options.

1 MR. STAR: I think one voice that we maybe bring
2 into the future also is the alternative supplier,
3 and Ameren, the commercial and the industrial load,
4 and the commercial and industrial load-serving
5 alternate supplier is probably 80 percent, roughly
6 speaking, of the load and, you know, the competitive
7 market is working, and I can see the prices are low,
8 so the ability for them to participate in these
9 markets, what solutions might they have how to load
10 research adequacy and how they can fill that into
11 the offer they offer consumers or what happens in
12 Northern Illinois, maybe they're okay with that, we
13 don't know. I think some of it would be best voiced
14 with fully seeing how a competitive market will
15 interact with each of the long-term planning
16 decisions.

17 COMMISSIONER MAYE EDWARDS: Thank you.

18 Commissioner McCabe.

19 COMMISSIONER McCABE: That was Anthony Star for
20 those of you who were listening.

21 Ann McCabe, Illinois Commerce
22 Commission.

1 Todd, just to follow up on that,
2 what's the process and will at some point is there
3 going to be -- in addition to our December 10th
4 meeting, will there be a host of options and a
5 problem statement presented to stakeholders to
6 review?

7 MR. RAMEY: There's a problem statement that we
8 already presented to stakeholders. It was
9 reviewed -- introduced previously at our last Supply
10 Adequacy Meeting, which is the working group mainly
11 includes all of MISO's stakeholders and discussions
12 around resource adequacy processes. That was
13 introduced last month.

14 We will engage in another discussion
15 upcoming supply adequacy working group meeting here
16 in December to further explore and answer questions
17 stakeholders have around MISO's view of the issues
18 we try to describe.

19 And, again, the goal is to engage in
20 that conversation to get a sense of how close we are
21 with stakeholders in coming to agreement on the
22 definition of the issue and whether or not

1 stakeholders agree it's a priority issue that we
2 need to move forward with the next step, again,
3 which is exploring mitigation and solution pathways.

4 COMMISSIONER MAYE EDWARDS: Thank you.

5 Any other Commissioners?

6 (No response.)

7 Mr. Chairman, any questions or
8 comments?

9 (No response.)

10 Thank you again all of our panelists
11 for that lively discussion. I thought it was vital,
12 vitalizing, invigorating, and I think we discussed a
13 lot and hopefully this is a start to really getting
14 the ball rolling, and I am excited that we were --
15 the Illinois Commerce Commission was able to hold
16 this today.

17 I am certain that if we continue to
18 work together and explore these issues
19 strategically, we can make the best decisions for
20 the State of Illinois and its consumers.

21 Now as Chairman Sheahan mentioned in
22 his remarks this morning, there will be a follow-up

1 session on December 10th in which possible resource
2 adequacy solutions will be addressed.

3 To set that stage for that discussion,
4 we have invited Greg Poulos, Manager of Regulatory
5 Affairs at EnerNOC, to present on whether and how
6 demand response can play a major role in the MISO
7 market.

8 Greg and his team at EnerNoc are
9 extremely knowledgeable, and I'm so happy he could
10 be with us today. Please join me in welcoming Greg.

11 (Applause.)

12 You guys can actually stay. He's
13 going to come up to the podium.

14 MR. POULOS: Thank you very much for that warm
15 introduction. I appreciate the Commission having us
16 and that was a great discussion. I really
17 appreciate the dialogue and hearing the different
18 ideas.

19 I hope to follow that a little bit
20 with just by starting by saying from a demand
21 response perspective that we look at this and say,
22 yes, there is a market issue, and specifically the

1 market for demand response there is not a price
2 visibility that would have provided the opportunity
3 for demand response to concur this issue, and that's
4 really an indication, and I will show some slides on
5 that as well, going forward. I thought at least to
6 start with that to keep it moving a little bit.

7 Just to give you an idea of where I'm
8 coming from from the demand response perspective,
9 EnerNOC is a publicly-traded company, about 1300
10 employees. We are a global company. We are a
11 Cloud-based software company that focuses on
12 commercial, industrial, institutional customers, and
13 demand response is where we started.

14 Demand response is in the East Coast
15 and very strong in PJM, very strong, our second
16 strongest market, and that is Australia. So this is
17 certainly an area that we know very strongly and
18 follow all the different markets and the different
19 opportunities.

20 I think one of the keys for getting
21 customers involved, and customers should always be
22 one of the focuses in these discussions, is first

1 making sure you understand what the customers' needs
2 are, what they're looking for, and then finding ways
3 to engage them. When engaged, they can help with a
4 situation like this when prices are high or even
5 reliability-wise when showing improvements in a
6 resource, and demand response is a great example of
7 that, but it can show from the savings, which we can
8 get from those customers reductions to demand
9 reductions themselves and customer engagement.

10 Once you have that customer
11 engagement, you have customer satisfaction. I think
12 that will also play a key part in making sure that
13 customers -- the whole state are satisfied going
14 forward.

15 Demand response -- demand
16 response-wise there are really two core, three or
17 four different ways you can do demand response. You
18 can do it through the utility; you can have
19 customers participating through a wholesale market
20 on their own or into a state market or you can do it
21 in an aggregated demand response.

22 EnerNOC does it in all different

1 shapes and sizes. It's certainly one of the areas I
2 think that is not as well-known as the aggregated
3 model, aggregating meaning that we take a bunch of
4 customers to meet a specific goal. We call it a
5 portfolio effect, and this example you see on the
6 screen right now, which you are looking at, is a
7 number of different entities, grocery stores,
8 hospitals, schools, all come into what we call our
9 "aggregation model" and help to provide our demand
10 response that we're expecting that to curtail with.

11 You notice this is in the middle of
12 the city. That's where your load is. That's where
13 we get our demand response from, a very strong
14 resource, and because it is at the number of
15 customers, and a good example like this, it's much
16 more reliable because it's not minor. It's not on
17 and off. One customer can't participate, we still
18 have other customers.

19 This is another slide which I think
20 shows a bit of a difference and why it really works
21 through an aggregator to have a strong different
22 type resource, and this is about the risk. You

1 don't think about the risk when it comes to
2 customers in their response, but the risk -- if you
3 go up to a customer and ask a customer to
4 participate in a program so they can make money, the
5 first thing they are going to want to know is can I
6 lose money and what do I have to do to make sure I
7 make that money and don't get penalized.

8 EnerNOC, and others like us, come in
9 and we take the risk, so the customer will get --
10 we will know the customer going forward, say grocery
11 store, no, how they can participate more than
12 others, how they would participate, show them how
13 that happens, and we get them in this portfolio
14 effect to minimize the risk for us because we
15 typically take the risk.

16 That's a significant difference from
17 what many utilities can do, because many utilities
18 couldn't take that risk on. They're not in a
19 position to do that. Whether it's regulatory,
20 statutory, or simply the business model, it's not
21 their business function to do that.

22 So this is a strong characteristic for

1 retail service providers, demand response providers
2 that are managing the resources. This certainly
3 helps to really make this resource much stronger.

4 In the PJM part -- PJM market
5 obviously the demand response is a very strong
6 resource in Illinois, and in Illinois itself it's
7 significantly strong. Right now in the Illinois --
8 the PJM part of Illinois, there are approximately
9 2400 sites participating in that response. That's
10 about 15 to 20 percent in that range. All the sites
11 in the entire PJM region are in Illinois, just the
12 PJM part of the state. It's about 2400 sites --
13 locations that are participating right now in the
14 capacity program, not the energy or economic program
15 but just the capacity market. There's 2400 sites in
16 the Illinois -- PJM part of Illinois. There's about
17 1600 megawatts which is again about 15 percent of
18 PJM's overall PR, significant, significant
19 participation by customers, commercial, industrial,
20 institutional and residential customers in the
21 PJM part of the state.

22 The economic guide to that is

1 incredible, too. We estimate it's about \$78 million
2 this year payments alone to customers who are
3 participating, and, of course, those customers who
4 are participating there's a benefit to them in
5 reduced costs because of reduced capacity of
6 acquisition, and that we estimate about \$2.1
7 billion, and that number -- I'm using 2.1 billion
8 because in 2013-14 phases into auction year, and the
9 market monitor of PJM looked at what would happen if
10 DR wasn't part of the equation.

11 If you took DR out of the PJM market,
12 it would have been \$11.8 billion or more cost to
13 customers. If there's no DR, it would cost \$11.8
14 billion more to customers.

15 We took that as a big number and said,
16 okay, what if we separate that by state, by region
17 to PJM, and in Illinois we looked at Illinois
18 separately. It's a little bit easier to separate
19 it. It's about \$2.1 billion in savings for that 13,
20 14 year, because demand response was the resource.
21 There is some demand response in the MISO part, but
22 very little in the Illinois state, and I'll go over

1 that in a second.

2 Now this is just a map of the auction
3 fair price over 2015-16, and the significant prices
4 in Zone 4. The one thing I didn't really come up --
5 started to be discussed, but when MISO was creating
6 their auction -- their capacity market, the
7 two-month forward annual product, they actually
8 started with a PJM wholesale market. They were
9 looking at creating a PJM-style market that would be
10 integrated pretty easily with the PJM market, and
11 that idea is something that was PJM -- MISO's
12 approach to the market, and that idea was shut down
13 by the stakeholders, and the stakeholders as a group
14 collectively said we'd rather have a different
15 approach, one that was more focused on the states
16 and one that was more focused on letting the states
17 make those decisions.

18 I think that's a key difference here,
19 and that was one -- the two-month forward annual
20 market really does not create the visibility for a
21 resource. That's just a demand response to
22 participate at the wholesale level.

1 One difference that was discussed is
2 New Jersey, Maryland. There's a key difference that
3 separate those from what we're referring to here and
4 what the differences and problems are in this market
5 from a wholesale perspective.

6 One of them would be that in those
7 other states what they're actually doing, if they're
8 not participating in the wholesale market, they're
9 what you call fracking, fixed resource adequacy
10 plans, so they are kind of opting out and doing
11 their own proposal. You can do that at PJM, too.
12 That's called a Fixed Source Requirement Plan and
13 it's kind of based on that.

14 What's happening in New Jersey and
15 Maryland is not a fixed source requirement. Those
16 are entities -- those are resources being thrown
17 into the wholesale market but then subsidized, which
18 is completely different than these fracks, which is
19 happening in all the other states.

20 So getting back to demand response,
21 certainly if there are retirements, PJM has shown --
22 PJM markets have been shown that demand response can

1 certainly help address retirements and be a resource
2 there that can provide strong support when those
3 situations happen.

4 But what I want to kind of focus a
5 little bit on is this next slide. This is from the
6 Applied Energy Group, and there's no way to get
7 those numbers on this photocopy, but you may like
8 the colors. The colors on this one are indications
9 of -- in the far left is demand response resources
10 in the different zones in MISO. The ones in the
11 middle are energy efficiency, and I think those are
12 the two to focus on, and really just demand
13 response.

14 The one thing on demand response you
15 won't see is demand response for Zone 4, so small.
16 There is some, but they're so small that you can
17 barely see it, and you'll notice that the other
18 states, which may come as a surprise, they do have a
19 lot of demand response. They do it through their
20 fracks.

21 So what is happening is through
22 their interruptible programs, their utilities are

1 offering demand response as a load-modifying
2 resource into the MISO market as probably the
3 wholesale procurement, and that is the big
4 difference. It's not happening in Illinois.

5 One, we are not having DR in the
6 wholesale market here, unlike in the other part of
7 the state, because the price visibility is not
8 there, so it makes it hard for demand response to
9 know what the prices will be for this year.

10 Next year there's talk of strong
11 prices. There may be some demand responses showing
12 up next year, but the problem is we are about two
13 years now.

14 As demand response resource, I'm going
15 to prepare a customer through my portfolio plan.
16 I'm looking at -- I'm going to cover the cost. I'm
17 going to cover the risk of one year, of a one-year
18 option, and I'm guessing next year prices will be
19 higher, because I've heard that from many analysts.
20 One-year option is what I'm looking at.

21 Am I looking at two years the price
22 will be high, I don't know that. That really

1 becomes a part where demand response has to decide
2 what resources you do want, so I do think there will
3 be some because prices will be high next year, as
4 people are suggesting, but overall I don't think
5 there's going to be as much as there could be
6 because of that pricing is not there for the long --
7 the two-to-three-year term that we are looking for,
8 in particular when you are looking at the portfolio
9 effect.

10 Now on this slide when you see like
11 the yellow, which is Zone 1, and the purple, which
12 is Zone 2, that's where you have state programs
13 where those utilities and the commissions have had
14 states that the utilities in the state create a
15 demand response program with some price visibility
16 for a number of years, and what that resource will
17 get, and then they require that resource to be
18 offered into the MISO market. That's
19 load-modifying resources, and we have worked with
20 utilities on these types of programs.

21 Consumers Energy and Michelin, are the
22 ones we are working with right on this and working

1 with MISO to make sure our resources are something
2 they can use, and it's actually a very strong
3 resource and one that we think will work well,
4 because they are working together with MISO on it,
5 and we'll get price viability for a number of years.

6 So then the question is is there
7 enough opportunity in the MISO part of Illinois, the
8 Southern part of Illinois, to be attractive for
9 further demand response for even a state program,
10 and there is. Absolutely there is enough -- there's
11 enough opportunity for customers to participate, if
12 the opportunity is there. And this AEP study that
13 came out recently discussed some of the issues and
14 discussed the money that could be potential benefits
15 for more DR in Illinois, the number of participants
16 that potentially could be able -- that would want to
17 participate.

18 The one thing that this study got
19 wrong is they significantly undervalue the benefit
20 to the customer and to the state, because it was
21 using 2014 MISO capacity prices which were
22 significantly lower than this year.

1 So I do think this study and I think
2 the next panel in December will be here to discuss
3 it further, and I won't go too far into it.

4 I got these last two slides just to
5 mention that as I kind of alluded to. Clearly I
6 think the solution here will be a state program. I
7 think it needs to be something that goes through the
8 utilities in this state, Ameren in this case,
9 because it gives more price visibility, and that's
10 not to say that I think that MISO's trying to look
11 at more demand response, trying to get more
12 opportunity, but I think that's the best approach
13 and the fastest approach if you are looking at it.

14 The one hurdle I think makes demand
15 response unique for resources in the MISO market is
16 that in most of MISO, the vertically-integrated
17 states may have said no to demand response going
18 into the wholesale market on its own.

19 My response through ARES like myself
20 would have to go through a utility, and that's how
21 it's done. In Illinois there is no open market.
22 The market doesn't produce the right visibility for

1 demand response, so it is a unique situation, and
2 that complicates things for us.

3 And then, finally, I just gave a
4 picture of a number of different markets that
5 Enernoc is in, just an indicator of how broad a
6 spectrum the markets are, RTOs from California, to
7 Texas, to PJM, to New England ISO, to state programs
8 throughout the country, throughout the world,
9 certainly can be done in a way -- I certainly think
10 it should be considered, and right now it's not
11 nearly as effective as it can be.

12 With that, I will conclude.

13 COMMISSIONER MAYE EDWARDS: Thank you so much for
14 that presentation.

15 Do you have any questions,
16 Commissioners?

17 (No response.)

18 Do any of the panels have any
19 questions?

20 (No response.)

21 Fantastic.

22 Well, thank you very much.

1 MR. POULOS: Thank you.

2 COMMISSIONER MAYE EDWARDS: We look forward to
3 hearing from you on December 10th.

4 MR. POULOS: Thank you.

5 (Applause)

6 COMMISSIONER MAYE EDWARDS: So, as you heard
7 today, we are just at the start of addressing these
8 resource adequacy concerns. The ICC felt it timely
9 to bring the relevant stakeholders together to
10 participate in this vibrant important discussion;
11 however, the ICC is in no way taking a stance on
12 this issue. We really do want to, you know, kind of
13 make it a point to say that we appreciate everyone's
14 perspective.

15 We know that there are many different
16 perspectives, and I actually am extremely excited
17 that although there were many different views and
18 perspectives, the one view at the culmination of the
19 day and a discussion was that we are going to get
20 together and relevant stakeholders are going to
21 discuss this further to determine is there an issue,
22 and, if so, how can we address it.

1 I think that this is a great start,
2 and truly is what the ICC wants to do by providing
3 this forum for such a discussion. I feel like we
4 have accomplished a good deal today, and I'm excited
5 about it.

6 Definitely a number of thanks to all
7 of our panelists from both the morning and this
8 afternoon. I think today's Planning for the Future
9 Policy Session went extremely well overall, and I
10 know that you have been sitting in these chairs most
11 of the day. We are ever so grateful on your
12 participation today. It's always appreciated as
13 your continuing efforts to ensure winter readiness
14 and resource adequacy in the great State of
15 Illinois.

16 I definitely would like to thank my
17 colleague, Mr. Sheahan, as well as my fellow
18 Commissioners. I hope that everyone in this room
19 will be back for what I think will be a fantastic
20 discussion on December 10th as a follow-up to today
21 on Potential Solutions to Resource Adequacy issues
22 will be addressed.

1 And, again, I would like to thank
2 quite a few of you in the room, specifically my
3 legal and policy advisors, Ann McKeon and Nakhia
4 Crossley, who are moving this diligently along. I
5 got married and left and came back and this was
6 still moving along and they are just phenomenal to
7 make sure that nothing stopped while I was away,
8 so I truly am thankful to the both of them.

9 I would like to just give a little
10 shout out to the Chairman's advisors, Elizabeth
11 and Anastasia, because they developed this great
12 setup for the policy session, which you stole. I
13 would like to give credit where credit is due. I
14 think it is fantastic, and it's so nice, I'm sure,
15 for the audience not to be looking in the back for
16 our speakers all day, so I wanted to give a little
17 shout out to them.

18 So thank you, everyone. We hope that
19 you had a great day and it was as thought provoking
20 as it was for us, and have a wonderful Thanksgiving.

21 (Applause.)

22

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22

(Whereupon, the above
matter was adjourned.)