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BEFORE THE
ILLINOIS COMMERCE COMMISSION
SOLUTIONS TO RESOURCE ADEQUACY IN MISO ZONE 4
Thursday, December 10, 2015
Chicago, Illinois

Met pursuant to notice at 9:00 a.m. at
160 North LaSalle Street, Chicago, Illinois.

PRESENT:

- BRIAN J. SHEAHAN, Chairman
- JOHN R. ROSALES, Commissioner
- SHERINA MAYE EDWARDS, Commissioner
- MIGUEL DEL VALLE, Commissioner

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1 AGENDA

2 I. Welcome Remarks

- 3 a. Chairman Brien Sheahan,
4 Illinois Commerce Commission

5 II. Current Status of Resource Adequacy in MISO
6 Zone 4

- 7 a. Dr. David Patton,
8 Independent Market Monitor for MISO, Potomac
9 Economics

- 10 b. J.R. Tolbert,
11 Sr. Director for State Policy, Advanced Energy
12 Economy

- 13 c. John Moore,
14 Sr. Attorney, Sustainable FERC Project,
15 Natural Resources Defense Council

16 III. Whether Resource Adequacy is an Issue &
17 Potential Solutions

- 18 a. Jeff Bladen,
19 Executive Director of Market Development, MISO

- 20 b. Jim Blessing,
21 Sr. Director of Power Supply & Infrastructure
22 Development, Ameren Illinois

- c. Bill Berg,
VP, Wholesale Market Development, Exelon Corp.

- d. Dean Ellis,
VP of Regulatory Affairs, Dynegy, Inc.

- e. Greg Poulos,
Manager, Regulatory Affairs, EnerNOC, Inc.

- f. Erika Diamond,
VP & GM of Energy Markets, EnergyHub

- g. David Kolata,
Executive Director, Citizens Utility Board

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AGENDA (Continued):

IV. Ramifications on Consumers

- a. Jeff Bladen,
Executive Director of Market Development, MISO
- b. Jim Blessing,
Sr. Director of Power Supply & Infrastructure
Development, Ameren Illinois
- c. Susan Satter,
Sr. Assistant Attorney General, Public
Utilities Bureau, Office of the Attorney
General
- d. Bruce Campbell,
Director, Regulatory Affairs, Johnson
Controls, Inc.
- e. Paul Noble,
Representative, International Brotherhood of
Electrical Workers
- f. Brett Balke,
Electric Energy Manager, Archer Daniels
Midland

1 MR. SHEAHAN: Welcome to the Illinois Commerce
2 Commission's policy session regarding solutions to
3 resource adequacy in Zone 4 of the independent system
4 operator market construct. This session is convened
5 pursuant to the Illinois Open Meetings Act, and our
6 guests and panelists should be aware that a court
7 reporter is present. A transcript of this session
8 along with copies of the presentation will be posted
9 to the Commission's website.

10 With us are Commissioners Del Valle,
11 Edwards, and Rosales. We have a quorum. I'd like to
12 thank today's panelists for the effort they put into
13 the presentations, and I'd like to thank all of you
14 for attending.

15 The purpose of today's session is to
16 discuss solutions to resource adequacy in MISO Zone 4
17 as a follow-up to the Commission's session on
18 November 19th discussing resource adequacy generally
19 in the Ameren Illinois blueprint.

20 Organized by Commissioner Edwards,
21 this session brought together subject matter,
22 experts, consumer advocates, utility representatives,

1 regional transmission organizations, and
2 Illinois-based generators.

3 Likewise, today's session will bring
4 together relevant stakeholders including response and
5 energy efficiency representatives to assess the
6 current state of resource adequacy in Zone 4,
7 determine whether there's a consensus on the problem,
8 discuss proposed solutions, and analyze the
9 ramifications of those solutions for consumers.

10 As Commissioner Edwards voiced at the
11 previous meeting, the Illinois Commerce Commission is
12 a quasi-judicial regulatory body and does not intend
13 to take a position on this topic beyond providing a
14 forum for its discussion. The ICC's only interest is
15 ensuring that Illinois consumers receive safe,
16 reliable, and least-cost electric utility service.

17 Resource adequacy is a concept which
18 focuses on ensuring enough energy capacity is
19 available to meet the needs of all consumers in a
20 particular area, to keep the lights; specifically
21 resource adequacy is essential to Illinois
22 stakeholders given a well-supplied market provides

1 protection against price spikes and limits the
2 volatility that can lead to increases in consumer
3 rates.

4 Currently Zone 4 of MISO, or the
5 Ameren territory, constitutes the only portion of the
6 market construct that is restructured. Meaning that
7 competing sellers supply electricity in the open
8 market while other members in the MISO region are
9 vertically integrated where the utility owns all
10 levels the of the supply chain.

11 Given that this can cause price
12 signals and long-term planning to be less
13 predictable, the Illinois Commerce Commission
14 anticipates hearing how the status quo can be
15 improved, and we'd just like to highlight the
16 importance of having these discussions.

17 To begin today's discussion, we'll
18 hear from three individuals regarding the current
19 state of resource adequacy in MISO Zone 4 to provide
20 background and a brief summation on the topics
21 discussed at the Commission's November 19th policy
22 session.

1 These individuals will assess among
2 other things whether excess supply is diminishing in
3 the MISO footprint, and the fact that planning
4 resource auctions occur only two months prior to the
5 start of the planning period.

6 To begin the presentations, please
7 join me in welcoming David Patton of Potomac
8 Economics. Dr. Patton is the independent market
9 monitor for MISO and is tasked with partially
10 implementing market monitoring and litigation
11 business practices.

12 Dr. Patton reports to the MISO Board
13 of Directors and monitors the activities of the
14 market participants and the authorities without
15 interference with MISO or state regulators.

16 Doctor Patton?

17 MR. PATTON: Thank you.

18 All right. So earlier -- I appreciate
19 the invitation too and the opportunity to come talk
20 about resource adequacy. I think resource adequacy
21 issues can be confusing because -- well, everyone
22 recognizes what electricity is and the notion of a

1 market for buying and selling electricity makes a lot
2 of sense. Sometimes it's less easy to understand why
3 capacity markets exist.

4 So I'm going to talk a little bit
5 about the purpose served by the capacity market,
6 the -- sort of where we are in MISO as a whole, and
7 the issues that are confronting us in Zone 4 in
8 particular. We monitor markets throughout the U.S.,
9 so including New England, New York, and Texas.

10 And so those markets together with
11 MISO, I think, employ the entire gambit of potential
12 designs -- capacity market designs including Texas,
13 who doesn't have a capacity market.

14 So I'm going to talk a little bit
15 about the differences and the choices you have in
16 front of you for Zone 4. So this first question I
17 think is an important question to understand when you
18 start thinking about capacity market. And that is
19 what is the purpose of the MISO markets?

20 For a long time I took for granted
21 what the answer to this question is. And the
22 question is: Is the purpose of the MISO market to

1 facilitate efficient long-term decision making? So
2 those are decisions that relate to investment and new
3 resources. But equally important, decision making on
4 when to retire existing units and how much money to
5 spend maintaining units.

6 I have always assumed the answer is
7 yes, because one of the reasons we do regulate the
8 wholesale markets is to get better decision making
9 over the long term. And so I list in these
10 checkmarks one of the many reasons why I think the
11 answer to this is yes.

12 The problem in MISO has been, I think,
13 an awful lot of participants and most of the states
14 would argue that the answer is no. So that leads us
15 in the state where we are today with potentially an
16 issue in Zone 4 that needs to be dealt with.

17 So in thinking about why we have a
18 capacity market in the first place, if you were to
19 explore what would motivate somebody to build a unit
20 or to spend the money to maintain an existing unit,
21 there's only three sources of revenue that are listed
22 in the checkmarks there.

1 One is the money you can make during
2 normal hours and the energy and ancillary service
3 market and realtime markets. The second source of
4 revenue, which can be as large or larger, is the
5 revenues you earn when the system is in a shortage.
6 And so these are periods where in a normal hour you
7 have the energy price might average \$25, and the
8 shortage average, the price could be \$2,000. So
9 although they are infrequent, the amount of revenue
10 that's generated during shortages could be very, very
11 large.

12 And then third is the revenues that
13 you would earn from capacity markets. Now, so you
14 can think of a market like Texas is basically
15 designing their market to facilitate long-term
16 decisions based only on the first two checks and not
17 the third one.

18 And why doesn't that work? That would
19 work in theory, and a lot of economists would say
20 that would work in theory. The problem is that we
21 have planning requirements that you can't satisfy if
22 you rely only on energy and ancillary service

1 markets. The standard in most areas, how much
2 capacity you need would require shortage pricing in
3 the range of \$100-200,000 MW hour.

4 So there's a disconnect between the
5 planning requirements and what most folks think
6 electricity is actually worth when you're at the
7 point where you're having trouble keeping the lights
8 on. So, in short, relying only on an energy market
9 will maintain enough resources to meet your planning
10 requirement, so you need another stream of revenues
11 in order to accomplish that. The other thing is that
12 when you rely only on energy market revenues, the
13 revenues are highly volatile, difficult to forecast.

14 So the capacity market provides a
15 level of stability to the revenues and in all
16 likelihood lowers the cost of investment. So this
17 figure attempts to summarize what's happening in
18 Zone 4 in the 2015-2016 planning year and in the
19 2016-2017 planning year.

20 So in terms of -- we're going to walk
21 through this. Row A there shows you the total need
22 in Zone 4, so close to 12 gigawatts in 2015 and a

1 little over 12 gigawatts in 2016. That change, we
2 don't have updated forecast, so that changes entirely
3 related to the planning standard change slightly. So
4 that could change a little bit.

5 But then we recognize that you can
6 meet some of your requirements in Zone 4 by importing
7 power from or relying on resources that are located
8 outside Zone 4 to the extent that the transmission
9 system allows.

10 So you can see there in '15/'16, it
11 was 3100 megawatts, so a pretty good share in Zone 4
12 can be satisfied by resources that are located
13 outside. That number actually went up by almost
14 1200 megawatts, and that's based on a MISO evaluation
15 of the transmission system.

16 So on that is how much capacity we
17 actually need in Zone 4 to maintain reliability
18 because the import capability went up. The amount we
19 need in Zone 4 actually went down, so that's in
20 Row C.

21 So that's the demand side of the
22 equation, and how much we need. The supply side is

1 listed below. And the quantity of resources we
2 actually have in Zone 4 is almost 13 gigawatts. Some
3 of that is being exported to PJM, where they have a
4 more functional market than MISO. So it's
5 economically attractive to export capacity at the
6 moment.

7 And so if you look at what's remaining
8 of the exports, the first row there, if you ignore
9 the exports, we have a relatively significant surplus
10 in Zone 4 of about 3 gigawatts. If you recognize
11 that the units that are exporting are still going to
12 be located in Zone 4 and for the time being are still
13 under the control of MISO, then that surplus looks a
14 little bit larger.

15 And so what does that tell you? That
16 tells you that Zone 4 has a relatively significant
17 surplus. And so we're not in danger of having
18 reliability problems in Zone 4.

19 So the urgency, I think, of finding a
20 way to retain the megawatts that are in Zone 4 is not
21 is not critical in our opinion. Although in every
22 venue that we talk about resource adequacy we talk

1 about the shortcomings of the market and the fact
2 that we're not providing efficient signals to
3 maintain existing units and build new units.

4 The one thing I would say is the trend
5 towards exporting has been rapid, and what can change
6 this picture in a hurry is units retiring because of
7 the market design flaws that currently exist in MISO.
8 But the other thing I would say and important to
9 recognize is there's really two drivers of value for
10 capacity that's located in Zone 4.

11 One is is the need for the megawatts
12 to meet the local requirements in Zone 4. Secondly,
13 is the need to maintain -- to retain those megawatts
14 to meet the requirements in MISO as a whole. And
15 MISO as a whole is much tighter than Zone 4.

16 So if you were to ask me if I owned a
17 generator in Zone 4 and I was evaluating where I was
18 losing my value related to the market issues in
19 capacity market, I think more value is being lost not
20 being compensated for the reliability value that I'm
21 contributing to MISO as a whole than related to the
22 local issues in Zone 4.

1 So I do think it's important, and I
2 don't think it's a bad idea to look at alternatives
3 that could be implemented just for Zone 4. But I
4 think you'd great much greater benefits if we could
5 develop a consensus to try to solve the market design
6 problems market wide and MISO.

7 So what changes and where is the
8 design flaw in the MISO market that I keep referring
9 to? The first is how we represent demands. The
10 value of any product is related to the -- the price
11 for any product should be determined by supply and
12 demand. And the demand value is based on the
13 services that are provided by the good.

14 And so what services is being provided
15 by capacity? The service is reliability. And if you
16 think about as we build more power plans or we retain
17 more power plans, every additional megawatt of
18 capacity provides additional reliability value. And
19 as the surplus grows, that marginal reliability value
20 falls.

21 But ultimately, that value you can
22 think of as basically a slope that I'm going to show

1 you in just a moment. Unfortunately, the way we
2 model the demand for capacity in MISO is as a
3 vertical demand curve. What that implies is the less
4 megawatt we need to meet our minimal requirement is
5 enormously valuable. It's as valuable as what it
6 costs to build a new unit or more. But once we've
7 met the minimal requirement, the next megawatt is
8 worthless. What you get is this (indicating).

9 So the supply is the green line. The
10 demand is the blue line. Most supply in the capacity
11 market if they're covering their cost of retaining
12 and remaining an operation, the marginal cost of
13 supplying capacity is very close to zero.

14 The main component of the marginal
15 cost is what you're giving up, not exporting. But if
16 you ignore that for the moment, you get something
17 that looks like this (indicating).

18 Under this sort of market design, the
19 price can be close to zero almost all the time. And
20 so there can be no expectation that the capacity
21 market is going to fulfill the purpose that I
22 mentioned earlier of generating revenue to motivate

1 people to build or to retain their existing units.

2 So that's the nature of the problem.

3 Every capacity market in the country that is arguably
4 functional has a sloped demand curve. There is no
5 capacity market that I'm aware of that's structured
6 like this that is functional. And almost everyone
7 that has a sloped demand curve began with a vertical
8 demand curve and then reformed itself because, in my
9 opinion, it's relatively obvious that it's a flawed
10 market design.

11 This is what I refer to as a sloped
12 demand curve. In this market, the fact that the
13 supply is willing to offer is at very low price
14 doesn't result in a clearing price that's very low
15 because in this picture, you can see that the price
16 is being set off of the demand curve.

17 It's being set by the marginal value
18 that the last megawatt is providing to the systems.
19 And as the surplus increases, the price will fall.
20 And when you -- as the surplus diminishes the way it
21 is in MISO due to environmental regulations and other
22 factors, the price will rise. And when you get close

1 to the minimal capacity requirement, you're going to
2 be setting prices that are attractive to investors,
3 so that the market will do a good job of motivating
4 people to build and retaining capacity that you need
5 to meet your requirements.

6 So when you think about Zone 4,
7 although it would be nice to have this structure in
8 MISO as a whole, I think one of the principal
9 components of any solution in Zone 4 would be a
10 representation of demand that looks like this
11 (indicating) so that you can get a price for Zone 4
12 that reflects the level of surplus that exists and
13 sends an efficient signal to the suppliers in Zone 4.

14 The second comment that I was going to
15 talk about briefly is the time frames in which you
16 procure capacity. I think there's a lot of confusion
17 in thinking about this issue.

18 So some capacity markets procure
19 capacity three years in advance. And not only are
20 they referred to as forward capacity markets, they're
21 not really forward markets. Typical forward markets
22 are voluntary, and the buyers and sellers trade based

1 on what they expect the good to be worth in realtime.

2 So if you look at oil markets or gas
3 markets, there's a spot market and then there's a
4 forward market. The forward market is largely a
5 financial market. What these markets are is a
6 mandatory forward procurement, so you're taking the
7 spot market, and you're pushing it out three years.

8 The theory behind these is that it
9 would be nice to have new resources be able to offer
10 into the markets and compete with existing resources.
11 While that's nice in theory, I don't think it's been
12 shown to be terribly effective without a lot of
13 additional provisions.

14 The realty is new resource owner would
15 be getting a one-year contract for a 30-year asset,
16 and so the option in isolation, I think, has been
17 shown not to do a very good job of motivating
18 efficient decision making. Largely, the investors
19 have made the decision before they offer.

20 And various provisions that I list
21 here to try to correct that problem have even created
22 additional problems. Particularly a lock-in

1 provision that would guarantee new resources, stream
2 of revenues. Because it discriminates in favor of
3 new and it basically pushes existing resources out of
4 the market.

5 So the other market design is what's
6 currently placed in MISO and the New York ISO, which
7 is a prompt procurement. In other words, you're
8 procuring capacity immediately before the planning
9 year. It doesn't have a lot of the problems that the
10 forward procurement does. You don't have the
11 forecast uncertainty, which New England has really
12 struggled with.

13 But what it does do is it sets an
14 efficient price that will facilitate forward
15 contracting. So you arguably still get the forward
16 revenues being generated, but they're generated in
17 the bilateral market rather than through the market
18 that's facilitated by the ISO.

19 So the fact that a resource developer
20 needs a stable set of revenues, I think sometimes
21 there's an assumption that you can't get that from
22 the prompt procurement, but we believe that those do

1 provide that. So the short answer on this one is as
2 you look at alternative solutions for Zone 4, the
3 demand curve is essential.

4 I would be careful about assuming that
5 the forward procurement is a beneficial component of
6 the potential solution. And that was -- I know I
7 moved very quickly. I was hoping to save some time
8 so that we can field questions.

9 MR. SHEAHAN: Thank you, Dr. Patton.

10 Next, please join me in welcoming JR
11 Tolbert of Advanced Energy Economy. JR is a senior
12 director of policy at AEE, which is an association of
13 businesses working to make energy secure, clean, and
14 affordable.

15 Recently AEE engaged (inaudible) that
16 perform quantitative and qualitative analyses to gain
17 an understanding of peak demand reduction standards
18 and their potential benefits, and how such standards
19 should be designed. The study analyzed the potential
20 benefits and avoided costs for demand response
21 programs based on varying scenarios of penetration
22 and regulatory activity as well as analyze aspects of

1 program design.

2 Please join me in welcoming JR.

3 MR. TOLBERT: Thank you, Mr. Sheahan, and thank
4 you to the members of the Commission for inviting us
5 to participate in this important topic today.

6 What I want to do -- and let me first
7 start off by saying, and I've talked to a couple of
8 folks that are in the crowd. I make no bones about
9 it that I'm not an expert on the depth of issues
10 involving resource adequacy in Zone 4.

11 What I hope to do is provide a
12 snapshot of some of the resources that are out there
13 to help meet resource adequacy concerns in Zone 4.
14 So what I want to do is to introduce to you to AEE
15 just a bit and then to jump into those issues
16 involving resource adequacy and particularly the role
17 of demand response and meeting -- demand response
18 energy efficiency and meeting resource adequacy
19 issues.

20 So Advanced Energy Economy's mission
21 is transforming public policy to enable the rapid
22 growth of secure, clean, and affordable energy,

1 so ... and in these first two slides, you can see a
2 subset of Advanced Energy Economy's members and
3 recognize that these folks are the folks who are
4 trying to solve many of these issues that we face as
5 we deal with meeting our energy needs and meeting
6 those needs from a perspective of clean and secure
7 and affordable energy.

8 The Chair mentioned a recent report
9 that we did on peak demand reduction strategy in
10 which we had -- we'll go back to this one because it
11 wants to stay on this a little bit longer. Okay.

12 So the Chairman mentioned a recent
13 report that we did where we had Navigant Consulting
14 actually look at the potential capacity for demand
15 response all across Illinois as well as the state of
16 Massachusetts. And then we broke out that capacity
17 for DR as well and -- the capacity for DR as well in
18 MISO Zone 4 four as well as the PJM area of the
19 state.

20 So I'll be walking through that. As
21 Advanced Energy Economy thinks resource adequacy,
22 there's a couple of points that I want to make and

1 one of them will build off Dr. Patton's piece. First
2 is the considerations of resource adequacy had to be
3 about more than simply having enough reserves to
4 ensure that we keep the lights on.

5 If we view the issue strictly through
6 that plan, the cost to reserve capacity that is
7 rarely used oftentimes can outstrip the benefits. So
8 we need to make sure that we're also making sure
9 we're keeping energy affordable for rate payers.

10 That's where we believe the value of
11 energy efficiency and demand response should come in
12 play as utilities. The Commission and RTOs consider
13 today's question. And then the third point there is
14 that with looming requirements in MISO and exports to
15 PJM that were referenced by Dr. Patton, it's
16 important to plan in order to get out ahead of the
17 trends that are currently occurring in the market.

18 So to be thinking about public policy
19 as a way to deal with these issues before these
20 issues really arise, we have capacity -- there are
21 capacity excesses right now, our capacity surplus
22 right now, using public policy to actually ensure

1 that we stay in that manner rather than move
2 backwards. All right.

3 For us, I'll keep coming back -- I'm
4 sorry that it keeps doing this -- our key
5 considerations in our demand response strategy --
6 this is really difficult, sorry.

7 So our key considerations in DR
8 strategy Navigate considered a low, medium, and high
9 case DR scenario. For Illinois, we limited the
10 discussion to the low and medium scenarios because of
11 the FERC analysis on the national testament of demand
12 response potential that said that there was 7.6
13 percent achievable demand response participation in
14 Illinois.

15 The second key consideration from our
16 perspective was that we assume that 50 percent of
17 incremental peak reduction comes from efficiency
18 improvements in the system, and that 50 percent can
19 come from demand response. So by increasing energy
20 efficiency, we can lower the need for additional
21 capacity and then DR can help to reduce even more.

22 And then as we looked at when DR would

1 be called low-case scenario DR would be called when
2 the load hits 96 percent of expected peak. And in
3 the middle case scenario, DR would be called when the
4 load hits 95 percent peak.

5 And to think of it, the low-case
6 scenario would have no increase in peak demand for
7 over the course of the next ten years. And then the
8 middle scenario would have .25 percent annual peak
9 load production per year. I'll wait right there for
10 a minute.

11 (Discussion off the record.)

12 MR. TOLBERT: So the projections for the entire
13 State of Illinois. So this doesn't break out MISO
14 versus PJM, but I wanted to include this slide
15 primarily because it looks at the total peak load and
16 to provide this definition of how Navigant defined
17 actual peak load, which is slightly different than
18 you may be used to seeing it.

19 So it's defined as a load actually
20 consumed taking into account existing and mandated
21 energy efficiency. So if you look into the outyears
22 of 2025 and you take existing mandated energy

1 efficiency policies or existing policies to drive
2 energy efficiency in the state, this is the projected
3 peak load for the state. So I felt that that was
4 important to include.

5 The next slide. So here's where we
6 actually get into demand response potential in
7 Zone 4. And I chose 2023 because it was an
8 outyear -- a significant outyear that was an outyear
9 that might get cast where the existing capacity --
10 where the existing capacity surplus is. And I was
11 thinking, okay, so let's think of it in that regard.

12 And so the peak demand reduction
13 target would be 4,350 megawatts. And as we look at
14 it, what we see is -- well, let me back up a step.

15 So for the state, peak demand
16 reduction 4,350 megawatts in the mid-case scenario.
17 So that would be a .25 percent reduction per year
18 annually for ten years. We split that, assuming
19 70/30 between PJM and MISO, and then we further went
20 in and said if the state did nothing to move on
21 demand response, there would still be a level of
22 demand response participation in the state.

1 So what we actually look at is we see
2 that demand response in 2023 in a mid-case scenario
3 of reducing .25 percent per year for ten years, you
4 could reduce peak demand by 464 megawatts. So that's
5 not huge, right? But it's a large -- that's one way
6 of thinking about it.

7 That's a large generating capacity
8 that you would be able to remove and reduce the need
9 for from the system. So as we're thinking about
10 future retirements or exporting to PJM, this is one
11 way to think about, that's 464 megawatts that we
12 could use to actually meet our potential.

13 The other pieces that we wanted to
14 look at -- and this goes back to we really believe
15 that resource adequacy is about more than just
16 capacity. It also has to do with -- if you'll go to
17 the next slide; I'm sorry.

18 It also has to do with protecting the
19 rate payer and the consumer. So this actually looks
20 at the avoided cost associated with investments at
21 that mid-case scenario in 2023 again. So we would be
22 able to save rate payers. And you see -- and this

1 is -- add three more zeros, right? So you're looking
2 at \$42,974,000 in savings in Zone 4 as a result of
3 avoided capacity cost.

4 So that leads into the benefits of
5 making this investment. So it's a way of thinking
6 about if we can avoid having to have that extra
7 capacity, we're able to make -- we're able to save
8 additional moneys there for rate payers.

9 So I'll go back really quickly and
10 just to wrap up and hitting the button, I actually
11 ended up going much faster than I anticipated. But
12 in our minds, as you're thinking about resource
13 adequacy, we would encourage utilities, we would
14 encourage commissions and our ISOs and RTOs across
15 the country to be thinking about these things both as
16 what are resources that we can invest in that would
17 keep us from having to build new generation that as
18 was mentioned by Dr. Patton that last megawatt is
19 extremely expensive.

20 And then in a region like MISO, it
21 drops, right? So how can we actually avoid having to
22 build some of those last. And we believe that demand

1 response creates the potential to be able to reduce
2 the needs and to save for consumers.

3 So with that, I thank you. And
4 hopefully this thing calms down.

5 MR. SHEAHAN: Thank you.

6 Next up, we have John Moore of the
7 Natural Resources Defense Counsel. John is a senior
8 attorney at the Sustainable FERC Project. The
9 Project promotes the development of a modern and
10 flexible and efficient high-powered electric grid
11 necessary to accelerate the deployment of renewable
12 energy, energy efficiency, and other clean energy
13 resources.

14 Specifically John advocates on behalf
15 of the Project and other clean energy and
16 environmental groups and regional transition
17 organizations.

18 Please join me in welcoming John.

19 MR. MOORE: Thank you, Chairman Sheahan and
20 Commissioners. It's a delight to be here today
21 talking about this very important issue. Okay.
22 Great.

1 So, you know, I think the view on
2 resource adequacy in Zone 4 depends partly on
3 perspective, the perspective of meeting the
4 environment organizations and others that I work
5 with. We have our view and a perspective that
6 includes several priorities.

7 One is assuring reliability throughout
8 the MISO footprint including Zone 4 through all hours
9 of the year, which we believe that based on the MISO
10 data so far has as the doctor suggested is true
11 through 2020.

12 We want markets that facilitate the
13 development and entry in revenue for new and existing
14 clean resources and retirement of dirtier ones
15 through mechanisms such as the Clean Power Plan and
16 whatnot. And we recognize that -- or we urge that
17 within Zone 4 and MISO, in general, we need to
18 maximize savings -- efficiencies through things this
19 like assuring the opportunity for resources outside
20 of Zone 4 to sell into Zone 4 and provide supply into
21 Zone 4.

22 You heard a little bit about that

1 already. Maximize demand management, J.R. talked
2 about that. Increased use of renewable energy; wind
3 and solar in particular, which doesn't fare well
4 under existing capacity constructs.

5 And in using the Illinois Power
6 Authority and other options that I think we're going
7 to be talking about again today. We think it's
8 really important to recognize that Zone 4 represents
9 the demand within Zone 4. It's about 5 percent of
10 the total.

11 MISO generation (inaudible) mix supply
12 and that the amount currently relying on the PRA is
13 lower than that. So it's a small fraction of total
14 MISO demand. Zone 4 is essentially an island within
15 MISO, and MISO itself, you know, does not exist in a
16 vacuum because it has a lot of states in MISO. There
17 are also working on resource adequacy so the bottom
18 line is if, you know, to the extent need exists in
19 the future to address resource adequacy, it needs to
20 be tailored to fit that specific need and avoid
21 unintended sequences for either Illinois and the
22 energy choices Illinois makes or the rest of the

1 footprint. Next slide please.

2 To put it even more crisply, Zone 4
3 resource adequacy is secure for the near term. There
4 are many choices available to support and ensure
5 resource adequacy in the future, and we encourage
6 avoiding unintended consequences of major MISO
7 capacity market redesign. Only minor changes we
8 believe are necessary. Next slide.

9 Dr. Patton has already covered most of
10 this. With a point being overall that there was
11 excess capacity in the zone even under the rules that
12 MISO used this year. The 23 percent planning reserve
13 margin essentially. And a significant number of
14 megawatts did not clear.

15 And there was additional intermediate
16 capacity resulting from counter flows from exports to
17 PJM. That's a function of physics more than markets,
18 and that's also available to meet demand. Next
19 slide, please.

20 And we can pass on this as well. Next
21 slide. Just is a summary of what most of us know.
22 So the context we know is that we have pending

1 complaints in FERC involving Zone 4 that will likely
2 affect the action design -- research action design,
3 such as increasing net imports into Zone 4. We're
4 going to talk little bit more about those actions in
5 a minute.

6 MISO is making other changes to the RA
7 that we'll address, resource adequacy. Seasonality,
8 locational considerations, and the queue process. I
9 think we'll talk a little bit about these, and so
10 these are two activities occurring just within the
11 MISO sphere that will go into effect with Zone 4
12 resource adequacy. Next slide, please.

13 We also know from the famous MISO
14 organization state survey that we have about 500
15 megawatt surplus over reserve margins, and that
16 includes potential planned retirements. There is
17 additional queue generation available that is not
18 included in the OMS survey.

19 The import capability is growing up
20 significantly. And then state laws, Clean Jobs Plan
21 could have could add 3,500 megawatts of wind and
22 solar in Illinois and other factors are going to

1 influence a paradigm shift in the resource over time.

2 Next slide, please.

3 And I want to just address a little
4 bit more about the fact that the Clean Power Plan is
5 going to, regardless of how Illinois decides to
6 implement it, it will provide competitive advantages
7 to existing newer, cleaner resources and affect the
8 resource mix. There will be demand response energy
9 efficiency plus new resources that will offset
10 planned retirements and address peak demand.

11 There will be more rooftop solar and
12 other distributed energy resources. We think there
13 should also be more of a focus on seasonal winter
14 peak resources, and assuring that those resources are
15 available to meet peak without excessive costs, which
16 I think still happens to be the case now with a much
17 higher level of resources available to meet that
18 winter peak.

19 And then we're not California. I
20 don't think we are saying that New York is
21 California, but we have a lot of resources both in
22 Zone 4 already. I think it's pushing close to 1,000

1 megawatts -- close to 1,000 megawatts, and we have a
2 lot of other resources surrounding Zone 4. And
3 Indiana, Northern Illinois, Iowa, and of course
4 Minnesota that all will affect resource adequacy in
5 MISO and PJM as well.

6 PJM has already done a study that
7 shows you can maintain reliability and significantly
8 reduce production costs with 30 percent of all your
9 energy. Not installed, but 30 percent of all your
10 energy coming from wind and solar. General Electric
11 did that study. It's a very good study. Next slide,
12 please.

13 This harkens back a little bit to what
14 J.R. said about demand response and energy
15 efficiency. This data is from a draft MISO report on
16 demand response, energy efficiency, and rooftop solar
17 and other potential that is in Zone 4 and the rest of
18 the region.

19 It commissioned AEG to do a study.
20 MISO does this every five years to project a
21 potential for DSM. We think it's very
22 conservative -- I've already told MISO this. But

1 even under the conservative assumptions, it's saying
2 that, you know, you're looking at over 1,000
3 megawatts of additional DSM capacity by 2025 and
4 double that by 2035. Next slide, please.

5 This is an area where we really do
6 believe that the state and Ameren as ADDEC [phonetic]
7 doing a lot more to motivate effective, affordable
8 energy efficiency. It really lags ComEd on the
9 energy efficiency through implementing the state EEPS
10 and other programs.

11 So just with energy efficiency and
12 putting aside, I think, most of the effects of any
13 capacity market that might impact the development of
14 energy efficiency. There's a lot more that can be
15 done within Ameren. And then thinking to the future,
16 we are now at a point where effective crisis response
17 demand can be integrated into wholesale markets and
18 you can get further savings, especially peak
19 reduction savings there to tap into.

20 And I think the Commission has a very
21 important role to play in achieving that especially
22 in the Ameren service territory. Next slide, please.

1 So just to wrap up in the next couple
2 of slides, you know, this set of priorities are
3 priorities that our colleagues have already talked
4 with at FERC in the context of the Zone 4 complaints.
5 Set opportunity costs at zero for the next auction
6 and set MISO's initial reference level not at the PJM
7 level for the replacement auctions, which I think is
8 around \$155 instead use some measure (inaudible) for
9 existing resources.

10 Account for counter flows from exports
11 on a 1 to 1 basis. And I think this one deserves a
12 lot more study. (Inaudible), the methodology of
13 limits on facilities but transmission facilities
14 below 200 KBs because MISO has previously said that
15 it can do the dispatch and by ignoring those limits,
16 you get additional resources into the zone.

17 And I think another issue we're
18 considering -- I don't know where -- I don't know
19 that we're firm on this, but I think it needs to be
20 discussed and part of a package is what are the
21 implications of combining Zone 4 and Zone 5. Next
22 slide.

1 And then there are other MISO supply
2 priorities that also will affect Zone 4. More credit
3 for variable energy resources; the wind and solar
4 use effective load carrying capability or seasonal.
5 ELCC is a great way of assessing and crediting wind
6 and solar for its liability value.

7 It's a discount of the full output of
8 the system. But there's been a lot of good work
9 done, and MISO is, you know, in some ways moving
10 towards this. It gives the wind and solar that
11 credit at the times it's needed. I think seasonal
12 credit for wind and solar is not quite as good, but
13 it's clean at least. It's a start to move to the
14 ELCC.

15 Something more than just using an all
16 year round average of wind and solar, which means you
17 get much depressed credit value for these resources
18 when, in fact, they're on the system at higher levels
19 sometimes when you need them. And then improving
20 market opportunities and better price formation for
21 demand response, FERC is working on this now and MISO
22 has a demand response initiative that is addressing

1 these types of issues that we strongly support,
2 giving demand response the opportunity to set the
3 price in realtime operating reserve margin markets.
4 And that helps with price formation significantly.
5 And then moving to what PJM does, which is reducing
6 from 5 megawatts down to something closer to 100
7 megawatts, the threshold for DR resources to
8 participate in the energy ancillary services markets.
9 Next slide.

10 I think the final slide I want to make
11 is sort of a combination of legal -- my legal
12 perspective and also, you know, reality of what
13 capacity markets are today, each of those that have
14 them. Primarily PJM markets (inaudible) -- Number 1,
15 and this is no disrespect to either MISO or to FERC,
16 but MISO is not -- even the Illinois Commerce
17 Commission -- it doesn't have the same procedural
18 protections and opportunity for noticing witnesses
19 that are used to doing in the ICC. It's a hybrid
20 creature. And it's by design all has less
21 transparency than at a state utility commission.

22 Then we when you take what MISO

1 proposes to FERC, it's not -- you know, you take
2 these FERC federal power act Section 205 filings
3 pretty much as you receive them. They're up or down.
4 They don't have a lot of opportunity to keep them in
5 the same way that you do in these kinds of contested
6 case filings here.

7 We actually saw that to some extent
8 with the MISO filing on the 2012 decision that FERC
9 made on the resource adequacy option. So it's a
10 cautionary -- it's sort of a legal cautionary note I
11 have here about be careful of putting too many eggs
12 in a MISO basket; that you don't need to put the eggs
13 in the first place here.

14 And then finally, you know, from wind
15 and solar, the resources of the future, the current
16 capacity market design and the ones that Dr. Patton
17 mentioned aren't really favorable for these
18 resources.

19 And they are actually providing more
20 value than the capacity markets, so any changes that
21 are made to address Zone 4 need to take into account,
22 you know -- they need to take into account better

1 value for the wind and solar resources that are
2 plentiful in our region. Full market monetization
3 for resource, the energy efficiency and solar, and
4 other actions so that we don't, you know, make a
5 decision or agree on a decision that has unintended
6 consequences.

7 So with that, thank you. Chairman.

8 MR. SHEAHAN: Thank you, John.

9 I think we've got time maybe for just
10 one or two questions. We'll start with Commissioner
11 Edwards.

12 MS. EDWARDS: Thank you very much.

13 So I know, J.R., you mentioned that
14 you think that resource adequacy is bigger than
15 capacity. And then John, you mentioned that the ICC
16 has a very important role to play. But that brings
17 me back to the question of exactly who is in the best
18 position to manage this issue, and whether, you know,
19 if it's ICC or MISO?

20 Who needs to kick the ball first, so
21 to speak?

22 MR. MOORE: I think the ICC has a very

1 important leadership role here. Because in Zone 4,
2 it's a lot more just than just the capacity market.
3 So you're involved in dealing with the Clean Power
4 Plan right now. The ICC Commission works with the
5 IPA, so you've got Illinois's interest at heart.

6 Is it taking the lead? I think it's
7 working closely with MISO on this. So I don't think
8 there's an either/or. There never is in these
9 things. It's a variation of what I see a little bit
10 out of a more than 1,000 regional system plan.

11 There's a role for the states, there's
12 a role for MISO. I need -- you get a better outcome
13 from consumers when you work together, and I think
14 it's the Commission's role to ask for the data, the
15 transparency, and to, you know, play out the
16 different outcomes before you make decisions.

17 MS. EDWARDS: It seems like it's such a thin
18 line because we do have that jurisdictional issue at
19 the end of the day. We don't have a jurisdiction to
20 deal with wholesale issues, and so it's almost like
21 we do need to be involved, but yet we kind of almost
22 can't be to some extent, so ...

1 MR. MOORE: Coming back to the capacity market
2 is not the beginning and end of the solutions in
3 Zone 4. So that's why I would encourage you to
4 maintain responsibility here.

5 MR. TOLBERT: The only thing that I would add
6 is the Commerce Commission has an enormously
7 important role to play in deciding what are the
8 resources that are actually there, what are the
9 resources that are approved whether it be demand
10 response energy efficiency, whatever those programs
11 look like, how are we actually implementing those.

12 So you all are an integral and
13 critical part of the decision-making process in what
14 shapes the resources that MISO is working with. So I
15 think that it's important for -- and I will use the
16 word "leadership" and "push" from the ICC to MISO to
17 make sure that the future for Zone 4 and the future
18 for Illinois looks like the future that the Illinois
19 Commerce Commission wants it to look like versus
20 somebody else.

21 MR. SHEAHAN: Thank you.

22 Trying to keep us on time. Why don't

1 you join me in thanking the panelists. We're going
2 to take a 15-minute break and come back at 10:15.

3 (Recess taken.)

4 MR. SHEAHAN: All right. We're about ready to
5 get started again. Thank you again to our presenters
6 for their insights on the state of resource adequacy
7 in MISO Zone 4.

8 To commence our next discussion, we're
9 going to begin with a conversation focusing on
10 whether or not resource adequacy is an issue in Zone
11 4. We had some disagreement at our November 19th
12 meeting and some possible solutions.

13 Leading our discussion, I'd like to
14 introduce one of my legal and policy advisors,
15 Elizabeth McErlean. Please join me in welcoming this
16 panel and Elizabeth.

17 MS. McERLEAN: Thank you, Chairman.

18 As Chairman said, my name is
19 Elizabeth, and I will be moderating Panel 2. Panel 2
20 is designed to hear with the relevant stakeholders
21 whether resource adequacy is an issue in MISO Zone 4
22 and also try to provide a forum to discuss potential

1 solutions.

2 As the Chairman prefaced, the point of
3 agreement amongst the panelists at the Commission's
4 last meeting was that the market structure of MISO
5 Zone 4 was the root of most disagreement.

6 Therefore, we will hear from the
7 panelists on that issue before we explore potential
8 solutions. The format of the panel will consist of
9 questions presented by myself with the opportunity to
10 hear from each of our panelists and for the panelists
11 to respond to each other. If time remains at the
12 end, we will also take questions with the audience.

13 The questions that will form the basis
14 of our discussion will be posted on the screen
15 throughout. But before we begin, I would like to
16 introduce our panelists. You will be hearing from
17 Jeff Bladen, the executive director of market
18 development at MISO; Jim Blessing, the senior
19 director of power and infrastructure development at
20 Ameren Illinois; Bill Berg, vice president of the
21 wholesale market development at Exelon; Dean Ellis,
22 the vice president of regulatory affairs at Dynegy;

1 Greg Poulos, the manager of regulatory affairs at
2 EnerNOC; Erika Diamond, vice president and general
3 manager of energy markets at EnergyHub; and David
4 Kolata, the executive director at Citizens Utility
5 Board.

6 Please join me, once again, in
7 welcoming our panelists.

8 So to jump start the discussion, the
9 first question to the panelists will be in your
10 opinion, is resource adequacy an issue in MISO Zone
11 4? Anybody can jump in, or we'll go down the line.

12 MR. BLADEN: I'll start. My name is Jeff
13 Bladen with MISO. Back in March of this year, we put
14 out an issue statement for all of our stakeholders
15 where we identified the nexus of our market design
16 and how well it would meet the needs of competitive
17 restructured parts of our footprint.

18 And we identified at that time, as I
19 said as far back as March, this was a growing concern
20 of MISO staff and to many of our stakeholders. I
21 think we heard that confirmed at least among the
22 stakeholders that the market itself is the primary

1 place people are looking for assuring resource
2 adequacy and our own concerns about the market
3 design's ability to meet those needs is really what's
4 led us to put out the issue statement back in.

5 Also noticed recently in October, we
6 further clarified and in more detail how we believe the
7 issue are the issues -- I think we've been clear that
8 we don't believe there's a resource adequacy issue
9 today or tomorrow, but particularly in light of the
10 changing environment for the resources driven by
11 environmental regulations or technology change, they
12 need to have a market design that is able to
13 facilitate an orderly transition of that in the
14 coming years, is ever more relevant today.

15 And we believe the issues have the
16 right to be taken on.

17 MR. BLESSING: This is Jim Blessing with Ameren
18 Illinois. As I said at the last session on
19 November 19th, Ameren Illinois does see a long-term
20 resource adequacy issue driven by the MISO construct.
21 The thing that Dr. Patton laid out pretty clearly was
22 that this year next year and in the short term, there

1 are sufficient resources that are available, but
2 things can change quickly. There's a fairly
3 significant financial pressure in the existing
4 generators today. Just looking at energy prices
5 alone, which is a big component of what enables the
6 existing generation port to operate.

7 Recent use of energy markets show
8 prices below 30,000. Whereas in comparison, you
9 know, 18 months ago, it was 38,000 megawatts. If you
10 go back to 2006, 2007, around (inaudible). So
11 there's significant financial pressure on these
12 generators that you're going to have to find a way to
13 make that work, or we're going to start losing
14 generation. And that can happen very quickly.

15 The environmental regulations and
16 (inaudible) power plants' initial time frame is
17 around 2022, so that's going to come sooner than you
18 think. I think now is the time to start planning the
19 transitioning to a construct that will incent new
20 generation with the current construct (inaudible)
21 more designed to price with the short-term value.

22 MR. ELLIS: Chairman and Staff, first of all,

1 Dean Ellis with Dynegy. I'd like to thank you very
2 much for hosting these policy sessions. I think the
3 first one was very constructive. And I think this
4 morning's was very constructive.

5 These issues are very complex in terms
6 of they're very esoteric, and I think it really
7 requires a full (inaudible) of issues. I think I'll
8 just a very briefly answer your question. So
9 Dynegy's comments are down to the day here, and then
10 quickly I'll my time over to the rest of the panel.

11 Number one, first and foremost, we
12 believe MISO has a responsibility for resource
13 adequacy in southern Illinois. It's very analogous
14 to how PJM has in northern Illinois. When looking at
15 the MISO tariff, it clearly states that the states
16 (inaudible) jurisdiction for resource adequacy than
17 MISO does.

18 Clearly, that's no mechanism here in
19 southern Illinois for the state to ensure resource
20 adequacy, and so it's not an uncommon again in
21 northern Illinois. Using that as an example, the
22 rest of the states that are under market construct

1 and RTO resource adequacy, again, is the
2 responsibility of the ISO/RTO. Again, to try to set
3 up our view and some of the comments we're making
4 going forward, we heard about a surplus. We talked a
5 lot about is there in even a problem to solve. I'll
6 walk through some of the examples of clearly why it
7 is a problem.

8 Our view is that we're standing on the
9 beach, there's a tsunami off in the distance, and as
10 of right now, we may think there's not a problem, but
11 there is a problem coming. And, again, we'll walk
12 through some examples, so thank you.

13 MR. BERG: Good morning, my name is Bill Berg
14 with Exelon. I'd like to thank you for the
15 opportunity to talk hear today as well. This
16 question of resource adequacy, I think the last time
17 Exelon provided some data which basically built up
18 the stack and compared to the demand Dr. Patton
19 provided again today.

20 And I think on paper you can look at
21 the resources available to meet the need and say,
22 snap shot today, there is no problem. And the

1 reports that we're talking about here is '17, '18, so
2 we're already moving out of the future here.

3 But what is missing from that analysis
4 is what is the price necessary to retain enough
5 resources to ensure resource adequacy? And this
6 question of just adding up megawatts, comparing it to
7 demand without bringing price into the equation is
8 wrong. It's not -- it should not give you comfort
9 that the zone will be resource adequate going
10 forward.

11 If you look at what and just by
12 comparison Dr. Patton brought up exports are
13 increasing. That is people trying to go after a
14 higher price, leave MISO, and go to PJM and seek a
15 higher price. And retirements. And I think
16 Dr. Patton recognized as did we last time that
17 retirements can quickly change the situation in Zone
18 4.

19 And so what we all need to have
20 confidence in is that the prices that are being
21 generated in Zone 4 are making a market that both new
22 and existing resources want to invest in. And I will

1 tell you from Exelon's perspective, Zone 4 is not an
2 investable market going forward without significant
3 reforms. And just, you know, this issue of
4 retirement because we can all debate will they
5 retire, will they not retire, I just did some price
6 comparisons.

7 If you look since 2009 through '15,
8 '16, and you average all the capacity of the price
9 for Zone 4, they're probably \$30, \$35. If you remove
10 the \$150 price we saw last time, it's probably closer
11 to \$10. And then you go over to PJM where you have
12 capacity market in place for many years. You've had
13 significantly higher prices over that same time
14 period. And yet you've seen thousands of megawatts
15 retired.

16 I think yesterday in northern Illinois
17 where the prices are significantly higher than what
18 we've seen in Zone 4 and what we could expect to see
19 in Zone 4 going forward without significant changes.
20 Thank you.

21 MR. POULOS: Greg Poulos with EnerNOC.
22 Chairman, Commissioners, thank you again for this

1 opportunity.

2 I mentioned last time we were talking
3 at the policy session on resource adequacy and
4 planning in Zone 4 that we are -- demand response
5 (inaudible) or even for services for energy
6 efficiency, that we do see a concern with MISO Zone 4
7 and the way the market is constructed.

8 I think you clearly see that because
9 of the -- we're talking about reliability. We heard
10 a lot about reliability, and that's a part of
11 resource adequacy. I would also include resource
12 adequacy just no reasonable rates as part of that
13 construct.

14 I think that's clear whether you look
15 at MISO and how they determine resource adequacy.
16 You look at the Illinois Commerce Commission how it
17 stated in their mission statements, and you heard a
18 little bit of that earlier in the first panel.

19 I think as you're looking at this,
20 demand response is a resource that definitely can
21 help reduce prices and should be a resource that
22 participates in an open market. Typically open

1 markets you would see a resource like demand response
2 and others participate in. And some ways it's a
3 canary in a coal mine kind of thing. It's a flexible
4 resource and a fast-acting resource.

5 The fact that it's not in this market
6 should tell you that there's some market design
7 flaws. And the other thing that I would look at in
8 this market is the way that prices are fluctuating so
9 quickly over all three years on this design going
10 from extremely low to last year being \$16.47 a
11 megawatt day and this year being \$150 a megawatt day.
12 Those are extreme changes.

13 And where \$150 megawatt day should
14 attract the demand response. It simply cannot if the
15 resource and those resources, those participants, who
16 would be active don't know what it will be in a
17 couple of years. And that price visibility is
18 something that does not lend itself for a market and
19 a resource like demand response.

20 MS. DIAMOND: Hi. Erika Diamond for EnergyHub.
21 Thank you for having us.

22 We are a demand response aggregator

1 for residential and small businesses. So I probably
2 echo a lot of what they said. We don't operate in
3 this market, but we do operate in other markets
4 mainly because the prices are higher, but they're
5 also reliable.

6 So we know year after year that
7 generally you're going to get around the same price
8 for resources so the investment is (inaudible). Also
9 because we're operating such small types of
10 resources, it's really important for us to be able to
11 have a much lower minimal threshold for resources.

12 So when someone mentioned that earlier
13 going from 5 megawatt minimum to 1 megawatt or
14 something in the kilowatt range, it's much easier for
15 our customers to meet.

16 And, again, I think what Greg said I
17 think DR is a great resource for a market where
18 there's a need for a flexible resource adequacy, and
19 there's been some discussion also about whether
20 forward capacity markets are important versus having
21 two-month cycle (inaudible) before auction.

22 But I think for us because we rely on

1 technology to circuit and also (inaudible), so I
2 encouraging people to look at both.

3 MR. KOLATA: David Kolata with the Citizens
4 Utility Board. Thank you Chairman and Commissioners
5 for inviting me here today.

6 There isn't a resource adequacy issue
7 in short. I mean, I think there's a consensus on
8 that. And there won't be resource adequacy issued in
9 the long term. If we do what we should do as a state
10 and essentially maximize the value of the investment
11 going on today.

12 What I mean by that is doing
13 everything we can to encourage demand response and
14 energy efficiency, doing what we can to maximize,
15 encourage distributed generation, focus on dynamic
16 pricing, which we think is a very overlooked tool.
17 If we can get just 10 to 15 percent of people on
18 dynamic rates, I think that may have a great impact
19 on lowering peak demand.

20 And then, you know, in general, I also
21 want to emphasize that if a plant was ever needed for
22 reliability, there are constructs that deal with

1 that. Reliability must run constructs such that, you
2 know, if there's (inaudible) closed was going to pose
3 an issue wouldn't be allowed to get a contract.

4 So I think our focus on what we can do
5 as a state to emphasize the demand side and
6 technologies.

7 MS. McERLEAN: Thank you everyone.

8 Our next question to the panel is if
9 you believe resource adequacy is an issue in MISO
10 Zone 4 or if you believe there are issues with the
11 market design of MISO Zone 4, how would you improve
12 the status quo, and what entity or entities -- by
13 default or design should be responsible for ensuring
14 long-term resource adequacy?

15 MR. POULOS: Okay. I'll start.

16 So the first question about who is
17 responsible, I couldn't tell you. I haven't looked
18 it up to see what everyone's bylaws look like as to
19 who specifically is going to be responsible. But I
20 would think from a customer perspective, they're
21 going to look at -- they're going to look at Ameren
22 in Zone 4. They're going to look at Ameren if the

1 lights go out. Or they're looking at high prices.

2 They're going to look at Ameren. Also
3 the Commerce Commission is going to be in that
4 picture, and if you look at the mission statement of
5 the Commerce Commission, they're certainly talking
6 about making sure that there's reliability and
7 reasonable prices.

8 So I think that those two and both of
9 them will look at MISO, so I think all three of them
10 will have some responsibility and claim some
11 responsibility for ensuring reliability and
12 reasonable pricing. So I think that and all three of
13 those bodies could have solutions to help reduce
14 prices.

15 I think there are solutions from the
16 status quo. I'll start with the fact that rising
17 prices, and I think I was looking at the Citizen
18 Utility Board website talking about 30 percent
19 increase in prices because (inaudible), and I think
20 that when you have price increases like that,
21 customers wanted to be engaged.

22 And that is a perfect opportunity

1 right now to look at solutions when you can get
2 customers to do something. And they're going to want
3 to do something, at which you have to give them the
4 ability to do something. And I think from an Ameren
5 perspective, when you talk about the smart -- that
6 there are smart meters, I think that's certainly
7 providing more opportunities for more programs to get
8 customers engaged, and they need to have the ability
9 to do that.

10 In the past we have talked about the
11 fact that Ameren should be just like (inaudible)
12 power plant or generally the market. They should
13 have incentives to do (inaudible) and demand response
14 and engage in software programs so that they are, you
15 know, so (inaudible) want to be engaged.

16 From a Commerce Commission
17 perspective, I think kind of a similar approach of
18 demand response, EE [phonetic], customer engagement
19 programs will really help to reduce prices even to a
20 little bit of a level where they are (inaudible) you
21 can reduce -- capacity being built going forward.

22 From a MISO perspective, I think we

1 talked about it. I think the construct certainly
2 there is an opportunity a customer's engaged if the
3 right signals are sent to those customers, and that's
4 something that needs to be worked on.

5 And I can see from MISO's working
6 groups that they are trying to work on that a number
7 of ways.

8 MR. ELLIS: Dean Ellis again with Dynegey.

9 So Elizabeth let me take a crack at
10 it. Let me get to the basis of your question.
11 Obviously, there's a number of stakeholders in this
12 process. The consumers, the buyers, the Commission,
13 MISO, all I think have many common interests here in
14 ensuring reliability is definitely one of them.

15 And the pricing is obviously linked to
16 reliability and the physical resources that are out
17 there. The currently construct in MISO we've talked
18 about and Dr. Patton touched on is vertical demand
19 curve.

20 It produces this short term binary
21 effect that is not helpful to consumers and suppliers
22 alike as you've seen in this most recent auction.

1 Dynegey is (inaudible) curve, not just assume the year
2 price changes for suppliers but, again, also for
3 consumers. I think that kind of changes in
4 everyone's interests.

5 Why I describe this as a tsunami that
6 is here, we're just using the numbers from Panel 1
7 assuming that three gigawatts surplus currently
8 today. Probably about 30 seconds we can get that by
9 two-thirds, and that one gigawatt.

10 Approximately 500 gigawatts of that 2
11 gigawatts surplus have just been (inaudible) within
12 facility who scheduled to lose millions of dollars on
13 an average over the next five years. And without a
14 forward pricing, without an adequate price, it just
15 can't continue to lose that type of money.

16 So those megawatts will come out of
17 that surplus. Also there's a number of other
18 dynamics unique to southern Illinois such as the fact
19 that -- and Jim Blessing can correct me -- but I
20 think there's about 1,500 megawatts of generation in
21 southern Illinois that's actually rate based by
22 Missouri load.

1 So if you take that 1,500 megawatts
2 out of the stack right there, you just 2 out of 3,000
3 megawatts of this surplus, you have this effective
4 binary result of the vertical demand curve and half
5 of Dynegy didn't clear the last auction, the price is
6 effectively telling all those megawatts to retire.

7 That's 3,000 megawatts right there on
8 top of it. So it goes down to our view that we're
9 standing on the beach, we see a tsunami coming at us,
10 we're trying to be as proactive as we can. We do
11 think there's a number of very constructive changes
12 that can be made not just in our interest but also in
13 consumers and the other stakeholders' interest.

14 MR. BERG: Thank you.

15 I agree with the proper set of
16 stakeholders. It involves MISO, consumers, it
17 involves the industry, demand response, you know,
18 things together we can work and come up with a good
19 solution.

20 I just want to pick up on this notion
21 of demand curve or as I call it can you invest in
22 this market. Dr. Patton laid out in his

1 well-documented that vertical demand curve produces
2 binary -- it's either very, very high or very, very
3 low. And I think we have enough auction that it's
4 going to clear a dollar or \$150.

5 So as I'm sitting here there's an
6 existing asset that's also suffered significant
7 losses over the previous years and is actively
8 contemplating retirement of our unit. I'm looking
9 at -- and this is the same logic that a new entrance
10 or a demand response (inaudible) investment is
11 making.

12 So if an existing unit -- let's just
13 make up numbers. I need \$100 a megawatt day for over
14 five years to get a return on or return of this
15 investment. If I'm looking at the MISO market
16 recognizing it as a vertical demand curve, it's
17 either going to be 0 or very high. And the very high
18 is capped, by the way, so not so high.

19 Am I going to get my money back, or
20 would I be better off taking my money elsewhere? And
21 likewise, using the 2014 market poll prepared by
22 Dr. Patton, he implied required capacity payment for

1 new CCGT [phonetic] in Zone 4 is approximately \$300 a
2 megawatt. So what's that saying is the significant
3 change in expected energy margin, that asset needs
4 \$300 a megawatt day over its life for it to be a
5 reasonable investment.

6 And so, you know, as I talk about the
7 investability of the market, I think the demand curve
8 is a key feature of that market so that there's some
9 degree of predictability that both new and existing
10 resources can act upon and make an informed
11 investment.

12 So I'll just stop there for that.

13 MR. KOLATA: Quick comment before I answer the
14 question. I think that what is being argued here to
15 a certain extent is that markets are working, are
16 great when prices are high, but they have failed when
17 the prices are low.

18 Obviously we think that essentially
19 raises risk and privatizes profit. And it's a real
20 danger to that to the extent that we are going to be
21 doing a reforms market. We have to make sure that
22 everything is addressed at reasonable prices.

1 And to the extent that we're going to
2 put price floors on market designs, well, sure should
3 be some price ceilings as well to share that risk.

4 But to get to the question, I agree
5 with what John Moore said earlier. It's not
6 either/or. We do think that the ICC and the IPA have
7 an incredibly important role to play in this because
8 ultimately what we see are a very exciting trends on
9 the demand side to generation.

10 These are things I mentioned earlier
11 (inaudible). These are all things within state
12 jurisdiction that we think can basically handle
13 whatever issue comes up and essentially maximize the
14 value of this market. If we do that, I think we'll
15 be fine.

16 MR. BERG: We've heard this on the last panel,
17 and we've heard it again. And I'm sure it'll keep
18 coming up. It's this notion that suppliers are
19 afraid of competition. And that this is just -- low
20 prices are just the result of good competition. And
21 I think that is false. Particularly when you're
22 talking about resource adequacy, the competition, the

1 prices are the result of an administratively
2 determined design.

3 And that design in MISO currently has
4 known flaws that have been asked and answered at FERC
5 over time. And so it's not that we're afraid of
6 competition. In fact, I will point you again to PJM
7 where this design, a competitive design has been in
8 place for years.

9 There's been probably 20,000 megawatts
10 of generation retirements. No one's complaining. So
11 they've lost the competitive battle, and there's been
12 20,000 megawatts of new energy coming in as well.

13 That is a situation where there's a
14 robust market design that is actually facilitated, a
15 fair competition. What we have in MISO is a
16 dysfunctional market design. And so you can't call
17 it competitive.

18 MR. BLESSING: Jim Blessing with Ameren
19 Illinois. I'm going to start off trying to answer
20 the question you asked about who is responsible. And
21 I want to comment on a few things that I heard.

22 As far as who is responsible, I still

1 point back to Illinois policy as being a significant
2 driver here. So when we shift it to a regional
3 choice model in Illinois, we basically can determine
4 the markets for resource adequacy going forward.
5 That's the policy decision that was made.

6 So does that shift the responsibility
7 to those markets? Yeah, we're certainly relying on
8 market, but I think us monitoring the policy decision
9 to make sure it's working is a big aspect, you know,
10 looking for (inaudible) or going out and supporting
11 changes to the wholesale markets and help support the
12 policy choice we made.

13 It's really important the State of
14 Illinois has a huge role and all the stakeholders
15 have a huge role in this. Couple things I want to
16 comment on, I'm hearing a lot about demand response
17 being the solution here. And Ameren Illinois
18 definitely believes that demand response is part of
19 the solution.

20 I'm not envisioning a world where new
21 generation will never be needed because of demand
22 response eventually we need to have a generation

1 built in the State of Illinois. So while we don't
2 have an issue now, demand response certainly can help
3 us push the issue back even further. Eventually we
4 need to make sure that we're putting together a
5 construct that is going to incent all the generation
6 that's needed.

7 And it should be done so such that the
8 demand response and generation resources, they're all
9 playing on a level playing field. The other thing
10 that I just want to point out is that from a demand
11 response perspective now, in my mind still points
12 points back to the same issue that we have is we're
13 not seeing the right price signal for capacity.

14 If capacity prices were in line with
15 what PJM has today and MISO, I'm confident that we
16 would have robust demand response programs. But who
17 wants to curtail their load? Who wants to turn their
18 air conditioner off on a hot day if your compensation
19 is going to be 3 or 4 cents versus significant
20 incentive.

21 So getting the market price signal
22 accurate not only helps the generation, but it's

1 going to help the demands response flourish as well.
2 The other thing I wanted to comment on is the
3 vertical demand curve.

4 I certainly understand the need to
5 properly value that generation or resource for the
6 generation or demand response for the (inaudible)
7 beyond what the actual requirement is. I understand
8 that. I agree with that. But what I have actual
9 struggle with and the curve that Dr. Patton had up
10 there illustrated it very well.

11 It had a picture, showed a vertical
12 demand curve, and then it showed generation offers --
13 resource offers at near 0 and a dotted line going up
14 to that vertical curve. And what that illustrates
15 for me is really there's only two things setting what
16 that capacity price would be under that mechanism.

17 One is the quantity of resources
18 available. And two, an administratively set curve
19 for demand and the price of demand as different
20 levels. So what that tells me is that how you set
21 that curve is very important. If you ask 100 people,
22 you might gotta 100 different answers.

1 It's kind of the administrative
2 determination of a demand curve. Thank you.

3 MR. BLADEN: This is Jeff Bladen with MISO.
4 Just to be clear, from our perspective, and we
5 appreciate that the ICC has convened at this venue.
6 But we do ultimately have tariff obligations that we
7 have to live up to, and that really is what's driving
8 us.

9 And what we want to make sure of as we
10 go down this path, we're looking at what we may need
11 to change is that we're cognizant of the differences.
12 The nature of the market in Illinois versus other
13 parts of our footprint. And are we fully fulfilling
14 our obligation under our tariff not just for the
15 parts of our regional footprint that have vertically
16 integrated planning processes, but also for states
17 like Illinois -- with southern Illinois part of our
18 footprint.

19 Are we fulfilling our obligations to
20 ensure resource adequacy that are in our tariff given
21 the different nature of the market design in southern
22 Illinois. We outlined the (inaudible) of the price

1 formation in our market design as it has a nexus with
2 (inaudible) the ability to get the price right, to
3 get the resources that allow us to meet the 11-day --
4 10-year reliability standard that we have set out for
5 ourselves is extraordinarily important to us.

6 And the fact that we've put ourselves
7 out there on this issue is evidence of our desire to
8 see this move forward in an orderly way, to have the
9 right people in the room to help us think through the
10 wisdom of different approaches, and we appreciate the
11 ICC recognizing the complicated nature of the
12 responsibilities here.

13 But we do believe we have the tariff
14 obligations that we have to adhere to.

15 MS. DIAMOND: I just want to go back to the
16 engagement that Greg brought up earlier. I think
17 that price will definitely drive interest from the
18 market for us, most of the consumers. And I think
19 higher energy prices (inaudible) obviously drive of
20 those customers in the energy world.

21 But I think there's also a real
22 opportunity in the way that the market for connective

1 devices has grown so much. So as customers do want
2 all these technologies on their own, they can be
3 moved much quicker into markets like DR if the
4 climate is right.

5 So I think really changing those
6 constructs and helping this market to evolve will
7 bring resources faster than we might have seen
8 before.

9 MR. BERG: I just wanted to add one more thing
10 about the demand response, which I agree, is an
11 important part of the market. And let's take
12 whatever penetration rate the gentleman before
13 assumed, and we'll just subtract that from the 12,000
14 megawatts of demand in Zone 4.

15 I think you'll find you still need
16 existing generators. You can't demand response your
17 way out of -- maybe not all of them and maybe the
18 most inefficient generators will, in fact, retire.
19 But you can't ignore the fact that it takes all these
20 resources, and you want to ensure reliability.

21 What you, I think, would want is the
22 most efficient set of resources we think that demand

1 reliably and at the lowest possible cost. So when we
2 talk about design, I think we are completely open to,
3 you know, figuring out what the problems are for, you
4 know, that are preventing demand response and energy
5 efficiency for participating in the market.

6 But they need to be considered and
7 integrated with the rest of the market so that you
8 cannot get the right set of resources to meet the
9 need at the lowest possible cost. And our market
10 contracts (inaudible), they should -- because it's
11 basically saying, I'm just going to give a basically
12 a 0 profit contract to one resource, and I'm going to
13 again going to ignore everything below that, that
14 resource. Everything that's already there that
15 hasn't said, I'm going to retire and just not -- it
16 becomes a spiral that you quickly lose control of.

17 If I'm an existing generator, and, you
18 know, I've made it through the tough times, and I'm
19 hoping that someone will exit the markets so maybe
20 the prices go up, and then (inaudible) they stay on
21 the market, it's like why did I stick around?

22 So they've been thoroughly rejected at

1 FERC as well, and it's not a way to design the market
2 to ensure the efficient (inaudible).

3 MS. McERLEAN: I kind of want to comment on
4 something that Jim had said and get your perspective
5 on whether or not you think that we still need new
6 generation or whether you need to maintain the
7 existing generation.

8 MR. ELLIS: I'll give you a few examples and
9 perspectives on that. Of course, really all we ask
10 for is a level playing field, be it new resources, be
11 it any number of generation alternatives. Number
12 one, a level playing field is what we need to ensure
13 that the lowest cost effective solutions are picked
14 be them. New generation, existing generation, and
15 the like.

16 Upgrade (inaudible) our generation
17 facilities across the country, none of which
18 (inaudible) here in southern Illinois. But
19 particularly in PJM we upgrade our (inaudible)
20 facilities significantly. Number one, the price
21 signal and the incentive isn't there, so that
22 (inaudible). And those increments in upgrades in

1 facilities, we can achieve the fraction of the cost
2 to say building new generation. So right there,
3 that's that a very efficient outcome, not just for us
4 as suppliers but ultimately for consumers.

5 We've been able across the country
6 providing enough supply almost equal to a new
7 generator (inaudible). When we look at the material
8 (inaudible) especially -- where we're being driven to
9 increased efficiency, again, without the proper
10 pricing, there's just no incentive to make the
11 investment or driving the motivation that we require
12 (inaudible) that investment.

13 We have made that investment in the
14 past and several upgrades (inaudible) to achieve the
15 outcome of the existing. (Inaudible) cheap
16 \$30 million just those things, again, the proper
17 incentive to do so? So, again, numerous existing --
18 we just ask a level playing field, no preferential
19 treatment.

20 And then lastly, I will just mention
21 we do have -- Ameren is aware of a new facility. We
22 are currently in the middle of a \$500 million

1 project, a facility, a very large -- we completely --
2 we have about \$200 million left. That investment is
3 really being driven by the number of environmental
4 regulations beginning with those regulations here in
5 the State of Illinois that require that investment.

6 So that raises significant risk of
7 straining an investment, and ironically, (inaudible)
8 make sure MISO policies of the State of Illinois.

9 MR. BERG: I don't think it's a question of new
10 versus existing. I think what you want is a
11 competition on the margin between existing and new.
12 And I think that's what we've seen in the other
13 markets.

14 You have the older unit that are
15 facing environmental upgrades, or they're facing
16 required capital (inaudible). And you want those
17 resources to the extent they're cheaper than new to
18 win the, you know, to clear at the expense. And vice
19 versa.

20 If you have a resource that requires
21 so much capital and it's so inefficient and it's
22 offer is so high, the economic solution could be new.

1 So what you want is a healthy competition on the
2 margin, and I'd say that's where demand response
3 would fit in well. What we've seen is demand
4 response typically meets prices well below some of
5 the existing high cost generation.

6 So to the extent they're in the stack,
7 they put down the pressure on aggregate price, but
8 you still have that competition between new and
9 existing.

10 MR. POULOS: I will just add from a
11 perspective, I agree with those comments. The goal
12 of the (inaudible) ask for the demand response is to
13 have markets that we can participate in. That there
14 be a level playing field, would give everyone same
15 opportunity -- all resources the same opportunity.

16 And, second, the real goal of the
17 demand response is to reduce the need for -- to build
18 new power plants going forward. That's one of the
19 primary goals in terms of -- all we had in the
20 capacity market is going forward. It won't ever
21 replace generation because it is not energy. It is
22 reduction energy.

1 So it's really reducing that peak and
2 helping to build those reliability needs. And it can
3 be a more flexible resource particularly from
4 (inaudible). Those are really the goals.

5 MS. McERLEAN: Thank you.

6 I also kind of want to touch upon
7 whether -- this might be more related to MISO, but
8 whether Zone 4 itself can have a market design with
9 the rest of the MISO region.

10 MR. BLADEN: Never say never, first off.

11 There's lots of interesting ways to
12 address these challenges. So I think the short
13 answer is yes. The degree to which it differs the
14 ability to have a common product across the whole
15 footprint is something we would assure at some point
16 such that we are able to maintain a value of the
17 regional dispatch we have in day-to-day operations.

18 We wouldn't want to have fundamentally
19 economical obligations when you simply walk across
20 the state border from generators that are otherwise
21 equivalent to one other. I think on the face of it,
22 it certainly seems feasible that you can have

1 mechanisms that address the issues that have been
2 outlined here that don't preclude having a common
3 product that's deliverable on a day-to-day basis for
4 regional operations.

5 MR. BLESSING: Jim Blessing with Ameren
6 Illinois.

7 In respect to that, I tend to agree
8 that it can be a separate solution for Zone 4, but
9 the thing that we just need to make sure that we're
10 recognizing is we don't make (inaudible) with respect
11 to MISO.

12 And what's particularly important to
13 Ameren Illinois there is that we have built a robust
14 transmission system. There are customers currently
15 that pay for, and we need to make sure that we're
16 fully utilizing that asset ensuring that the extent
17 there is generation available or other resources,
18 capacity resources, available outside Zone 4.

19 If that transmission capability can
20 get to Zone 4 we need to make sure that we're
21 referring to the ability to point to those resources.

22 MR. KOLATA: So I agree with Jeff and Jim that

1 it is probably possible that you can have a distinct
2 set of rules for Zone 4. I don't think particularly
3 it's a good idea. I think (inaudible) the purpose of
4 a regional market there's a real island.

5 And to the extent that we're going to
6 go that route, (inaudible) essentially signaling out
7 Illinois, it would probably make more sense
8 (inaudible) if that -- is to use the IPA and state
9 level mechanisms to handle the issue. I don't really
10 see what the value would be in that sort of stance.

11 MR. ELLIS: So Dean Ellis with Dynegey. A
12 couple quick points. Number 1, there are several
13 examples across the country where we have different
14 market constructs within constrained regions --
15 (inaudible) New York City just by virtue of where
16 it's located is (inaudible). And Long Island, it is
17 actually an island. And they have slight different
18 constructs what's called -- the rest of state zone of
19 New York.

20 So it's not unique. Building on that
21 then, I think it's very clear that not only
22 (inaudible), but we do need to treat Illinois --

1 southern Illinois that is different than the rest of
2 MISO. You have 14 out of 15 states in MISO that are
3 traditionally regulated and vertically integrated
4 construct, and it is very, very different.

5 They do not have retail choice. They
6 do not have wholesale competition. They are almost
7 night and day as you can imagine across the utility
8 spectrum in southern Illinois.

9 And I don't think when MISO was
10 created nobody envisioned that this would happen.
11 It's happened just through the evolution of MISO.
12 (Inaudible) utilities leave and we've ended up -- so
13 it's almost just through evolution of the last 5 to
14 10 years that MISO has involved into this construct
15 where you have 14 out of 15 traditionally regulated
16 state, and then the redheaded stepchild of Illinois
17 as it's considered in Illinois -- in MISO, sorry.

18 I've been to two of the three last
19 MISO annual meetings where I heard a board member
20 from MISO stand up and say, Resource adequacy is the
21 responsibility of the state not MISO. Speaking of 14
22 out of 15 states, (inaudible) MISO doesn't have that

1 ability to take responsibility for resource adequacy.

2 So I think, again, not only is it a
3 matter of yes, we can have a construct for southern
4 Illinois.

5 MR. BLADEN: I'd like to just comment on about
6 what was -- I think a mention of the value of being
7 in MISO may be going away at a different market
8 design or a different mechanism for procuring
9 resource adequacy capacity in southern Illinois.

10 I'd like to as strongly as I can
11 possibly say that that is absolutely positive to
12 something that MISO will not allow to happen. The
13 broad regional value of our marketplace and the value
14 of regional capacity and energy savings from sharing
15 those resources across this regional footprint are
16 the hallmark of what we do.

17 And there is under no circumstance of
18 any situation where we would allow that to be
19 depleted. So when I say I think it's plausible that
20 we could have mechanisms that allow for the
21 procurement possibly at different time frames or with
22 different mechanisms such as Dr. Patton's

1 recommended, the first thing that we will do is
2 ensure that whatever the mechanisms or the changes
3 are, they don't have the potential, even the
4 potential to deplete the broad regional value that is
5 delivered from the regional dispatch that we operate.
6 So I just want to be as clear as I can about that.

7 MS. McERLEAN: Dean had said, you know, certain
8 people -- or certain states have already left MISO in
9 the past. And could you explore that a little bit
10 more, and also comment on Zone 4's joining Zone 5.

11 MR. ELLIS: Obviously, southern Illinois could
12 conceivably leave and go to PJM. It would be
13 homogenous (inaudible) PJM and just looking into a
14 real competition perspective, there's robust
15 competition and PJM states there's not in MISO
16 states, there's robust (inaudible) competition that
17 (inaudible) demand response. And PJM, it doesn't in
18 MISO (inaudible).

19 So just from a very high
20 level perspective, obviously southern Illinois
21 belongs in the market like PJM. However, what we
22 have now is hybrid market. It's got some issues that

1 involve describing various (inaudible) passions. So
2 I think there's a couple considerations.

3 One, it's not just about capacity.

4 You have to look at the energy (inaudible). We would
5 effectively be moving (inaudible). There's simple
6 things like exit fees and when the other utilities
7 have left MISO in the past, the fees went from very
8 large numbers to very manageable numbers.

9 I think that there's more work that
10 could be done (inaudible). Because I think there's
11 one there that (inaudible) is one possibility. There
12 are some barriers. There's also the timing issue.
13 So we do advocate really looking at a number of
14 potential options if a carve out for Zone 4 in MISO
15 can't be (inaudible) in a reasonable amount of time
16 or it simply just doesn't make sense for any number
17 of reasons, I don't think we should give up on moving
18 (inaudible) southern Illinois to PJM.

19 Again, just clearly it would be much
20 more homogenous -- it would be much more homogenous
21 just for the State of Illinois. No other state is
22 bifurcated so dramatically between two ISOs and two

1 very different ISOs than the State of Illinois is.

2 I live in Texas currently, and I
3 actually live in the traditionally regulated
4 vertically integrated part of Texas. On my way home,
5 I pass a number of billboards that offer free nights
6 and weekends of electricity and other things, and I
7 don't have access to those.

8 So in 30 miles I pass all those
9 opportunities when I head home, and I'm locked into
10 one utility no retail competition, and it's a very
11 small slice of Texas but, again, it does create -- it
12 would create some nice opportunities for retail
13 competition and wholesale competition and other
14 benefits.

15 MR. BERG: Starting with combining Zone 4 and
16 5, my first question being why? Is it -- and when
17 you're just creating locational areas in a market,
18 you -- they should be bounded by physics and
19 engineering realities, which is there's a load, there
20 are resources, there's an import capability to get in
21 the zone, and the limits are what the limits are.

22 So if combining Zone 4 and 5 is

1 engrounded in those principles, you know, that's
2 okay. But it doesn't answer the fundamental
3 question. Zone 5 as I understand is regulated
4 vertically integrated zone. Zone 4 is not.

5 So we're back to this question of now
6 we've combined them, presumably for the right
7 reasons. Are we saying that Zone 4 resources are
8 going without reform, are going to continue to be a
9 part of the resource adequacy mix, now Zone 4 and 5?
10 I don't think so.

11 Unless you deal with the issues that
12 the resources in Zone 4 are facing, combining zones
13 says, I just have a bigger zone that's resource
14 adequate. I don't see the state regulators in
15 Missouri building the plants to meet southern
16 Illinois's needs and charging the customers who don't
17 have a choice that cost. It's not going to happen.

18 MR. BLADEN: I'd like to tackle the question
19 where there was a suggestion I think that was implied
20 that somehow the MISO market design is incompatible
21 with dependent retail markets. I think -- I couldn't
22 disagree with that more. While we may have

1 recognized that there was a market improvement with
2 the capacity market to allow it to better reflect the
3 needs in southern Illinois, the market design that
4 MISO operates is well regarded broadly by FERC and
5 others.

6 In fact, and in the most recent
7 dockets it held a price formation. MISO's held
8 out -- many of the features MISO'S held out is the
9 gold standard. So while we certainly are committed
10 to making reforms when and where they are needed --
11 in fact, as I said, we started this process back in
12 March. I think the suggestion somehow that moving
13 into PJM would be a better solution for southern
14 Illinois I think is missing by a wide margin.

15 The nature of what these wholesale
16 markets do for customers, and MISO'S case,
17 extraordinarily large benefits sharing of resources
18 across the largest geographic footprint in the United
19 States that represents some of the lowest cost
20 resources in the United States.

21 So the suggestion that being in a
22 different RTO might fix problems, I think is missing

1 the boat. What we believe is the right answer here
2 is to tackle the challenges that are identified and
3 we self-identified them, and tackle them without
4 delay.

5 MR. POULOS: I certainly recognize that the
6 markets works for many of the states. And from a
7 demand response perspective, there is a lot of demand
8 response in the MISO market. Whether it's or
9 (inaudible) generation, there is very little in
10 the -- in Zone 4. That would not be the case if it
11 was PJM.

12 It doesn't mean it has to be
13 (inaudible). I don't think that's a necessary
14 solution. I mean, we talk if fixes as Dr. Patton
15 talked about them, I think there are corrections that
16 can be made that can be help that situation and
17 provide another resource and have that opportunity.

18 I would also add that from an energy
19 ground efficiency perspective, that the ComEd zone,
20 PJM, has I think some of the -- by a wide margin
21 energy efficiency that is being offered into the PJM
22 market than the rest of PJM.

1 So I think that ComEd has figured it
2 out that part of the ICC -- under the ICC provisions
3 that energy efficiency can be a great resource. So I
4 do think there's some great benefits (inaudible).

5 You have to be able to deal with one
6 RTO. Certainly I've seen that in Ohio. They only
7 have to deal with one. From our perspective, I do
8 think, though, that it's not the whole case. You
9 don't have to go to (inaudible). There are -- it's a
10 complicated fix.

11 I think there are other things that
12 can be done. I mean -- didn't want to mention those
13 that currently -- I think the statement that Zone 4
14 is an island is appropriate. I do think that it does
15 not do the best job right now at providing
16 opportunity for resources.

17 MR. BLESSING: Whether Ameren should be in MISO
18 or PJM, a potential move, you know, I've heard a lot
19 of good comments on some of the benefits; pros and
20 cons. What really would be required is a robust
21 analysis of all (inaudible) -- capacity markets are
22 one small component of what MISO brings to Ameren

1 Illinois and its customers. So we really would need
2 to take a very robust view of all of the benefits and
3 costs associated with such -- really see if it makes
4 sense.

5 The one thing that is a big hurdle is
6 the exit fees that would be associated with that. So
7 if Ameren were to pick up and move from MISO
8 (inaudible) -- PJM would be subject to exit fees to
9 compensate MISO with the infrastructure they built in
10 order to support Ameren Illinois. We would have to
11 pay them that.

12 We also would maintain responsibility
13 for our share of transmission expansion projects that
14 have occurred over the years. At the same time when
15 we went to PJM, PJM has a little bit different set of
16 rules. Rather than having folks who were there at
17 the time (inaudible) -- so Ameren Illinois customers
18 would have to pay for the transmission expansion that
19 occurred up to the day we left in MISO, but then we
20 would also have to pay those same costs relevant to
21 PJM. I don't -- I can't put a dollar value on that
22 right now.

1 I asked our transmission folks that,
2 and they said it's just a complex question. It's
3 hard to put an answer to, but what they did tell me
4 that the value of the transmission expansion or
5 improvements in MISO is in the billions range.

6 And we would be responsible for
7 maintaining our share of that cost and paying for it
8 about 8 percent of the MISO footprint for the next
9 four years. So try to figure out what that would be
10 and the exit fees. I think that's a pretty
11 significant number, but, yeah, I can't give you a
12 number right now.

13 I tend to agree -- and I'll point out
14 that MISO is kind of gone full circle on this. When
15 they first started the market -- capacity markets,
16 they had a market in which any generation could
17 deliver to any point within the entire footprint.

18 And they recognized probably that
19 there are limitations, and we wanted to go with a
20 concept. In doing so, they broke it down into very
21 small pieces. I think currently there's nine zones
22 in MISO, and I think it's more than just a question

1 should Zone 4 and 5 be combined into -- you know,
2 maybe it's the right time to look at the entire zone
3 and see if physics really supports the way the zone
4 can be combined. And maybe it's not Zone 4 or 5.
5 Maybe it's other zones that we can be combined as
6 well.

7 MR. KOLATA: Yeah, I agree with what Jim said.
8 I think we (inaudible) -- take a look at Zone 4 and
9 5. Ultimately if physics and engineering should
10 decide it. I want to just note that physics and
11 engineering (inaudible) -- I think that this is
12 something we should look at very, very closely.

13 I also agree with what Jim said with
14 PJM. Something we looked at, made argument for it,
15 and against it, but I think we have to very much look
16 at the cost associated with and make sure that
17 ultimately it's in the customers' best interest.

18 MR. BERG: We don't really have a strong
19 opinion on the question of should Ameren join PJM.
20 We think in terms of, you know, next steps, I think
21 we're on the right path which is we know what works
22 in competitive markets.

1 MISO seems willing to embrace it.
2 We're here today, and we think that will be the best
3 path forward in terms of resolving this issue. And
4 in terms of timing, we talked a lot about the short
5 term and the form and (inaudible) -- but what we are
6 looking is an implementation beginning in '17, '18,
7 which is a year and a half away from now.

8 But if you think about the process
9 that has to occur to have something take effect in
10 '17, '18, we've got about six months of stakeholders
11 to develop a design. And it needs to be filed at
12 FERC. FERC will take some time to wrestle through
13 this.

14 So that is the fastest path I think to
15 resolve the resource adequacy issue. And I think the
16 one that makes the most sense which is focus on MISO
17 for now and not get into this question of should
18 Ameren Illinois join PJM or not because I think that
19 Jim's raised a lot of points, which is, you know, a
20 lot of good points which is there will be a lot of
21 analyses. There's a potential for a lot of costs,
22 and I think it will just take too much time for you

1 guys to feel comfortable that resource adequacy while
2 it's good today will be maintaining tomorrow.

3 MR. ELLIS: Clearly, we support the formation
4 of more zones when appropriate. By forming more
5 zones to reflect locational constraints and the like
6 (inaudible) -- you provide more accurate signals that
7 are constrained.

8 You also have more accurate cost
9 allocation (inaudible) -- when you have more zones.
10 I think David Patton has argued for more zones, and
11 the upside of more zones compared to fewer is if they
12 don't bind, then the zones just financially combine
13 themselves.

14 They merge through the result of the
15 markets nationally. So it definitely -- you know,
16 there's no harm in more zones and with regard to
17 Zone 4, 5 specifically, it's not just two states that
18 are continuous with one another.

19 There's the city river
20 that (inaudible) -- flows that creates transmission
21 constraints between the two. And the physics have
22 shown that there's no export capability out of

1 Missouri. So the engineering alone is telling you
2 that the two zones -- specifically those two zones --
3 shouldn't be combined.

4 And I think that's part of the reason
5 you're seeing some of this going back and forth
6 should 4 and 5 be combined. They're under one
7 utility, so it makes sense from that standpoint. And
8 then once you get into the (inaudible) -- and the
9 export actually did demonstrate that there are some
10 practical engineering and physical limitations
11 between the two. Thank you.

12 MS. McERLEAN: Thank you.

13 So I think I'm going to allow any of
14 you if you have any final comments before we open it
15 up to questions.

16 MR. BERG: Just one more. I think an important
17 design feature that I would like to highlight, it has
18 to do with kind of a pay for performance concept. We
19 have seen this evolution of performance incentive in
20 capacity markets. First starting in New England, PJM
21 just did it in what they call capacity performance.

22 What drove both of those RTOs, I

1 believe, to this point was the recognition that the
2 current penalty structure embedded in capacity
3 constructs 1.0 was virtually non existent. You have
4 had resources that could collect capacity revenues
5 all year long to the extent they were actually needed
6 in any given day, and they didn't perform. The
7 actual penalty that they suffered was immense.

8 And it goes to show I think any
9 redesign needs to learn the lesson that the other
10 RTOs have learned. There's a lot of good logic out
11 there. And it does provide a clear message to
12 consumers who generally do not like making capacity
13 (inaudible) -- to say, it's money for nothing that --
14 if you do have a strong performance instead of
15 resources resources that -- and those resources do
16 not perform when they're needed by the system
17 operator, all that money that consumers pay goes
18 back.

19 And it's an important feature that I
20 think -- that I know Exelon will be pushing for in
21 Zone 4, and hopefully others will agree. Thank you.

22 MR. POULOS: I'll go back to my first statement

1 that I made, which is customer engagement. You have
2 prices that went up about 30 percent of our customers
3 as I said in Zone 4. And customers are certainly
4 looking for opportunities to participate, whether
5 it's wholesale market, whether it's through a state
6 program like (inaudible) -- a saving program, or
7 through Ameren.

8 What they're trying to do with their
9 smart meters or (inaudible) program, there are
10 certainly customers who would love the opportunity
11 and would be able to help the situation if they had
12 the mechanisms available. I think all three, all
13 Ameren to the Commission to MISO, given those
14 customers the chance to be engaged and the
15 opportunities particularly there's new day and age we
16 go to the ISOs and the states all around the country
17 you could see opportunities being taken advantage of
18 is critical.

19 Giving those customers that chance and
20 more engaged there will be more satisfied going
21 forward.

22 MS. DIAMOND: I think our customers, consumers,

1 in general are already engaged, (inaudible) -- with
2 Ameren and Illinois. They're getting more excited
3 about those, and I think more broadly. And so
4 there's a great opportunity that engaged customers
5 can make them really a part of the process as opposed
6 to being opposed to the process. I think there's a
7 rare opportunity here.

8 MR. ELLIS: Dean Ellis with Dynegy. Just
9 closing remarks in getting back to our view that,
10 again, we're standing on the beach, the water is
11 starting to recede, you see a tsunami coming simply
12 from the perspective of, well, there may be a snap
13 shot 3 gigawatt surplus currently in southern
14 Illinois; again, you can quickly erase that when you
15 take into account that generation fee much more than
16 the surplus right now currently receives \$0 for
17 capacity even as a result of this next option.

18 This is not a hypothetical exercise.
19 We've seen this play out before. We saw it had a
20 very similar vertical (inaudible) -- as Patton had
21 mentioned, New England quickly moved away from that.
22 They banned the vertical demand curve and after seven

1 years of prices clearing (inaudible) -- set for and
2 then resources could no longer hang on, and this wave
3 of retirement (inaudible) -- pushed the supply on the
4 other side of that vertical demand curve -- on the
5 other side of that vertical cliff, and then all the
6 sudden now the prices are appearing at the ceiling
7 rather than the floor.

8 And when you now trying to catch up
9 build another. So again this is (inaudible) --
10 exercise, it's not hypothetical. We've seen it play
11 out elsewhere. I think we're about to see the same
12 thing play out, and we think that there's a lot for
13 both the consumer perspective and supplier
14 perspective. I think there's more of an interest
15 than not.

16 MR. KOLATA: As we look at the big trends in
17 the industry today, surprisingly how little is being
18 discussed to a certain extent. When you receive the
19 client cost of solar, you look at smart grids, and
20 automation potential. What we do with big data,
21 that's what we should be focused on and prising to
22 the list as well. These are all things within state

1 jurisdiction.

2 When we say we want to maximize the
3 values of the market, that's essentially what we were
4 talking about earlier and part of that as well.
5 There isn't a short term for liability issue
6 (inaudible) -- there certainly won't be -- to
7 maximize consumer value, and that's where we should
8 be.

9 MR. BLESSING: And to close, I think we are in
10 a position where we do have some resources today. So
11 we've got some time to kind of work through the
12 solution. But thinking down the road, I don't think
13 the right solution -- I think we have an opportunity
14 to get to the bottom of this and arrive at a solution
15 and drive the markets rather than the markets drive
16 us to something less desirable -- lost my train of
17 thought, so I'll stop there.

18 MR. BLADEN: I guess I'll close by saying that
19 MISO's in the business of assuring reliability. We
20 do it on a ten second basis with efficient markets.
21 We do it on a five-minute basis with efficient
22 markets. We do it on hourly basis with efficient

1 markets.

2 We certainly try to do it on an annual
3 basis with efficient markets. But at the same time,
4 we also have to do all of that in tandem and in
5 complementary ways with state policy choices. The
6 state regulators have very clear jurisdiction for
7 many elements of our business and the ways in which
8 this reliability is assured.

9 Efficient prices to the lowest costs,
10 and that's really our goal here, is to try and assure
11 what we're doing for delivering resource adequacy
12 with capacity markets in southern Illinois is
13 delivering efficient prices. It's working to
14 complement the state policy choice, and ultimately
15 gets all resource choices and options an equal shot
16 at participating and delivering what they can in
17 their unique fashion. Whether it's demand response
18 or meter resources of new technologies or existing
19 resources that are still needed to meet those
20 reliability requirements. We want to make sure that
21 the markets that we are operating are delivering the
22 pricing that allow the least cost choices to be

1 selected and to be maintained.

2 MS. McERLEAN: Thank you. I think we'll first
3 hear Commissioner or Chairman if they have any
4 questions.

5 MS. EDWARDS: Thank you, Elizabeth.

6 This question is directed to Jeff. So
7 in the first policy session, he did speak -- I don't
8 have in front of me just my notes, but we did talk
9 about a separate Zone 4 market design construct. And
10 I believe he said that such a construct in a market
11 design is -- such a market design would not
12 negatively impact the other zones in the MISO
13 footprint. It sounded like you were saying that
14 would not work.

15 So can you explain that, or I
16 apologize if I misunderstood.

17 MR. BLADEN: I'm happy to explain it, and my
18 apologies if something I said confused you.

19 No, I couldn't agree more with what my
20 colleague said. We firmly believe that whatever
21 adjustments we make that are designed and meet
22 specific needs for southern Illinois, we will work to

1 ensure that those complement and work in tandem with
2 the way with resource adequacy is. It is
3 effectively -- and that's really sort of going in
4 opposition.

5 We're pretty comfortable you can
6 achieve that outcome. There are other RTOs that have
7 specific mechanisms for specific parts of the
8 footprint that are not a challenge at all to deal
9 with in realtime operations, a day-to-day,
10 hour-to-hour operations.

11 So in terms of maintaining reliability
12 and addressing the issues that you were referring to
13 the exact details of the construct that we might
14 conclude with working with stakeholders, it is
15 appropriate for southern Illinois.

16 I can't speak to those details yet
17 because because we haven't had the chance to go
18 through those issues. We will go into it, and they
19 need to work in tandem and effectively come to seams
20 with one another with operation.

21 MR. ROSALES: Following up on the Commission --
22 because it's an island in Zone 4, and actually I can

1 ask everybody here. Is there an opportunity to move
2 to a PJM style business model within the zones of
3 MISO?

4 MR. BLADEN: First thing I'd like to address is
5 this concept of southern Illinois being an island.
6 Within MISO's market design and in our operations, we
7 certainly don't see southern Illinois as an island.
8 There's extraordinarily robust transmission across
9 southern Illinois from north to south from east to
10 west.

11 There isn't any electrical island of
12 the sort. Some might argue that the policy
13 differences creates an economic island in a sense,
14 but I don't think we see it as an island. And the
15 need to have slightly different approaches for
16 resource adequacy in Illinois there's a reflection of
17 the need to work in a complementary matter to the
18 state differences that exist.

19 In terms of whether we could move
20 towards a PJM style market for design for southern
21 Illinois, I think that's plausible. But, again,
22 without presupposing what we might come up with as

1 part of our statement (inaudible) -- I wouldn't want
2 to suggest that it is the only outcome that's
3 possible either.

4 MR. BLESSING: I agree that southern Illinois
5 and PJM style within MISO is a solution that could
6 occur. But if you take that broader and if your
7 thought process is a PJM type solution for the entire
8 MISO footprint, I think it would be very difficult to
9 get the other states' stakeholders to support that.

10 So I just want to make that difference
11 aggregation that, you know, within the Illinois
12 footprint, it's probably possible. But if you're not
13 trying to drive an entire footprint of MISO's
14 stakeholder process (inaudible) -- that could be very
15 challenging.

16 MR. ROSALES: I'll just be interested in
17 Zone 4. And as I spoke before it came up a number of
18 times, and (inaudible) -- there's a few people that
19 agreed on that. And I wanted to know if by moving to
20 that model would it eliminate that some of you, you
21 know, have mentioned as well.

22 MR. BERG: Yeah, I think I said it's possible.

1 I think it is possible too. And you know when I
2 think of Zone 4 as an island, I want to be clear I
3 don't think that Zone 4 is an electrical island.

4 It's highly interconnected with PJM
5 and the rest of MISO. I think of it more as there's
6 a revenue recovery. It's a revenue recovery island.
7 All the other MISO states, they have their revenues
8 (inaudible) -- from their retail customers, and that
9 doesn't exist in Zone 4 -- when I think of Zone 4 as
10 an island, it's revenue recovery.

11 MR. POULOS: I'll only add -- I'd add that it
12 was an initial approach that MISO took for their
13 market was to do almost an exact same PJM style.

14 And one of the reasons for that as I
15 recall was because then it would be more connected to
16 PJM and transfer resources back and forth. It's an
17 interesting notion to even think about that. I don't
18 think it has to be the fix, but it's certainly one
19 that MISO went down to start with. They got
20 significant pushback from most of the states. And so
21 (inaudible) -- with the MISO region, so it changed
22 their format.

1 MR. KOLATA: I think its probably possible to
2 do that, but the issue is with the consumer. What we
3 should do is put the customer and its needs to be
4 consumer centered and make sure what that whatever we
5 come up with is going to result in the least cost
6 rates for customers.

7 I think a lot of this discussion is to
8 sort of generator-centric. At the end of the day we
9 need to make sure that whatever rules that we have
10 are going to produce the lowest possible rates for
11 consumers.

12 MR. BERG: While maintaining reliability.

13 MR. BLADEN: I want to echo the concern about
14 least cost. That certainly is in our mission as
15 well, that the mechanisms that we're utilizing are
16 producing the reliability outcomes that are acquired
17 at the lowest cost keeping all the technology
18 options, all the business model options a chance to
19 participate and compete.

20 MR. BLESSING: And I just want to add too that
21 while I agree least cost is important, volatility is
22 important as well and making sure that customers have

1 stable prices. It's an important aspect of this as
2 well, just driving for the lowest cost solutions at
3 all times if that results in a situation where you
4 will have violent price spikes in the future, that
5 might not be the best. So it's got to be a balancing
6 act between those two.

7 MR. ELLIS: Dean Ellis with Dynegy. Building
8 on a number of comments of the PJM style capacity
9 market is definitely an option. I think we loosely
10 refer to a PJM style design that really the
11 fundamental elements are a demand curve and minimum
12 buyers side and sell side (inaudible) -- that are
13 fundamental in PJM design. So (inaudible) -- we've
14 got to get right. We've got to get the price
15 correct, whether it's with PJM or not.

16 MS. McERLEAN: If the Commissioners don't have
17 questions, I will open it up to the audience.

18 MS. EDWARDS: I know we've generally talked
19 about the fact that this is not necessarily a right
20 now issue, that right now we have sufficient
21 capacity. But it's clear that this is inevitable.
22 If we continue the path that we're at, we will have

1 retirements which will lead to a capacity problems.

2 David, you mentioned that there is no
3 issue right now, that it's not necessarily something
4 that we need to address right at the moment we need
5 to be capitalizing on what we currently have in
6 energy efficiency and demand response.

7 But after hearing them talk about the
8 fact that demand response organizations don't want to
9 enter in the MISO because of that inconsistency and,
10 you know, unreliability. It's kind of like how do we
11 maximize that?

12 MR. KOLATA: Well, I agree that there are some
13 reforms needed in general to make it easier for
14 demand response and energy efficiency to compete. So
15 I think there are some things that can be done there.

16 But I do think if we look at a future
17 that if we play our cards right, we can greatly
18 increase energy efficiency. We can greatly increase
19 demand response. We're going to see a lot more
20 distributed generation I think by focusing too much
21 of our discussion on traditional base load power, and
22 you know, again, I would remark that a lot of this

1 discussion is being -- I think by low natural gas
2 prices and just simply a market structure that some
3 would argue was working when prices were higher.

4 And that I think fundamentally is a
5 problem. That concept and way of thinking about it
6 is very problematic for consumers. That's always our
7 concern, so we're certainly willing to focus and talk
8 about forms, ways we can encourage demands response
9 and energy efficiency.

10 But we have to make sure that what
11 we're doing is in the best interest of consumers, and
12 we want to make sure that we're really focusing on
13 the future that we want rather than protecting what
14 we've traditionally done in the past.

15 MS. McERLEAN: All right. I think we should
16 thank our panelists one more time, and we will break
17 for lunch until 1:15.

18 (Recess taken.)

19 MR. SHEAHAN: Okay. Welcome back. I hope
20 everyone had a good lunch. This afternoon's panel is
21 intended to address the ramifications of the proposed
22 solutions for resource adequacy and residential

1 industrial and manufacturing customers.

2 To lead the discussion, please join me
3 in welcoming Anastasia Palivos, one of my two legal
4 and policy advisors.

5 MS. PALIVOS: Thank you for the introduction,
6 Chairman.

7 I will be your moderator for Panel
8 No. 3. Panel 3 is designed to hear from the
9 representatives of the various consumer interests to
10 assess the advantages and detriments of the solution
11 discussed this morning. The discussion will explore
12 the proposed solutions by asking the panelists a
13 series of questions.

14 The form of the panel will consist of
15 questions presented by myself with the opportunity to
16 hear from each of our panelists and the opportunity
17 for the panelists to respond to each other.

18 If time remains at the end, we will
19 take questions from the audience. Before we begin
20 this discussion, I will briefly introduce our
21 panelists.

22 Welcome back. We will be hearing from

1 Jeff Bladen, the executive director of market
2 development at MISO; Jim Blessing, the senior
3 director of power and infrastructure development at
4 Ameren Illinois; Susan Satter, the senior assistant
5 attorney general of the public utilities bureau at
6 the attorney general's office; Bruce Campbell,
7 director of regulatory affairs at Johnson Controls;
8 Paul Noble, representative of international
9 brotherhood of electrical workers; and lastly, Brett
10 Balke, electric energy manager at Archer Daniels
11 Midland.

12 So it seemed like the main takeaway
13 from this morning's discussion was that there does
14 not seem to to be a resource adequacy issue in MISO
15 today. But beyond that, there seems to be a lot of
16 differing opinions.

17 So to commence our discussion, I would
18 like to ask the panelists first if there are any
19 aspects of this morning's discussion that you would
20 like to touch upon.

21 MS. SATTER: I'll start. Here we go.

22 I think it's important that there's an

1 agreement today that Zone 4 has sufficient capacity
2 for today and for the short term for the near future.
3 That means that we're not in a crisis situation.
4 That means there is time to consider policy responses
5 to assure resource adequacy going forward.

6 I think another thing that we heard
7 today was that there are many different approaches to
8 addressing resource adequacy, and that there are
9 parties throughout the state be it demand response
10 providers, be it generators, be it policy makers.

11 There are environmental advocates
12 working on the Clean Power Plan or regulators.
13 There's the Utility and their responsibility to their
14 customers. Of course, there's the Commission.

15 There are a lot of eyes looking at
16 this problem, and there are a lot of moving parts.
17 And all of these different eyes and all these
18 different ideas will work together to get us where we
19 need to go. And we have to be careful not to think
20 there's a single solution or there's a single entity
21 that's going to control the result or ultimately be
22 responsible. Because I think as somebody pointed out

1 this morning, consumers will look to Utility, they
2 will look to the Commerce Commission, they will look
3 to public officials. But all of us, I think, are
4 responsible for looking at this problem.

5 And then there were a few things that
6 were mentioned today. One was the notion that the
7 demand curve needs to be changed. And I just wanted
8 to comment that on November 20, the FERC addressed
9 the demand curve question, the question, slope demand
10 curve. And the first time declined the adopted MISO
11 construct.

12 So to the extent that the FERC had
13 reviewed that question, they have made that decision
14 more than one time. Another question that was raised
15 was whether the capacity charges at MISO were
16 volatile, and the problem with the volatility of the
17 MISO capacity prices.

18 I have a couple comments on that. The
19 volatility of the MISO prices, there was a big jump
20 last summer. So it went from \$16.75 to \$150. That
21 was a big jump. Now, I think the Commissioners know
22 and maybe some other people know, my office filed an

1 action at FERC of that increase in price. It was
2 (inaudible) -- the exercise of power.

3 One issue that was not raised was the
4 effect of market power on affordability and on price
5 formation. We think that's the key factor that
6 cannot be overlooked. We think that the numbers
7 demonstrate that this is something that we all have
8 to be aware of.

9 And the second thing is there was some
10 question about moving to a PJM style model. But I
11 would just like to point out that PJM's prices, while
12 generally higher than MISO's, have also reflected
13 quite a bit of volatility.

14 So, for example, in 2011, 2012, the
15 price was \$110 per megawatt day. The next year
16 \$16.46. Same kind of volatility that we saw here.
17 The next year was \$27.73. Relatively low prices for
18 capacity. Then it jumped up to \$126. About two
19 years later, dropped back down to essentially \$50.

20 So the notion that volatility is
21 something that you can avoid by going to a PJM model
22 is not supported by the PJM experience. And I

1 understand this volatility, the overall prices in the
2 PJM have been higher than in MISO. That is, I think,
3 not a question.

4 But the effect is that residential
5 customers who pay about \$60 a year more for capacity
6 (inaudible) -- Commonwealth Edison -- for industrial
7 customer the difference is very notable, a million
8 dollars a year. So this change in capacity market
9 construct makes the difference for consumers.

10 And I think we have to be careful when
11 we look at the different options to understand that
12 they all have problems, they all have volatility, and
13 to approach the problem as dynamic a way as possible.
14 Thank you.

15 MR. SHEAHAN: I wonder if some or all of you
16 can comment on whether that Zone 4 price has
17 reflected the true cost of capacity. I think there's
18 kind of an important point.

19 MR. BALKE: This is Brett Balke.

20 We assumed the market is the one that
21 directs what value of the product is -- is that
22 working? There it is.

1 We assume that the market is dictating
2 what the value of the product is. It has -- it did
3 great over the years.

4 MR. SHEAHAN: My question is whether, you know,
5 the \$16.75 reflects the actual cost. I mean, it's
6 dramatically lower, right, than anything else. So
7 why is that? What costs aren't represented in that?
8 And I understand from a consumer standpoint that's a
9 great thing, right?

10 But from the standpoint of sort of
11 thinking down the road, you know, where the horizon
12 is, you know, if you've got vertically, you know,
13 integrated generators, utilities on one side could
14 sort of selling excess because, you know, their costs
15 are sort of treated differently. They're not
16 necessarily thinking about building on capacity to
17 serve Zone 4.

18 MS. SATTER: If I may, capacity is an
19 interesting product. Because -- and I think that
20 maybe it'll be helpful to define capacity. My kind
21 of simple definition -- and please correct me or
22 expand if appropriate -- is that it is the ability to

1 produce electricity when needed.

2 Now, when a company or an individual
3 utility enters into a contract for electricity for
4 energy, they're expecting electricity to be provided.
5 Now, there's variations in demand all the time. And
6 I suppose maybe capacity deals with some of that, but
7 capacity is kind of a residual cost.

8 Because the generators providing
9 (inaudible) -- to kilowatt hours, they have to have a
10 certain amount of capacity under contract to provide
11 the kilowatt hours that they've agreed to provide,
12 right? And the scope of it, right? The depth of it.

13 So when -- I think it's recognized
14 that as energy prices go down, there's -- the
15 generators want these capacity prices to go up
16 because they have a total amount that they want
17 covered.

18 But I think it's difficult to identify
19 a specific ...

20 MR. CAMPBELL: This is Bruce Campbell from
21 Johnson Controls.

22 I would say that the Zone 4 prices

1 reflected a value of those resources in the market.
2 They basically -- they were a reference point to --
3 in reference to the market value. And so it's a
4 valuation. Kind of how I look at this.

5 If -- so you end up having the cost of
6 capacity in this particular instance in southern
7 Illinois. In this particular instance being
8 established by PJM price. It's a reasonable
9 valuation (inaudible) -- is it reasonable in southern
10 Illinois? I couldn't say.

11 But, you know, if I take a step back,
12 I would say that I personally think that Dr. Patton's
13 recommendations deserve a lot of review and support.
14 And I think that they capture a lot of concerns that
15 I see in the market.

16 Let me take a step back. We're
17 representing consumer interest here in this panel. I
18 will say -- I will tell you that while Johnson
19 Controls is a user in Illinois, my partner companies
20 is providing services. So my interest is not exactly
21 aligned with the customers in that respect. But I
22 will tell you that my customers, when they look at

1 this thing, they get that capacity -- the reliability
2 cost. And they are okay with paying a fair price.

3 They -- you know, part of the deal
4 when PJM established their current market was the
5 demand response be a viable resource. And that was
6 built in, so customers could have the opportunity to
7 get the amount of reliability that they were willing
8 to pay for and what they were used to.

9 And that was established by, you know,
10 the valuation -- the valuation as Dr. Patton
11 explained. When you have more than the minimum
12 amount of capacity, that doesn't mean there is a no
13 value; there is value.

14 And usually no one likes higher
15 prices, but they get that nothing's free. So the
16 question is, do you have -- do customers then have
17 the ability the to offset their cost to deal with
18 this capacity cost? And I would say the other piece
19 to that is in that capacity -- in that value that the
20 demand response can bring to the market. One of the
21 challenges that you have in southern Illinois
22 is (inaudible) -- because demand response can't

1 effectively participate. Thank you.

2 MR. BLADEN: First, I'd like to note that --
3 this is Jeff Bladen with MISO. I generally agree
4 with Mr. Campbell's characterization and difference
5 between value and cost, but I do want to spend just a
6 moment reflecting on some of what we heard from
7 Dr. Patton explaining the nature of the capacity
8 product.

9 It is different materially from a
10 simple economic contract that one enters into with
11 the expectation of electricity being delivered
12 because an economic contract, the consequences of are
13 simply payment.

14 But the nature of the capacity product
15 is more than that. It is not intended to simply be a
16 financial compensation. It's a planning criteria
17 where we are trying to assure that we will not have a
18 failure to deliver. In fact, there will be enough
19 capacity built whether it's demand response or power
20 generation or other new technology such that we don't
21 experience the failure to deliver.

22 That's the nature of the product, and

1 that's why I think it's important to distinguish
2 between a simple energy bilateral contract than a
3 failure to deliver, turns into a financial damages.

4 And so as we think about the nature of
5 value relative to cost, which I think is a
6 distinction that Mr. Campbell made, ultimately in
7 order to develop and deliver the kind of reliability
8 that we have set up for ourselves with our one day
9 10-year standard, you need to have the value of the
10 product that assures that reliability converge with
11 the cost of it.

12 And that's -- there can be periods
13 when the value is less than full cost. And there can
14 be periods when you may well find that the value is
15 greater than full cost. But ultimately over time
16 (inaudible) -- otherwise people won't be back there.
17 And you won't get the reliability that you are saying
18 you must have.

19 And so the market design that
20 ultimately delivers those things is efficient. When
21 you look at volatility -- and Susan's right to point
22 out that you'll never get rid of volatility entirely.

1 But volatility in markets has the effect of raising
2 costs, not lowering them.

3 Any investment professional that you
4 speak to would tell you that if you need to borrow
5 money to build something and the revenue streams
6 attached to the asset that you've built are volatile,
7 the investors will want a return because the risk
8 attached to the volatility.

9 Same is true with power. You agree to
10 which there is great volatility (inaudible) --
11 associated with the energy or capacity. That has the
12 effect of requiring investors to seek higher rates of
13 return on their invested capital. And that is a
14 pretty well established economic principle.

15 So while you simply can't get rid of
16 volatility, it's the nature of markets. When you
17 have market designs that are in the primary
18 mechanism, have being built that is a result of the
19 outcome (inaudible) -- we are concerned about the
20 ability to get assets built and secondly trying to
21 (inaudible) -- principles.

22 MR. BLESSING: Yeah, I think my comment is kind

1 of what Jeff just said. The direct answer 5 to \$16
2 is not sufficient to cover the cost in my
3 perspective. And I've seen that firsthand with
4 Ameren.

5 We can go back to the document
6 (inaudible). So clearly, the cost basis are higher
7 than what the market's providing. So unrelated
8 markets don't guarantee they'll cover your costs
9 every year. But we need to make sure the markets are
10 structured such that over time, that convergence that
11 Jeff was talking about that will exist, that over
12 time, with the highs and the lows, they have an
13 opportunity to recover those costs.

14 Otherwise, there's no reason for them
15 to be there. I don't care whose generator it is, I
16 don't know if it's demand response. We need to have
17 some generation out there of some sort owned by
18 somebody where the markets do not support that
19 generation. It sets us up for a huge problem down
20 the road. Thank you.

21 MS. PALIVOS: Thank you.

22 Next, I would like to ask the

1 panelists as a representative of consumers, do you
2 have concerns about the resource adequacy of MISO
3 Zone 4. If so, can we briefly touch on them.

4 MR. BALKE: This is Brett Balke. As a
5 representative of today, I'm from Indiana, but I am
6 actually here on behalf of the IMA. We represent
7 basically the industrial consumers in Illinois, but
8 we recognize there's commercial and residential
9 consumers as well.

10 I'm responsible -- I'll give you some
11 of my background. I've been doing this now for well
12 over 25 years; responsible for electricity. So I
13 have to study these markets all the time. I used to
14 work for the power company. In fact, a reference to
15 power station being closed, I guess I did an okay job
16 out there because it stayed around another 30 years.

17 That plant, is it due for retirement?
18 That's what Dynegy is going to do. The concerns, I
19 guess, is that the cost -- and someone made a comment
20 about (inaudible) -- well, if we had been under a PJM
21 market for the last nine years, we did an analysis,
22 and this average over the last nine years has been

1 been \$56 a megawatt.

2 And in that analysis based on the
3 Ameren footprint, 10,000 megawatts, the cost of that
4 annually is about \$200 million a year over the last
5 nine years of additional costs unto southern Illinois
6 consumers. That's a significant amount of money
7 that's been -- we have saved under our MISO system.

8 So at this point, we are in a market
9 that we believe is keeping us under economic
10 conditions to be in an environment like PJM would
11 have cost consumers of southern Illinois \$200 million
12 a year over the last nine years. That would equate
13 to almost \$2 billion. That's a significant amount of
14 economic activity that's been impacted by the
15 benefits in the MISO market.

16 So we are trying to look forward to a
17 stable market in some respect. We want -- we
18 recognize markets adapt. We recognize its capacity
19 market has adapted. So we're trying to analyze it
20 and move forward. But to say there's a problem with
21 the system, I don't believe there's a problem with
22 the system at all.

1 We have -- as somebody referenced, we
2 have demand response, we have -- Susan made comments
3 about all the different aspects we have moving
4 forward. If we change our market or change the way
5 we do business, we will never be able to really
6 evaluate how the market works.

7 If we change from a one-year program
8 or one-year auction to a three-year auction, how will
9 we ever be able to evaluate how the MISO process
10 works? We have a system that's functioning, it just
11 takes time to adapt. And we have adjust to it.

12 So I think from that perspective, we
13 don't have a resource adequacy problem here in
14 Illinois. And I don't really see a certain
15 dysfunctional point in the near future, and the near
16 future could be five to ten years.

17 If somebody can show me five to
18 ten years what's going to happen, that's great. Then
19 we can move forward. But nobody knows what those
20 answers are.

21 MR. NOBLE: My name is Paul Noble. I'm with
22 the IBEW.

1 First of all, I'd like to thank the
2 Chairman and the Commissioners for allowing us to be
3 here today. I represent several thousand of IBEW
4 members of organized labor. And the employees that
5 work for the generators and the utility companies as
6 well.

7 And I disagree strongly. I do believe
8 there is a problem. I think it's been well
9 documented here through all the testimony we've heard
10 this morning from MISO recognizing that the current
11 market structure does not promote investment. And
12 that's going to lead to a disaster if it's not
13 addressed.

14 And I think everybody has recognized
15 that the current market structure does not promote
16 investment. What people I talk to want because we've
17 been through this a lot, they want safe reliable
18 electricity, Number 1, with stable pricing at the
19 lowest possible cost. It's the same thing we've
20 heard. And we believe in a current -- the state of
21 Illinois, its current state, as a result of the
22 customer choice. And we feel the only person

1 responsible for resource adequacy in Illinois right
2 now absent of some type of legislation is MISO.

3 And we think the sooner they act, the
4 better. A couple of reasons. Number 1, we can
5 dismiss the river being 30 years old. We might be
6 able to say, Well, so what? We can lose the nuclear
7 work plant there, but you're taking possible
8 solutions off the table. And we don't want to be
9 dealing with resource adequacy when we have
10 efficiency.

11 If we've identified the problem that
12 we know is there, if we know there are solutions and
13 we don't act, that's just insane. We know what's in
14 in front of us. I think the sooner the better, if we
15 can do this. I personally think MISO should have
16 something with FERC in the spring so by the next
17 auction, we could be bidding with the market reforms.

18 And I think it's that serious. The
19 one thing that hasn't been talked about today has an
20 economic impact. And we've talked about pricing, but
21 the people -- what the people don't understand, the
22 people that have had to get (inaudible) -- or notices

1 that they're going to lose their jobs because the
2 plant's closing.

3 The school districts that rely on the
4 tax base for up to 50 to 60 percent of their total
5 budget is the tax, that's important. And the
6 consumers are educated. We've educated them on that.
7 They understand the value in these resources. Not to
8 keep on mentioning (inaudible) -- how could we even
9 consider being able to comply with the CPP?

10 There's other things coming down the
11 pike, and today's the day to deal with this problem.
12 We recognize it. We know it's there. And I think
13 its all been pretty well said.

14 MR. CAMPBELL: This is Bruce Campbell with
15 Johnson Controls.

16 I don't think that -- or even southern
17 Illinois has a resource adequacy problem. I think
18 that's been adequately demonstrated, but I think we
19 may have a pricing problem. Your prices -- you know,
20 this whole process is triggered by relatively high
21 prices in Zone 4. As I said earlier, that's -- I
22 don't think that's based on anything particularly

1 going on in Zone 4 or MISO.

2 I think it's really triggered by MISO
3 rule with respect to how often caps are set. And in
4 this case (inaudible) -- with the opportunity we
5 have. So you've got a pricing problem. One thing my
6 company does is help offset high cost. And PJM, the
7 market monitor said without the demand response, the
8 prices would have been twice as high as they actually
9 were. That is a demand curve.

10 I don't know it would have been any
11 different if there had been (inaudible) -- in the
12 Zone 4, if the prices would have been any different.
13 And I think that's a problem. And I think that -- I
14 don't know how to solve that problem other than
15 putting on something like a demand curve in place.

16 How you do that, I don't know. I
17 think there are -- later on I'll perhaps -- I'll have
18 some thoughts about the potential for the ICC to step
19 in on a statewide basis, but I'll wait for some of
20 the questions to get to that in that discussion.

21 But I just think the -- Jeff's point,
22 one of the things you want a capacity market to do is

1 to tell industry what to do. What that market could
2 be a signal for action to build resources to
3 (inaudible) -- response market. And the question is,
4 does your market design do that today?

5 I don't think it does. And, you know,
6 we need to know how to remedy the situation.

7 MS. SATTER: I think this morning's session was
8 important in that just about everybody acknowledged
9 that today we do not have a resource adequacy
10 problem. Today we've 3,000 megawatts more than we
11 need. 3,000 megawatts bid into the MISO market that
12 did not clear.

13 So there is capacity out there that
14 exceeds the demand. We have a market system. So
15 that means that prices are based on supply and
16 demand. We have excess capacity so it should not be
17 surprising that the prices for capacity are low.
18 That's kind of, you know, economics 101.

19 Now, last year the price spiked. I've
20 already stated what we believe the cause of that
21 spike was. You know, exercise the market power when
22 you've got a (inaudible) -- to the supplier. But

1 when you've got a situation where there's so much
2 excess capacity in the region that is supposed to
3 supply the region, it can't be a surprise that the
4 prices are low.

5 And maybe that's the price signal that
6 is okay. 3,000 megawatts is the number of units.
7 Everything is not going to go away. We're not going
8 to fall off a cliff. There will be units coming on,
9 there will be supply coming on, there will be plants
10 that close, and I would expect the prices would
11 reflect that change unless people feel that there's a
12 more immediate need to push the market in one
13 direction or another notwithstanding the supply and
14 congressman balance.

15 So I just think that there is time to
16 respond to whatever changes in supply are coming our
17 way. There are a lot of actors who are involved in
18 this, a lot of moving parts. As -- there can be
19 plants that close, there can be generation plants
20 that close. There can be industrial plants that
21 close. There you've got additional capacity. You
22 have demand response, energy efficiency that's by

1 statute.

2 There are a lot of moving parts here,
3 and I think if the fundamental is supply and demand.
4 And the fundamental situation is excess capacity, and
5 we rely on markets we can't be surprised that prices
6 are low. And we shouldn't expect anything different,
7 so thank you.

8 MR. BLESSING: I'll start with a direct answer
9 to the question. I said this earlier in the previous
10 panel. I do think it's a problem. And in my mind if
11 20 years ago, I had a role in which I was doing
12 financial analysis to try to construct (inaudible) --
13 a market for generation, and I looked at the market
14 structure. And I just don't see how economics works,
15 how anyone with this level of market pricing and
16 structure is there -- that's interest.

17 But I'd also like to talk a little bit
18 about prices. Mr. Noble talked about, you know,
19 customers want stable prices as well.

20 Susan, you mentioned that the PJM
21 price construct does continue to have some volatility
22 in those prices as well.

1 So, you know, we might need to be
2 thinking about this broader than just MISO solutions
3 and thinking about in conjunction with MISO markets,
4 right? If there's something in the -- at the state
5 level we can do to try to encourage the bilateral
6 contract that Dr. Patton said would be required going
7 forward regardless of the changes we make.

8 And then when I look at what's really
9 hindering bilateral contracting in capacity markets
10 for large industrial customers, I think they control
11 their own destiny. If they want to go out on their
12 own behalf, they have the ability to do that.

13 For residential customers and to some
14 small commercial customers, they don't have that
15 direct access to wholesale markets whether it be
16 retail suppliers or via IPA procurements. And what
17 really hinders the ability of the IPA, for example,
18 for the long-term is that the utility portfolio, you
19 just don't know what we're going to serve a year from
20 now much less three to five years from now.

21 So (inaudible) -- three years, but
22 even three years out (inaudible) -- something just to

1 kind of just throw on the table as a supplement
2 solution would be, you know, possibly looking at a
3 solution that would bring capacity back out of the
4 retail product and make it the responsibility of the
5 utility for all customers.

6 And it doesn't have it be for -- you
7 know, large customers think they've got their piece.
8 You can break it up whatever you want (inaudible) --
9 or residential something. But if you pull that
10 product back into utility procure product and let the
11 IPA at that point, he will have much more certainty
12 three years from now, five years from now, 20 years
13 from now, the volume of the product that he needs, it
14 would free up the ability to do those bilateral
15 contracts that Dr. Patton says this would be needed
16 and provide a lot more for customers.

17 MR. BLADEN: The core question is, is there a
18 resource adequacy problem. The lights aren't going
19 out tomorrow. So in that sense, no. In the sense of
20 is the market operating efficiently in support of the
21 needs of southern Illinois? There's a real challenge
22 here. You know, the distinction between the playing

1 process in other states relative to the retail
2 construct.

3 And the policy structure of Illinois
4 is that southern Illinois, the MISO market is the
5 primary mechanism at which market participants,
6 whether they're generators or demand response
7 providers, it is the primary mechanism by which they
8 are seeking whether to invest or not.

9 And so on the basis of that, we do
10 have a resource adequacy challenge going forward in
11 southern Illinois that looks like we need a market
12 that will help better signal those that are primarily
13 in the market for investment direction.

14 In other parts of the footprint,
15 that's not the case. They're not looking for
16 investment. They're working to decide when and where
17 are the best. All right. So in this instance, we
18 have a set of challenges in front of us that we are
19 very cognizant of and feel responsibility for MISO
20 given our tariff obligations.

21 I will say that with regard to the
22 whether it's through the Illinois power authority or

1 others taking on the challenge of procuring and
2 planning resources through a capacity for contracting
3 certainly has a potential to be a reliable option; I
4 will say from my perspective, we will be concerned to
5 which all of the load in the capacity are not being
6 dealt with through some mechanism as is the case for
7 other states.

8 So I think we would still find it
9 appropriate to look at market reforms that would
10 signal investment that's needed. The last thing I'll
11 say is that a market construct that is sending the
12 appropriate investment signal does not mean higher
13 prices. It means an appropriate investment signal
14 which may very well be a low price because the
15 investment is not necessary.

16 Some, I think, if rightly argued that
17 we've had surplus historically in MISO since the
18 initiation, and therefore prices have been low. The
19 concerns are today particularly as we see the reserve
20 margins going down, and as we see the new regulations
21 coming at us that will likely mean a transition that
22 are meeting customer needs for reliability and in

1 order to assure an orderly transition of good
2 investment price signals.

3 It's crucial that we start these
4 discussions for solutions, what the solutions will
5 look like now. I do want to lastly say that as we
6 think about how much of the condition we face. This
7 is not a quick process. From our perspective
8 meaningful and robust discussion in the MISO process
9 that will take months, many months. And a FERC
10 process that will take months, many months.

11 And to the extent that MISO needs to
12 make meaningful technology investments in order to
13 facilitate thinking that would be responsive of
14 solutions, that will take time as well. So while we
15 may not today or tomorrow face a resource adequacy,
16 in order to deal with it, we will have to be having
17 these discussions now. We simply can't avoid making
18 judgments in the relatively near months not years for
19 how you want to move forward to help support the
20 needs of Illinois consumers getting to a reliability
21 to a price that had value.

22 MR. ROSALES: I need to excuse myself. I have

1 a call, and I don't want to offend you. I appreciate
2 your time, so thank you very much. I apologize.

3 MS. PALIVOS: Thank you for those responses.

4 Jeff, I know you mentioned these new
5 revelations coming up. So my question to the
6 panelists: How do you foresee the Clean Power Plan
7 impacting this discussion?

8 MR. BLADEN: I'll try to briefly address that
9 just as I mentioned it. The highest level, we make
10 simply anticipate that the Clean Power Plan is going
11 to mean -- if implemented, in some form it will --
12 roughly what's been proposed is a meaningful
13 transition of resources that are meeting customer
14 needs for both reliability and economic energy needs.

15 And in that environment with a big
16 transition in front of us, we would expect the market
17 to be relied upon to find the most economic options
18 to meet the need given the environmental
19 requirements. And so with that, ramping up of a
20 transition, having the right market signal to
21 identify investment choices in southern Illinois is
22 all the more relevant for pursuing it.

1 MS. SATTER: Clearly the Clean Power Plan is
2 important to change in the market. I think it's
3 important to keep in mind what the goals of the plan
4 is. It is to shift to a cleaner energy. It is to
5 shift to renewable energy when possible, when
6 appropriate. And there are incentives and rules in
7 that plan that are going to enable that change.

8 There are incentives for things likes
9 energy efficiency and demand response on all levels.
10 Not the industrial level, but the consumer level.
11 That's the stage that will have to be developed, and
12 (inaudible) -- plan is I think an opportunity to look
13 at resource adequacy.

14 In fact, in doing that the plan, the
15 EPA explicitly recognized reliability as a core value
16 is a very important objective to preserve
17 reliability. And they have included FERC in that
18 process. Again, to ensure that's there's
19 reliability. And there will be changes, and I think
20 one of the problems with moving quickly on some of
21 the market design profiles is that they've been out
22 there for several years. You have to accommodate

1 what's going on now with the Clean Power Plan, or
2 what we're expecting with the Clean Power Plan.

3 So I think it's a complicated factor.
4 It brings in more parties. But I think it's an
5 important factor that really indicates where the grid
6 should be going. But I think it's a key thing that
7 needs to be kept throughout this discussion.

8 MR. BLESSING: In my mind, the objective of
9 Clean Power Plan is to transition to cleaner assets.
10 So that just emphasizes that where -- there are going
11 to be -- we basically have price signals and the
12 market structure to support that.

13 And those resources don't have to be
14 generation. They can be demand response generation.
15 It doesn't need to be traditional generation. The
16 Clean Power Plan elevates this issue that may have
17 more that -- if we probably had the time, it takes
18 some of that time away to prepare for it.

19 MR. CAMPBELL: Bruce Campbell.

20 I think the Clean Power Plan
21 creates -- is a tool. This morning there was
22 discussion about is Zone 4 an island in MISO. And

1 you can -- there were various discussions -- opinions
2 about what that is. But to the extent that it's an
3 economic island, how does one deal with it if MISO
4 can't restructure its market in a way that integrates
5 this retail access region and incorporate it into its
6 design so that all resources can fairly participate,
7 the Clean Power Plan may be a tool that the
8 Commission could use to kind of equalize the -- raise
9 the level that ISOs resources could compete on a
10 level playing field.

11 And I know my customers can't compete
12 in a Zone 4 even today's market structure. I can
13 imagine, however, that Clean Power Plan provisions
14 might support more demand response in other ways and
15 that might be a tool that the Commission can use to
16 get from here to there.

17 Another piece to this and -- but
18 related to the FERC proceeding (inaudible) -- it also
19 brings into question the ability to have demand
20 response. My company believes that should the Court
21 decide that the (inaudible) -- that the demand
22 response access should only be through retail, if you

1 want demand response in Zone 4, then the Commission
2 is going to have to start, so it's something to think
3 about in terms of what you as a Commission can do to
4 facilitate more activity and demand response and
5 alternative resources within this overall MISO
6 framework. Thank you.

7 MR. NOBLE: I think that it only makes the
8 problem worse. I think it's clear the current market
9 structure impedes any investment in new technology
10 that could help. It puts current resources at risk.
11 When you look in the PJM market, you're seeing a
12 generator converting, going to gas.

13 They're able to do that, and the
14 market is structured where they can make that
15 investment, and there's not a chance it would happen
16 without significant reforms at MISO.

17 MR. BALKE: I don't necessarily agree with the
18 conversion (inaudible) -- natural gas because right
19 now PJM natural gas prices are significantly lower.
20 Lower than they have been in such a long time, and
21 that was not something that we would anticipate ten
22 years ago.

1 The Clean Power Plan is something that
2 is more a national thing in many respects. This is
3 much broader. This goes beyond the State of
4 Illinois. Illinois has its issues to address within
5 our state, those components. From that perspective,
6 it's a whole much broader based thing.

7 So the Clean Power Plan will have an
8 influence on us, but it is something that will be
9 just part of an natural progression. There's not a
10 choice. It's not something that we cannot do.

11 MS. PALIVOS: Thank you for those responses.

12 And moving on to our last question.
13 What effect does the energy market have on the State
14 of Illinois's economic development? I know, Paul,
15 you were speaking to this.

16 MR. NOBLE: Yeah. I think it's -- we can't do
17 anything without electricity. I believe that. And
18 we have to have safe, reliable, and even stable
19 prices at the best costs. That's just what we have
20 to have.

21 MS. SATTER: So when I look at the energy
22 market, there's also a question of development and

1 consumer resources. I think it's, clear as Mr. Noble
2 pointed out, other economic development, other
3 industries, need electricity to make products, to
4 provide services, whatever it is.

5 And Illinois has benefitted from lower
6 energy prices over the past several years. We have
7 benefitted from the market structure that we embrace
8 back in '97, '98. And I think that you want to be
9 careful not to lose that by focusing too much on
10 incenting generation. When really incenting
11 generation should be part of the overall market.

12 As businesses grow, businesses require
13 electricity. Businesses will enter into bilateral
14 contracts to obtain that energy. They could enter
15 into long-term contracts. If they know that they
16 need to, the price (inaudible) -- all of these moving
17 parts are important. From a consumer point of view,
18 the smaller the energy bill, the more money there is
19 to spend on things like, you know, the local
20 pizzeria, the beauty parlor or barber shop or
21 products. Those are all economic drivers.

22 We did put together some slides which

1 you graciously put up, and I just wanted to refer to
2 them to show the impact of capacity charges on Ameren
3 customers' billings. So, for example, to this slide
4 here is a 1500 kilowatt hour winter space heat
5 customer.

6 So for that customer, they saw a big
7 jump this year in their price, and the effect of the
8 \$150 capacity charge was a capacity component that
9 went from \$3 to \$24. That's a big jump.

10 \$943 winter usage. That's sizeable,
11 but not spacey. So, you know, you're looking at \$13
12 extra per month, and some usage similarly you see
13 about a \$10 increase from \$1.50 to \$11.71 for
14 capacity Illinois. So that means that that money is
15 now not available to be spent on other things, and
16 these prices do matter.

17 A lot of service territory is not
18 doing well. We have areas, we have counties, and the
19 Ameren service territory with 19 percent of the
20 population below the poverty line, 16.7 percent. We
21 have median incomes around \$40,000.

22 So these charges are very significant.

1 And when that money is no longer available for
2 consumers, they can't use it to drive the local
3 economy. So yes, it's important to incent
4 development when development is needed, but the
5 supply and demand doesn't call for increased prices
6 to incent the development, we think it's important to
7 keep in mind that there's other uses for those funds.
8 And I think that that does drive economic development
9 by having this money available in the communities.

10 MS. EDWARDS: Sue, I know that your response
11 and commentary talks about economic development. And
12 I think it's pertinent to two parts. And one part
13 obviously is the consumer and the energy bill. And
14 obviously, you're right. The higher the energy bill
15 that leaves less money to get your child's braces or
16 whatever it is, right? Pizza.

17 But on the other hand, I think, as
18 Mr. Noble pointed out, if we continue down this, if
19 we maintain the status quo of the situation right
20 now, and, yes, there's no imminent threat, there's no
21 problem right now. But if we just stayed where we
22 are and there are retirements because of the fact

1 that we're just maintaining, that does lead to a
2 significant loss of jobs. And there's the other half
3 of economic development where a lack of jobs -- I
4 mean, then they definitely can't have pizza. They
5 can't have water.

6 MS. SATTER: Absolutely. When you have
7 employment in the energy sector, you have employment
8 in the energy efficiency sector. I mean, in fact, in
9 Illinois, jobs in energy efficiency have been growing
10 at a faster rate than the economy.

11 Same with solar installations for
12 distributed generation. So while you might lose jobs
13 at a particular plant, you'll have other jobs at --
14 in other sectors, even energy notwithstanding a
15 possible growth that's driven by low prices.

16 For example, in industries other than
17 electricity. Steel, for example. I mean, those are
18 also jobs. Yes, nobody wants to lose the energy
19 related or the generation related jobs, but I think
20 the point of economic development is it's a -- we
21 have a bigger picture, and the picture includes the
22 incredible benefits that low energy prices provide to

1 companies who are hiring and to households who are
2 plowing that money back into their local communities.

3 MR. BLADEN: I just want to quickly add because
4 it feels to me like the conversation is somehow
5 suggesting that it's either/or. It's either invest
6 in energy efficiency and solar and the demand
7 response or invest in new power plants or vacating
8 old power plants.

9 I'll tell you from MISO's perspective,
10 we are utterly ambivalent to which resource type or
11 what segment of the resource -- what segment delivers
12 the reliability that we're charged with identifying
13 to markets.

14 In fact, our goal is to simply
15 identify the least -- get the reliability to set the
16 standard. And I would go on to say that our goal
17 with the market design would be that it's not
18 encouraged (inaudible) -- any and all research types,
19 energy efficiency, demand response, or anything else,
20 to be part of the solution. But to do it in an
21 efficient way with efficient pricing that doesn't
22 have some of the attributes that we described as

1 problematic when it's being used as a primary
2 investment signal, which is the case.

3 So I want to draw this distinction
4 that we certainly don't believe this is an either/or
5 decision. An efficient market ought to be able to
6 account for any kind of resource that can be needed
7 and to judge through efficient pricing signals, which
8 ones ought to win, which ones taught to lose.

9 MR. BLESSING: I have one more comment, is that
10 I think the conversation I'm hearing kind of circles
11 me back to that tradeoff, the balancing act, between
12 pricability and the lowest possible price.

13 So these customers who can benefit
14 from the lowest possible price, I think also benefit
15 from having some assurance that the price can be
16 somewhat stable. So if it's a low price this year,
17 and if it skyrockets next year, then it comes back,
18 that's difficult for them to deal with as well.

19 And then from a business development
20 perspective for southern and central Illinois,
21 businesses are going to look to have the ability to
22 come in and have some reasonable expectation of what

1 the power supply prices are going to be. It's going
2 to be less attractive to have a business start up in
3 Illinois if you have no idea what the price is going
4 to be. I think stability helps as well.

5 MR. BALKE: This is Brett Balke. I don't deal
6 with (inaudible) -- I do it all across America. We
7 have deregulated operations in Alberto, Ontario, New
8 York, Pennsylvania, Texas. I have to deal with these
9 markets every day.

10 I have had suppliers trying to
11 convince me to buy electricity up in Ontario for
12 years. Five-years contracts. I can tell you that's
13 the best deal I never did because the time that price
14 was at five cents, they said the prices are just
15 going to go up. Prices declined.

16 In fact, the last 12 months prices of
17 electricity in Ontario is the realm of 2 cents per
18 kilowatt hour. So the best deals I've never done has
19 gone too far forward in the markets.

20 When you see value and you see
21 certainty but at a premium, that's the problem. One
22 of the elements I've looked because I do this for a

1 living, is that when I look at forward markets, a lot
2 of forward market prices I see on energy markets
3 there's about a 20 percent premium relative to the
4 index.

5 That's a significant premium for price
6 certainty. I can lock in prices for my guys every
7 day. I've had this conversation with because prices
8 were very low. And he says, how much money you're
9 going to save me? I said save you? I said this is
10 how much it will cost you because what I'm doing
11 today, the way I'm managing your cost, I'm just
12 giving you more price certainty.

13 So I'll pay for more electricity. He
14 says, That's not my business. I need to be in the
15 market so we stay in the market.

16 Industry has to manage itself that
17 way. Susan made a comment about metal industries.
18 Their margins are very thin. They worry about energy
19 prices a lot. Different companies have different
20 risks they're willing to take. It's about risk.

21 ADM evaluates its risk, and I act
22 accordingly. So what we do as a company is try to

1 get to the least cost within a reasonable level of
2 risk. And that's what we try to do, and that's what
3 we try to accomplish.

4 So what I hear in this concept that
5 paying for more stable prices anticipate paying more
6 is not a good signal for Illinois. Market advantages
7 here in Illinois I wish we could attract businesses,
8 but there's other reasons businesses can attract.

9 And, in fact, PJM even with their
10 auction market, they still have full plans where they
11 have power plants shutting down. We have businesses
12 closing every day. We do have some new businesses
13 coming in. It's a complicated issue.

14 One of the things we haven't talked
15 about is that if prices rise, customers can't afford
16 to operate their business any longer. So we have a
17 demand structure. This issue, it cuts both ways. So
18 to say that, you know, southern Illinois could afford
19 to pay more for electricity, I'm not sure that's what
20 we really desire. We want the least cost possible.
21 Stable. We believe we're at a stable price now. At
22 least that's my perspective.

1 Contracting out five years for
2 electricity, that's hard for me to do in a business
3 like I operate. We don't know what the markets are
4 for the next five years. It's kind of a tricky thing
5 to do. It's impossible. We don't do it.

6 MR. CAMPBELL: This is Bruce Campbell.

7 I want to say first of all I agree
8 with Jeff with respect to discussions on what he was
9 talked about on efficiency. If you remember what
10 happens in Zone 4 with high prices, nobody knows
11 whether it was at a right price or not, and nobody
12 will ever know.

13 Nobody knows the right prices no
14 matter what we do. But we can do better. And
15 remember that even we have a vertical curve, or
16 they're both demand curves. They're both
17 administratively set. So the question, are they
18 delivering the price and the market signal issue you
19 want them to deliver, and it's a guess.

20 Anybody put them together, it's a
21 guess. It's a educated guess. People come up with
22 costs of new entry or carrying forward the costs and

1 so forth, which is a reasonable measure. And,
2 frankly, PJM, he did arguments about it every time he
3 comes up to renew.

4 So there's never agreement on it. We
5 do the best we can. But is it giving you something
6 that's reasonably opposed to -- I think it's
7 reasonably close over the long term. I also want to
8 point out something that Dr. Patton mentioned when he
9 was going through his presentation very quickly.

10 Comparing various sides of the market
11 structures. And he made a comment that I agree with.
12 And I'll tell you I've been at PJM for longer than I
13 care to admit. I was in the room when they were
14 doing the settlement that created RPM [phonetic], and
15 I'm really familiar with it. And I know they have a
16 (inaudible) -- I'm inclined to agree with Dr. Patton
17 that you don't have to do two, three years forward.

18 You can do a one-year prompt like New
19 York does, and I suggest that MISO and others start
20 looking at market designs. There's no particular
21 reason to copy everything PJM does, and that's one
22 aspect that you might consider keeping at MISO is one

1 you're looking at ahead.

2 MS. PALIVOS: Thank you.

3 Before I open it up to questions from
4 the audience, I want to give the panelists an
5 opportunity to share any last words or thoughts.

6 MR. BLADEN: I guess I'd like to close from
7 MISO's perspective. We are a public interest
8 organization. We're a nonprofit. We deliver
9 reliability with efficient markets that represent the
10 least cost way to get that without an outcome.

11 And that's what we're looking for. We
12 recognize that in southern Illinois, there's a
13 different set of facts on the ground, the rest of the
14 footprint. And we have identified a few areas that
15 we'd like to see improve and appreciate the Commerce
16 Commission taking the discussion and bringing the
17 parties together to have these conversations because
18 ultimately our process will be best (inaudible) -- by
19 well informed stakeholders. And we do anticipate
20 this process to move forward. As I said earlier,
21 months not years.

22 In order for us to have some solutions

1 on the operating within as soon as a year and a half
2 from now, but anticipating anything sooner than is
3 probably untenable. But we do have a (inaudible) --
4 we take seriously the tariff obligation. We have to
5 find a way to have reliability with all least cost
6 options available.

7 MR. BLESSING: I'd like to thank the Commission
8 for taking on this topic to a second time. I
9 appreciate it. I appreciate all the panelists on
10 this panel and the previous panel for coming in to
11 openly discussing this topic. I do think it's an
12 important topic.

13 Everybody knows, Ameren Illinois, we
14 don't own generation. We do have a power supply,
15 obligation for certain customers that portfolio the
16 purchases we make. We pass through the costs dollar
17 for dollar. We have no ability to make money off
18 this. We think this is an important issue. We're
19 not here to try to make money off this. We're here
20 to try to figure out what's truly in the best
21 interest of the State of Illinois and customers going
22 forward.

1 So, again, I thank everyone for being
2 here and having this dialogue, and hope we can
3 continue having a dialogue going forward.

4 MS. SATTER: I reiterate and thank you and have
5 appreciation for the panel.

6 As for going forward, I think that we
7 need to be cautious, and we need to be aware of all
8 the moving parts that are affecting prices. Illinois
9 has opted for a market energy for an energy market as
10 opposed to a regulated market. And there are
11 rules -- market rules. And those rules have to be
12 cognizant of not just the interest of one group, but
13 in the interest of all the groups, people who are
14 consumers, people who are industrial consumers,
15 residential as well as the generators and the
16 providers of the different demand response services.

17 I understand that MISO has established
18 what they're calling a task team to begin to look at
19 this issue for Zone 4 specifically. It seems that
20 this is something that's of interest to Illinois
21 stakeholders in general. And as that task team
22 begins to operate in January, I would hope that we

1 will all be involved and look at the market rules not
2 just with an eye to incenting additional investment
3 resources, but with an eye to developing a fair type
4 of market rules.

5 We have complained. My office has
6 filed an action along with other consumers at FERC
7 complaining of market design in the MISO capacity
8 construct. And we would hope that those problems
9 will also be included in any discussion so that we
10 don't focus on one thing to the detriment and the
11 harm to other aspects.

12 And so I'm looking forward to that, to
13 this task team process. And I'm hoping that it'll
14 involve the Illinois Commerce Commission as well as
15 others, so thank you.

16 MR. CAMPBELL: Bruce Campbell again.

17 I also want to thank the Commission
18 and Staff for inviting me to be here today. I want
19 to thank the guys for sticking it out. I wasn't sure
20 you'd be here after lunch, but thanks again.

21 You know, we've talked a lot about
22 various aspects of it. I hope it's been educational

1 for all of you. It certainly has been an education
2 for me. I will tell you that I would like my company
3 to be active. And we will not be happy until we see
4 the right pricing in that region.

5 I don't know how you get from here to
6 there. That's a challenge. And MISO is working
7 working to get there. Dr. Patton has some ideas on
8 how to get there. The Commission, hopefully a few
9 things you can look at.

10 We want to bring our capabilities to
11 your customers. And to Susan's comments, we think
12 that we can bring demand (inaudible) -- Ameren, they
13 will be doing good development, bringing more jobs to
14 that part of your state. So, again, thanks for
15 having me here today.

16 MR. NOBLE: I just want to thank the Commission
17 and MISO for taking this critical problem on. It
18 needed to be addressed.

19 MR. BALKE: Again, I'd like to thank the
20 Chairman and Commissioners for being present today.
21 I enjoyed it very much. The intriguing thing about
22 this is that I would pay for these costs for ADM, and

1 I will try to find ways for our operations. There
2 are other companies that -- colleagues and other
3 industries that I hope that they can survive all this
4 as well.

5 It's a challenge. There's many things
6 we all have to work on. Being in this business as
7 long as I have, I've had the experience to see how
8 the prices ebb and flow. I realize five, six years
9 ago, prices in the MISO territory were up around five
10 and a half cents per kilowatt hour, in a market
11 that's 0.04 or so.

12 It's been an economic benefit to our
13 businesses, to our economy in Illinois. Has it
14 worked so well for the utilities and generators?
15 Everything goes through cycles. I think we have to
16 realize to let this process transition slowly. We
17 don't need to rush to decisions. Thank you.

18 MS. PALIVOS: Thank you.

19 Do you have any questions?

20 MS. EDWARDS: I do actually. Thank you very
21 much for coming. Thank you, Anastasia, for
22 moderating this great panel.

1 I guess my question might be directed
2 to Sue. Sue, you're my favorite. You know that.

3 It seems like we talked about this
4 this morning and, again, today that there is no
5 imminent issue. But it seems that there's a little
6 (inaudible) -- even start exploring the issue.

7 It's kind of like -- maybe this is not
8 a good comparison, but, you know, if you're going to
9 take the SAT or the the ACT in your senior year of
10 high school, why can't you start studying your
11 sophomore year? What is the harm in starting to
12 explore these issues, to delve into some of these
13 solutions. You seem very almost -- and I'm wondering
14 if I'm missing something that ...

15 MS. SATTER: I don't have any -- looking at
16 these issues, I think that it's perfectly legitimate.
17 And on top of it, I think the Clean Power Plan
18 requires it. And I think that various current state
19 statutes particularly the Energy Efficiency Statute
20 and renewable energy portfolio. All those things
21 require looking at resource adequacy.

22 My hesitation is assuming that the

1 problem is that the prices are not high enough.
2 That's my problem. So if you -- I don't -- I am
3 hesitant to go into a process, to look at a problem
4 assuming that the problem is that the prices are
5 inadequate.

6 When it seems to me that the prices,
7 in fact, are reflecting the supply demand balance
8 that we have today. Now, in the future, things will
9 change. There's short-term changes. There are
10 long-term changes. We will see these happening over
11 time. And then I think the appropriate changes will
12 arise.

13 So my hesitation is not that we look
14 at the resource adequacy issue. And, in fact, we
15 will be participating in the MISO process. My
16 problem is assuming that the solution is higher
17 prices, and that the problem isn't the prices aren't
18 high enough.

19 MS. EDWARDS: So we need to agree on what the
20 issue is before we move forward to the solution.

21 MS. SATTER: Well, yes. I think you do.
22 You've got to know what your problem is before you

1 try to solve it. And I'd say if the problem is that
2 we want to assure that there are adequate least-cost
3 resources for Zone 4, that's a legitimate question.

4 If we go a step farther and say, We're
5 trying to -- we see the problem is a failure to
6 provide enough money to incent generation build,
7 that's different. Now we're saying the market's not
8 working. There's not enough money for the generators
9 to do what they might not even need to do because we
10 haven't enough capacity.

11 I mean, we don't know whether they are
12 going to need more resources to build because maybe
13 we don't need that particular type of build. Price
14 of solar coming down. Energy efficiency is
15 happening. I don't know.

16 So I'm not prepared to say that the
17 problem is that the prices aren't high enough. I
18 mean, I can't take that.

19 MS. PALIVOS: Thank you.

20 Any other questions from the audience?

21 MR. ROBERTSON: My name is Eric Robertson. I
22 represent the Illinois Industrial Energy Consumers.

1 And especially given Sue's last comment, I noticed an
2 excerpt from a recent FERC order on a MISO case that
3 came out earlier this month.

4 And I'd be curious as to whether or
5 not the panel or members of the panel agree or
6 disagree with this statement by FERC: Additionally,
7 low prices in and of themselves do not demonstrate
8 that a market is not just unreasonable. For
9 instance, such prices are justified in instances
10 where a region contains substantial excess capacity
11 unrelated to an uneconomic entry. Similarly, we
12 disagree with NRG's argument that the current MISO
13 capacity market structure lacks a robust and
14 transparent means of incent merchant generators to
15 remain viable. Such resources could sell capacity as
16 part of a long-term bilateral contracts locking in a
17 level of capacity revenues based on their expected
18 value over the life of the agreements or could sell
19 their capacity in the auction each year. In neither
20 case must rates in order to be just and reasonable
21 assure viability as such resources so long as the
22 prices in the market reflect the supply and demand

1 conditions. Depending on these conditions, merchant
2 generators, particularly those who elect to sell into
3 the auction, could be considerably more or less
4 profitable than resources whose costs are recovered
5 the cost of service rates.

6 So my question to the panel is do you
7 guys disagree or agree with FERC's determination
8 here?

9 MR. BLADEN: Far be it for me to disagree with
10 the entity MISO? They clearly stated the nature of
11 how efficient markets are supposed to work, and
12 certainly how we would expect MISO's markets to work.

13 What's missing from that, of course, I
14 always want to draw a quote out of a much larger
15 docket and context of a broader precedent that exists
16 on these issues at FERC is the question of what is
17 the proper way to look at the supply and demand
18 balance. With a business, really what they were
19 pointing to one is the supply demand are the
20 determinative factors and what drives price. You'll
21 get efficient -- as they've said in other cases. And
22 we had our issue statement that we put out in October

1 that we need to recognize the marginal and increment
2 value of additional resources is a crucial element of
3 getting a good supply and demand balance over time.

4 And hence, their approval prior in
5 other regions like PJM, they're approval of demand
6 curves is a mechanism to do that is a reflection of
7 the view that FERC repeatedly affirms that you do
8 need to recognize the market value of supply.

9 And Dr. Patton mentioned earlier --
10 again, I draw that out in light of the expectation
11 that Illinois MISO's -- would be a primary signal for
12 whether you invest. Again, whether that's not true,
13 whether it's not the primary signal, the issues
14 change. When it is true and it is the primary
15 signal, that will (inaudible) -- it would a good and
16 efficient market to send that signal (inaudible) --
17 we're not looking for necessarily more higher prices.
18 We're looking for efficient prices from any resources
19 that are capable of delivering the kind of
20 reliability that's expected.

21 MS. SATTER: In response to that quote, it's
22 interesting that that order is -- it was a denial of

1 rehearing of many petitions that were brought
2 challenging the MISO construct. It had been pending
3 for a while, and the decision came on November 20th
4 right after. It was kind of an interesting timing
5 issue.

6 But I think that what FERC is doing is
7 addressing a lot of the concerns that we are
8 addressing here as well. And they went through a lot
9 of the same arguments and the same issues including
10 the sloped vertical demand curve in that order.

11 So I think it's an instructive order,
12 and obviously we agree with FERC's conclusion on the
13 issue that they are referred to. But I think the
14 overall, it's a larger order, and I think it's a very
15 informative order, just what's the discussion right
16 now on these issues.

17 MR. BALKE: I agree with what Sue said in the
18 sense that one of the comments is the comment where
19 you hear the comments about southern Illinois is an
20 island. It's frightening to think of southern
21 Illinois as an island. And to have that perspective
22 come forward as we got to pick something.

1 We're pushing ourselves into a
2 situation that is not all encompassing of MISO's
3 system. So it's kind of how you balance this out is
4 really a challenge. You can't -- you have to have a
5 very global type of solution, not an island.

6 MR. NOBLE: I don't really know if that goal
7 was MISO's Zone 4's current construct. So I don't
8 know how to comment but I think -- I do know -- what
9 I've seen is we've seen one utility Ameren
10 completely, and we've had two others. And I haven't
11 seen them investing in Zone 4 MISO. I just haven't
12 seen it.

13 MS. PALIVOS: Thank you, sir, for your
14 question. Thank you to all of your panelists for
15 their thoughtful and informative responses. Let's
16 give them a round of applause.

17 MR. SHEAHAN: I just want to thank everyone for
18 coming, our panelists this morning and this
19 afternoon. I want to thank Anastasia and Elizabeth
20 as well as Commissioner Edwards for organizing these
21 sessions. It's obviously a highly important topic.
22 We look forward to a continued discussion in MISO's

1 leadership and continuing with those discussions.

2 So thank you. We're adjourned.

3 (Whereupon, the above matter was
4 adjourned.)

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