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BEFORE THE
ILLINOIS COMMERCE COMMISSION

IN THE MATTER OF:)
)
111(d) POLICY SESSION 2)
)

Chicago, Illinois
September 23, 2014

Met pursuant to notice at 12:45 p.m.

BEFORE:

MR. DOUGLAS P. SCOTT, Chairman
MR. JOHN T. COLGAN, Commissioner
MR. MIGUEL del VALLE, Commissioner

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I N D E X

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1 CHAIRMAN SCOTT: Everything ready down in
2 Springfield?

3 MR. JIM ROSS: We are ready, Mr. Chairman.

4 CHAIRMAN SCOTT: Very good, thank you.

5 Well, good afternoon and welcome
6 everyone to the second of our of our three-plan
7 Policy Session on the Clean Power Plan or the Section
8 111(d) EPA Rules, the proposed rules.

9 With me today are Commissioner John
10 Colgan and Commission Miguel del Valle. Commissioner
11 Colgan has to head back to Springfield tonight, so at
12 about 4:45 he is going to leave our meeting. So if
13 you're speaking at the time, it's nothing you said
14 that made him get up and leave. I just want to make
15 sure everybody knows that.

16 But we're very glad that all of you
17 are here as we want to do a couple of things. We
18 want to make sure that as we go through today's
19 agenda, we're really focusing on Building Blocks 3
20 and 4 of the proposed Clean Power Plan rule. As you
21 might recall, our first session last month dealt with
22 both an overview of the Section 111(d) Proposed Rule

1 as well as Building Blocks 1 and 2 that we went into
2 a little bit more in depth. And then, our final
3 section for those of you who have been following the
4 dates, there is a change in the date to announce; it
5 will be in the afternoon of November 6th. Originally
6 it was scheduled for October 30th and that has been
7 moved to October 6th. We are also planning -- I
8 don't know they're here or not, but Representatives
9 Elaine Nekritz and Robyn Gabel were going to join us
10 today as well as the legislative director for Senator
11 Biss, Alison Leipsiger. So we're very, very, pleased
12 that they're here. And, again, if we go into the
13 third session that becomes -- I believe will become
14 very important as well -- their input as well.

15 So we have a very packed agenda today.
16 If you've seen the agenda, you know we've got 15
17 different speakers who are going to be here today.
18 This is going to be a little bit different, though,
19 than what we did the last time in that we're asking
20 the rest of you folks to make very, very brief
21 opening comments, no more than five minutes because
22 the idea is to have each panel have a conversation

1 about the topic that they're presenting on. So we
2 think that just having at least a five-minute
3 overview from each of them is good because it will
4 help set the table for the discussion. But we are
5 going to have to hold the speakers to that five
6 minutes as you can see, because we've got a large
7 number of folks to talk to us today. The goal, of
8 course, is to have a better understanding leading up
9 to the November 6th session, where we're actually
10 going to look at compliance pathways and how do we
11 actually take everything that's in the proposed rule.
12 And assuming that it were to stay there or something
13 very similar to that, given all the information that
14 we have gleaned from the first two meetings, how then
15 do we develop some compliance pathways that will
16 allow Illinois to comply with the rule and what's the
17 best way for doing that.

18 Commissioner Colgan, anything from you
19 to start?

20 COMMISSIONER COLGAN: No.

21 CHAIRMAN SCOTT: Okay. Well, I'll start with
22 the first panel then. Jim Ross, that you can see on

1 the screen, is once again joining us from the
2 Illinois EPA, and he's down in Springfield. Jim is
3 the manager of the Air Pollution Control Division.

4 And then, if I could have the other
5 panelists come up to the table, either the one facing
6 us or the one to the side. Either one will work.
7 Then the other three panelists are Kathleen Barrón,
8 who's the Senior Vice President for Federal
9 Regulatory Affairs and Wholesale Market Policy at
10 Exelon; Paul Sotkiewicz, the Chief Economist, the
11 Market Services Division of PJM and Todd Ramey, who's
12 the Vice President of System Operations and Market
13 Services from MISO.

14 So thank you all very much for being
15 with us today. We're going to start with Mr. Ross.
16 And, Jim, you want to give us your -- go ahead here
17 with your five minute overview.

18 PRESENTATION

19 BY

20 MR. JIM ROSS

21 Thank you Chairman Scott and
22 Commissioners. Hello to all of those in Chicago and

1 those here in Springfield. For those listening in, I
2 believe my presentation slides will be made available
3 shortly after the session.

4 Okay. My mission here today is to set
5 up the stage for further discussion on 111(d), and in
6 particular in this first part, on how nuclear energy
7 generation is addressed in the proposal. I'll start
8 by saying that we continue to do a large amount of
9 outreach at the Illinois EPA on 111(d) and this
10 includes myself, our clean air policy advisor Kevin
11 Greene, and, of course our director, Lisa Bonnett,
12 who has been very engaged.

13 In our numerous discussions with
14 stakeholders, we often get asked about the nuclear
15 component of 111(d) and the simple answer is, It's
16 not simple; in fact, it's complicated. However, it
17 is very, very important that we do understand since
18 nuclear energy plays a significant role in how
19 Illinois gets it's power. Illinois generates more
20 nuclear energy than any other state.

21 And I do recognize I have some time
22 constraints here, so I have more slides than I'll go

1 over. Some of them are provided for you to go over
2 at your leisure; but I will hustle.

3 So the presentation that I have and
4 how it's formatted, some background information; some
5 information on the adjustment of Illinois' goal for a
6 nuclear generation; U.S. EPA'S assessment of nuclear
7 generation in the proposal and their thoughts on the
8 preservation of nuclear generation; the determination
9 of Illinois' at-risk amount and the impact of the
10 loss of nuclear generation on the ability of Illinois
11 to meet its goals in a short example.

12 So some brief background, but
13 necessary background is, Illinois has 17 coal-fired
14 power plants with 45 electric generating units. We
15 have around 30 natural gas-fired power plants that
16 are subject to the rule, now, this could vary because
17 it's dependent on the amount of power that they
18 provide to the grid. We do have six natural gas
19 combined-cycle plants with their megawatt capacity
20 around 3,400. We have six nuclear plants around
21 1,200 megawatts capacity and wind capacity in 2012,
22 we had 2,700 megawatts and that did grow to around

1 3,600 in 2013.

2 Okay. You can see from the chart
3 here -- and this is familiar for those who attended
4 the last policy session, Illinois gets roughly 50
5 percent of their power from nuclear. In a close
6 second is coal-fired around 41 percent, that makes up
7 90 percent of our generation. The remaining 10
8 percent is nearly split evenly between natural
9 gas-fired and renewable energy, which is primarily
10 wind.

11 This is a familiar table for those in
12 the last policy session and we'll just focus in on a
13 few aspects of this. But in essence, it provides a
14 broad overview of what U.S. EPA did in the
15 calculation of Illinois' goal. In row one, there,
16 you see the unadjusted baseline or unadjusted
17 emission rate from all the effected units, and that's
18 the 2,189 pounds of CO2 per megawatt hour.

19 In row 2 there is our adjusted
20 baseline, which is 1,895 pounds CO2 per megawatt
21 hour. And how is it adjusted? Well, you see the
22 asterisk, you follow that white arrow down; the black

1 rectangular box at the bottom shows that they
2 adjusted the baseline for 100 percent of the existing
3 renewable energy generation in the state in 2012, and
4 5.8 percent of Illinois' historic, or 2012 nuclear
5 generation.

6 This is kind of a visual of the last
7 slide to give you a different perspective. There's
8 two equations, there's a top equation and a bottom
9 equation. The top equation is the unadjusted
10 baseline, so that has not been altered for RE and the
11 at-risk nuclear; it's the 2,189 from the previous
12 table. The bottom equation is our adjusted baseline,
13 and you'll notice the two purple balloons at the
14 bottom. That's what's been added for the adjustment.
15 It's the existing RE generation of greater than 800
16 million megawatts per hour. And then, the far right
17 below is the at-risk nuclear, 5.8 percent of our
18 generation.

19 And, referring back up to the top, you
20 see the black balloon in the upper right-hand corner,
21 it shows that there was a 13 percent adjustment
22 downward. Eight point three percent of that 13

1 percent was the existing RE; so the entirety of
2 Illinois' renewable energy in 2012 but only a portion
3 of the nuclear, and that was the at-risk nuclear
4 portion, and that's the 4.7 percent of that 13
5 percent.

6 And one final table here, it is kind
7 of a busy one, I recognize that. It shows a lot but
8 we're going to focus in on the last column on the
9 right with the yellow highlight, and that just takes
10 us step by step, down through the adjustment process,
11 down to the final goal. So it started with our 2,189
12 unadjusted baseline, which is the initial rate from
13 all the fossil fuel-fired units in Illinois. They
14 took it down 8.3 percent for the renewable energy,
15 4.7 percent for the nuclear energy, so it's on a
16 cumulative basis. So we walk down all the way; we go
17 through building blocks which this applies: 1, 2, 3,
18 4, until we hit the final total adjustment of our
19 emission rate was 42 percent. But it's really only
20 33 percent because we can, in essence, get back all
21 the existing RE and the at-risk nuclear to the extent
22 that we preserve them. So that's a very important

1 concept to remember as we go through here.

2 I'll kind of skip over this slide;
3 it's just by the numbers. It provides information
4 that we've already given or provided previously.

5 Okay. So now that we know how they
6 adjusted Illinois's goals and by how much, we switch
7 to the reason why they adjusted the goal for nuclear
8 generation. And we start with the statement at the
9 top here, it says, "U.S. EPA Determined Building New
10 and Preserving Existing Nuclear is a Viable Policy
11 for Reducing CO2 Emissions." So we need to verify
12 this statement, and we can pull out some excerpts
13 from the rule and from the technical support document
14 on the proposal.

15 The first bullet point here is, U.S.
16 EPA position is that nuclear generation has zero CO2
17 emissions, it's carbon-free, and they say this in
18 several places throughout. And then the second
19 bullet point is a pretty long statement that I've
20 pulled from the rule that in sum, the U.S. EPA is
21 saying that nuclear energy provides power and has
22 zero CO2 emissions in doing so, unlike fossil

1 fuel-fired units. Therefore, building new nuclear
2 and ensuring existing or continued operation of
3 existing nuclear, is a strategy states should
4 consider, to ensure meeting their goals. Since there
5 are no known concrete plans to build new nuclear
6 units in Illinois, we need to focus in on preserving
7 or keeping the nuclear that we have.

8 And so how does U.S. EPA address this?
9 What statements do they make in the proposal? I've
10 pulled out a couple of quotes here. The first quote
11 is, "Another way to increase the amount of available
12 nuclear capacity is to preserve existing nuclear EGUs
13 that would otherwise be retired." So avoid shutting
14 down existing nukes.

15 The second quote here is, "...
16 preserving the operation of at-risk nuclear capacity
17 would likely be capable of achieving CO2 reductions
18 from affected EGUS at a reasonable cost." So
19 cost-effective CO2 reduction strategy is viable for
20 states to consider going forward.

21 And, finally, we need to understand
22 U.S. EPA's thoughts on what the nuclear industry is

1 experiencing and why it was important to put
2 incentives in the proposal to preserve this
3 generation. And we start here with the first two
4 bullet points, and they have a common theme that
5 there's a revenue shortfall being experienced by the
6 nuclear owners and operators. The first one is
7 nuclear units are experiencing a revenue shortfall in
8 covering their operating costs. And this revenue
9 shortfall is creating an incentive to retire at-risk
10 nuclear units. Offsetting this revenue shortfall at
11 at-risk nuclear units is a reasonable mechanism to
12 preserve at-risk units. Therefore, retaining
13 operation of at-risk nuclear capacity should be
14 factored into state goals.

15 So from these U.S. EPA concepts,
16 pulled from the rule of the technical support
17 documents, we can readily conclude, in the bottom
18 black rectangle there, that U.S. EPA adjusted
19 Illinois' goal downward so that Illinois would
20 strongly consider providing a financial incentive to
21 offset this revenue shortfall and avoid the shutdown
22 of our at-risk nuclear units.

1 A few more slides, wrapping up some
2 loose ends here. So how do they determine the
3 at-risk amount? They look to the Energy Information
4 Administration's most recent Annual Energy Outlook,
5 which projected that 5.7 gigawatts and the nuclear
6 capacity would be retired nationwide due to economic
7 challenges.

8 So, again, we'd see this concept of a
9 revenue shortfall and the economic woes of the
10 nuclear industry. The second bullet point is the 5.7
11 gigawatts is 5.8 percent of the nationwide capacity.
12 So 5.8 percent was considered a "reasonable proxy for
13 the amount of nuclear capacity at-risk of retirement"
14 in each state. And, finally, they used -- the U.S.
15 EPA used 5.8 percent of the at-risk amount for all
16 states.

17 Of importance here is what U.S. EPA
18 did not do. They did not determine state by state
19 the amount of nuclear generation at-risk, they simply
20 used a proxy amount for all states. So it's
21 important to note that Illinois may have more nuclear
22 generation at-risk than U.S. EPA's proxy amount. And

1 I'll skip this -- this just goes over the numbers for
2 determining the at-risk nuclear amount in Illinois.

3 Okay. These last three slides are to
4 give you the sense of how what U.S. EPA did affects
5 our goals and makes Illinois consider trying to avoid
6 the loss of nuclear generation.

7 First bullet point simply is, any
8 retirement or loss of nuclear generation makes it
9 more difficult for Illinois to meet its goals. This
10 is because a lower amount in the denominator can be
11 used in our compliance calculations to adjust the
12 annual compliance emission rate downward.

13 And I'll show this again visually with
14 a couple of equations. This top equation this time
15 is a goal; we have seen this before, the bottom
16 equation is new. It's the annual compliance
17 calculation that Illinois would need to submit to
18 U.S. EPA and other states as well, to show that
19 they're in compliance with their goals.

20 So if you look here at the top, we
21 have in the denominator the 5,305,342 megawatt hours
22 of nuclear generation. You can see -- you follow

1 that over to the black square, 4.7 percent downward
2 adjustment. We hope that we'll be able to put that
3 same amount into the denominator for our compliance
4 calculations but that's only true to the extent that
5 we preserve nuclear generation. If we lose some
6 nuclear generation, then this amount would be smaller
7 and we need to make up that amount of reduction
8 somewhere else.

9 And I have a short example that will
10 hopefully help explain this -- provide some clarity.
11 At the top of this there's some givens here: Nuclear
12 generation goes in the denominator. The bigger the
13 number, the denominator, the lower the fraction, the
14 lower the number the equation spits out. The second
15 point here is the 90 -- greater than 91 million
16 megawatt hours of generation that was used in the
17 determination of the goals; it was more than any
18 other state. And then you see the next number
19 before, that's the number that actually went into our
20 goal determination. So in our example at the bottom
21 half of this slide, we just picked a year at random
22 in between 2020 and beyond and this is 2025; if our

1 generation were to strengthen 71 million megawatt
2 hours, then we take 5.8 percent times that, we come
3 out with just over 4 million megawatt hours and this
4 would go in the denominator of our compliance
5 calculations. Clearly the 4 million megawatt hours
6 is less than the 5 million, so we would need to
7 somehow make up that difference from some other
8 policy that reduce CO2 emissions.

9 So I'll stop there and I hope this has
10 helped to clarify how U.S. EPA handles nuclear
11 generation in 111(d).

12 CHAIRMAN SCOTT: Thank you, Jim. Very good.
13 And we appreciate how the -- you correctly realized
14 that I'd misspoken in my beginning, and for this
15 panel and the next one, folks are going to do a
16 little bit longer presentations. It's only in the
17 last panel where we're limiting folks to five minutes
18 each. So in this panel and the next one folks are
19 going to take a little bit more time with that.

20 And also, I want to thank both Jim and
21 Director Bonnett at IEPA and Director Star at IPA and
22 Director Pollet at DCEO for helping to put these

1 things together and for participating directly in
2 them. We are all working on these -- on this issue
3 together and with IEPA's lead, and we appreciate
4 everything that other agencies are doing with us.

5 Are there questions for Mr. Ross
6 before we move on? And probably have some time left
7 at the end.

8 COMMISSIONER COLGAN: Not yet.

9 COMMISSIONER del VALLE: No.

10 CHAIRMAN SCOTT: Anybody else?

11 (No response.)

12 Okay. Ms. Barrón, you're up.

13 PRESENTATION

14 BY

15 MS. KATHLEEN BARRÓN

16 Thank you, Chairman Scott, and thank
17 you to the commissioners for the opportunity to
18 participate today. I think Jim well laid out the
19 contours of the EPA proposal on Building Block 3.
20 I'm going to just highlight a few things about that
21 very briefly, and then I'd like to talk about the
22 economic pressures facing the state's nuclear fleet

1 and then at the end tie together with respect to how
2 all that relates to how the state complies with the
3 ultimate 111(d) Rule.

4 I think it's beyond dispute that
5 maintaining an existing nuclear fleet is essential to
6 meeting any of the department goals that the state
7 has set or the EPA will set for the state. And I
8 think, as a baseline matter, it's important to note
9 that EPA has said we need look both at carbon per
10 generation created and also carbon voided by
11 different mechanisms.

12 So therefore, they've tried to include
13 both emitting sources and non-emitting sources in
14 this rule. They have, as Jim said, acknowledged that
15 there would be a significant increase in carbon
16 emissions if we fail to maintain the existing fleet,
17 and Commissioner, excuse me, Administrator McCarthy
18 has seconded that publicly, saying that if we don't
19 preserve the existing nuclear capacity, that's a lot
20 of carbon reduction that we need to make up from
21 other sources for a long period of time.

22 As Jim explained, EPA also concluded

1 the preserving existing nuclear is -- it can be
2 achieved at a reasonable cost versus other
3 carbon-abatement options. Specifically, they use the
4 \$6.00 per megawatt hour number and they said -- and
5 they view that as a reasonable payment in comparison
6 again to other strategies for abating carbon.

7 Of course in a mass-based system,
8 retirement of a zero carbon resource and its
9 replacement with a carbon emitting source of energy
10 would jeopardize the state's ability comply. So
11 there's no need to explicitly include nuclear if
12 you're going to have a mass-based system. But since
13 EPA has proposed this rate-based system they had to
14 come up with the formula and the calculation that Jim
15 explained, and then they use this proxy, which was a
16 government estimate of the at-risk fleet. As he
17 explained, they sort of peanut butter that across all
18 the states and then they ask for a whole bunch of
19 comments on the aspects of that proposal.

20 But I think it's important to note
21 even that government estimate is based on, really,
22 the Midwest fleet. That 6 percent they put in the

1 Midwest, so it's really more like 26 percent
2 according to EIA that is at-risk and very little
3 elsewhere. And in truth, far more than 26 percent is
4 at-risk here in Illinois.

5 I think it's fair to say that EPA
6 views that 6 percent proxy really as a place holder
7 to begin the dialogue about how to reflect nuclear in
8 this rate-based formula. The proposal really begins
9 with 2012 as a baseline emissions year and it's
10 looking for progress from there. So I think it's
11 fair to say that they don't expect there to be
12 backsliding, which is what would happen if there was
13 a premature retirement of a carbon-free resource.

14 When the Administrator testified on
15 the Hill a few months ago, she said that she's really
16 encouraging states to pay attention to this because
17 replacement of a base low-capacity unit that is
18 zero-carbon would be a significant challenge for
19 states who are right now relying on those nuclear
20 facilities.

21 So I think EPA's going to be looking
22 to states as they develop their compliance strategies

1 to make sure that they don't take steps that will
2 undermine their existing carbon-abatement strategies.

3 Turning to the nuclear fleet here in
4 Illinois, I'd like to say a few words about the
5 current pressures that our plants are facing. As you
6 all know the recent PJM auction, many of our units
7 did not get -- in fact, four of our units did not
8 clear in that auction, which means that their costs
9 to continue operating are higher than where the
10 capacity market cleared. And then we have a fifth
11 unit in the state, our Clinton unit, which is in the
12 Midwest ISO, which does not have a forward capacity
13 payment. So as a result, you have those five units
14 up, that's 43 percent of the nuclear capacity in
15 Illinois, which does not have the capacity commitment
16 for the 1718 planning year. There are number a of
17 factors causing this, which include low natural gas
18 prices and wind subsidies. But chief among those
19 reasons is the absence of a market mechanism to value
20 the carbon-free nature of nuclear power.

21 We don't expect the factors driving
22 the economics to change in the near term, absent the

1 EPA's rule making. As you all know, we were
2 originally on a schedule to make some decisions about
3 whether to retire those challenged units by the end
4 of this year, but at the request of policy makers,
5 have agreed to defer that decision until May of 2012
6 [SIC] to accommodate the legislative calendar. But
7 we cannot postpone indefinitely, obviously.

8 As you probably know, if the aim is to
9 retire, they cannot be mothballed and brought back
10 online at a future date. These five units together
11 represent almost 30 million metric tons of avoided
12 carbon emissions, given that they will need to be
13 replaced -- to make sure the capacity needs are met
14 by -- for customers in the state.

15 I'm sure Dr. Sotkiewicz can elaborate
16 more on this, but nuclear plants provide unrivaled
17 performance during all weather conditions. We
18 operate our fleet nationally on an average capacity
19 factor of 94 percent -- 93 percent, rather, the rate
20 in Illinois is actually 94 percent last year, which
21 means they're available 93 percent of the time to
22 meet customers' needs even counting the time that it

1 takes to take them off-line to refuel them or conduct
2 scheduled or unscheduled maintenance.

3 Many types of plants, as you know,
4 struggle to perform during extreme heat or cold, when
5 the power is needed; but ours don't. For example,
6 during the peak of January's polar vortex the nuclear
7 fleet represented only 3 percent of the forced
8 outages at PJM.

9 I'm sure Paul will second this, as his
10 boss is quoted as being in favor of maintaining the
11 fleet for purposes of keeping the lights on. He has
12 said, and I quote, that "it's critical that the
13 nuclear fleet in our region remains economically
14 viable particularly as we head into this multi-year
15 transition and the rest of our resource profile."

16 He's also been quoted as saying that
17 the retirement of the nuclear fleet in PJM is quote,
18 "unthinkable."

19 Finally, turning to our state's
20 compliance with the EPA rule, I have just a couple of
21 slides that I think illustrate two important points
22 that we should keep in mind. Before I turn to them,

1 I just want to say I think it's odd there's two
2 obvious compliance options, and if the state opted
3 for a mass-based system, the loss of nuclear capacity
4 would be significant, as I mentioned earlier, in that
5 fossil emissions would increase, which would make the
6 compliance with the cap more difficult and expensive.

7 In a rate-based system, of course, the
8 impact of a loss of nuclear capacity depends on the
9 extent to which it's reflected in the rate. And I
10 would have to agree with many who've said that the 6
11 percent that the EPA has chosen, isn't much of an
12 incentive to retain nuclear capacity. So I think
13 that puts us in a position where if nothing changes
14 in the EPA proposal -- as I said earlier, I do think
15 EPA sees it as a place holder and is continuing to
16 think about ways to address it and improve it, but if
17 nothing changes, if there is a loss of nuclear
18 capacity between now and the compliance period that
19 could prejudice the states's decision to choose a
20 mass-based system, even though that would be the more
21 cost-effective path.

22 So if I turn to -- if I can turn

1 to -- and that's the first slide --
2 spacebar -- thank you.

3 What we're trying to do here is just
4 demonstrate the significance of a continued operation
5 of the state's nuclear fleet in reducing carbon. All
6 together, the six stations that Jim mentioned
7 represent 65 million metric tons of carbon per year.
8 And we compare that on this slide to the amount of
9 abatement that we're currently getting from our RPS
10 Program in the dark green, and then the dotted line
11 is where our goal is. And likewise for our
12 efficiency programs, so I make this comparison, not
13 to suggest that we don't need all of these tools but
14 just to highlight the magnitude of the contribution
15 that the nuclear fleet is making to abate carbon in
16 the state.

17 Secondly, as I noted earlier, EPA
18 concludes that it will be reasonable to cover the
19 assumed shortfall of \$6.00 in megawatt hours to
20 retain nuclear capacity, given the abatement costs of
21 other alternatives. And so what we've done here is
22 translated that \$6.00 into a carbon price and overlay

1 that on to market price, in the regions that are
2 represented by the green bars on the right and
3 contrast it against the cost -- or this is actually a
4 Wall Street estimate of the cost of two types of
5 stations. On the left is a large dual-unit site,
6 which is most of the stations in Illinois, and, on
7 the right, is a large single-unit site, which is the
8 posture of our Clinton station, and compare
9 them -- this chart is comparing them again to the
10 market prices in the various regions in 2016 forecast
11 year. And demonstrating with the carbon adder
12 identified it in the dotted green boxes, how much
13 closer to profitability the stations come if that EPA
14 assumed level of shortfall is met.

15 Obviously we don't yet what the final
16 rule will say, but I think it's fair to say it will
17 look different. At least this building block will
18 look different, based on the amount of feedback EPA
19 has gotten on this issue and on the importance with
20 which it places this issue. So my main message today
21 is I don't think we should look at the 6 percent as a
22 limiter on what will count and what won't count when

1 it comes to demonstrating compliance in 2021. All
2 zero-carbon resources should be treated similarly in
3 a state like Illinois that has invested in this
4 technology. It should be recognized for that
5 investment when it comes time to demonstrate a
6 compliance with the federal carbon program.

7 So in conclusion, we are pleased that
8 EPA has recognized the important environmental and
9 reliability and economic benefits of the existing
10 fleet and has taken steps to create a regulatory
11 incentive to value it. And we'd like to see whatever
12 111(d) compliance program develop value of the
13 carbon-free attribute of nuclear power. Which we
14 think is necessary to support the continued operation
15 of these resources. Thank you.

16 CHAIRMAN SCOTT: Thanks. Questions?

17 I have a couple of clarifying
18 questions for you, if I could. What is -- you talk
19 about the converting the mass-based and whether or
20 not that makes sense to provide full value for
21 nuclear. You can set up a mass-based system that
22 would allow some kind of trading, based on the amount

1 of emissions that a plant has that would value
2 nuclear. I mean, there is a way to do mass-based
3 program that would value nuclear.

4 MS. KATHLEEN BARRÓN: Oh, I think that was the
5 point I was trying to communicate; is that it would
6 explicitly value nuclear. You wouldn't have to come
7 up with a way to it if you do it explicitly. And, of
8 course, the state has the option to comply using a
9 mass-based system under the EPA proposal at least.
10 So there's no impediment to that. The comments are
11 more directed at the way if you choose to use a
12 rate-based system. That 6 percent interacts with
13 what's at-risk and how it doesn't provide enough of
14 an incentive really to maintain the fleet. I mean,
15 we have over 10,000 megawatts of nuclear capacity
16 here but the only real consequence in Jim's example
17 of losing the amount of terawatt hours in nuclear
18 that he posits is 150 megawatts. There's not really
19 much of an incentive. So that was point I was trying
20 to make.

21 CHAIRMAN SCOTT: Thank you for clarifying that
22 for me. And, then, post 2030, some of things that

1 have been talked about nationally, in a lot of
2 groups -- obviously, in Jim's presentation, if you
3 protect everything that you've got until 2030, then
4 essentially it's kind of a wash in terms of what
5 you're docked up front for and what your credited for
6 in the back end. Post 2030 you go to a kind of a
7 rolling average of the years, so the issue of nuclear
8 is important past that too, and there we start to run
9 into some licensing and some other issues as well.

10 Maybe you can touch on that just a
11 little bit because a lot of the fleet is in licenses
12 that's going to expire right about that time.

13 MS. KATHLEEN BARRÓN: I think Illinois is lucky
14 that of our six stations we have two who are in that
15 posture that would reach 60 years around that 2032
16 time frame. But the rest of them are more like late
17 2040s, 2048, 2047. So I don't think it's as acute
18 here as it may be other places, but you make a good
19 point. I mean, there needs to be some direct -- you
20 need to address what happens when you have a large
21 amount of megawatt hours sort of going out of the
22 system and EPA hasn't clarified what they expect at

1 that point; but that needs to happen.

2 CHAIRMAN SCOTT: Doctor Sotkiewicz, welcome
3 back. Good to see you again.

4 DR. PAUL SOTKIEWICZ: Mr. Chairman, thank you
5 to the Commission for the kind invitation to come
6 back here. I must be doing something right, if
7 they'll let me back in your state. Please don't
8 revoke my passport; I love to come to Chicago.

9 PRESENTATION

10 BY

11 DR. PAUL SOTKIEWICZ

12 I'm going to try to keep my comments
13 brief. In the words of the late basketball coach, Al
14 McGuire, I will try to make this last Mass at the
15 summer resort quick, but those of you who know me
16 know I probably won't succeed at that.

17 So if we think about them -- let me
18 just kind of approach this from a broader perspective
19 and that is from the PJM footprint. There's northern
20 Illinois, the ComEd service territory is part of PJM.
21 The rest of PJM is in MISO and Todd Ramey will talk
22 about that in his remarks. We have the largest

1 central dispatch system in terms of peak load
2 megawatts in this hemisphere. It's a very large
3 system, running from the Jersey Shore effectively out
4 to the Mississippi River with the Quad Cities' units
5 out on the Mississippi that Exelon operates.

6 Nuclear -- if we're thinking about
7 nuclear as a resource, it's about 19 percent of the
8 total capacity in PJM but accounts for about 35
9 percent of total energy. And that has been very
10 constant over time, especially with the advent of
11 wholesale markets.

12 If you contrast that, if you think
13 about coal capacity, coal accounts for actually up to
14 or up through the upcoming delivery year accounts for
15 the largest amount of capacity, but yet only supplies
16 about 42 to 44 percent of total energy today. A lot
17 of that is coal resources that will be going away
18 with mercury or toxics standards. Currently natural
19 gas is somewhere in the ballpark of about 16, 17
20 percent of total energy. That will soon become the
21 largest resource in terms of capacity on the system.
22 And then wind, if we're thinking of renewables along

1 those lines, wind and solar and so on account for
2 less than 3 percent today, total energy. So if we're
3 talking about some of the compliance options in
4 nuclear, renewables and so on, nuclear certainly is
5 providing the lion's share of that.

6 But as an RTO we're independent; we
7 don't have a dog in the hunt. We are
8 resource-neutral; fuel-neutral; technology-neutral;
9 age-neutral, subject to reliability constraints, and
10 so I think here are some of the things that Kathleen
11 was talking about and my CEO, Terry Boston, is
12 talking about. Just thinking about nuclear -- just
13 large stations going away creates a potential
14 resource-adequacy problem not to mention transmission
15 issues. Transmission upgrades would need to be put
16 in place, probably in all likelihood to allow any
17 such resources to retire in a reliable manner.

18 And if we also think about
19 gas/electric coordination issues, and now I'm getting
20 a little bit into reliability; but we have to think
21 about reliability as we're thinking about the EPA
22 rules. One of the big contingencies that we're

1 worried about is what happens if we lose large
2 nuclear units, they just trip off line all of a
3 sudden? What's going to replace that in real-time
4 operations? It's probably going to be gas. Can a
5 gas system actually make up for that in such a short
6 space of time? Can it maintain pressures on the
7 pipelines and things of that nature? And we're in
8 the process of looking at that with a lot of the
9 other planning authorities in the East, through the
10 EIPC case study; so, there's a
11 results-to-be-determined. But those are some of the
12 things that we worry about when you look at with
13 respect to nuclear and reliability just in general,
14 let alone if we think about the EPA Rule.

15 But I think before I jump into some of
16 the aspects of the EPA Rule I want to reiterate
17 something that Kathleen talked about, and it's the
18 four nuclear units that did not clear an RPM. Keep
19 in mind that this is not a market where people can
20 simply bid anything. The offers in the capacity
21 market are mitigated for existing resources which
22 would include the resources: The resources in the

1 four nuclear units in question. And those costs have
2 actually been closely examined by both PJM staff and
3 also the market monitor. So we know that those
4 costs, that the going forward costs were simply too
5 much for those resources to clear, given the market
6 dynamics currently in our capacity market for the
7 1718 delivery year.

8 So that being said, just sort of
9 providing a broader background, I think in thinking
10 about the EPA Rule Section 111(d) and even 111(b)
11 with respect to new resources, there's four big
12 things I want to hit on; one is reliability. I've
13 already touched on that just in general, but one is a
14 reliability safety valve, the idea that EPA has
15 talked about in the past mercury or toxics standards,
16 but that doesn't show up in the proposed rule. In
17 some sense it's because retirements can occur, and
18 even if nuclear stations did retire, there's a
19 ten-year rolling average period in phase one; and, as
20 you mentioned, Mr. Chairman, a rolling three-year
21 period after 2030 that you can basically trade over
22 time, banking and borrowing of emissions over time,

1 to comply with the rule. And so it wouldn't create
2 an issue where we'd have to extend units per se, like
3 we did with previous rules.

4 However, there's another issue that
5 pops up that EPA has not acknowledged in the rule
6 itself, and that is, What happens to dispatch:
7 Real-time Operations, Unit Commitment, Real-time
8 dispatch. And it's going to depend on what each
9 individual state does.

10 Mr. Chairman, you had asked Kathleen
11 about the mass-basis or even a trading program; there
12 are some states in our footprint that we've talked
13 to, that shall remain nameless to protect both
14 innocent and guilty in this case, that have not just
15 said no, but no way, no how, H-E-double toothpicks no
16 -- to quote Radar O'Reilly -- "we're not going to put
17 a price on this."

18 And if you have several states that
19 choose to go down that path, remember Illinois' part
20 of an interconnected system with both PJM and MISO.
21 How is that going to affect pricing within the State
22 of Illinois if Illinois decided to go down the road

1 as you suggested, Mr. Chairman, or a mass-based
2 cap-and-trade program. I think that's something to
3 think about in terms of that dispatch.

4 Then there's also the regional
5 compliance option. Of course bigger is better.
6 Regional compliance is probably more cost-effective,
7 that's why we have RTOs. If you look at the value
8 proposition that MISO offers, the value proposition
9 that we offer, I mean there are economies and scope
10 and scale to this large-scale cooperation, but also
11 regional compliance comes up in a multitude of
12 reliability senses that may be out there because the
13 greater the scope and scale, the more you can make up
14 for a lot of these potential reliability issues. But
15 I know you're going down that in another workshop in
16 November, so I will stop there.

17 Let me kind of dive down into some of
18 the nuclear at-risk issues. I think Jim has pointed
19 this out, Kathleen has pointed this out, EPA did in
20 fact, to use the words of Kathleen, peanut butter the
21 nuclear at-risk; but the EPA has data at their
22 disposal. In fact, in their modeling in IPM for the

1 first time they've actually included going-forward
2 costs for all the nuclear stations in service. They
3 could have very easily taken this going-forward cost,
4 they could have projected revenues through IPM or
5 even looked at revenues that these units are making
6 today to understand which units are at risk.

7 I think it's very clear if you look at
8 some of the retirements that are notable out there,
9 whether it be Kewaunee or Vermont Yankee and then of
10 course the catastrophic failures of units such as
11 Songs out in California or CR3 down in Florida. I
12 mean, those units could have potentially come back,
13 but it was just very expensive.

14 Very easily EPA could have looked at
15 this state by state and seen the units at risk and
16 allocated things differently. They have the data
17 available to them make that happen, whether it's our
18 publicly available data on revenues or the
19 going-forward costs that they've published. Then of
20 course there's also the renewables; that issue was
21 brought up, and Kathleen, you had opened the door in
22 wind reducing energy prices and so on.

1 But it's a compliance option as with
2 nuclear. And Illinois may be in a situation where
3 most of the nuclear power is tied to load here in the
4 ComEd service territory, but there're other nuclear
5 stations very close here to Illinois that are serving
6 load in other states. And it could be the case at
7 some point in the future, effectively because of
8 regional dispatch, that electrically those nuclear
9 units also serve other states. So it's not just
10 necessarily an Illinois problem, but it may be a more
11 regional problem with respect to compliance as well
12 as reliability.

13 And then, of course, who owns the
14 power? Who owns the zero-emitting resources? The
15 EPA rule in one place is silent, or is at best
16 silent, at worst it says the renewables or nuclear
17 should be in that state. Well, maybe it doesn't have
18 to be in that state; which is what, I think there's
19 got to be some clarification there in order to have a
20 reasonable way of going forward in any sort of state
21 plan in the final rule.

22 And, finally, let me just conclude

1 that if we're talking about rate-based versus
2 mass-based. I think one of the things that has come
3 up time and again in discussions with various states
4 in our footprint, and you know, certainly mass-based
5 is easier if you had a trading program.

6 I can say "trading" in here without
7 getting shot, I think.

8 CHAIRMAN SCOTT: At least so far.

9 DR. PAUL SOTKIEWICZ: I am wearing Kevlar, just
10 in case.

11 But I think, you know, I think it
12 makes it easier to price out emissions, which also
13 makes it not just better for the nuclear units, from
14 Kathleen's perspective, but in terms of reaching
15 compliance and cost-effectiveness. If we have a
16 price on emissions and it's the same across the
17 footprint, it actually provides a more cost-effective
18 solution in our energy markets, and also, it's going
19 to help enhance reliability by putting all of those
20 resources on the same footing. Because one could
21 imagine that some states may choose to do something
22 different, we could end up in a situation where we

1 have a bunch of new natural gas units located in one
2 state because the state decides they're not going to
3 bring them into the program. And under 111(b)
4 they're exempt, and all of a sudden they have to pay
5 for network upgrades in order to be deliverable.
6 Because they're also not paying per price of CO2, it
7 actually is going to have an effect on energy prices.
8 It's going to affect the revenue streams for all the
9 resources in the footprint: Nuclear, coal,
10 everything else that may be facing the CO2 price.
11 Those are other things.

12 So whatever happens in one state,
13 other states are going to effect it; it's just the
14 nature of the system, it's the nature of regional
15 dispatch, it's just the nature of working with
16 compliance under 111(d) at this point.

17 So with that I'll leave it there and
18 open it up to the Commissioners and Mr. Chairman for
19 questions.

20 CHAIRMAN SCOTT: Commission Colgan?

21 COMMISSIONER COLGAN: Paul, you mentioned that
22 in the PJM footprint, I think you said that natural

1 gas accounts for 16 percent of the capacity; is that
2 you said?

3 DR. PAUL SOTKIEWICZ: Total energy.

4 COMMISSIONER COLGAN: Total energy. Thank you,
5 Paul.

6 And you also said that it will soon
7 become the leading -- leading source, and do you have
8 a projection in terms of how long that's going to
9 take. And is that just going to come in take the
10 place of the retiring coal, or will it actually go
11 above where coal is at now?

12 DR. PAUL SOTKIEWICZ: Commission Colgan -- and
13 please forgive me, I probably didn't articulate this
14 very well. What I was referring to was confusing
15 capacity and energy.

16 Energy gas provides 16 percent of
17 total energy, and it's right now approximately
18 40 percent at capacity. By the 2015/2016 delivery,
19 which starts on June 1st, 2015, natural gas will
20 become the largest capacity resource. It may not
21 provide as much energy, but it's going to be the
22 largest resource in terms of megawatts, stealing

1 ground in the footprint. And yes, it will be taking
2 over for a lot of the coal that's retiring,
3 absolutely.

4 COMMISSIONER COLGAN: Thanks.

5 CHAIRMAN SCOTT: Just a couple quick things
6 before we turn to Mr. Ramey.

7 In terms of dispatch, just so
8 everybody's clear because, you know, the rule
9 provides for gas an amount to be ramped up. So that
10 when -- we talked about this a little bit during the
11 last policy session, that gas plants will be ramped
12 up to 70 percent; but that doesn't affect your
13 dispatch because what you dispatch just based on
14 price.

15 DR. PAUL SOTKIEWICZ: That is correct,
16 Mr. Chairman.

17 In fact, it's interesting that, since
18 you bring up the dispatch issue, if one looks at the
19 EPA modeling efforts in IPM and -- by the way, they
20 actually bring in new gas capacity into the program,
21 rather than keeping it out, in Section 111(b) -- and
22 the gas-fired capacity factors in the IPM modeling

1 runs are similar, between 50 and 55 percent. So they
2 don't even reach the 70 percent that's being used to
3 calculate the goals.

4 CHAIRMAN SCOTT: Let me follow up -- thank you
5 for that. Let me follow up on something that you
6 talked about: The difference if you've got some
7 states doing things on a multistate basis and another
8 state's just kind of going it alone, bringing in new
9 gas under 111(b); but if they still have a compliance
10 issue, that may not necessarily help them out of
11 that. So because -- your other statement; I'm trying
12 to reconcile the two -- was that you're better off
13 spreading it out amongst -- or economically spreading
14 it out along a wider footprint that's why regional
15 dispatch works and things like that. Wouldn't that
16 also hold true for the states who are trying to go it
17 alone; just build a lot of new gas that doesn't count
18 toward their compliance option. They've got other
19 things that they would have to do, too.

20 DR. PAUL SOTKIEWICZ: It depends on the initial
21 allocation of the emissions responsibilities. But I
22 think in general trading programs we're talking

1 about, wholesale power markets or trading of
2 emissions allowances under the old Title 4 trading
3 program. You know, bigger is better; you're going to
4 get more cost-effective compliance in that case or
5 more cost-effective to dispatch.

6 There are some states in the PJM
7 footprint, New Jersey and Virginia come to mind,
8 where the actual emissions targets are less than the
9 emissions rate of the new combined-cycle gas unit.
10 So for states like that, that may be facing that
11 choice, it's a no-brainer if they want to go it
12 alone.

13 Now, to the extent that they bring
14 those into the program and then can work with other
15 states that have higher emissions rates, then there
16 may be potential gains from trade in that case.

17 CHAIRMAN SCOTT: Correct.

18 DR. PAUL SOTKIEWICZ: But I think it's going to
19 depend on the initial emission reduction
20 responsibility.

21 CHAIRMAN SCOTT: Is there -- and just following
22 up. You can have states where they can finally get a

1 compliance pathway for themselves, but from a trading
2 standpoint, it might make sense for the companies
3 within that state to be part of larger network as
4 well.

5 DR. PAUL SOTKIEWICZ: That is correct.

6 CHAIRMAN SCOTT: I think that's what you're
7 saying. I just want make sure that I had that right.

8 DR. PAUL SOTKIEWICZ: That is correct.

9 CHAIRMAN SCOTT: One more slight curve ball for
10 you, and I apologize for this, but it seems to be a
11 large part of it, and I know you guys are working on
12 this and MISO is as well.

13 But the lack of rehearing on the 745
14 Order last week from FERC, and what that does in
15 terms of demand response, because obviously that's
16 been a part of your portfolio and states may or may
17 not have to grapple with how to do that.

18 When you start to figure out the load,
19 how do you interpret that now? As what that's going
20 to do because that forces -- if the ruling stands, it
21 forces a whole other set of state calculations that
22 you've got to figure in, doesn't it?

1 DR. PAUL SOTKIEWICZ: Demand response in
2 general is -- I don't view demand response in the
3 context of 111(d) as being that big of a player.
4 However, in terms of electricity markets and the
5 financial wherewithal of other generation resources,
6 especially vis-a-vis revenues potentially available
7 in a capacity market, it is going to make a
8 difference.

9 Rather than a curve ball, though, it
10 felt like a knuckle ball.

11 CHAIRMAN SCOTT: Sorry.

12 DR. PAUL SOTKIEWICZ: I was kind of ducking and
13 weaving here, trying to figure out where that thing
14 was going to go.

15 But I think that right now we can't
16 really comment too much on where we're going to go.
17 I mean, we're still trying to digest everything with
18 the vacature from the DC Circuit and the rejection
19 from the ongoing hearing. And where do we go from
20 there. We also, as many in this room are already
21 keenly aware, we're facing another modified complaint
22 in front of the Commission to get rid of demand

1 resources in our capacity market as well as
2 potentially rerunning the auction for 1718.

3 Heretofore the Commission has been
4 loath to rerun markets; however, this is a situation
5 that is quite different. I have no idea what's going
6 to happen on that. So I think it's premature for me
7 to say anything more than just that.

8 CHAIRMAN SCOTT: Fair enough. Fair enough.
9 Sorry to do that to you.

10 Mr. Ramey?

11 MR. TODD RAMEY: Thank you, Chairman Scott. I
12 actually have a few slides here but I don't have the
13 remote because -- I ask for the assistance of a
14 spacebar-presser.

15 MS. KATHLEEN BARRÓN: Happy to help you.

16 DR. PAUL SOTKIEWICZ: By the way, this is what
17 regional cooperation's all about. I love this.

18 PRESENTATION

19 BY

20 MR. TODD RAMEY

21 Thank you, Chairman Scott,

22 Commissioners. Thanks for the opportunity to have me

1 here today to participate in this important topic of
2 discussion, important to Illinois, certainly
3 important to the other 14 states with a MISO
4 footprint.

5 What I'd like to do is just to give
6 the Commission an overview of the analytical work
7 that MISO has performed at the request of our
8 stakeholders since the issuance of and the draft
9 order in early June. I think it's important to point
10 out and for all of us to remember that we're still
11 very early in this process. We're just
12 three-and-a-half months away -- or since we initially
13 had a chance to review this draft rule.

14 What MISO did is we essentially
15 reached out to stakeholders pretty quickly, including
16 OMS thanks to the ICC's participation and comments
17 there that helped us craft a set of studies primarily
18 intended -- listing the early phases to allow MISO to
19 get some results out in support of the state's and
20 membership's needs as they're considering developing
21 their comments, which were initially expected to be
22 due mid-October. We've since had a 45-day extension.

1 We completed those early phases of our studies and
2 released some initial results from those efforts --
3 just last week to stakeholders. So I'll give the
4 Commission just kind of an overview of what the
5 results showed.

6 In phase 1, we looked at a couple of
7 things. One, we wanted to break down and take a look
8 at each of the building blocks as proposed by the
9 EPA. Essentially, we didn't do a lot of analytical
10 work here or addition of MISO's or stakeholders'
11 assumptions. In this effort we really took the EPA's
12 assumptions, applied them to a capacity optimization
13 planning model to really look and test the EPA's
14 assumptions about the feasibility of achieving the
15 certain level of projected carbon reductions that the
16 EPA included in their plan.

17 The other thing we want to look at in
18 phase 1 was this question that Paul went over in some
19 detail in his remarks. Regional-wide compliance
20 strategies versus sub-region. Eventually we'd like
21 to get down and maybe even to look at some state
22 level compliance strategies and what the implications

1 might be in terms of effectiveness of reaching
2 carbon-reduction targets and the overall costs.

3 We didn't go down to the state level,
4 but we did look at some subregional model compliance
5 strategies within the MISO footprint and, largely
6 around our local resource planning zones that we use
7 in our planning process.

8 In phase 2, we looked at a series of
9 economic and public policy sensitivity scenarios.
10 Each of the sensitivities that we looked at are shown
11 here on this slide. Down at the bottom we did
12 include some nuclear retirement scenarios as part of
13 this initial phase 2 look as well. We looked at a
14 no-nuclear-retirements; so the nuclear fleet as it
15 exists today is preserved throughout the 2020/2030
16 timeframe. In the other scenarios we looked at
17 retirements at the expiration of the current 60-year
18 nuclear lifespans in the footprint.

19 So what did we find out? Phase 1
20 early there were a couple of key objectives. One was
21 that implementing the EPA's four building blocks in
22 terms of our modeling approach suggested that indeed

1 you could achieve the levels of CO2 reductions the
2 EPA estimated, within the MISO footprint. But the
3 more significant finding is that if you applied more
4 cost optimization-type strategies at least from a
5 capacity perspective our studies in phase 1 suggested
6 that you could achieve those same levels of carbon
7 reductions at a much reduced cost as compared to the
8 implementation, strictly, of the four building
9 blocks.

10 I forgot to mention so I should back
11 it up and mention it now, the modeling work we looked
12 at -- only looked at the cost of implementing a
13 capacity plan over this timeframe that's compliant
14 with planning reserve requirements. Things that we
15 have not looked at to date, and weren't included in
16 these studies, were reliability impacts potentially
17 of the effect of the generation fleet as it pertains
18 to the bulk-electric transmission system. I haven't
19 looked at that yet. Nor have we looked at potential
20 impacts to the natural gas distribution system and
21 new requirements on gas distribution that we are
22 required to achieve compliance as well. Both of

1 those aspects MISO's going to take a look in further
2 phases of our studies.

3 So back to phase 1 findings. Looking
4 at that the MISO region-wide compliance strategy
5 versus a subregional compliance strategy, it's very
6 similar to what Paul's describing. Potentially state
7 by state, independently pursuing their own compliance
8 strategies; that is akin to the subregional approach
9 that we did model.

10 Not surprised, but the magnitude of
11 the impact we found through our studies is that
12 potentially if we were to pursue MISO wide
13 strategies, cooperation across MISO for implementing
14 economic carbon reduction strategies as compared to
15 subregional, the footprint could stand to save about
16 \$3 billion annually from a MISO wide approach, driven
17 largely by many things that Paul mentioned: Wider
18 region, more options, more cost-effective options for
19 achieving compliance; you'd expect annual
20 cost-effective results.

21 Yes, sir?

22 COMMISSIONER COLGAN: When we looked at the

1 subregional zones, did you look -- I don't have my
2 copy here, it's not a color copy.

3 So did you have Illinois, the MISO
4 footprint in Illinois as its own subregional zone?

5 MR. TODD RAMEY: Yes, we did.

6 COMMISSIONER COLGAN: Okay.

7 MR. TODD RAMEY: The subregional zones we
8 looked at are consistent with the current expansion
9 planning and local resource zones we used for the
10 MISO plan in Illinois as their own local resource
11 zone.

12 Could we back up one slide.

13 The take away from our phase 2
14 analysis, looking at implications for the coal fleet
15 in MISO, 11 to 12 gigawatts of coal we would expect
16 to retire as a result of compliance with the mass
17 requirements. In addition to that, our studies here
18 shows that about 14 gigawatts -- 14,000 megawatts of
19 additional coal-fired generation of the MISO
20 footprint would be at risk to economic retirement as
21 a least-cost solution as you move forward compliance
22 with this draft rule.

1 This slide here I just want to point
2 out the -- Slide 5, please -- I just want to point
3 out the bottom line. That shows the results in terms
4 of carbon reductions by the implementation and with
5 the assumption of all of the input assumptions
6 underlying the building block approach used by the
7 EPA. Implementing those across the MISO region
8 results in the level of reduction shown by the purple
9 line, at the bottom, which is a slight
10 over-compliance against the targets laid out in the
11 draft rule.

12 So moving on to -- I think this is my
13 final slide here. This is just taking a little
14 closer look at Building Block 3. The green line
15 shows the CO2 reduction expectations that you would
16 expect, based on our modeling, from implementation of
17 Building Block 3 using the assumptions included in
18 the draft rule. This assumes that the existing
19 nuclear fleet is maintained and is available
20 throughout this region, and that the states that have
21 RPS requirements complete those requirements. A
22 relatively modest impact in terms of total carbon

1 reductions, not a large driver of carbon reductions
2 for the MISO footprint. You would expect, just with
3 the completion of the RPS requirements that the pie
4 charts at the bottom reference case on the left
5 really is a business-as-usual result in the 2030
6 timeframe. And those are projections by energy
7 production to meet the requirements in the MISO
8 footprint. The pie chart to the right shows the
9 results, or the slight changes in production levels,
10 with completion of those RPS standards: Slight
11 increase to total end production across the
12 footprint, offsetting slightly both gas and coal
13 production.

14 So, with that, that concludes my
15 opening remarks and I'm happy to answer any questions
16 the Commissioners might have.

17 CHAIRMAN SCOTT: Thank you, Mr. Ramey.

18 What are the additional sensitivities
19 that you all are planning to model?

20 MR. TODD RAMEY: We just -- just having learned
21 about the extension, engaged just within the last
22 week, stakeholders in conversation about what

1 additional studies can MISO perform given the extra
2 time to provide comments, we have asked questions
3 about additional sensitivity studies. One of those
4 it was pointed out would be helpful was related to
5 the assumptions around nuclear retirements. The
6 modeling we've done so far is based on the assumption
7 that the goal of retaining existing nuclear is
8 accomplished. One of the scenarios we've been asked
9 to look at is, if that's unsuccessful, what are the
10 potential implications of the cost and building need
11 that carbon-reduction targets certain. So that's one
12 scenario we're going to add in the near term.

13 CHAIRMAN SCOTT: You mentioned, looking at
14 state-by-state, is there any thought to
15 state-by-state versus multistate comparisons, because
16 I'm assuming most states are like ours, they want to
17 know before they get into something like a multistate
18 program, what the impacts of that would be for them.

19 MR. TODD RAMEY: We've had many of our states
20 already engage us in feasibility of MISO conducting
21 state level analysis similar to the subregional zone
22 analysis we completed so far. So our modeling folks

1 are preparing a plan to accomplish that in the near
2 term.

3 I'm not quite sure I have a timeframe
4 yet when we can get that accomplished, but I know
5 we're working with our states to try to get some
6 state level modeling done as well.

7 CHAIRMAN SCOTT: My last one. When you modeled
8 this, did you model the building blocks individually
9 and then do them together or did you do it all in
10 one --

11 MR. TODD RAMEY: We did all those things you
12 mentioned. So if we go to Slide 5 again -- back up
13 one. Each of the lines there shown on the chart
14 represent the results for modeling each building
15 block individually. And then the last scenario was
16 simultaneous implementation consumptions for all
17 building blocks and that results in a total level of
18 reduction shown on the purple line at the bottom.
19 So, we looked at them individually and collectively
20 as well.

21 CHAIRMAN SCOTT: Okay. I just want to make
22 sure building blocks individually and then is the

1 last line just an amalgamation of those or is that a
2 separate modeling-

3 MR. TODD RAMEY: It's a separate modeling run
4 with the implementation and the assumptions for all
5 four building blocks applied simultaneously into the
6 model.

7 CHAIRMAN SCOTT: That was my question. Thanks.

8 COMMISSIONER del VALLE: Quick question. Is
9 PJM's modeling comparable to what MISO is doing?

10 DR. PAUL SOTKIEWICZ: Commissioner del Valle,
11 thank you for giving me the opportunity to jump in
12 here.

13 We have been actually approached an
14 organization, PJM States, to do modeling on this.
15 We're actually in the process of doing that, and I
16 think we've taken a slightly different tack than what
17 MISO has taken. One of the scenarios that has been
18 requested has been the 50 percent nuclear retirement
19 scenario, so we'll be running that.

20 We're going to be doing this a little
21 bit differently. We're running all models in PROMOD,
22 which is a production cost software model. We're

1 working to endogenously determine the prices of CO2
2 emissions within the context of that model and take a
3 look then at what actually is falling out in terms of
4 compliance; how much gas is be re-dispatched, for
5 example, how -- you know, the impact of renewables,
6 the impact of energy efficiency. And we'll be
7 running some sensitivities on renewable energy to
8 plan as well as energy efficiency scenarios going
9 forward on that. We hope to have those runs done
10 sometime early to middle of next month.

11 COMMISSIONER del VALLE: So Illinois will be
12 able to compare "apples to apples."

13 DR. PAUL SOTKIEWICZ: That's what we're hoping
14 for.

15 COMMISSIONER COLGAN: Mr. Ramey, the modeling
16 you're doing is using EGEAS; is that correct?

17 MR. RAMEY: That's right.

18 COMMISSIONER COLGAN: So Paul, what was it you
19 said you were using to do your modeling?

20 DR. PAUL SOTKIEWICZ: We're using PROMOD, which
21 is a production cost software model that we use in
22 our market efficiency analysis, as part of our

1 regional transition planning process.

2 So they're different modeling
3 frameworks and slightly different tacks, but I think
4 at the end of the day, you'll probably come up with
5 very -- the outputs are going to be very much the
6 same kind of outputs that you might expect.

7 COMMISSIONER COLGAN: So to maintain
8 consistency you're each using different models.

9 DR. PAUL SOTKIEWICZ: Did you realize we had
10 the same problem in the modeling efforts?

11 CHAIRMAN SCOTT: Thank you very much. We
12 really appreciate it, Ms. Barrón, Dr. Sotkiewicz, Mr.
13 Ramey and Mr. Ross. Thanks very much. We really
14 appreciate you being here. It helped a lot.

15 DR. PAUL SOTKIEWICZ: Thank you.

16 MR. RAMEY: Thank you.

17 CHAIRMAN SCOTT: I'd like to call the second
18 panel up. That would be Anthony Star, the Director
19 of the IPA, Sarah Wochos, the Co-Legislative Director
20 from ELPC, Madeleine Klein, Senior Vice President of
21 Policy and Strategy from SoCore, and Eric Thumma, the
22 Director of Policy and Regulatory Affairs, Iberdrola

1 Renewables.

2 We're going to talk a little bit in
3 this panel about the Illinois RPS and renewables in
4 general. And how best to get the additional
5 renewables into the system, and talk about DG and
6 geothermal and all kind of other good stuff.

7 So with that, Mr. Star, thanks very
8 much for being here.

9 PRESENTATION

10 BY

11 MR. ANTHONY STAR

12 Thank you, Chairman and Commissioners.
13 I'm going to get started, I want to give an overview
14 of where the RPS in Illinois currently stands and my
15 fellow panelists will probably go into a lot more
16 detail about the challenge it had and some of RPS'
17 potential solutions.

18 So if you ask around, the common
19 rhetoric you hear is the Illinois RPS has the goal to
20 finance 25 percent by 2025 and that the goal for next
21 June will be 10 percent. Sounds very good. The
22 reality unfortunately is a little bit more

1 complicated, but I'll look at it a couple of
2 different ways. The first is that if you look at
3 renewables as a percent of generation that takes
4 place within the State of Illinois we are at about 5
5 percent in 2013. So of the energy produced in
6 Illinois -- if you think about what Jim was talking
7 about a lot of his numbers on nuclear really were
8 focused on production in the state. That puts us at
9 about fifth in the nation in terms of the amount of
10 generation that takes place within the state. But we
11 are 19th in this nation in terms of renewables as a
12 percent of our total generation. That's in part a
13 reflection of the fact that we have a lot of
14 conventional generation in Illinois. We look at all
15 of the states that have a large renewable -- a lot of
16 renewables in them. They simply just have a lot less
17 conventional generation.

18 Take Iowa, for example. They have 50
19 percent more renewables than Illinois, and those
20 renewables, however, make up 25 percent of their
21 generation. That's basically because we use about
22 three times more energy in Illinois than Iowa does.

1 So you have some interesting mismatches when you look
2 at the different generation rates of renewables.

3 That's really relevant when you think
4 about the future need for renewable construction and
5 how it will impact the generation mix in any given
6 state. I think the amount of existing capacity in
7 Illinois will really have an impact on prices because
8 renewables will have to compete against those.

9 But when you go turn to our renewable
10 portfolio standard we measure that as a percentage of
11 consumption and in large part because of these issues
12 with regional transmission. Power doesn't really
13 obey state lines. Maybe it would be a lot simpler
14 for a lot of us if it did, but I'm not an engineer,
15 but I'm pretty sure that would be hard to do unless
16 we cut a lot of lines.

17 So it's really hard to tie consumption
18 of any one customer to the specific source of
19 generation but it's a lot easier to think about
20 renewable portfolio standards from the consumption
21 point of view. And that does seem to me to create a
22 little bit of disconnect about how we think about the

1 RPS versus some of the other aspects of how we were
2 to comply with Clean Power Plan.

3 I would also note that when talking
4 about the RPS, I'm only going to be talking about the
5 two large investor-owned utilities in Illinois.
6 Municipal utilities are all co-ops and subject to
7 the state RPS. They're only a small percentage of
8 the total of the state, but we still should keep them
9 in mind because this is ultimately a state plan and
10 some point or another have to be able to think about
11 how they get involved -- adding that to the others.

12 When you look at the RPS in Illinois
13 the reality also is that we really have more than one
14 RPS. The original RPS that was passed in 2007
15 applies to the traditional utilities and the
16 customers that they serve. And that is done through
17 two different ways; there's a compliance mechanism
18 for customers who are traditional flat rates and then
19 also a separate mechanism for customers who are on
20 hourly pricing, who pay into a fund rather than have
21 their renewable commitments covered by a rider.

22 The utility RPS commitments are done

1 through commitments done by the IPA. In the history
2 of the IPA -- well, it got started in 2008, we've
3 done one large long-term renewable procurement back
4 in 2010; that's about 1.8 million megawatt hours a
5 year for the next 20 years. And that mostly came
6 from new developments. That was a long-term
7 commitment for large amounts of resources and a lot
8 of new stuff got built because of it.

9 We've also done a number of
10 procurements for short-term renewable resources. The
11 most recent of those took place in 2012; we would buy
12 renewable energy credits going out a couple years.
13 Those deliveries from the 2012 procurement run
14 through 2017, and each year has slightly different
15 targets.

16 So right now the utilities are on
17 track to meet their overall RPS and wind requirements
18 based upon those past procurements. However, where
19 they're short at the moment is they'll need
20 additional resources to be procured to meet the
21 specific solar generation cutouts in the RPS. We
22 will be filing with the ICC our 2015 Procurement Plan

1 next year, it will contain some proposals to help
2 meet those targets.

3 Mode migration has really been a major
4 impact on the ability -- IPA's ability to procure
5 long-term resources. Take for example those
6 long-term procurements that actually had done back in
7 2010. At the time that was all hashed out -- I think
8 there's some people in the room have scars from all
9 those debates including some at this table -- retail
10 competition hadn't really taken off. The utilities
11 were basically serving 99 percent of the residential
12 and small commercial customers. So 2010 when IPA was
13 considering those long-term procurements, they were
14 going to secure a lot of renewable resources for the
15 future, but not enough to meet the RPS going forward.

16 Now if we look at it, what's happened
17 is we've gone from the 99 percent or whatever it was
18 to -- and the utilities only serving about a third of
19 the residential and small business
20 customers -- actually a little less than that.

21 So right now if you look at the RPS
22 targets for next year, those long-term contracts for

1 2010 are meeting 90 percent of what's needed for next
2 year and the short-term procurements from 2012
3 actually filling up the gap. So because there're so
4 many fewer customers in the utility pool, the
5 long-term commitments made several years ago are a
6 much bigger portion of the mix of renewables than I
7 think many people thought they would be at the time.

8 So uncertainty of that future level of
9 load that'd be served by the utilities versus
10 alternative suppliers makes it very hard for us to
11 plan a long-term commitment to acquisition of new
12 renewable resources.

13 I'll turn back to the other half of
14 the RPS, which is how the alternative suppliers
15 comply with it. They do it in two ways: First, they
16 make, payments, known as alternative compliance
17 payments, into the Renewable Energy Resources Fund.
18 That covers about half of it -- a minimum of half of
19 the obligations. Second, they have to buy additional
20 renewable energy, typically in the form of renewable
21 energy credits. That's the rest of their
22 obligations.

1 So a few observations about what
2 they're doing. The first is that the rate of
3 alternative compliance payments are much higher than
4 the current price if you want to go out and buy a
5 RECs. So what we're seeing is that the supplier is
6 very, very rarely making anything other than the
7 minimum of 50 percent. It's much less expensive for
8 them to go out and buy RECs for as much of their
9 compliance as they can.

10 One challenge that that seems to
11 create is any given supplier, year to year, their
12 market share will vary. I suppose they all hope it
13 will go up every year, but that's not how competitive
14 markets work. So they don't really make long-term
15 investments. As far as I can tell, they're mostly
16 buying RECs on a fairly short-term basis from the
17 market, and that's not really incenting a new
18 generation, it's just the most efficient way for them
19 to comply with the statute.

20 That raises, of course, the Renewable
21 Energy Resources Fund, which has been discussed
22 a lot -- I suspect will be discussed a lot more. It

1 has had some dire years in its youth. While this
2 spring, we were very fortunate that legislation
3 passed that will free up \$30 million of that fund to
4 begin investing in solar resources starting next
5 year, the Fund currently has over a \$120 million
6 dollars in it, and those are funds that are not being
7 spent right now on real good resources. Hopefully
8 they will be in the future.

9 So to tie that back to the Clean Power
10 Plan, if you look at the numbers from the U.S. EPA,
11 they're expecting renewables in Illinois to grow from
12 8.3 million megawatt hours in 2012 up to 17.8 million
13 megawatt hours in 2029.

14 In the short-term, let's put it on
15 track. In 2013, the generation made in Illinois was
16 about 9.6 million megawatt hours. So the numbers are
17 all looking okay at the moment. But absent a change
18 in structure, I'm not sure how we really expand this
19 to going forward without some new path for long-term
20 planning.

21 There has been some encouraging news
22 recently. Both IKEA and Microsoft have announced

1 investments in wind farms in Illinois. That private
2 investment is a good thing and hopefully we'll find
3 ways that gets counted toward our compliance. But we
4 really will need to look at how we adjust our RPS
5 mechanism in the fact that we have a robust retail
6 market. The market and allowing people to choose who
7 they buy electricity from, having the competition
8 that we have here, has had a lot of benefits from
9 customers in terms of very competitive prices from
10 Illinois.

11 Back in the 80's, the reputation was
12 that we had some of the most expensive electricity in
13 the country. We're not the cheapest, but we're down
14 in the bottom in terms of electricity prices. So
15 that's benefitting customers. The ability for
16 customers to shift their load around between -- for a
17 small customer between the utility procurements done
18 by the IPA, where there are alternative suppliers, or
19 even between different alternative suppliers makes,
20 any of this long-term strategy planning for new
21 acquisition of renewable resources really difficult.

22 So I'm encouraged by the fact that

1 substantial renewable resources have been built in
2 Illinois. It shows that when we get the policy
3 pieces aligned, we can do it we've done it on scales
4 that really have produced some big impacts. But we
5 need to get things corrected that to allow that to
6 happen again. And I'm hopeful that starting next
7 year, we'll start moving forward and expanding our
8 solar industry. So you'll be hearing more detail
9 from the other panelists, but we really do need to
10 make major changes in order to get out renewable
11 energy strategies to meet the goals of not just the
12 Illinois RPS but the Clean Power Plan.

13 COMMISSIONER COLGAN: Thank you for that,
14 Anthony. I don't want to get off track here; I know
15 you're talking about energy efficiency issues and
16 renewables.

17 I was wondering where we are at with
18 compliance for demand response in Illinois. And now
19 that we've got this 745 Decision that -- this has
20 become a really big issue and a lot of focus going
21 toward states in terms of their ability to do things
22 in the area of demand response. We have --

1 MR. ANTHONY STAR: Unfortunately I don't have a
2 solution for you yet. I think we're going to have to
3 rethink a lot of aspects of demand response going
4 forward.

5 The IPA, we have the challenge that we
6 serve the eligible retail customer -- the potentially
7 eligible retail customer, the residential/small
8 business customers. Demand response for those
9 customers is largely things like air conditioning,
10 recycling programs. We have things in place due to
11 the Smart Grid legislation of a few years ago for
12 things like the peak time rebate. We may have some
13 pieces in place but we have to rethink those
14 solutions in terms of how that larger customers can
15 continue to get the value of demand response in light
16 of the recent rulings. I think there's a big
17 challenge ahead and I don't have really good
18 solutions yet.

19 COMMISSIONER COLGAN: So in your opinion do you
20 think for Illinois to move further in that direction,
21 we would need additional statutory authority to do
22 that, is that --

1 MR. ANTHONY STAR: That would be my educated
2 guess.

3 COMMISSIONER COLGAN: Thank you.

4 CHAIRMAN SCOTT: Going back, following up on
5 something that you had talked about with the RPS,
6 basically saying we need some fairly major changes
7 without placing value judgments on any individual
8 piece of legislation, but the legislation that was in
9 front of the general assembly before, just in terms
10 of whether or not it addressed the issues that you
11 laid out that --

12 MR. ANTHONY STAR: Are you referring to 70103
13 from last year, the various versions of it?

14 It seemed like it was heading the
15 right direction because what it was creating -- well,
16 they're different versions of it. The final version
17 that -- I'm not sure it was -- I can't remember that
18 it was ever actually introduced but some of it was
19 drafts, floating around. It did create balancing
20 mechanisms between the different revenue sources for
21 renewables. And that would have allowed for a path
22 forward in terms being able to do some long-term

1 things.

2 Right now, I'm just very cautious
3 about how to make a commitment with a fund that its
4 balance could vary greatly -- not the balance, the
5 amount of money coming into it; it varies greatly
6 from year to year. I don't want to create new
7 stranded costs. We have done that before, it's not
8 fun.

9 So I think the concept of having a way
10 to be able to balance these so that the net effect is
11 that there is a consistent source of revenue for new
12 renewable generation is a good sound one. I think we
13 had pieces of it floating around the legislation a
14 year ago, but obviously we didn't have to test
15 whether or not those actually worked because it
16 didn't get enacted.

17 CHAIRMAN SCOTT: And does it make more sense,
18 given what you just said and what you said in your
19 earlier presentation, to have something that focuses
20 on some long-term assets as well rather than just
21 having people out in the market buying RECs?

22 MR. ANTHONY STAR: It depends on what your

1 goals are. I mean, if you wanted to meet just the
2 letter of the law in Illinois buying renewable energy
3 then it's --

4 CHAIRMAN SCOTT: I'm talking more in terms of,
5 trying to imply --

6 MR. ANTHONY STAR: But if you want to look
7 at -- when I look at what the U.S. EPA is asking
8 states to do and try to figure out how that
9 corresponds, I see a disconnect. So I think moving
10 more towards something that makes sure that there's
11 tangible assets operating and actually providing
12 power for a long-term solution, that would be
13 preferable.

14 The renewable energy credit market's
15 been a very useful proxy in the short- to medium-term
16 to allow there to be investments in renewable energy,
17 help it get started, but ultimately it
18 doesn't -- there's some pieces missing.

19 CHAIRMAN SCOTT: I appreciate that.

20 Commissioner del Valle?

21 COMMISSIONER del VALLE: Quick question.

22 What's the projected coffer of for the

1 Fund for this fiscal year?

2 MR. ANTHONY STAR: This was a big year for it
3 because switching rates have -- were quite high last
4 year so approximately -- the last few stragglers are
5 still trickling in but -- new revenue that has come
6 in the last month or so for the Fund was about, \$77
7 million dollars. Next year will probably be
8 comparable. It may start to taper off a little bit
9 from that if customers start coming back to utility
10 service from --

11 COMMISSIONER del VALLE: So next year the
12 balance will be approximately what?

13 MR. ANTHONY STAR: So we're up at
14 \$120-something, another \$60 to \$80 million might come
15 in next year, and then may shrink from there. We're
16 obviously going to spend \$30 million of it thanks to
17 the legislation that passed this spring. Still,
18 we're talking about a pretty large pot of money that
19 will be available for renewable energy.

20 COMMISSIONER del VALLE: Okay. Can you tell us
21 how we can borrow from it?

22 MR. ANTHONY STAR: They -- let me choose my

1 words carefully. They have borrowed from it once in
2 the past and they've repaid it all. They do not
3 sweep -- they cannot sweep.

4 COMMISSIONER del VALLE: They cannot
5 sweep --

6 MR. ANTHONY STAR: They cannot sweep it but
7 they can borrow from it. My understanding in the
8 past is what they do is they look at uncommitted
9 funds in a variety of funds across the state. So for
10 example, if we have money committed for the new solar
11 procurements, that would be money that they would not
12 seek to borrow. Obviously they don't want to impinge
13 on contractual obligations that the state has made.

14 CHAIRMAN SCOTT: Thank you, Mr. Scott.

15 Ms. Wochos?

16 PRESENTATION

17 BY

18 MS. SARAH WOCHOS

19 Thank you. Sarah Wochos with the
20 Environmental Law & Policy Center. My name is not at
21 all phonetic so I've been instructed that it rhymes
22 with hocus pocus.

1 Anyway, moving on. So this is just
2 what I'm going to cover today, so we can move on to
3 the next slide. So in order for EPA to come up with
4 baseline and final targets for each state based on
5 basic assumptions that they then applied across the
6 board. I think the term used was "peanut buttered."
7 They likely did this for consistency reasons but in
8 Illinois' case this methodology underrepresented the
9 potential for renewable energy. First, to create our
10 adjusted state baseline they included all megawatt
11 hours from existing renewable resources within the
12 state regardless of REC ownership. They did not
13 include assets out-of-state that we contract for as a
14 result of our RPS.

15 This baseline is important because it
16 is a set a numbers that the EPA uses to then
17 determine our interim final goals, and, therefore,
18 how much they think Illinois can rely on renewable
19 energy to meet out goals.

20 To create our interim and final
21 targets, they use the average of all the RPS policies
22 in our region to create a regional renewable target.

1 They then calculated the annual growth necessary to
2 meet that regional target and applied it to every
3 state's renewable energy baseline.

4 In our region, which includes most of
5 the midwest, the regional goal is for renewable
6 energy to be 15 percent of our generation by 2030,
7 which will require 6 percent annual growth per year
8 between 2017 and 2029. When that growth rate is
9 applied to Illinois' baseline, we end up with a
10 target of 17 million megawatt hours of renewable
11 energy, which is equivalent to 9 percent of our
12 generation.

13 So, what does all that wonky
14 gobbledygook mean? It means the EPA targets are off
15 by almost half. Our renewable energy standard
16 requires us to meet 25 percent of our consumption
17 with renewable energy by 2025, but if we use our RPS
18 effectively, we will consume 32.5 million megawatt
19 hours of renewable energy by 2025 and beyond; which
20 since we generate more than we consume, amounts
21 approximately 17 percent of our current generation.

22 So EPA's assumptions on our potential

1 for renewable generation are very low. If we use our
2 RPS effectively we can count on renewable energy to
3 get us even closer to our goal than they assumed. At
4 the last policy meeting, we heard from witnesses the
5 potential problems of counting on Building Blocks 1
6 and 2 for significant carbon reduction, but
7 thankfully the underrepresentation of Illinois'
8 potential on renewable energy will make up much of
9 that deficiency.

10 The EPA has asked for more guidance in
11 their renewable energy sections of the rule than in
12 other sections they've left some open questions. I'd
13 like to go over those now, but I note that at the
14 outset that even these open questions don't diminish
15 the potential of the RPS to help us meet our goal.
16 Renewable energy is treated differently because we
17 will be able to count, at least for the draft rule,
18 actions taken before the release of the draft rule
19 and any actions taken between now and the start of
20 the compliance period.

21 As you can see, Illinois has had
22 strong renewable energy developments since 2007 that

1 was at least initially caused by our RPS. For the
2 first four years we only bought in-state RECs, which
3 drove development. Today we buy RECs from a broader
4 geography, and, therefore, don't necessarily have
5 ownership of all the RECs generated by those in-state
6 projects.

7 So the first open question is how to
8 claim the carbon credits from renewable energy,
9 whether through the location of the generation or the
10 ownership of the REC. This is significant because it
11 addresses the problem of double counting. If the
12 final rule will only let us not count in-state
13 generation regardless of where the REC goes, then we
14 will get the benefit of some generation that is
15 currently under contract or built in the future by
16 other states. In the same vein we would not be able
17 to count out-of-state assets currently under contract
18 as a result for RPS. This situation increases the
19 probability for double counting of states that choose
20 different compliance pathways, rate-based versus
21 mass-based. Therefore, we believe that compliance
22 should probably be measured with RECs rather than the

1 power. To hedge our bet, Illinois should focus on
2 using our RPS to contract for cost-effective assets
3 in Illinois. This avoids any possibility for double
4 counting and guarantees that our purchases will be
5 compliant with both the RPS and Clean Power Plan.

6 So the second open question is how
7 carbon reduction for renewable energy should be
8 counted. There are actually three open questions
9 here.

10 First, whether to add the renewable
11 energy megawatt hour to the denominator or to
12 subtract the carbon savings from the numerator.

13 Second, if the carbon savings are
14 subtracted from the numerator, what is the value of
15 the carbon reduced renewable megawatt hour? Should
16 we subtract the carbon equivalent of the fossil
17 emission rate, the average generation emission rate
18 or the marginal emission rate?

19 Third, should it be the carbon
20 emission rate from the state where the generation is
21 located or a regional rate. And what is the region?
22 Above, you see different options of how a region can

1 be defined. EPA leaves this open as well.

2 All these options change the way
3 renewable energy is valued in a compliance
4 calculation. In ELPC's opinion, and the goal of the
5 carbon pollution standards are to reduce carbon.
6 Therefore, it is probably more appropriate that the
7 calculation should subtract reduced carbon from the
8 numerator to encourage development in carbon-intense
9 areas.

10 If Illinois focuses the RPS on
11 developing cost-effective renewable energy in
12 Illinois, we are poised to win either way. Because
13 we have some of the highest emission rates in all of
14 these situations.

15 A third open question is timing.
16 Renewable energy actions that were taken before the
17 rule was released and between now and the start of
18 compliance will count, provided the carbon benefits
19 attributed to those actions happened during the
20 compliance time period. This means that the age of
21 the renewable energy project doesn't matter, but the
22 vintage of the REC. This is good news for Illinois

1 because it means we can plan to use our RPS as an
2 effective glide path to compliance.

3 In the chart above we see that the
4 amount of renewable energy currently being generated
5 nationally will not be enough to cover even year one
6 of national carbon compliance let alone year 2030.
7 So if we wait to invest in renewable energy there
8 could be scarcity issue, which could negatively
9 affect compliance. Even if somehow other states
10 don't choose to use RECs for compliance, their RPS
11 policies and voluntary markets will still force the
12 retirement of most of the RECs from existing
13 projects. To secure our own future, we should hedge
14 by investing in incremental annual purchases,
15 starting now.

16 On the issue of banking RECs generated
17 prior to 2020, the ELPC is unopposed. Banking would
18 essentially allow RECs produced between 2014 and 2019
19 to then be retired after 2020.

20 Carbon emission and energy generation
21 happen in real time. The only RECs that should count
22 are RECs created in the compliance year. Project age

1 shouldn't matter but REC vintage should. If the EPA
2 had intended for banking to be allowed, they would
3 have adjusted their goals accordingly.

4 So, what can we reasonably expect from
5 a fully functional RPS and how does it affect our
6 goal? Using a measured approach to RPS compliance
7 that allows incremental growth in wind and solar, we
8 willfully realize our goals of purchasing at least
9 32.5 million megawatt hours of renewable energy in
10 2025 and beyond. Advances in technology and
11 continued price reduction, especially in solar, will
12 help us get there more cost effectively. But an
13 effective RPS is the critical component in achieving
14 this goal.

15 If we focus on our RPS -- focus our
16 RPS on building our purchasing renewable energy in
17 Illinois, we reasonably expect to achieve a
18 significant portion of our carbon reduction goal. In
19 the chart above, I've modeled the impact of
20 subtracting different carbon-saving scenarios from
21 our base fossil rate. The rates I've modeled are the
22 Illinois fossil rate, the Illinois adjusted rate, a

1 marginal fuel rate and the average adjusted rate for
2 the region as defined by the Clean Power Plan. In
3 the worst case scenario, renewables get us 62 percent
4 towards our goal, and in the best case renewables get
5 us 88 percent towards our goal. If we include the
6 emission reductions from energy efficiency we can
7 easily and cost-effectively achieve our goal.

8 So how do we make our RPS an effective
9 policy to meet our goal? Well this is the current
10 situation, as you can see, it is very complicated.
11 For developers in renewable energy, complexity equals
12 risk and risk usually increases costs. In order to
13 effectively use the years, which we now in the start
14 of compliance as well as those after compliance, we
15 have to get the RPS back to a situation where there
16 is predictability and certainty. Predictability and
17 certainty allow for cost-effective incremental growth
18 in long-term planning.

19 The only way to achieve predictability
20 and certainty is to is to revamp the RPS into a
21 policy that groups all customers together and treats
22 them equally in terms of compliance. The easiest way

1 to do this is to make compliance a component of
2 distribution, not supply. Distribution companies do
3 not vastly change their customer load like suppliers
4 do and this provides stability. The IPA will be able
5 to predict with confidence the customer load covered
6 by the RPS well into the future, and could therefore
7 reasonably plan for incremental growth to get us to
8 cost-effective compliance. I believe Eric and
9 Madeleine will probably delve a little deeper into
10 what this means for their industries.

11 So in conclusion, we believe that the
12 potential for renewable energy in Illinois far
13 exceeds the estimated carbon benefits prescribed to
14 it by the EPA in Building Block 3. Furthermore, we
15 already have the skeleton of the policy needed to
16 realize those savings. However, the RPS must be
17 modified in order to achieve those carbon reduction
18 benefits. We believe that predictable incremental
19 growth in Illinois, renewable generation coupled with
20 energy efficiency, is the most cost-effective way for
21 us to achieve both our RPS policy goals and our
22 carbon reduction goals.

1 CHAIRMAN SCOTT: Thank you, Ms. Wochos.

2 Questions?

3 COMMISSIONER COLGAN: Yes, you get the same
4 question I asked Mr. Star.

5 MS. SARAH WOCHOS: Yes?

6 COMMISSIONER COLGAN: So the framework of the
7 legislation that was out there before, is
8 that --

9 MS. SARAH WOCHOS: It's still -- in the slide I
10 have about complexity, it still provides a lot of
11 complexity and there is still some risk associated,
12 so it's not ideal. It would have gotten us towards a
13 path where there was a little more predictability or
14 a little less risk but it's still risky. So it was
15 not ideal.

16 CHAIRMAN SCOTT: So what would the kind of
17 changes that would need to be made? What would those
18 be, what would that look like?

19 MS. SARAH WOCHOS: Well, one of the reasons why
20 our entire energy efficiency policy is so effective
21 is that there's a predictable amount of money and a
22 predictable customer load every single year, year in

1 and year out. And so that would be the optional way
2 for us to treat our RPS.

3 CHAIRMAN SCOTT: Okay. Thank you, very much.

4 Ms. Klein?

5 PRESENTATION

6 BY

7 MS. MADELEINE KLEIN

8 Okay. Thank you.

9 So I'm just going to briefly kind of
10 walk through solar and the role that it could play as
11 a part of Illinois' plan. I'm going to start with a
12 brief bio of SoCore only because it illustrates both
13 of some of the opportunities and challenges that
14 solar has in serving as a part of this plan.

15 So we were founded by two Chicagoans
16 in 2008. We were acquired by Edison International,
17 which is one of the country's largest energy holding
18 companies, in 2013. Edison International is one of
19 many large energy holding companies that has either
20 recently invested or is out shopping for distributed
21 solar companies like ours. We operate specifically
22 in the commercial/industrial space. There's other

1 companies that are out shopping for residential
2 installers as well. We're up to 65 full-time
3 employees in our downtown Chicago office but we've
4 literally got hundreds of workers on rooftops right
5 now, across the country installing our solar
6 installations. We're in construction right now for
7 32 megawatts of solar rooftop sites for clients
8 including: Walgreens, FedEx, IKEA, Kohl's, Cinemark
9 and other household names. We're building in
10 California, Texas, Connecticut, Massachusetts, New
11 York, Delaware, Maryland and Utah right now, today.
12 But the most important number on this slide is
13 actually "zero." We have zero projects currently
14 under construction in our home State of Illinois.

15 So, why is that? For a lot of the
16 reasons that Sarah and Anthony have just gone over.
17 Illinois currently ranks 27th in our particular space
18 in the solar market in commercial/industrial sector.
19 It's behind every other state with a solar or a DG
20 carveout in their RPS laws. There're two exceptions
21 to that, one is the State of New Hampshire, which has
22 a tenth of the populations of the State of Illinois,

1 so it's just much smaller. The other exception is
2 South Carolina and they just passed their solar
3 carveout this summer -- actually last session, so
4 very recently. Those are the only two exceptions.
5 Every other state with a solar carveout is well on
6 the way to significant solar as a portion of their
7 raw energy demand.

8 COMMISSIONER COLGAN: How many states that have
9 that?

10 MS. MADELEINE KLEIN: Around -- in the low
11 20's, I think. There are solar carveouts or other
12 kinds of solar goals, not every state does it the
13 same way.

14 You know, the reason for that is
15 really the complexity that Sarah has just outlined.
16 Our RPS is really not functioning as it should right
17 now. So, all in all to say there's a lot of
18 potential there, both in the law and in the market.
19 So solar -- Oh, sorry, can you flip back to the
20 previous slide -- Solar in general has growth
21 projections at about 10 percent of annual growth rate
22 through 2030. That's Bloomberg New Energy Finance's

1 sort of base case for the projections for solar
2 market growth over the next 15 years or so. Now,
3 solar has been well overshooting anybody's
4 projections for the last eight to ten years or so.
5 So I'm guessing that this is actually -- we'll look
6 back to find that these were pretty conservative
7 numbers. The market dynamics are in place for strong
8 growth, so the question becomes, what will it take
9 for Illinois to really share in this growth and make
10 it feasible for solar to play a large role in our
11 carbon reduction plan?

12 So to answer that question -- you
13 know, the next question is, well, what makes a viable
14 solar market? And just like any other energy
15 resource, the levelized costs of solar installation
16 have to be less than the levelized returns over time.
17 This is pretty simple, but you know, what's different
18 here, for solar versus other types of assets is that
19 costs are compressed over time through economies of
20 scale, barrier reduction, market competition, and
21 primarily declining equipment prices.

22 The costs of solar installed capacity

1 have been declining very dramatically, especially
2 since 2008/2009. The expectations are that that
3 very, very steep decline that you can see in that
4 chart may start to level out a bit, but the general
5 trend is going to keep going down there. So over
6 time, costs are compressed, returns go up as the
7 value of that solar energy increases which means that
8 ultimately the state incentive that was necessary to
9 close that gap diminishes and ultimately gets on the
10 path to zero.

11 In a state like Illinois where the
12 energy value -- energy prices are relatively low,
13 it'll take a little bit longer than some other states
14 for that state incentive piece of it to diminish to
15 zero, but ultimately that's the directional trends
16 that we're heading in.

17 Go to the next slide. My animation is
18 not happening.

19 So what are the smart ways to close
20 that gap? What are the smart ways to design state
21 incentive program that really does the job of
22 allowing the state incentive that is necessary to

1 close the gap, to decline over time? Before we would
2 talk about it, the first thing we need to do is fix
3 the RPS in the way that Sarah and Anthony sort of
4 described and hinted at. That's Number 1. Once
5 we've done that, we'll highly re-structure it to
6 really work out well.

7 There's two basic models that are at
8 work in markets across the country that we can
9 consider adopting here. One of them is a competitive
10 market-based type of program that values the extracts
11 of solar installation. Lots of good models out there
12 for programs that work very well; they're all a
13 little different, I won't go into the details. The
14 advantage of a competitive market-based program, of
15 course, is that projects receive just enough but not
16 too much of that incentive funding to get them over
17 the economic threshold and allow projects to go
18 forward. So this is arguably the most cost-effective
19 type of program to set up.

20 The other program design-type that is
21 very common is what we call a declining megawatt
22 block type of program. And that just simply says

1 we're going to offer an incentive at "X" price for a
2 certain amount of capacity. Once we fill that
3 capacity block, the incentive declines to the next
4 lower level. We fill the next capacity block, the
5 incentive declines and so on and so on.

6 So California's solar initiative is
7 the longest running solar incentive that exists in
8 the country today. It's the biggest, they've
9 developed about 1.8 gigawatts of power under this one
10 particular incentive program. Of course, California
11 has other ways of incentivizing solar. But you can
12 see on the chart on the right side of the slide,
13 costs have been declining very steeply in the context
14 of this incentive program over time.

15 So the advantages to this type of
16 program are transparency, predictability, even the
17 administration. So you could say, Well, does that
18 make up for the fact that maybe the prices aren't
19 precisely efficient for every single project. You
20 know, there are debates about that, but arguably,
21 they do.

22 Ultimately: you fix the RPS; you

1 solve the problems that were outlined by Anthony and
2 Sarah; you set up an incentive program, people will
3 come. There will be a solar market that gets
4 developed in Illinois. You know, we get a lot of
5 questions about, Well, is it sunny enough? Is
6 it -- you know, blah, blah, blah? Yes.

7 You solve the policy problems, the
8 solar market will develop. The essential program
9 features for getting this done, you need long-term
10 contracts with financeable terms. When I say
11 "long-term," I'm not talking about 20 years; five
12 years is just fine. So hopefully that avoids some of
13 the historical issues that we've had with long-term
14 contracts in Illinois.

15 You need a sustainable multi-year
16 program. So the \$30 million that the legislature
17 freed up in this past session is great, we're excited
18 about participating, but it doesn't really get us the
19 consistency that we need. You need to allow
20 companies to really invest in people in Illinois.
21 Set up shop, hire workers, do that kind of work so
22 that we can create jobs here.

1 It needs to be transparent,
2 predictable and large enough to matter. To really
3 attract the kind of investment that we need, it needs
4 to, you know -- it can't be a couple million here and
5 there, it has to be large enough to get people here
6 to really set up and invest.

7 So, finally, you know,
8 benefits -- clearly carbon and other pollution
9 reduction is very, very significant. Again, the
10 cost-effectiveness of those pollution reductions gets
11 better over time as prices come down. We've got lots
12 of grid benefits: distributed solar in particular,
13 in terms better resiliency of the grid; avoiding line
14 losses; being able to defer some T&D upgrades that
15 would otherwise would have to happen.

16 And then, finally, jobs and economic
17 investment is very significant. These are jobs that
18 can't be outsourced; installation jobs happen in
19 state. Just a couple highlights to share from the
20 Solar Job Census that was put out by the Solar
21 Foundation. By the end of 2013, there were many more
22 people employed in the US solar industry than in the

1 coal and gas industries combined. We're up to
2 140,000 people employed. Year-over-year job growth
3 is up in the 20 percent range, so that's quite a lot
4 higher than the national average. At the same rate,
5 fossil fuels jobs declined significantly. So these
6 are just some of the ancillary benefits that we can
7 achieve by making solar a very significant part of
8 the carbon reduction plan going forward.

9 COMMISSIONER COLGAN: I hear the theme and I've
10 heard for a couple of years running now, as to we
11 need changes of the Renewable Portfolio Standard.

12 I'm just wondering, is there existing
13 authority that could be used to deal with some of
14 this? And is there some authority that you might
15 think that this Commission would have in terms of
16 helping advance your goals that is not being taken
17 care of.

18 MS. MADELEINE KLEIN: It's a good question and
19 I might defer to Anthony on thoughts on this. But in
20 my mind, the primary sort of sticking point is the
21 funding mechanism. You know, how do you free up the
22 funds that are necessary to incent solar development.

1 If we could do that in some other way outside of the
2 RPS, then potentially that would be a good solution.

3 The RPS is preferred -- fixing the RPS
4 is our preferred approach because it does have the
5 promise of a long-term consistent policy and funding
6 source that can be put to work growing an industry
7 over many, many years.

8 COMMISSIONER COLGAN: And the declining block
9 system that you talked about, you set a goal for how
10 much you want to get done at a certain incentive
11 rate.

12 MS. MADELEINE KLEIN: That's right.

13 COMMISSIONER COLGAN: And once you've met that
14 there's the next block that you go to with less
15 incentive until you eventually get it down to zero.

16 MS. MADELEINE KLEIN: Yes.

17 COMMISSIONER COLGAN: And you say California is
18 a making that system work?

19 MS. MADELEINE KLEIN: Yeah, they're making that
20 system work and in fact, there are three big IOUs in
21 California: PG&E, Southern CalEd, and then San Diego
22 Gas&Electric. PG&E has run out of incentives;

1 they've gotten down to zero; they've used all their
2 capacity. They're still solar developments going on
3 in PG&E territory, it just doesn't need to be an
4 incentive market anymore. The other two utilities
5 are on the very last step of the program.

6 COMMISSIONER COLGAN: Is the sun better in
7 California than it is in Illinois? Is that part of
8 the reason?

9 MS. MADELEINE KLEIN: You know, yes, the sun is
10 better in California than it is in Illinois, but I
11 would say that's not part of the reason. I mean,
12 certainly marginal generation efficiency is a part of
13 the equation. You know, there are other parts of the
14 equation; the cost of energy is a very significant
15 policy structure. So the three things together are
16 three factors that interplay with one another to
17 determine the viability of any given market. So New
18 Jersey's the second biggest solar market in the US
19 after California, and New Jersey's sun is not as good
20 as ours.

21 COMMISSIONER COLGAN: I guess I'm kind of
22 struck by the number of jobs that you talked about.

1 And a couple parts to the questions there,
2 what -- are the skills that people need to work in
3 the solar industry a different set of skills that you
4 would need to work in, like the gas and coal
5 industry? And, to what extent has anybody
6 measured -- I know that in the President's Recovery
7 Plan, he had a lot of green energy pieces in there.
8 And the whole idea was that people would be employed
9 on a temporary basis, to do these jobs and that they
10 leave that period of time when that -- those
11 resources were available and then be able to transfer
12 that into unsubsidized jobs.

13 Are some of these people -- was that
14 affected in your opinion, or do you have an opinion
15 on that?

16 MS. MADELEINE KLEIN: Well, let me start out by
17 saying that the types of jobs that are active in the
18 solar industry are electricians. Of course, we've
19 got laborers who haul panels and haul racking systems
20 up to the roof; we've got folks who are connecting
21 conduit; we've got crane operators who are hoisting
22 things. You know, it's mix of a number of different

1 kinds of construction and electrical trades.

2 So the way that ultimately the
3 President's goal was supposed to work out, I think
4 has been successful in a number of ways, you get
5 these folks trained up to do solar installations.
6 Yes, it's -- a solar installation has, depending on
7 the size of it, maybe you've got a bill period of a
8 month or two months or three months, and then those
9 people move on to the next job, right? There is a
10 certain amount of ongoing operating and maintenance
11 work that needs to be done on solar installation, but
12 primarily you hope that those people get employed in
13 the next job, in the next job, and in the next job.
14 And I think that there's really good argument that
15 that will happen given the -- on average 10 percent
16 compound annual growth rate that we're seeing in this
17 market today.

18 COMMISSIONER COLGAN: Okay. Thank you.

19 COMMISSIONER del VALLE: I have a question on
20 the jobs issue.

21 How much -- I know you're dealing with
22 commercial here, but what's happening with

1 residential? I mean, how much of the activity is in
2 that column and how does that translate into future
3 job growth, also?

4 MS. MADELEINE KLEIN: Yeah, the residential
5 market is even hotter than the commercial/industrial
6 market right now. We're not in that sector, so, I'm
7 not an expert on the data there. But I will say that
8 the growth trends in residential have outperformed
9 commercial and industrial for a couple -- for at
10 least the last year or so.

11 COMMISSIONER del VALLE: And the incentives for
12 residential, how do they compare in California and
13 Arizona and other states?

14 MS. MADELEINE KLEIN: So there are incentives
15 for resident -- there are incentives for residential
16 just like there are in the commercial/industrial
17 market. Typically residential systems, just because
18 they're so much smaller, are more expensive on a
19 per-watt basis than the larger C&I type of systems.
20 However, the energy offset rate of a residential
21 customer is typically higher than the energy offset
22 rate of a commercial/industrial customer. So that

1 tends to balance that out a little bit.

2 Incentive programs for residential
3 sectors specifically, more often than the
4 commercia/industrial sector, have been designed as an
5 up-front incentive, so you get a certain portion of
6 the system price bought down by the state incentive
7 rather than having it paid out over time in the sort
8 of model that we've been discussing here. It can
9 work either way and there are different advantages
10 and disadvantages to either program model. But it's
11 safe to say, again, if we fix RPS -- take the time to
12 design a smart procurement, a smart program here
13 which Anthony has been doing, for this initial
14 procurement, we'll absolutely be able to get the
15 residential market up and running as well.

16 CHAIRMAN SCOTT: Thank you very much,
17 Ms. Klein.

18 MS. MADELEINE KLEIN: Thank you.

19 CHAIRMAN SCOTT: And Mr. Thumma, can we hear a
20 little bit about wind?

21

22

1 PRESENTATION

2 BY

3 MR. ERIC THUMMA

4 Good afternoon and thank you for the
5 invitation to join you today. My name is Eric Thumma
6 and I am with Iberdrola Renewables. We are a
7 developer/owner-operator of -- primarily of wind, we
8 do have some solar assets in the western part of the
9 country. This is just my overview of my
10 presentation. Some of this will be redundant with
11 the other speakers so I'll try to make points that
12 were maybe different or complimentary to what they
13 were saying. The main point that I'm going to
14 attempt to make today, though, is to show you that
15 the policy we already have in place in terms of the
16 wind requirements within the RPS, can get you a
17 substantial way to the 111(d) goal, if implemented
18 properly.

19 So we've talked about some of this but
20 I'll just make a few points. 111(d) is going to
21 require real reductions and I contrast this to my
22 time at the Pennsylvania DEP when we would implement

1 some programs, for example, ground level ozone where
2 EPA would give us credit just based on doing
3 something. So gas caps -- central gas caps come to
4 mind, vehicle emissions inspection comes to mind;
5 this is not going to be that type of program. EPA is
6 going to measure actual carbon emissions. And so in
7 terms of using RPS as a building block to getting
8 there, we have to make sure that RPS is actually
9 leading to real investments in the ground that are
10 offsetting emissions of carbon dioxide, and that this
11 isn't just an accounting mechanism. That has been
12 one of the problems with RPSs across the country, is
13 that they tend to become accounting mechanisms in
14 some instances for unbundled RECs from existing
15 facilities or facilities that didn't really need a
16 financial incentive and that those facilities already
17 existed and didn't change emissions baselines of
18 those states. So that's where we are and I think
19 that's important to remember as we construct the RPS
20 going forward.

21 In anticipating your question about
22 load shifting -- so I think load shifting is really

1 the main challenge with the RPS. And it's unique
2 to Illinois because of the way the Illinois RPS is
3 created. So to anticipate your question, I would say
4 that our industry, and certainly our company,
5 preferred the solution inside the 103, which was to
6 make the RPS compliance a function of distribution
7 charge. We felt that was the simplest mechanism; it
8 had the potential to be the most transparent and it
9 also is competitively neutral. So competitive
10 suppliers can still go out and compete with each
11 other for brown power and complete on generation; we
12 weren't affecting that market. And then further,
13 they could still offer green products that were over
14 and above the RPS. So we thought that was a solution
15 that really addressed all the potential challenges.

16 That said, if that's not workable I
17 think some of the other ideas that were put forward,
18 are things that we would be interested in talking
19 about. I think the key is, as all the folks here
20 have demonstrated, is that we have a stable, known
21 stream of revenue that the IPA can use to make what
22 they believe to wisest investments, the most

1 competitive investments.

2 I think the last point that hasn't
3 been touched upon in terms of RPS reform is
4 ACP. You have this unique ACP mechanism in Illinois.
5 I think EPA has been fairly clear that ACPs are not
6 going to count as reductions. So obviously, you can
7 take the ACP and you can invest it in a way that
8 makes reductions in certain projects that will be
9 making reductions, but I think it may be prudent to
10 look at, is that adding a layer of complexity that's
11 unnecessary and can we change the RPS to make it more
12 efficient. So I would sort of offer those two
13 points: Distribution charge as the function of RPS
14 and looking at the ACP as a way to dramatically
15 improve the efficiency of the RPS as we consider it
16 in the context of 111(d).

17 So I'm just mixing in some AWEA slides
18 that will give you a natural picture. I won't dwell
19 on them. This is just sort of showing carbon
20 reductions from wind energy, just to sort of
21 emphasize that wind is working, reducing carbon
22 dioxide right now, and it's a policy that I think EPA

1 has rightly inserted as one of the main building
2 blocks.

3 Try to look at Illinois, specifically,
4 and these are my projections, so I will happy to
5 provide all the data behind this if somebody is
6 interested in looking at it. We actually filed these
7 numbers with the ICC in the last year's IPA
8 proceeding in rehearing that we did. So I think
9 these may be a little conservative than some of the
10 other numbers that you've seen; largely because I'm
11 only looking at about 12 years, compliant through
12 15-16 through the end of the RPS, which is compliant
13 here, 25 and 26. And showing the incremental amount
14 of new wind that we'll need, and then totaling that
15 to get the reductions that we find on the next page,
16 which is really the key point that I want to make
17 today. And, I'm a social scientist so my arithmetic
18 is wrong; that should be 42 1/2 percent, not 48
19 percent, so I apologize for that. But the point
20 being that you already have a program in place in the
21 RPS. If we make it function effectively and cost
22 effectively they can get a lot of the reductions that

1 EPA is asking for under the Clean Power Program.

2 So I think that should be heartening;
3 I wasn't here for the first session, but I understand
4 there were -- some people presented that there may
5 have been challenges with some of the first two
6 building blocks; but here I think we already have a
7 robust policy in place to make Building Block 3 work
8 very well for Illinois.

9 So again, just to give you some of the
10 natural picture, and to some extent this applies more
11 regulated markets, but AWEA looked at the tradeoff
12 between wind and gas and the savings that you from
13 wind based on the price of natural gas. So
14 obviously, as you would expect, as the natural gas
15 becomes more expensive wind becomes a more effective
16 driver and more cost-effective and more savings by
17 including wind in the Clean Power Plan.

18 My last slide is just my policy
19 recommendations. We talked about some of these, I
20 think; that we should be using distribution charge as
21 the main compliance function for RPS. I would look
22 to convert the ACP to a real procurement obligation,

1 and then, I think in line with what the other folks
2 have talked about, from a procurement standpoint we
3 would like to see a portfolio approach. We would
4 like to see a shifting away from complete reliance on
5 one-year RECs to a combination of bundled long-term
6 contracts for energy and RECs, followed by possibly
7 other shorter-term REC-only contracts.

8 I would just note in closing that how
9 to build new generation and incentivize of our new
10 generation is a challenge on all the restructured
11 markets and not just for renewables. We've seen that
12 for conventional generation in Maryland and New
13 Jersey cases. So all the restructured markets have
14 wrestled with it and they've done it in different
15 ways. But we have never said we should be 100
16 percent long-term bundled contracts. We've always
17 thought that this portfolio approach is what makes
18 the most sense. And the challenge has been we've
19 kind of gained 100 percent too much short-term and
20 we're just saying let's mix this up.

21 So I think that if we can fix the RPS
22 in a sustainable funding stream, this can be a really

1 important and cost-effective building block for
2 Illinois' compliance efforts towards 111(d). So
3 thanks very much for the time and I'm happy to answer
4 questions.

5 CHAIRMAN SCOTT: Thank you.

6 Commissioner Colgan?

7 COMMISSIONER COLGAN: You talked about Senate
8 Bill 103 and you think the solution to this is to put
9 this into the distribution charge. And, like most
10 things in this business, rate making is a complicated
11 process, and I have a real concern about moving
12 more -- everybody wants to move more cost -- more of
13 the cost recovery to the distribution charge.

14 There are some people -- there are
15 some ratepayers in that distribution charge who
16 aren't getting the benefits that they're actually
17 paying for. And, so, have you given any thought of
18 coming in in terms of proposing some sort of changes
19 in the rate structure and the different classes of
20 customers and how you would recover those costs
21 through the distribution charge?

22 MR. ERIC THUMMA: Well, we're certainly open to

1 ideas and we're open to ideas that are separate than
2 using the distribution charge. We've talked about
3 that.

4 COMMISSIONER COLGAN: Well, we're open to
5 ideas, too and to be able to actually do those sorts
6 of things there has to be record of evidence about
7 how that can be done.

8 MR. ERIC THUMMA: I think what we liked about
9 the distribution charge, frankly, and maybe we have a
10 different view on this and I need to understand your
11 view better, is we actually thought that it was maybe
12 the most transparent way to show folks what this is
13 costing because it's a line item on the bill. This
14 is how much renewables are costing whereas now it's
15 sort of buried in either a generation charge for the
16 competitive supplier or it's part of the IPA.

17 COMMISSIONER COLGAN: I'm not saying that the
18 distribution charge is not a good idea, I am not
19 saying that. But I am saying that it's not a simple
20 idea.

21 MR. ERIC THUMMA: Okay.

22 COMMISSIONER COLGAN: It's a very complicated

1 idea to say that, Well, let's just put it in the
2 distribution charge.

3 Well, does that mean everybody, all
4 the customers? It's like -- well, let's raise taxes
5 so we can pay for the societal costs that are huge
6 and apparently are over-the-top. But, who pays the
7 tax? Who's going to pay those taxes? And it's about
8 the distribution charge -- I'm just sharing my
9 thinking on this -- about how do you better structure
10 different rate classes and rate structures so that,
11 you know, people who aren't benefitting so much from
12 the program or can't afford any more fixed costs, How
13 do they benefit from it? So that's --

14 MR. ERIC THUMMA: We'll certainly take it under
15 advisement. I appreciate that point.

16 CHAIRMAN SCOTT: Let me just ask you one
17 question and I'll let you go. One of the existing
18 wind -- all of this kind of contemplates building on
19 the existing wind that we already have, and when I
20 say "we," nationally, not just here in Illinois.

21 MR. ERIC THUMMA: Right.

22 CHAIRMAN SCOTT: Is there an issue with the age

1 and technology involved with some of the existing
2 wind farms and is there additional cost
3 there -- we're always talking about it in terms of
4 building new; but there is an asset that's already
5 out there. Is there an issue with that in terms of
6 ongoing O&M?

7 MR. ERIC THUMMA: Yes. So there is ongoing
8 operation and maintenance that tends to be a much
9 smaller portion of our cost than capital cost, which
10 is why when you talk to wind developers you probably
11 hear us always talking about long-term contracts,
12 long-term contracts because that's -- the primary
13 challenge is financing that capital cost and
14 getting -- sort of addressing the risk with that.

15 But there is ongoing operation and
16 maintenance and we're learning more about that,
17 right, because frankly, most wind farms in the
18 country are younger. They're not the old latticework
19 wind farms you saw in Altamont that were the original
20 wind farms back long before I was in this business.

21 But the farms are meant to operate for
22 20 to 25 years. We obviously prefer to try to

1 amortize those over that twenty-year period, and
2 that's the expectation of the industry. And,
3 generally, the expectation of the warranties that
4 companies engage in with the manufacturers.

5 CHAIRMAN SCOTT: Since we're look at something
6 that's going out an additional 20 -- 25 plus years,
7 would the expectations be that the existing farms get
8 new facilities on them? Is that --

9 MR. ERIC THUMMA: Yeah, I think that in most
10 cases --

11 CHAIRMAN SCOTT: I'm worried about stranded
12 cost here --

13 MR. ERIC THUMMA: Right. Sure. And I think
14 you're raising an important question and maybe we
15 haven't thought a lot about -- while we sort of
16 scramble to get the initial investments in, and so we
17 should think about that.

18 I would say that most wind farms of
19 which I'm aware have options on their leases. So I
20 think there's an expectation that those wind farms
21 would be re-upped; re-powered if you will, after the
22 20-year period. You know, what I say today, that the

1 expectation would be we'd be closer to whatever the
2 market price of energy would be 20 years from now. I
3 probably won't be here to have to face the
4 consequences of that, but I think that would be the
5 expectation. That we're sort of -- we're taking
6 these positions and we're expecting them to be
7 re-powered and to be assets that would last longer
8 than 20 years and that in that in the future they
9 will be closer to market if not beating the market.
10 But we can't predict that far, of course; right?

11 CHAIRMAN SCOTT: We'll have to be back in 2034.

12 MR. ERIC THUMMA: Sure, I'll be here.

13 CHAIRMAN SCOTT: Thank you very much and thank
14 you to all of our panelists.

15 We'll take 15 and if the last panel
16 could, near the end of that break period, move up and
17 take seats, that will help us save a little time,
18 thanks.

19 (After a short break, the
20 policy session resumed as
21 follows:)

22 CHAIRMAN SCOTT: All right. Thanks very much

1 for getting back, and we're sort of on time. This is
2 good.

3 Our last panel, as I mentioned
4 earlier, we're going to do a little bit differently.
5 We've got seven different entities that are going to
6 start with a brief statement, no more than 5 minutes,
7 and just kind of talking about energy efficiency.
8 And then we've got a series of questions that we're
9 going to get into as kind of a discussion -- group
10 discussion then.

11 We'll introduce everybody at the
12 beginning and then just go ahead and go in the order
13 that we've listed here. Annette Beitel is the
14 Independent Facilitator of the Illinois Energy
15 Efficiency Stakeholder Advisory Group; John Cuttica
16 is the Director of Energy Resources Center at UIC;
17 Val Jensen, the Senior Vice President, Customer
18 Operations from ComEd; Keith Martin, Director of
19 Energy Efficiency and Craig Nelson, Vice President of
20 Regulatory Affairs and Financial Services, from
21 Ameren; Mel Nickerson, Deputy Director, Office of
22 Energy & Recycling, Department of Commerce and

1 Economic Opportunity; James Potach, Senior Vice
2 President, Energy and Sustainability Services from
3 Schneider Electric; and Becky Stanfield, Deputy
4 Director for Policy, Midwest Program of NRDC. That
5 was in alphabetical order so there's obviously no
6 agenda there.

7 Let's start with Annette, and if you
8 would, just lead us on.

9 PRESENTATION

10 BY

11 MS. ANNETTE BEITEL

12 Sure. Thank you.

13 So Commissioners, thank you very much
14 for inviting me to speak on this very important
15 panel. I'm going to say a few words about the state
16 of efficiency in Illinois. Specifically, I think
17 that energy efficiency in Illinois compared to other
18 jurisdictions is going extremely well.

19 I'd like to just mention a couple of
20 areas where I think that Illinois really is a leader.
21 Number one, I think as everybody knows, Illinois is
22 in the top ten states in the ACEEE benchmarking

1 study, the only Midwestern state. Second, Illinois
2 is really new on the block; it's one of the newer
3 jurisdictions in the midwest to have an EEPS
4 portfolio. And, despite that, Illinois has rocketed
5 to the top very quickly in only five or six years.

6 Number 3, in benchmarking the Illinois
7 programs and the portfolio administration against
8 other leading jurisdictions, Illinois is being
9 extremely cost efficient. So the admin cost for
10 Ameren and ComEd, for example, are under 5 percent.
11 Five percent is really considered to be the gold
12 standard in low administration costs.

13 Number 2, Illinois is really running
14 very market-driven programs. So instead of having
15 utility representatives go out and market programs
16 and drive up costs, the Illinois portfolios and
17 program administrators have done an excellent job
18 training the trade allies, training the vendors to go
19 out and be the sales force for energy efficiency,
20 really leading to market transformation.

21 Third, Illinois has a separation
22 between administration and implementation. In a

1 number of jurisdictions, utilities try to do both and
2 only bid out a piece of implementation, and then
3 their implementation portfolio that they administer
4 is never subject to the market. And so, the Illinois
5 portfolio administrators decided we really want these
6 most cost-competitive portfolios and they bid on a
7 regular basis. Providers that are doing a really
8 good job have stayed with the programs for a long
9 time. Providers that are not doing so well wind up
10 turning over; but all of the providers are subject to
11 the market competition and so their costs are very
12 low.

13 I recently was talking to one of the
14 staff at the utilities and said, Why is it that you
15 are doing such a great job in being so cost efficient
16 compared to a lot of other utilities? And I loved
17 the response, and I think really indicates why
18 collectively Illinois is doing such a great job. The
19 response was that his leadership, and specifically,
20 in this case it was Val Jensen, does not see the
21 ratepayer as utility ratepayer. He said, We are told
22 all the time that we are the stewards; it is not our

1 money and we need to do the best for the ratepayers
2 and the State of Illinois. And I thought that was
3 very telling; I thought it really represented the
4 right attitude towards efficiency and that really
5 helps explain why Illinois is doing so well.

6 Some other indicia of how well
7 Illinois is doing is that the electric utilities year
8 after year have exceeded goal for under budget. And
9 finally, even though there are five different
10 portfolio administrators in Illinois, there's a very,
11 very high degree of coordination. There's
12 coordination north/south, there's coordination
13 gas/electric, there's coordination between the states
14 and the state programs and the utility programs,
15 really in an almost unprecedented way, compared to
16 what I've seen in other parts of the country. That's
17 something to be very proud of.

18 When I was putting this presentation
19 together I was trying to reflect on my experience
20 here versus other places and trying to understand why
21 is it Illinois is doing so well. And in my mind it
22 really boils down to leadership. And I'm going to

1 name several names because I think that it's
2 important to really recognize the many strong
3 individuals in this state who've really contributed
4 to the excellence, So: Chairman Scott; Val Jensen;
5 Keith Martin; the stakeholders Rob Kelter, Karen
6 Lusson and her technical advisor, Phil Mosenthal;
7 Becky Stanfield and her technical advisor, Chris
8 Neme; and ICC staff has also done a great job of
9 really understanding the issues, working extremely
10 hard, and really trying to defend the interest of the
11 ratepayers.

12 So I just think there is a very broad
13 and deep set of leaders in this state, working
14 together to accomplish these goals. I think that the
15 some of the key attributes of the leadership I'm
16 seeing in Illinois, again in contrast to other
17 jurisdictions is that a lot of the discussions are
18 really fact-based, they're not rhetoric. People
19 don't sit in their institutional positions, dig in
20 their heels, and refuse to listen to other sides,
21 which is very impressive.

22 The other thing that I've found is

1 that the utilities, even when they're not being
2 served to Iroquois and its CEO have been extremely
3 willing to share information that stakeholders have
4 asked for, to help the stakeholders really, again,
5 analyze in a fact-based way; that it's not under any
6 kind of compelling order, it's just that they're
7 willing to share because they want everybody to be
8 informed.

9 The discussions that I've seen have
10 been very respectful. People are willing to change
11 positions in discussion and then there is, again,
12 many beyond the leaders that I mentioned. Many smart
13 thoughtful people from around the country:
14 Massachusetts, Colorado, Vermont, who regularly
15 participate in discussions in Illinois and really
16 have elevated the quality of work and the results
17 here.

18 There are couple areas where I think
19 there is we can do better as a state. One is I think
20 we need to do a better job serving low- and
21 moderate-income customers, meaning those who are not
22 just poverty and eligible for WAP programs; but those

1 that are 80 percent and below the A-Atlantic area
2 median income. And there's been analysis done in
3 Illinois looking at the census tracts that are using
4 the incentive programs and they're very highly
5 correlated with income.

6 So we really have seen that the census
7 tracts that have lower income, but not even super-low
8 income, really are not using to the extent that
9 others are, the standard incentive programs. So I
10 worry about, essentially a progressive tax. And
11 there are other programs I think we can look at to
12 try and, you know, help do better in that area in
13 Illinois -- and not the DCEO but everybody, you know,
14 the utilities as well.

15 So another area of improvement is if
16 we're seeking greater goals and really seeking to
17 meet the 111(d) requirements with a big chunk of
18 efficiency, I think we need to look at aligning the
19 financial incentives of the program administrators with
20 higher efficiency. I think at some point it's not
21 going to be realistic to expect greater performance
22 when the entities are losing money and there's also

1 precedent of nonprofit administrators having some
2 performance incentives and I do think if the goals
3 are going to be increasingly high, that needs to be
4 an area that's addressed.

5 CHAIRMAN SCOTT: Thank you, to wrap up --

6 MS. ANNETTE BEITEL: Oh, I'm sorry.

7 CHAIRMAN SCOTT: There's a couple things we're
8 going to get into -- are the things we are going to
9 get into during the sessions.

10 MS. ANNETTE BEITEL: Okay. Sure.

11 My final thought is, again, I think
12 Illinois is doing a great job. You should all try to
13 do better job of championing the results that
14 Illinois has and working together to get greater
15 results.

16 So thank you, very much.

17 CHAIRMAN SCOTT: Thank you. I appreciate it.

18 Mr. Cuttica.

19 PRESENTATION

20 BY

21 MR. JOHN CUTTICA

22 Yes, first I'd like to thank the

1 Chairman and the Commissioners and the commission
2 staff for inviting me to participate on the panel. I
3 submitted some written comments for you to review and
4 would like to just quickly summarize some of the
5 highlights there.

6 I'm not here to comment on the
7 appropriateness of the proposed rule nor provide my
8 opinion on the merits or the non-merits of it, but
9 what I want to concentrate my remarks on combined
10 heat and power and waste heat to power. And I will
11 say that should the rule become law and State of
12 Illinois be required to develop a compliance
13 implementation plan, it is my opinion that CHP and
14 waste heat to power should be seriously considered as
15 a very viable and strong compliance option.

16 Although EPA did not explicitly
17 consider CHP and waste heat to power when developing
18 the four building blocks and determining the state
19 and emission targets, EPA has already recognized the
20 value of CHP and I'd like to read an excerpt from the
21 proposed rule: "In all types of market structures,
22 large energy users might independently see additional

1 energy efficiency opportunities or opportunities for
2 self-generation using options such as combined heat
3 and power..." and the excerpt goes on to say, "and in
4 states can structure their plans to allow the CO2
5 reductions achieved at affected EGUs through such
6 actions to assist in reaching compliance."

7 I'd also like to point out that CHP
8 and waste heat to power can be utilized not only as a
9 building block for technology, which we will
10 discussing in this panel, but can also be utilized to
11 reduce emission at the affected facilities
12 themselves, which would be Building Block 1, or by
13 substituting generation at EGUs with expanded use of
14 renewable CHP or waste heat to power by other
15 unaffected sources in the region, which, of course
16 was the Building Block 3 that we just heard.

17 Just so that we're all on the same
18 level playing field, let me very briefly define what
19 we're talking about here. So CHP is an efficient and
20 clean approach to generating electric power and
21 useful thermal energy on-site at the point of use
22 from a single fuel source. And waste heat to power,

1 which is a form of combined heat and power, captures
2 waste heat that would typically be vented from an
3 industrial facility and uses the heat to generate
4 electricity with no additional fuel, no additional
5 combustion and no incremental emissions.

6 So my handout provides four distinct
7 reasons why CHP and waste heat to power should
8 qualify as a best system of emission reduction or a
9 BSER under the 111(d) proposed rule. And let me just
10 quickly state them with a sentence or two on each
11 one. You got more information on the handout in
12 front of you.

13 CHP and waste heat to power reduces
14 CO2 emissions and CHP can produce roughly about
15 one-half the carbon emissions produce when generating
16 the electricity and the heat separately as is done
17 conventionally, so electricity from the grid and
18 thermal energy from an on-site boiler. And the
19 graphic shows that for a 5 megawatt gas turbine
20 system the CO2 emissions from CHP is roughly about
21 23,000 tons versus the 45,000 tons from the
22 conventional.

1 Number two, CHP and waste heat to
2 power are cost-effective. You can take a look at
3 that graphic, and in some detail later you can look
4 at it in more detail, but it compares a 10 megawatt
5 gas turbine CHP system with an equivalent capacity
6 for a voltaic system, a 10 megawatt wind system and
7 ten megawatt portion of a natural gas combined cycled
8 plant. The rest of the assumptions you can see on
9 the bottom of the graphic.

10 The bottom line of the graphic is that
11 the CHP system compares very favorably with the
12 competitors, and I'll also point out that today CHP
13 systems do account for about 8 percent of the
14 generated capacity in the US.

15 Number 3, CHP and waste heat to power
16 enhance electrical liability. They do this by
17 alleviating the stress and burden placed on
18 overcrowded transmission and distribution lines. And
19 I did point out an excerpt from the proposed rule
20 that acknowledges this fact. We also know that CHP
21 systems, when properly configured, have proven
22 themselves during such tragedies as the Super Storm

1 Sandy, Hurricane Katrina, and the large blackout in
2 the Northeast about ten years ago when the CHP
3 systems on many of these installations were able to
4 keep the lights on during these prolonged grid
5 outages.

6 Finally, CHP and waste heat to power
7 are proven technologies. And I guess this is the
8 main point. Illinois is in a unique position in my
9 mind -- is in a unique position to capitalize on CHP
10 and waste heat to power while developing their
11 compliance plan. And why? Because there is
12 approximately 1.2 gigawatts of CHP installed in
13 Illinois today and operating. There exists a large
14 technical market potential for CHP in Illinois;
15 Illinois already recognizes CHP and waste heat to
16 power thanks to the ICC and the last plan
17 submissions, so it's already recognized these two
18 technologies in its state Energy Efficiency Portfolio
19 Standard Program. And Illinois also recognizes CHP
20 and the role it can play in its state energy
21 insurance plan.

22 So I'll conclude my remarks by

1 thanking the Commission for recognizing CHP and waste
2 heat to power in this important workshop and panel
3 discussion. There will be many choices and
4 opportunities as you move closer to developing the
5 compliance strategy. And again, I will state that I
6 believe that CHP and waste heat to power can and
7 should play a significant role in the process.

8 So, thank you.

9 CHAIRMAN SCOTT: Thank you, Mr. Cuttica.

10 Mr. Jensen?

11 PRESENTATION

12 BY

13 MR. VAL JENSEN

14 Thank you Mr. Chairman and
15 Commissioners. I appreciate the opportunity to
16 participate in the first of what I'm guessing is
17 going to be a long series of steps toward a final and
18 effective solution for Illinois and I want you know
19 that we're committed to working with the Commission
20 and other parties to make sure we get to that right
21 solution.

22 I had a rather long set of prepared

1 remarks and I'm going to kind cut to the chase with
2 some of it and try to give you a flavor of some of
3 the challenge that we think we're going to face in
4 trying to fit energy efficiency into an effective
5 climate protection strategy. I would like to say,
6 echoing something that Annette brought up early on, I
7 think we have an extreme advantage, if I can
8 characterize it as such, in Illinois. In the process
9 that we put together we've had great cooperation from
10 staff, from the Commission, and from other parties,
11 which has made this a much more functional energy
12 efficiency planning and implementation process than I
13 think you're going to find pretty much anywhere in
14 the country. I've worked prior to this job as a
15 consultant in this field and I didn't think it could
16 be done but I think it's fair to say, parties here
17 would agree, that we built something pretty special
18 and I think it's a great foundation for moving ahead.

19 So a couple of things about energy
20 efficiency and at least the framework that we
21 understand from EPA to date. They envision or have
22 made an assumption that energy efficiency could

1 supply about 1.5 percent of a reduction in energy use
2 or electricity use per year, adding up to something
3 like 12 percent cumulatively by 2029. In Illinois,
4 at least speaking for ComEd, we are currently at
5 about 1.5 percent annual incremental reduction in
6 electricity deliveries.

7 So just comparing where we are today
8 with what might be recovered -- might be expected
9 under EPA's strategy, you'd think we've kind of
10 gotten it manned. The problem is there's a long time
11 between today and 2029 and a lot can change. So
12 there are a couple of things I'd like to bring to
13 your attention.

14 One of which is that in 2020 federal
15 statute brings into effect a new lighting standard,
16 which will raise significantly the required
17 efficiency for residential lighting. Now, because of
18 the way we measure energy efficiency savings in this
19 business, the enactment of additional efficiency
20 standards essentially takes away savings that utility
21 programs would otherwise be able to acquire. So in
22 2020 we will go from roughly 1400 gigawatt hours a

1 year in savings to 1200 just by virtue of the federal
2 standards going up.

3 Now, we think that can be replaced.
4 We think there's certainly additional potential out
5 there; but looking at the cost curve for acquiring
6 energy efficiency from where we sit today, we're
7 starting to look at that kind of traditional hockey
8 stick where incremental energy efficiency savings
9 look to us today to be much more expensive than what
10 we've had in the past. Incrementally it costs us
11 about 20 cents on the first year basis to save a
12 kilowatt hour. That marginal cost is going to
13 double, we think by the time we get near the end of
14 this decade and we're trying to replace those cheap
15 lighting savings.

16 So one of the challenges is even
17 though we think there's a lot of potential left to
18 recover, we think the cost, at least looking at it
19 today, is going to be substantially higher than it is
20 right now.

21 Looking at a recent potential study
22 that was done for us under the state law that we

1 operate under, we're operating at about -- we expect
2 to operate at about 70 percent of what the consultant
3 identified as maximum achievable potential over the
4 next five years. We think we can reach what is
5 maximum achievable potential, but the cost that
6 they've identified would be roughly twice what we're
7 spending now. So we're spending roughly \$200 million
8 dollars today. Next year, we will be investing \$250
9 million dollars of customer money, and to get to that
10 next level of efficiency potential we're estimating
11 it could cost as much as \$500 million a year.

12 As you know, there are two pieces to
13 Illinois' energy efficiency framework. There is the
14 original piece enacted in 2007 and then there's the
15 piece administered by the IPA that was enacted in
16 2011. Under the original piece we are capped at 2
17 percent of revenue. Basically customer bills are not
18 to rise more than 2 percent to fund energy
19 efficiency. Under the IPA process there is no such
20 cap on customer billing impact. So to reach this
21 maximum achievable potential, we would have to shift
22 a lot of funding into this IPA process. And we would

1 go from what we estimate right now to be roughly at 2
2 percent bill impact to closely a 6 percent bill
3 impact for certain customers.

4 Now the way the Commission actually
5 balances between this original process of and the IPA
6 process makes a big difference in terms of who bears
7 those costs. But, right now, under the IPA process,
8 those dollars can only fund energy efficiency for
9 residential and small business customers.

10 So, given our current structure in
11 Illinois, a larger burden relatively could be falling
12 on residential/small business customers as we try and
13 meet that potential.

14 So that said, let me raise a couple of
15 issues that we think will be important for parties to
16 address over the next couple of years as we wrote
17 this out. First, while there's been a lot of talk
18 about a rate-based method for complying with 111(d),
19 we think we think energy efficiency can do equally
20 well under mass-based or rate-based. In fact, there
21 may be some reason to believe under a mass-based
22 standard we could be more creative with how we

1 develop energy efficiency.

2 Second, a really, really important
3 piece of how energy efficiency works under any kind
4 of climate regime is the evaluation framework. And I
5 think we're lucky in Illinois that we have probably
6 one of the strongest evaluation systems going across
7 the country. That system was not built without a lot
8 of pain on all sides, and by me calling it good means
9 I really don't like it. It puts a lot of pressure on
10 the utilities and we've lost a lot of savings that we
11 thought we actually acquired by virtue of the
12 evaluation process.

13 That said, I think it's fair, it
14 counts as well as we can count. But, I think if you
15 look at the evaluation debate around the country
16 you're going to see people start to be asking some
17 questions about whether the way we have done energy
18 efficiency evaluations historically is the right way
19 to do it in the future.

20 I don't know the answer to that but I
21 think this process gives us an opportunity to ask
22 those questions in a context of our Illinois process

1 and just make sure we're all still aligned on what
2 the right way to count energy savings would be.

3 The final thing I guess I'd like to
4 raise -- and I've already hinted at it, is this
5 dichotomy of bifurcated energy efficiency process in
6 Illinois. There were lots of good reasons for why it
7 was done this way, but the end result is a process
8 that I don't think any of us are all that thrilled
9 with. It forces us to deal with two sets of
10 statutory terminology two sets of standards; two sets
11 of cost recovery mechanisms to some extent; two
12 different approval processes, and it makes it
13 difficult for us to effectively sync up an energy
14 efficiency portfolio. I know I've also causes issues
15 with DCEO because it's unclear if they were allowed
16 to participate, not allowed to participate, in this
17 new IPA process.

18 These are both statutory processes and
19 I'm not sure the extent to which we can do much about
20 that. We'll make the best of whatever the situation
21 is, but to the extent that we can have a discussion
22 about how we might be able to harmonize those two

1 processes, I think we'll be in a much better position
2 to achieve all that we can with energy efficiency
3 under 111(d).

4 Thank you.

5 CHAIRMAN SCOTT: Thank you, Mr. Jensen.

6 Mr. Martin? Mr. Nelson?

7 MR. CRAIG NELSON: I'll make our comments and
8 I'd appreciate if you direct touch questions to
9 Keith.

10 CHAIRMAN SCOTT: Fair enough.

11 PRESENTATION

12 BY

13 MR. CRAIG NELSON

14 Let me start -- thank you for this
15 opportunity to express our opinion. Let me start
16 with Ameren's overall view on the Clean Power Plan.
17 I'll be very brief on that. But Ameren supports
18 environmentally sustainable operations. However, we
19 think that the current draft of the plan is
20 unworkable and not legal. Despite that comment,
21 though, let me address modifications that we think
22 would make it -- constructive comments to make it

1 workable, both to the modifications to the rule and
2 changes in Illinois law that we think we need.

3 So modifications to the rule, the 2020
4 target's very tough. And we think there should be
5 some flexibility around the status to what day to
6 achieve that.

7 In addition, the 2030 Rule is a tough
8 one and some orderly retirement of coal plants could
9 significantly reduce costs. So our sister utilities
10 analyzed the 2020 date and the 2030 date and Ameren
11 Missouri has a plan to achieve the level of savings
12 in the Clean Power Plan by 2035 at a cost of \$4
13 billion less. So some flexibility can significantly
14 reduce the cost.

15 Moving now to energy efficiency. We
16 think that the draft rule should be modified to
17 preserve the State of Illinois' control over energy
18 efficiency. We think that's very important and of
19 course we'd like credit for EE expenditures since
20 2012 and those modifications.

21 So, focusing on energy efficiency, let
22 me go through two scenarios very briefly. The first

1 scenario is let's suppose that EPA cannot go beyond
2 the fence -- and what I mean by that is they cannot
3 impose Block 4 on the states or delivery service
4 companies like Ameren Illinois. Under this scenario
5 we think it would make sense to have a legislative
6 framework that would allow Ameren Illinois to spend
7 more on energy efficiency and sell credits to the
8 generators so they can comply with the law. And, of
9 course, we'd use that money then to offset costs that
10 would be recoverable from our customers. So that's a
11 way to -- if they can't go beyond the fence, to
12 participate and be constructive under that scenario.
13 We think we need the law change because Illinois law
14 doesn't contemplate us spending more and selling
15 credits to generators. So that's one law change.

16 Under scenario 2, where the courts
17 decide that EPA can go beyond the fence, we think
18 that there are changes in law needed in Illinois to
19 mesh this up, to sync it up -- however you want to
20 say it. So in the original EE Law, there are state
21 statutory caps, there's a 3-year planning period that
22 may not coincide with the planning period the EPA has

1 in mind, and then there are important portfolio
2 objectives. And we've mentioned already the Illinois
3 objective under state law of making sure that
4 low-income and medium-income customers get their fair
5 share of the direct benefits of EE, and we want to
6 make sure that happens under this EPA rule as well.
7 So there could be a -- there should be a
8 clarification of that.

9 And, under the IPA EE Law, the second
10 law, Val talked about -- the law does not allow the
11 additional funding for larger customers -- in our
12 case over 150 KW, that's a fix that needs to be made.
13 In my opinion, it's not clear under Illinois law that
14 IPA EE Law can be scratched to accomplish everything
15 that the EPA rule wants. I'm talking about
16 permissible costs, permissible measures, permissible
17 benefits. There needs to be some clarification in
18 Illinois law to accomplish that, I think.

19 Then, the goals and
20 responsibilities -- as long as we're fixing the law,
21 the goals and responsibilities between the Illinois
22 Power Agency and the utilities under the IPA EE Law

1 would be helpful, too.

2 So those are fixes and then consumer
3 and utility protections needed. In our case, we
4 think that energy expenditures make up about 6
5 percent of the residential bill right now. And so
6 we're talking about spending more money on energy
7 efficiency a very good purpose. So one law change
8 that we would suggest in Illinois is some rate impact
9 protection for customers, some maximum amount of
10 spend or some maximum rate impact. Along with that,
11 a great impact mitigation is needed, so as increase
12 EE spending, rather than charge it all to customers
13 in the year of the spend -- some of these measures
14 have long lives, 5, 10, 20 years possibly. And we
15 would suggest that amortizing those costs over the
16 life of the measure makes sense, and then, from the
17 utility perspective, the unamortized balance would go
18 in rate-based and we'd earn a return at our costs of
19 capital.

20 So those are two protections for
21 consumers, a cap on the rate impact and rate
22 mitigation, spreading the cost over time, and then a

1 protection for the utility; there is revenue erosion
2 and some legislation -- some legislative solution
3 like a decoupling rider we think would be in order.

4 So those are the protections that we
5 think would be helpful for the consumer of the
6 utility and with that will conclude our comments.

7 CHAIRMAN SCOTT: Thank you, Mr. Nelson.

8 Mr. Nickerson?

9 MR. MEL NICKERSON: Oh, okay. I thought I was
10 going last so --

11 CHAIRMAN SCOTT: It's alphabetically, straight
12 alphabetical.

13 MR. MEL NICKERSON: All right. Well, again,
14 Chairman Scott and Commissioners, thank you for the
15 opportunity to be here this afternoon. Just a brief
16 matter of housekeeping, there's a small typo I noted,
17 it has me listed as Mel Nickerson. My name is
18 Melville Nickerson. It took me 38 years to grow into
19 my name so I wear it as a badge.

20 CHAIRMAN SCOTT: Melville.

21

22

1 other comments for the various questions that have
2 been put forward.

3 First and foremost, the Department of
4 Commerce and Economic Opportunity is supportive of
5 the Clean Power Plan. No pun intended but we see it
6 as a great economic opportunity. Certainly the
7 infrastructure that will be invested in Illinois as a
8 result of the plan is good for our state's economy,
9 not only in terms of revenue streams but also in
10 terms of job creation; it's a very vibrant
11 opportunity for our state.

12 That being said, we also are very
13 aware that climate change is not tree-hugger concept,
14 forgive the expression for those I may have offended.
15 Just this past Sunday, 166 nations across the world,
16 various protest marches took place around climate
17 change. We all felt the effects of climate change
18 just this past winter, as the Pacific -- waters in
19 the Pacific warmed and it shifted the flow of the
20 polar air mass down into lovely Chicago. So we all
21 know this is a renewable fact and we have some great
22 opportunities here to grapple with these issues and

1 move forward.

2 Turning attention now to the programs
3 that we offer to the residents of the State of
4 Illinois. We run energy efficient program under the
5 Energy Efficiency Portfolio Plan. We serve -- I will
6 say with a great deal of pride, two of the toughest
7 sectors of our state to serve, which are low-income
8 residential folks because there is a lack of resource
9 there to take advantage of programs and incentives
10 and we find it cost-effective or a prudent approach
11 to move forward outside the cost cap because it is
12 very hard to serve the sector of our state.

13 In addition, municipalities, local
14 governments, as we all know are still reeling from
15 the downturn in the economy that took place back in
16 2007, 2008, 2009. So we find it important in some
17 instances to again, offer higher incentives to help
18 these desperate constituents be able to implement
19 cost -- or energy efficient measures.

20 I have a couple of numbers for you,
21 for folks that like numbers. Energy efficiency --
22 our energy efficiency programs have yielded -- excuse

1 me, over 529,000 megawatts of savings. Since we've
2 implemented them back in 2008. That is the
3 equivalent of over 139,000 metric tons of CO2 to be
4 displaced.

5 Those sound like big numbers but the
6 sobering reality is that represents less than 2
7 percent of the 2020 goal as was presented this past
8 August by the Illinois EPA, based on Jim Ross's
9 PowerPoint presentation. It is clear that for energy
10 efficiency to play a significant role in compliance
11 with the 111(d) rule, we will need to increase the
12 amount of energy efficiency that the state is
13 currently -- has in today's -- well, in today's
14 present time.

15 In addition, I also wanted to
16 highlight another program that is sort of
17 off-the-grid or off-the-books, at least in terms of
18 the Illinois Commerce Commission. We also have a
19 fund called the Residential Energy Efficiency Trust
20 Fund. It is generated through a small charge on
21 delivery service of both electricity and gas. That
22 program amounts to about \$3 to \$4 million annually.

1 And it is very important because it allows us to
2 serve non-utility territories such as Springfield,
3 generating their own power through electricity, not
4 having a very robust opportunity to serve the
5 residents through both electric and gas -- well,
6 electric savings.

7 In addition, we also collaborate with
8 sister offices within our department such as the
9 Energy Assurance Office, which runs the LIHEAP
10 program. We also collaborate with the Urban
11 Weatherization program as well as entities outside of
12 our agency such as Illinois Housing Development
13 Authority.

14 I want to make one plug for Building
15 Block 3. We also run a small but very effective
16 renewable energy program, and not to poke my
17 colleague, Anthony Star, but I like to say that is
18 the only program that guarantees solar on the
19 rooftops in the State of Illinois. It's a
20 grant-based program; it, again, is generated from a
21 small charge on delivery service to all residential
22 electric customers as well as commercial and

1 industrial in the State of Illinois generates
2 annually approximately \$5 to \$7 million. And we're
3 able to do fantastic things since the inception of
4 the program in 1999 such as generating 158 megawatts
5 of renewable energy and that would displace
6 approximately 261,000 metric tons of CO2.

7 The total the program has invested is
8 \$56 million. There have been over 2,000 grants that
9 have been issued, and we've been able to leverage
10 with that money \$375 million in pet projects, that's
11 a 6:1 investment ratio. We've been able to do
12 fantastic things like put solar on -- partner to put
13 solar on Illinois Tollway's rooftops, of their main
14 facility, as well as partnering with the Shedd
15 Aquarium on their ambitious plan to reduce their
16 energy consumption by 15 percent by the year 2017.

17 All that being said, that represents
18 less than 1 percent of the over 9 million megawatts
19 that will be needed by the -- according to the
20 Illinois EPA model that my colleague, Jim Ross,
21 presented back in August.

22 I simply am trying to draw just

1 attention to the fact that we will need to do more,
2 and in the process of doing more we will need to
3 grapple with other issues such as EMV, evaluation of
4 all our energy efficiency program. Currently, we use
5 a net-to-gross approach, but certainly I think that
6 would be a hamstrung in Illinois. Should we use that
7 same method to comply with the 111(d) rule since
8 there is a maximum amount of energy efficiency that
9 is being seen, we should use that number to draw our
10 energy efficiency compliance.

11 In addition, there is another issue
12 that we should take note of. Right now, according to
13 the statute, according to the law, we look at energy
14 efficiency on an annual basis in terms of how both
15 our office, DCEO, as well as the utilities are
16 complying with their electric and gas savings goals.
17 If we do that, we are going to be missing a great
18 opportunity to maximize the reality of these energy
19 efficiency savings.

20 I'll give you one example. We
21 partner -- we're very proud to partner with Kate
22 Brown of the University of Illinois. There's a

1 specific focus on Public Housing Authority. In this
2 country we spend over \$7 billion of taxpayer money on
3 Public Housing Authority energy bills -- utility
4 bills. We invested \$4.1 million just this past year
5 that yielded 6.3 -- excuse me 60.3 million
6 kilowatts -- I apologize. We yielded -- yes, \$6.3
7 million kilowatts of energy saved within a five-year
8 period, and that would grow exponentially to be 31
9 million kilowatt hours of energy savings. So I'm
10 just trying to underscore and draw emphasis to the
11 fact that we will need to grapple with the issue of
12 how long we will count the savings; should it be for
13 the useful life of the savings or should it be some
14 agreed upon, negotiated intermediate solution.

15 That being said, thank you, very much.
16 I hope I was brief.

17 CHAIRMAN SCOTT: Thank you. Well, I'll have to
18 report back to your wife. I apologized if I
19 mispronounced your name.

20 MR. JAMES POTACH: Thank you, Chairman Scott.
21 James Potach for Schneider Electric --

22 CHAIRMAN SCOTT: I think you need to use your

1 mic, too.

2 MR. JAMES POTACH: Good? Okay.

3 PRESENTATION

4 BY

5 MR. JAMES POTACH

6 James Potach for Schneider Electric
7 representing a group of energy services companies
8 referred to as ESCOs in the market. So I'm here to
9 represent us. We are the companies that provide the
10 technology and services typically to deliver energy
11 efficiency in the market today. Our companies, as a
12 rule -- we've got decades of experience in providing
13 these projects -- billions of dollars invested around
14 the research and development of the technology and
15 literally billions delivered in measured and verified
16 savings in the market.

17 We've got a couple hundred thousand
18 people amongst our companies in the US alone 380
19 manufacturing plants and we serve a very broad set of
20 markets, buildings like the one we're in here;
21 universities; hospitals; data centers; office
22 buildings; manufacturing facilities; water treatment

1 plants. The reason I share all that with you is at
2 the end of the day we believe we can bring practical
3 experience to energy efficiency measures as it
4 relates to 111(d). And we know there's a
5 cost-effective method to deliver the savings and the
6 corresponding CO2 savings as well by focusing on
7 third-party energy efficiency projects as part of
8 this rule, leveraging what we call the Energy Savings
9 Performance Contract, it's a very established method
10 of contracting that's been around for an excess of 30
11 years in the market.

12 Three points I'd like you to consider
13 about that. One is that we can deliver these
14 project, all of our companies, we can deliver them at
15 scale. Currently it's about a \$5 billion market
16 annually in the United States. So each year out of
17 that \$5 billion we're literally delivering an
18 incremental \$6 billion of energy savings across the
19 United States year over year, over year. So we have
20 the scale to deliver.

21 Secondly, the results are absolutely
22 real. They are measured and they're verified. So we

1 all use a standard development that the Department of
2 Energy -- it's internationally accepted, it's applied
3 by certified professionals, and it verifies the
4 actual results and it's largely accepted in the
5 market.

6 The third point to consider is for
7 energy efficiency measures, one of the market
8 barriers is just capital, capital to do the
9 projects -- the hockey stick effect in some ways.
10 ESPC -- the beauty of ESPC is that it leverages the
11 savings of energy efficiency and the corresponding
12 savings off of utility bills to fund the project.
13 And the project is originally funded by a third-party
14 financier, banks to household names we all know of,
15 that finance this market. So there's plenty of
16 capital available in the market to fund energy
17 efficiency measures.

18 Three other points I'd like you to
19 consider and then I'll close. Why take advantage of
20 third-party measures? Number 1 is it's absolutely
21 proven. So in the market if you look at states that
22 have adopted this model around energy savings

1 performance contract, there's a long history of
2 performance, and the beauty of the contracting
3 vehicle is companies like ourselves, we guarantee the
4 results over a 10 to 20 years period, typically. So
5 that means we can financially stand behind the
6 results or we can make up the difference if we don't
7 deliver. And none of us like to write a lot of
8 checks. So it's sustained results over the long
9 period and it's proven.

10 The second is the EPA guidelines, as I
11 understand them, talk about a percent and a half of
12 opportunity per year of savings around the assumption
13 of that's based on the utility program. And, while
14 those are good, the investment in ESPC performance
15 contracts is literally almost the same amount as the
16 utility programs. So if the states adopt these
17 third-party measures even though they double the
18 opportunity to deliver energy efficiency in the
19 state.

20 The last point I'll make is that
21 companies like ours are able to really deliver deep
22 energy savings, meaning we have -- when we deal with

1 our clients they typically don't have the expertise
2 or -- beyond kind of a more basic energy efficiency
3 measures. And because we have a contractual
4 relationship over 10 or 20 years we're able to pay
5 for these deeper kind of mechanical or
6 infrastructural improvements that provide a whole
7 other layer of energy savings and for over a very
8 long period of time.

9 A couple of you asked questions about
10 jobs. We know that through research and studies that
11 great deal of the work that we do in our local area
12 is subcontracted with local labor and we know by the
13 dollar how many jobs were created and it does create
14 a lot of jobs in the local market where we work.

15 So as a group we've got the practical
16 experience. It's very pragmatic, it's proven in the
17 market. We developed for the EPA and for states kind
18 of a ten step pragmatic guide to problematic energy
19 efficiency program for end users. And we believe
20 that the states should urge the EPA to have specific
21 guidelines addressing this option around energy
22 efficiency -- third-party energy efficiency for

1 111(d).

2 CHAIRMAN SCOTT: Thank you very much.

3 And Ms. Stanfield.

4 PRESENTATION

5 BY

6 MS. BECKY STANFIELD

7 Thank you, Mr. Chairman and fellow
8 panelists. My name is Becky Stanfield, I'm the
9 Deputy Director for Policy of the National Resources
10 Defense Counsel's Midwest Office, and it's great to
11 be here today, talking about this subject and to be
12 here with the people who over the last 6 or 7 years
13 have actually built impressive regulatory
14 infrastructure, an impressive industry in Illinois to
15 provide energy efficiencies savings.

16 I'm from southern Illinois so I
17 generally talk a little slower than everybody else.
18 I appreciate that everyone has focused their
19 attention for this long, and I'm going to try to step
20 up the pace a little bit for this purpose.

21 Going back to Annette's theme, energy
22 efficiency has a huge success story in Illinois.

1 U.S. EPA's projection that we can hit 1.5 percent per
2 year by 2017 is extremely conservative; we are
3 basically already there. We are reducing demand by
4 1.4 percent every year through energy efficiency and
5 at the same time, we are doing it at well below the
6 avoided cost. So I've provided a cost curve of
7 ComEd's programs for everybody in this lovely
8 teal-colored PowerPoint presentation. So if you take
9 a look at that, what it shows is that the EEPS and
10 the IPA programs are almost universally well under
11 the avoided cost line -- the orange line, and they're
12 very few number of programs that are above the line,
13 represent programs that are about 0.1 percent of
14 savings in the portfolio. So these are extremely
15 cost-effective programs. And this is true, even
16 though that line is much lower than it should be. So
17 in Illinois we are undervaluing the benefit side of
18 the equation substantially.

19 And NRDC commissioned a study with RAP
20 that looked at what the price suppression effects are
21 of the energy efficiency programs we're running in
22 Illinois. So what are our programs doing to reduce

1 the regional price of power. That is not included in
2 our avoided cost methodology in Illinois, and if it
3 were, that orange line would be higher and a lot of
4 programs that have hadn't seemed as cost-effective,
5 of course would, and we'd be able to do a lot more on
6 energy efficiency in Illinois than we're doing now.

7 The programs are serving all customer
8 classes and they're doing a better and better job at
9 doing so. So we're reaching the classic hard to
10 reach customers in multifamily affordable housing in
11 the large commercial buildings, and we are -- and
12 those programs are becoming a bigger and bigger focus
13 of the portfolio. As utility programs are able to
14 enable non-utility programs such as Retrofit Chicago,
15 which is addressing large commercial buildings, or
16 elevates an energy saver's program, which is
17 first-class nationally of how to reach multifamily
18 affordable housing.

19 Our current portfolio is going to
20 reduce carbon emissions by 12 million tons by 2022.
21 So, we're delivering substantial carbon savings if we
22 continue to do the same level of savings we're doing

1 now. If we ramp up to the cost-effective potential,
2 that number could be increased to 19 million tons per
3 year.

4 And, so -- and cost
5 effectively -- again, so I wanted to underscore that
6 if we do not do it with energy efficiency we will
7 have to do it with something that is more expensive.
8 So from the perspective of ratepayers, this is the
9 part of your bill that pays you back, and limiting it
10 to less than what's cost-effective is only increasing
11 the cost that ratepayers end up paying.

12 The other point I want to make is that
13 we're creating jobs with energy efficiency in
14 Illinois. There are 96,000 existing clean energy
15 jobs, 62 percent of which are in energy efficiency.
16 And we estimate that if we were to do a RGGI-like
17 approach to complying with 111(d) and invest, as RGGI
18 does, 65 percent of the proceeds in energy
19 efficiency, we could create another 14,000 direct
20 jobs in the energy efficiency industry, and as many
21 as 28,000 indirect energy efficiency jobs.

22 We do believe that we can do more than

1 we're doing now cost effectively. I don't deny that
2 there are challenges to getting there, but I think
3 it's doable and cheaper than getting the emission
4 reductions in any other way. ComEd and DCEO both
5 have potential studies that found that there's
6 achievable potential above 2 percent of sales per
7 year. So if we are able to save more than 2 percent
8 of demand each per year -- and in fact, ComEd's
9 residential programs are already achieving savings at
10 a greater level than their maximum achievable
11 potential said. So those studies are notoriously
12 conservative in what they project the achievable
13 potential is.

14 Other states are already achieving
15 energy efficiency at more than 2 percent sales per
16 year including Massachusetts, Nevada, Vermont and
17 Arizona. And while folks pointed to the fact that
18 their avoided costs are higher, they're achieving
19 those levels at still very low levelized costs of
20 energy savings. In Massachusetts it's 3.9 cents per
21 kilowatt hour, so that's still well below Illinois'
22 avoided costs.

1 There're lots of technologies and
2 measures that aren't represented in our current
3 portfolios or in potential studies, including CHP, as
4 John was pointing out. LEDs in the commercial
5 lighting have a lot of potential, heat pumps and
6 building controls and other technologies that are
7 actually enabled by this Smart Grid investment that
8 we're making in Illinois.

9 We also get to count other energy
10 efficiency policies beyond utility improvement
11 policies so -- building codes for example can be
12 measured and included as part of the compliance
13 strategy, which underscores the need for EM&V that
14 actually differentiates between what efficiency the
15 utilities are delivering and what's being delivered
16 by other policies.

17 There are policy barriers in existing
18 law that others have already pointed out and have
19 constrained budgets especially for industrial and
20 large commercial projects. Joint delivery programs
21 that depend substantially on gas savings are even
22 more constrained by low gas efficiency budgets. For

1 some market segments where assets to capital is a
2 problem, we need better financing mechanisms to
3 combine with the utility incentive dollars to get the
4 projects done.

5 And better accounting for benefits
6 including the price effect that I talked about
7 before, so the effect of our programs on regional
8 power prices, and non-energy benefits particularly in
9 low-income housing would allow many programs to be
10 offered that are currently excluded from the
11 portfolios.

12 So why to prioritize efficiencies for
13 the purpose of 111(d)? Slide 15 in my deck shows
14 it's by far it's the least expensive resource on a
15 levelized-cost basis. So the more you capture, the
16 more you can manage your costs in the electric
17 system. Also it also means that we're investing in
18 buildings -- making people's homes healthier,
19 creating good jobs in our communities at the same
20 time.

21 Again, EPA -- sharply underestimated
22 the potential for savings. They estimated that we

1 could get to 11.6 percent reduction cumulatively.
2 And we know that we could do well over 18 percent
3 with the utility programs alone and can likely get to
4 a 20 percent reduction with other policies.

5 How to do it? I think, as someone
6 else said, we can do it through a portfolio-approach
7 or mass-approach, note that in both the RGGI and
8 Northeast carbon regulatory system and in California
9 what they've done is overlaid a mass-based approach
10 on top of strong state energy policies. So I think
11 that's basically what we need in Illinois. We can't
12 move from what we have now to an entirely mass-based
13 system but we can layer it on top of a strong set of
14 energy policies in our state to very good effect.

15 CHAIRMAN SCOTT: Thank you.

16 Let me now spend the last 40 minutes
17 that we've got talking about a couple areas and may
18 combine them a little bit.

19 I think I want to start where Becky
20 ended up and maybe go to the utility folks first and
21 then to Annette and Mel, too -- or Melville -- I'm
22 sorry -- and ask about what we're leaving on the

1 table. One of the big issues for us, always, and as
2 we evaluate the programs from a Commission as they're
3 brought to us, we've asked a lot of questions
4 recently about the programs that are out there. What
5 -- and Becky kind of hits that in terms of overall
6 numbers first of all, ask if the others on the panel
7 agree in terms of -- kind of the scope of how much
8 more is out there in terms of energy efficiency.
9 Then we can talk a little bit about how we get there,
10 and maybe some things that are stopping us from
11 getting there.

12 So with that, I don't know, if you
13 wanted to start us off and then Keith --

14 MR. NELSON: I was going to say, Keith is
15 itching to say something.

16 MR. KEITH MARTIN: No, no, no.

17 CHAIRMAN SCOTT: We got to ask the hard
18 questions. So...

19 MR. CRAIG NELSON: I don't know that I would
20 agree word for word with Becky, I think we politely
21 disagree on some of the finer points. I do think
22 there is additional potential out there; I think we

1 recognize that. We have, as she has noted, exceeded
2 what the estimate for maximum potential is already.
3 So that -- and it does call into question how valid
4 some of those studies could be. And I think that the
5 thing that I both worry about and gives me optimism
6 is I think there's this whole new world of smart
7 energy out there that allows us to combine
8 investments for making in AMI Smart Meters with
9 cutting edge technology in the home or business. And
10 I think there's going to be a lot of potential out
11 there that we don't know how to characterize yet.

12 So I don't think we're bumping up
13 against the ceiling. What I don't know,
14 Mr. Chairman, is what all of this is going to cost
15 us, and that really is something we -- I guess we're
16 labelled as being ultraconservative on this; but we
17 do worry about the rate impacts on customers.
18 There's a lot of activity going on in the Illinois
19 market that is adding to customers' bills and we just
20 have to be mindful of that. As good as this may be
21 and as much as it may save certain people, other
22 people will not take advantage of these efficiency

1 programs and yet they will pay for them.

2 Somewhere along the line we're going
3 to have to figure out what that looks like and what
4 the right balance is. So to conclude, yes, I think
5 substantially more potential, worried about the cost,
6 and think that we're going to find a lot out in the
7 next five years that we never would have imagined
8 five years ago.

9 MR. KEITH MARTIN: Yeah, I certainly agree with
10 those comments. I'll add a couple points.

11 First of all, I think we need to be a
12 little careful using the current portfolio
13 performance as an indicator of the future. As Val
14 points out, the programs are going to look
15 significantly different. The potential studies that
16 were used in the EPA analysis, seven of those did not
17 go beyond 2020. Only three of them did, and then
18 they only went just a few years into this to
19 2020/2030 period.

20 You know, we've all talked about how
21 lighting has been an important part of the portfolio,
22 but I think we need to understand that baseload or

1 the baseline for lighting is changing, and that is a
2 significant change. And, as an illustration of that,
3 if we put in a 60 -- or replace 60 watt equivalent
4 incandescent with a CFL we save 46 watts. By 2020
5 that will be the baseline. The next level of
6 technology is the LED and we save 4 watts. So
7 lighting certainly is going to have a -- is going to
8 look very different in the portfolio mix. Now, I
9 agree with Val that there are a lot of
10 behavioral-type programs that will have a very
11 significant impact. I think there's a lot industrial
12 potential that we still need to take a look at, which
13 requires the legislative change.

14 The other thing, though, I wanted to
15 mention that I think we need to be very aware of is
16 that the carbon reductions are cumulative and really
17 require long-lived measures. Today's portfolio
18 focuses on short-lived measures: Behavioral
19 programs, lighting and so forth. So it's -- again,
20 it's another way in which I think we need to
21 transform the portfolio to really achieve those
22 targets.

1 CHAIRMAN SCOTT: Appreciate those comments.

2 MS. STANFIELD: May I respond to some of those
3 comments?

4 CHAIRMAN SCOTT: Sure.

5 MS. BECKY STANFIELD: So the reason I brought
6 up Massachusetts before, is because they have now
7 gone to a portfolio that's really designed to get
8 deeper savings. And their portfolio has a longer
9 measure life and still is coming in at 3.9 cents per
10 kilowatt hour. So it doesn't necessarily follow that
11 once you start to do the deeper portfolio measures
12 that your cost is going to go above Illinois' avoided
13 cost. So that's still well within what we would
14 otherwise be spending on more expensive resources.

15 The other thing to Val's point on
16 making sure --

17 COMMISSIONER COLGAN: Well, before you go on,
18 what is it that Massachusetts is doing that we're not
19 doing?

20 MS. BECKY STANFIELD: I think that they have a
21 policy. You can see one my slides that as soon as
22 they set a policy that they were going to capture 2

1 percent, that's when they got busy trying to figure
2 out how to do it cost effectively. So it is not so
3 much a technical or economic constraint, it's a
4 policy constraint. We're not figuring out how to do
5 it because our policy doesn't direct us to.

6 COMMISSIONER COLGAN: But the example was the
7 lighting example: How you can save so much going
8 from incandescent to CFL and then not so much when
9 you go to the next steps. And I'm just kind of
10 wondering what it is -- I don't mean to put you the
11 on the spot, I just thought that maybe there were
12 examples of what they're doing.

13 MS. BECKY STANFIELD: One example you can see
14 on slide 12 of my presentation, is looking at
15 commercial lighting. So the difference between what
16 you -- a typical measure today would be in a T8
17 fluorescent light fixture versus the LED design.

18 Still an enormous amount of potential
19 in lighting, and a lot of it is in commercial
20 lighting. And our potential studies are not taking
21 these kinds of measures into account at this point.

22 Also, just to reply to what Val said

1 about the costs, particularly for non participants.
2 We have done a preliminary analysis of ComEd's
3 programs to look at whether the non-energy avoided
4 cost, so the costs that are being avoided and saved
5 even for nonparticipants, is commiserate with what
6 people are paying, and it is. So even if you take
7 out the non -- or the energy benefits that are in the
8 avoided cost -- the average avoided costs, you're
9 still getting cost-effectiveness for even
10 nonparticipants.

11 COMMISSIONER COLGAN: Can you just give a
12 couple of examples of the non-energy avoided costs.

13 MS. BECKY STANFIELD: Yes. So capital costs,
14 avoided T & D, the price suppression effect.

15 MR. JOHN CUTTICA: Can I make a point?

16 CHAIRMAN SCOTT: Sure.

17 MR. JOHN CUTTICA: In Massachusetts -- I have
18 to put in a plug for CHP since that's why I am here.
19 In Massachusetts they do have a very aggressive
20 combined heat and power program that's included in
21 both their energy efficiency standard as well as -- I
22 think that they have an advanced energy portfolio

1 standard. I'm racking my brain and I'm too old, I
2 can't remember the percentage; but it seems to me
3 that it was a pretty large percentage of their energy
4 savings actually came from the CHP program over the
5 last several years. I wish I could remember the
6 exact percentage. I think it's somewhere above 25
7 percent, but don't hold me to that. I got to check.

8 MS. ANNETTE BEITEL: I'll just say a few
9 remarks on the cost issue as well as the potential
10 that we're leaving on the table. So I don't think
11 it's necessarily true that greater efficiency
12 yields --

13 CHAIRMAN SCOTT: Could see if your mic is on?

14 MS. ANNETTE BEITEL: So I am not sure that over
15 time that greater efficiency necessarily leads to
16 greater cost per unit energy. And I just want to
17 throw out an example of efficient refrigerators. So
18 over the past 40 years, the energy usage of
19 refrigerators has dropped by 75 percent, the cost has
20 dropped by two-thirds and refrigerators are bigger.
21 And, we also have seen dramatically how the costs of
22 FCFLs and LEDs have dropped over time as they've

1 really had greater penetration in the market.

2 So I just don't think that we really
3 know whether cost is necessarily going to rise as
4 much as they're forecasting because we don't know
5 what's going to happen to price over time, and we
6 have lots of examples of where prices really go down.

7 The second piece is on the potential
8 that we're leaving on the table. We don't know -- we
9 don't have a crystal ball around emerging
10 technologies and those are fairly critical with a lot
11 of other efficiency opportunities. And they are not
12 counted potential studies.

13 Just by way of example, California
14 spends -- they have a much bigger budget, they spend
15 about a billion dollars per year on efficiency. They
16 spend \$19.3 million on emerging technologies and they
17 identify a lot of future opportunities. At the other
18 end of the spectrum, Wisconsin, which has a much
19 smaller budget, \$85 million, they have a state policy
20 of trying to identify 20 to 25 new emerging
21 technology products or services per year that can be
22 brought into the state; and they've been successful.

1 And some of those new tech have really save a
2 significant percent of energy.

3 COMMISSIONER COLGAN: That part of the statute
4 is capped in that regard --

5 MS. ANNETTE BEITEL: I'm sorry?

6 COMMISSIONER COLGAN: Our statute is capped on
7 emergency technologies; is that correct?

8 MS. ANNETTE BEITEL: That is correct.

9 COMMISSIONER COLGAN: Three percent?

10 MS. ANNETTE BEITEL: Three percent. And I
11 think that's an issue to consider in the context of
12 getting greater savings.

13 CHAIRMAN SCOTT: Let me ask you too because
14 when I stopped you originally you were talking about
15 low and moderate-income. And I want to ask about
16 that and then go to Nickerson because that's the
17 programs that the DCEO administered.

18 So you're saying that we need to do a
19 better job in terms of providing benefits to low or
20 moderate-income customers here.

21 How would we do that? How does
22 that --

1 MS ANNETTE BEITEL: Okay. So very quickly,
2 number 1, I think it needs to be our responsibility,
3 not just at DCEO but also the utilities, and I think
4 there is statutory authority for that.

5 Number 2, i think there is a
6 misconception that to serve low/mod-income customers
7 effectively, you need to pay 100 percent of the
8 measure cost or 100 percent of the incremental
9 measure cost. And there's some programs in other
10 jurisdictions, like Wisconsin, where the incentives
11 for low-income customers are higher, you know, maybe
12 by 50 percent compared to the regular customers. But
13 they still get high uptake, even though there is a
14 customer co-pay, because they're using very creative
15 ways, or effective ways I should say, of getting the
16 programs into low/mod-income customers by using
17 faith-based organizations, community-based
18 organizations and the studies have shown that using
19 standard marketing techniques for low/mod-income
20 customers are not effective.

21 So those are just two examples.

22 CHAIRMAN SCOTT: Okay, thanks.

1 Mr. Nickerson, do you want to talk
2 about where you think there's some -- with the
3 programs that you operate, where there's some
4 additional PE that we can find.

5 MR. MEL NICKERSON: Sure. Absolutely.

6 First, let me just briefly respond to
7 the idea that I now just put forward, regarding
8 low-income programs. I mean, I cannot necessarily
9 comment on expanding programs, although we've had
10 some discussions about that during the IPA docket
11 last year. So those issues are somewhat well
12 known but -- so they're more broadly understood.
13 There is some question as to what role, if any, DCEO
14 should play, according to statutory language. So
15 I've prohibited our engagement as you would have
16 envisioned us getting involved, in the IPA annual
17 procurement of energy efficiency.

18 We somewhat -- I hope we're not
19 talking past each other, but certainly based upon our
20 experience over the last 7 years, we understand this
21 is a hard sector of the utility market to serve, low
22 income folks. They spend the majority of their

1 monthly income -- excuse me, they spend the highest
2 majority of their monthly income on their utility
3 bills, as compared to others in similar categories.
4 And so, what we find is when we have the opportunity
5 to enter into a residence, we want to maximize the
6 savings, as opposed to trying to duplicate a minimal
7 amount of savings over a wider footprint. It's very
8 hard, as I'm sure the utilities can verify, to gain
9 access to someone's home let alone their business,
10 even though albeit under great auspices.

11 What I do want to address very
12 quickly, though, is our public sector program in
13 terms of potential that's being left on the table.
14 We have been grappling with, for some time now, to
15 make end roads into the streetlights. We are
16 hamstrung or find it frustrating, that there are
17 franchise agreements which allow municipalities to
18 essentially -- I hope I'm not conveying information
19 incorrectly, so please feel free to correct me, but
20 essentially the electricity that's being provided to
21 streetlights is at no cost to municipalities. So
22 there is little, if any incentive, for them to take

1 advantage of our programs to make their streetlights
2 more energy efficient. The other side of the coin,
3 is that in instances where they're not receiving, for
4 lack of a better expression, free electricity for
5 their streetlights, they are taking a public
6 right-of-way payment, which is generally being used
7 to shore up their general operating expenses. So
8 again, there's a disconnect there between the great
9 opportunity to take advantage of an energy efficiency
10 for a streetlight.

11 There's also emerging technology for
12 streetlights, everything from -- well, obviously, LED
13 lights, which are more energy efficient, but as well
14 as the ability to be able to dim lights gradiently at
15 different times of the day, or even when the street
16 is not being used either by pedestrians or vehicles.

17 CHAIRMAN SCOTT: Let me ask one more question
18 while we've got you.

19 For the municipalities or local
20 governments that operate them, water and wastewater
21 treatment plants are probably the single biggest user
22 of electricity that they've got. And very often, the

1 decisions on where to spend money in municipalities
2 makes it very difficult to, you know, to do new
3 capital, to do that.

4 Do you guys have anything?

5 MR. MEL NICKERSON: Yeah, thank you --

6 CHAIRMAN SCOTT: -- or have you thought about --

7 MR. MEL NICKERSON: Fair enough, thanks you for
8 asking. Actually, I want to thank you, Chairman
9 Scott and the Commissioners, for approving our
10 wastewater treatment program. We're really excited
11 about it, it's aptly named the Clean Water Energy
12 Efficiency Initiative. The governor has put forth an
13 initiative which combines both a revolving loan fund,
14 that's administered the Illinois EPA, the Illinois
15 Environmental Protection Agency. And we are
16 augmenting that program ultimately to serve that
17 constituency. That sector accounts for 35 percent of
18 all of the energy that municipality consumes. So we
19 focused a particular program that looks at the most
20 energy-intensive portion of that operation, which is
21 the aeration system. In technical jargon -- it
22 drives out the sludge, shall we call it in polite

1 company.

2 But we've have got a great program
3 there and we don't necessarily see the similar type
4 of impediment in the waste treatment area as we do
5 for streetlights. They are a revenue generating
6 entity for municipalities; so therefore, they have
7 their own budgets. Our biggest constraint now is
8 one, getting the fiscal year cycles aligned; people
9 want to do these things but there's a timing issue
10 there. And then secondarily we just need to get the
11 word out, and so we are working on as well. But we
12 thank you for the opportunity to move forward with
13 that program.

14 CHAIRMAN SCOTT: Let me turn to Mr. Potach and
15 then I'll come back to you, Mr. Cuttica. It's very
16 intriguing what you're talking about with outset
17 programs. In most states, because they're not
18 talking about doing things with respect to greenhouse
19 gases until now, haven't tried to figure out ways to
20 account for what's going on our there.

21 So could you maybe tell me a little
22 bit more, in the same vein, about where you think the

1 privately run programs can go. And then, what's the
2 best way for us -- you're talking about the DOE
3 platform, but how best we would we incorporate
4 something like that?

5 MR. JAMES POTACH: So one is that the Energy
6 Savings Performance Contract end market, ESPC, is a
7 very established market that's been around for over
8 30 years. It varies on the level of adoption, state
9 by state, and in my opinion is, it's more about time
10 and expertise and then policy to back that up. So in
11 states where you see strong sponsorship, Alabama's an
12 example right now, very active in that space.
13 California has a history, Texas has a history,
14 Pennsylvania has a history; you can go around the
15 country and those that have adopted and sponsored and
16 driven legislation drive results in their geography.

17 CHAIRMAN SCOTT: What drove it -- it's probably
18 different in every state; but what drove it in those
19 states?

20 MR. JAMES POTACH: I'm a business guy, not a
21 policy guy unfortunately, so I can't really tell you,
22 but I think once somebody -- I'll answer it in kind

1 of a backwards way. The opportunity is -- I mean,
2 it's hard to even calculate what the opportunity is
3 because it's so unscratched at the surface, at the
4 federal level and at the at the state level. So I
5 think once somebody decides they can get behind it
6 and then leverages outside expertise, candidly, to
7 help write or create a framework to make it practical
8 and make it happen, that's what we have seen has been
9 effective. So with some of these other member
10 companies, we've written this kind of simple ten-step
11 framework for a state to deploy, but more
12 importantly, to really urge the EPA to be specific
13 about guidelines because the feeling is if you don't
14 make the EPA be very specific about what qualifies
15 and what doesn't, it'll just kind of be forgotten at
16 the state level or lost because people are unsure;
17 they don't know how to get it done. But if we
18 provide a framework then states can execute. You'll
19 see states extremely active, it's actually just
20 started to get active here, in the City of Chicago,
21 in the last 6 months or so.

22 So I think it's as much as anything

1 relying on -- there's a coalition or -- not a
2 coalition, there's a group of escrows that works at a
3 federal level and a state level that can help create
4 a framework. And ironically, water treatment
5 plants -- another opportunity that we need -- it's a
6 third of the consumption of a city. There are old
7 facilities that have maintenance that they keep up
8 with because they don't have the funding and they're
9 effectively turning that energy into an asset to redo
10 the infrastructure of the facility and dramatically
11 drop the energy consumption.

12 So if you talk about a small city or
13 municipality you had one-third of their consumption
14 in one place, and that's -- that's a major impact.

15 CHAIRMAN SCOTT: And for the kinds of programs
16 you're talking about, in addition to things like
17 municipalities, are you mainly talking about
18 industrial uses?

19 MR. JAMES POTACH: The ESPC market is
20 candidly -- is primarily executed in what -- it's a
21 really crummy acronym, it's called the MUSH Market.
22 So it's -- think of federal, state and municipal,

1 institutions, public universities, public hospitals,
2 it's implemented in that market because those
3 institutions, they don't have the time or the
4 expertise, and they can tolerate a long pay-back
5 cycle for very, very deep energy retrofits over 10 or
6 20 years. And the escrows stand behind them, they
7 financially guarantee results.

8 Industrials just kind of do it on the
9 their own: They build plants, they make
10 manufacturing alliances, they say we'll do it on our
11 own or we'll fund it. They have a -- candidly, they
12 have a tighter -- they have a shorter -- they won't
13 invest for 10 or 20 years because you're competing
14 with marketing dollars to, you know, make cars or
15 sell more drugs or whatever it is. So it's different
16 in the private versus the corporate sector.

17 CHAIRMAN SCOTT: Let me direct that to you back
18 to you, Mr. Cuttica, too.

19 So one of the issues that we've heard
20 about frequently is the one that Mr. Potach just
21 brought up, which is people aren't doing these
22 programs because the return on the investment is too

1 long. It takes too long to do that and you're
2 competing with other things.

3 Is that an issue in CHP and other
4 states that have adopted their program more robustly
5 than we have today?

6 MR. JOHN CUTTICA: Well, I guess again, it
7 depends on the sector you go after. Certainly the
8 industrial sector has a requirement for shorter
9 payback periods, but, again, the CHP market does go
10 after the large commercial and institutional, which
11 can stand the longer paybacks like the ones that he
12 was referring to, the hospitals and what have you.

13 But in the industrial sector, I think
14 we see the largest percentage of CHP installed in the
15 country today is in the industrial sector, but it
16 tends to be in the very large industrial
17 home -- area. But the simple answer to your
18 questions is, it is a barrier. You have to get that
19 payback period down to something reasonable.

20 I'd like to make two other points.

21 CHAIRMAN SCOTT: Sure.

22 MR. JOHN CUTTICA: Everybody asks all the time,

1 what is the economic potential; what is economic.

2 I can tell you that after things like
3 Super Storm Sandy and what have you, that what a lot
4 of industrials as well as institutional facilities
5 felt was not economic before those storms, all of a
6 sudden after the storm it becomes economic because of
7 the characteristics of the CHP system. So again,
8 if -- it has the ability, if it's installed for this
9 purpose, can ride through some of these prolonged
10 outages. So again, it really depends. So I hate to
11 answer your question with "it depends" on the
12 industrial facility: what they're looking for; what
13 their needs are; if they're going to lose their
14 product if they have an outage, and all of a sudden
15 that six-month or one-year payback can be extended.

16 If you would bear with me, I'd like to
17 build on something that Melville said before on the
18 wastewater treatment. What's really encouraging to
19 me in that whole wastewater treatment -- and I want
20 to bring it back to the industrial, is that what's so
21 good about the program that he's put together is that
22 it goes after the process. It doesn't go into a

1 facility -- a wastewater treatment facility and says,
2 We're here to sell you energy efficiency; let me
3 change your light bulbs. It talks about their
4 process -- their aeration process or their
5 de-watering process, which is what they are really
6 interested in, and then it looks for what's the
7 energy efficiency gains associated with those
8 processes. I'd like to bring that over to the other
9 side, the industrial. That's what I think has been
10 lacking in the past, which really needs to be pushed
11 for the future potential of energy efficiency. And I
12 take my hat off to both utilities this year with
13 their large CNI program that starts to get to that.

14 But there are other reasons in my mind
15 why it hasn't been able to be pushed as much in the
16 past. But, I think for the potential in the future,
17 the industrial is the place to go. And the way to
18 get to the industrials is not to -- we can sell them
19 light bulbs, but what really we got to get after is
20 their processes and how to make their processes more
21 efficient.

22 CHAIRMAN SCOTT: I appreciate that.

1 You got just about ten minutes left.
2 I don't know if -- without getting into a whole other
3 area, but let me just go around the horn and
4 ask -- take a couple of minutes and tell us a couple
5 of things that you think either we could do or what
6 would be some process changes in the way we operate
7 now in terms of the programs. Some of you have hit
8 it on some of them as you went around; but a couple
9 of things that you think that we could do more to
10 maximize what we're getting out of the EE while
11 protecting the customer interest and everything that
12 we talked about.

13 So we'll start with you, Mr. Martin.

14 MR. KEITH MARTIN: Yeah, I think Craig touched
15 on it. Certainly we need some legislative changes, I
16 think we're all aware of that. I think also some
17 very clear rules on how we quantify savings, the
18 inputs to the cost-effectiveness test -- you know,
19 laying out a good plan is critical and then having
20 stable budgets for that plan is critical to really
21 put these programs in the market and make them
22 effective. So clear rules, clear legislative

1 framework I think are very important and very
2 critical.

3 CHAIRMAN SCOTT: Mr. Jensen?

4 MR. VAL JENSEN: A couple of things brought up
5 by both the folks at Ameren and Becky or Annette.

6 As we try and look under every rock to
7 find the next batch of efficiency, it would be
8 helpful to us -- and I sit in meetings with our CFO
9 all the time, and you listen to how much money we're
10 losing as a result of this. The latest estimate, \$10
11 plus million dollars, as a result of the lost revenue
12 from the energy efficiencies. So at least opening a
13 debate about how we could incentivize that, and then
14 I think the suggestion of taking longer live measures
15 and amortizing those would be one that we really
16 would like to explore.

17 The second piece, which you've alluded
18 to, Chairman, is how we blend these two processes
19 together. I think we've started to try and figure it
20 out in the last planning cycle but I'm not sure we
21 can wait another three years before we sort of figure
22 out what we're doing here. And I think it can have

1 some pretty big implications for residential and
2 small commercial customers if we can't figure out how
3 to balance these portfolios.

4 To Becky's earlier point about
5 Massachusetts still being below avoided costs, that's
6 true, but it's very expensive in terms of the actual
7 dollars being expended. When we moved our lighting
8 portfolio under the IPA, we replaced it with a white
9 goods program that costs something like a dollar of
10 first year kilowatt hours saved, relative to a
11 lighting program that was saving at 17 cents. So it
12 is more expensive even though it may still be
13 cost-effective. So finding a way to balance those
14 two efficiency funding mechanisms will be very
15 important for us.

16 CHAIRMAN SCOTT: Appreciate it, thanks.

17 Mr. Potach?

18 MR. JAMES POTACH: I would say, You have
19 legislations to supports performance contracts. I
20 would say, just set targets. It's pretty straight
21 forward. In the public sector in every state and
22 especially at the federal level as well there's just

1 this aging infrastructure of buildings that -- I
2 mean, what federal, what state building have you been
3 in that's been built in the last five years? They're
4 older buildings, so they're ripe for enter -- they're
5 the best portfolio, it's right for energy efficiency.

6 I'd say that's 1. And then 2, as I
7 said earlier, I think you've got an opportunity with
8 this 111(d) rule to really urge the EPA to write some
9 specific guidelines, and we've presented that
10 actually at the national NASIO conference, the state
11 energy efficient conference and also presenting that
12 to the EPA. So I think you got a vehicle you can
13 leverage, but they just need to be specific.

14 CHAIRMAN SCOTT: Mr. Cuttica?

15 MR. JOHN CUTTICA: Well, I have to end on
16 combined heat and power --

17 CHAIRMAN SCOTT: I'm glad I'm sitting down.

18 MR. JOHN CUTTICA: People think that those are
19 my initials.

20 But first of all, I'd like to see CHP
21 on a much faster track, especially with the
22 utilities. I think they're moving but I'd like to

1 see it a lot faster. And I take my hat off to DCEO
2 to get out front with the pilot program.

3 And the second thing actually related
4 to CHP is, I'd love to see waste heat to power as an
5 allowable technology under the renewable portfolio
6 standard. Not that waste heat to power is a
7 renewable technology, but it certainly has the
8 characteristics of a renewable, and there are at
9 least 11 states where waste heat to power is
10 considered a technology allowable under a renewable
11 portfolio standard.

12 CHAIRMAN SCOTT: Thanks.

13 Ms. Stanfield?

14 MS. BECKY STANFIELD: All right. Five things
15 very quickly.

16 Address the way the benefit side of
17 the equation and the cost benefit analysis is being
18 underestimated by including both non-energy benefits
19 and the price suppression effect. We need bigger
20 budgets, particularly for industrial and commercial
21 projects so find a way to align the budgets with the
22 cost-effective potential.

1 For programs that really depend on
2 joint delivery between gas and electric programs, we
3 need to figure out how to allow those programs to go
4 forward, given those constrained gas budgets. And
5 that may mean moving for some programs to a
6 fuel-neutral way of counting savings. It may mean
7 just allowing electric utilities to take credit for
8 gas savings programs like from multifamily affordable
9 housing where gas is such a big part of the
10 accretion.

11 For heaven's sake, show the real cost
12 of energy efficiency if you're going to put the cost
13 on people's bills. When I hear people say, This is
14 expensive, I always have to think, Relative to what?
15 Because if you do not do it then you have to do
16 something. And by definition the savings that we're
17 getting with this portfolio and the ramp up is less
18 expensive than the cost we're avoiding.

19 And 5th, we do need to figure out how
20 to provide an earnings opportunity for utilities that
21 are meeting and exceeding their goals. And to really
22 align the utilities incentives with making energy

1 efficiency the core resource choice in Illinois.

2 CHAIRMAN SCOTT: Thank you.

3 And Ms. Beitel?

4 MS. ANNETTE BEITEL: My comments are not going
5 to repeat what others have said, but I'd like to
6 focus on some changes to the regulatory process that
7 I think would be helpful.

8 Number 1, Illinois really needs a
9 consistent set of policies that cover all the program
10 administrators, specifically in the form of policy
11 manual. So just by way of example, each of the
12 programs or portfolio administrators have slightly
13 different policies that the ICC has mandated around
14 the treatment of net-to-gross ratios. And it's
15 really hard and inefficient to work with all these
16 different sets of policies. We need just one set of
17 policies for all of them.

18 Number 2, I think it would be helpful
19 to have a longer planning horizon. So right now
20 these plans in Illinois are filed every three years.
21 And there isn't necessarily a big difference between
22 plans filed every three years from what came before

1 the prior year. I'd like to see the planning horizon
2 maybe extended to 5 years. I think maybe that's a
3 statutory change. Other jurisdictions are going to
4 5-year planning horizons, 10-year planning horizons,
5 but they're enormously costly and I'm not sure
6 there's a huge benefit, and it's also a lot of
7 litigation.

8 Related to that, when the plans are
9 filed, I'd love to see those dockets consolidated so
10 there's a single consistent treatment of all the
11 issues that are raised, many of which are common
12 cross-holds of portfolio administrators.

13 And finally, and again, I think this
14 would be statutory, Illinois seems to spend a lot of
15 time and money looking at reconciliation on an annual
16 basis. So specifically, which costs are allowable
17 and not allowable. Other jurisdictions do not have
18 annual reconciliation proceedings. What they do is
19 they very, very clearly define in a policy manual
20 what costs are allowed, what costs are not allowed.
21 So there's a very clear rules of the road. And, at
22 the end of a program year, or at the end of a couple

1 years, an independent auditor will come in and just
2 determine whether or not the cost that were
3 attributed to the EEPS funds -- or the balancing cut
4 funds met the standards. And that's just much lower
5 cost, much more efficient. And then everybody knows
6 what the rules are; what's allowed, what's not
7 allowed.

8 CHAIRMAN SCOTT: Thank you.

9 Mr. Nickerson?

10 MR. MEL NICKERSON: Thank you.

11 You know, I apologize. It's a
12 complete mistake on my part, I should've told you my
13 friends call me "Mel."

14 Four quick points. I echo the
15 sentiments and the statements that have already been
16 said about the utilities, both Val and Keith. We
17 need to look again at the gross-to-net way of
18 evaluating our programs. I think that clearly 111(d)
19 has raised a very sobering issue in that under 111(d)
20 you don't care about net, what you're looking at is
21 gross. And I think we, going forward, that is
22 something that we should grapple with under or EEPS

1 program.

2 Secondly, I also agree that amortizing
3 the savings over a number of years is also critical
4 because that is the whole picture -- or the whole
5 truth. The savings that are being generated don't
6 just occur in one year, they have a longer period of
7 savings.

8 I also want to say that I'm very
9 grateful to the Commissioners for approving, along
10 with the utilities, a program which we've been
11 calling the Codes Enhancement Program. Essentially
12 what that is that we have a law on the books, passed
13 in 2009; we have a state-wide building code, both for
14 residential as well as commercial. Little known
15 secret or maybe not, there is not state-wide
16 compliance with the program. Part of it is due
17 to -- lack of better word, ignorance on the part of
18 local governments. More importantly, it's a
19 lack -- let's say a lack of resources. So we are
20 embarking together as a coalition to address these
21 issues. To help move the needle from the baseline to
22 what the potential is.

1 I'm very proud to have worked with
2 Midwest Energy Efficiency Association. They did a
3 preliminary study which indicated that if we could
4 move the baseline what is it is now in terms of
5 building code compliance, to just state-wide
6 compliance with what is the law, it would generate 12
7 gigawatts of savings. So you can take that to the
8 bank, so to speak.

9 I'm also going to end on CHP, John.
10 I'm very thankful to you and your colleagues for
11 putting forward just a brilliant opportunity to help
12 advance Illinois in that area. It is something
13 that's being recognized nationally, so due credit to
14 you. We are, if you will, willing partners but more
15 like a conduit to this good end.

16 One thing I would like to comment on
17 because it has come up both in our recent three-year
18 plan and also, now, unfolding in our -- in the
19 upcoming workshops in the Senate. There is a
20 question of how you count the savings generated post
21 the CHP retrofits. There is some concern back and
22 forth among stakeholders, not to count the full

1 amount of energy efficiency that is gained or the
2 increased amount of gas usage. Simply put, the
3 General Assembly made a definitive recommendation,
4 which is now law, which is that the BTU savings
5 should be counted period. That could have said
6 "Count kilowatt hours," they didn't say that. They
7 could've said "Count Term Savings," they didn't say
8 that. They took a comprehensive look and said when
9 it comes to CHP, or when it comes to this type of
10 endeavor involving CHP, you should look at BTUs.

11 So on that note, thank you very much.

12 CHAIRMAN SCOTT: I want to thank all the folks,
13 who talked to us today. A lot of great information,
14 we really appreciated it and did fully what we needed
15 it to do. Thanks very much to Carla and Suzanne for
16 helping to put this together and making it run very
17 smoothly today.

18 I want to thank the representatives
19 who are here today, Representative Gabel,
20 Representative Nekritzon, thank you very much for
21 being here. And our sister agencies, IEPA and DCEO
22 and the IPA who've been -- who are all working, as we

1 said earlier, together on this. So appreciate that
2 everybody's involvement very much.

3 Thanks again. We'll see you back here
4 on November 6th. Meeting is adjourned.

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