BEFORE THE

ILLINOIS COMMERCE COMMISSION

ELECTRIC POLICY SESSION

2016 SUMMER PREPAREDNESS

Thursday, May 26, 2016

Chicago, Illinois

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

PRESENT:

BRIEN J. SHEAHAN, Chairman

ANN MCCABE, Commissioner

SHERINA E. MAYE EDWARDS, Commissioner

MIGUEL DEL VALLE, Commissioner

JOHN R. ROSALES, Commissioner

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

PRESENTATION BY: PAGE

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COMMISSIONER JOHN R. ROSALES 4

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Executive Vice President and
Chief Operating Officer

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Senior Vice President of
Technical Services

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and Planning

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Transmission Development & Project
Management at Ameren Energy

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Senior Director of System-wide Operations

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Senior Consultant
COMMISSIONER ROSALES: Okay. Folks, let's begin.

Good morning, everyone, and thank you for being here on this Thursday, before Friday, before the holiday.

Pursuant to the Illinois Open Meetings Act, I now call to order the Illinois Commerce Commission 2016 Summer Preparedness Policy Session.

With me here in Chicago are Commissioner McCabe, Commissioner del Valle. Chairman Sheahan will be here shortly, and when he arrives, we'll have a quorum.

Our guests and panelists should be aware that a court reporter is present. A transcript of this session will be posted on the Commission's website following the session.

I would like to thank today's presenters and Commission Staff for the effort that they put in this presentation and for all of you for taking the time to attend. Again, I would like to welcome all of you to our Annual Summer Preparedness Policy Session.

Summer, as you know, can bring extreme
weather which constrains transmission lines and cause outages.

According to the U. S. Energy Information Administration, U.S. temperatures this summer are forecasted to be close to last year's level but 3 percent higher than the 10-year average.

The warm summer weather typically causes spikes, and, obviously, demand for electricity, and utilities and Regional Transmission Organizations do their best to ensure that Illinois customers have power when they need it.

Since the enactment of the Energy Infrastructure Modernization Act, Illinois utilities have worked to modernize and strengthen the grid. These efforts are intended to improve system reliability thereby helping Illinois customers experience less outages and improving power restoration.

RTOs work to ensure that adequate resources are available to meet customer demand even during inclement weather in extreme system
Today electric utilities and RTOs serving Illinois will discuss their plans for ensuring reliability and resiliency of electric service for Illinois customers.

Specifically, we would like the panelists to address the following three questions:

No. 1, what are the most significant threats to the grid during the summer months and how is the utility prepared to address these threats?

No. 2, how have the infrastructure investments and upgrades due to EIMA help utilities to improve service and meet demand in the summer months?

And, 3, what challenges are the RTOs facing with regard to assuring electric reliability this year?

Panelists, please remember that your time allocations include questions and answers.

First, we will hear from our electric utilities. Electric utilities are our first set of presenters from Commonwealth Edison.
Terrence Donnelly is Executive Vice President and CEO, and Michelle Blaise --

MS. BLAISE: Blaise.

COMMISSIONER ROSALES: -- Blaise, Senior Vice President of Technical Services.

PRESENTATION

BY

MR. DONNELLY:

Thank you. Claudia is here as well.

MS. CHEVERE: Thank you.

MR. DONNELLY: Thank you. Good morning to the Commission and thank you for holding these hearings communicating your view of the importance of the power grid to the customers of Illinois.

Again, I am Terry Donnelly. I am ComEd's Executive Vice President and Chief Operating Officer, and joining me is Michelle Blaise, Senior Vice President of Technical Services.

(slide presentation.)

So I'll highlight, and I'll start on Page 1 on the slides here. For ComEd, just briefly looking back, safety is our number one priority as a
company’s accompany, safety for our employees, safety for the public, was our best safety performance on record. We did win, Environmental Health and Safety Magazine, one of America's safer companies, not just utilities, and we are very proud of that. We had a peak load. It was a cooler summer. We had no issues.

(slide presentation.)

I just wanted to highlight our reliability, and a lot of that again through the support of the ICC and the General Assembly, and the EIMA legislation with achieving our best reliability on record last year, with or without storms, and that is actually a 44 percent improvement since the start of the EIMA, which is I believe highly significant, and just when you look at Veg SAIFI or reliability from our tree trim liability, over 65 percent improvement since the start of the EIMA.

Customer reliability complaints, another indicator. They are down 40 percent favorable -- well, actually down 40 percent just from last year of 2014.
Our investments -- we are continuing to make our investments benefitting 2.3 million customers and we avoided -- about close to a million customers avoided interruptions from our distribution automation program with about half a million of those customers just on the circuit that we work with the EIMA program alone.

(Chairman Sheahan entered the room.)

COMMISSIONER ROSALES: Excuse me, Terry. The Chairman has arrived. We now have a quorum. Thank you.

MR. DONNELLY: Thank you. Good morning, Chairman.

CHAIRMAN SHEAHAN: Good morning.

MR. DONNELLY: I just wanted to briefly mention our AMI program. We are a little more than halfway through that program. We are achieving benefits in avoiding truck rolls or service calls to our customers because we are able to verify the voltages on to the customer premises. So far we have avoided 19,000 truck rolls of service calls because we are
able to use the AMI meters thereby allowing our crews to deploy two other outages and restore power faster.

Storm interruptions from our investments we have seen a 30 percent reduction in storm-related outages due to our work on the storm-hardening smart switches and other investments, and our restoration times continue to improve.

I will highlight our statewide exercise drill -- which involve all the utilities in the state, as well as private and public partnership; we did all that last year; we hold every two years -- was held at Oak Forest where the Cook County Department of Homeland Securities and Emergency Management is headquartered, and 30 agencies participate.

You know, the main message I want to communicate there is around how we are working hard to collaborate across the whole state, not just in our service territory, on how we can collectively learn on how we improve our response and how we
improve our partnerships.

We are prepared for the summer this year. We have -- I know Mr. Mathias will comment from PJM around our peak load. Our load forecast is at 90/10, which would maybe -- our highest peak-making weather is at 24,000, a little over 24,000 megawatts.

Our demand response programs, spare equipment, and contingency programs are all in place. Our capacity projects we are 95 percent complete.

We have one remaining job to complete by July 1st, and our Storm Task Force continues in our fifth year, and our task force is really focused on how we can keep improving our storm response, and we have implemented over 300 improvements in our Storm Task Force set up and they range from everything around getting material to crews and increasing communication to our customers and stakeholders.

Customer channels continue to offer improved outage reporting options, whether it's text
messaging; customers can report an outage via Facebook. We can provide outage updates via text messaging. We have an outage map that's available via the web. We have an E-Channel team that monitors social media during storms and helps provide information to customers, and five years ago we didn't have anything in that regard, and we are really making a lot of progress to operating the channels where our customers are operating.

In terms of a forecasted load, our substations, our transmission lines, our feeders, we have over 5500 feeders. They're all within our design-rating capabilities to meet the forecasted peak load, if it should so materialize, so we are all good in our equipment ratings.

Our summer forecast weather, you know, it's difficult to predict the weather. I think we all know day to day, let alone season to season, but we are generally looking at a warmer than normal summer, you know, maybe slightly warmer but generally towards the warmer than normal summer. Typically that could result in some increased storm
activity, maybe normal rainfall, so that's kind of what we are looking at in general.

We are prepared for that, and I know Michelle Blaise will provide a little more detail on that and that level of preparation in our drills and exercises.

And, finally, before I turn it over to Michelle, on Page 4, I did talk about the peak load forecast, which is indicated there just over 24,000 megawatts. That's a 90 percentile. If it was sort of normal weather, we are talking about -- just about 22,000 megawatts, 50th percentile chance. If it's a peak-making worse case, it would be 24,000.

Demand response, just my final point. Our demand response is fairly robust. We estimate about 1300 megawatts to be available to us, if need be, in a variety of situations to be available by June 1, and we are already in year two of the Peak Time Savings Program.

That is a program that's part of our AMI deployment which offers rebates to customers who sign up and would reduce their load during
peak-making times. It could be three, four, five days during the summer, and we anticipate really going well over a 150,000 customers would be involved. That's triple what it was last year, which is very encouraging.

Also, in addition, we expect over 4,000 customers to participate in our Smart Thermostat Program, which offers rebates on buying and selecting thermostats. It all ties into demand response, also energy efficiency, and we are -- with that and all of our other preparations, we are prepared for the summer.

And I would like to turn it over to Michelle to provide a little more detail.

COMMISSIONER McCabe: Terry, first, could you expand on examples of the summer expansion projects, just to give a few examples?

MR. DONNELLY: Sure. One example is a brand new substation in the Bolingbrook/Romeoville area. It's actually brand new, and that is, you know, the Greenfield Substation, and that is in service, so that's probably one of our larger jobs that was on
Good morning, Chairman Sheahan and Commissioners. I am pleased to talk to you today about the initiatives and projects that we have completed and as well as that are underway to ensure that we're prepared for the summer.

As Terry mentioned, we have identified about 122 capacity expansion projects needed for this summer, 5 transmission and 117 distribution projects which will all become completed by 7/1.

Some highlights on major capacity expansion work that we have completed are ongoing. Terry mentioned the Normantown Substation. We also have three new feeders coming out of that substation to help relieve load growth projections primarily in the southwest suburbs, Bolingbrook/Romeoville area.

We have upgraded the line relays on 99 of 99 345kV lines that were on analog microwave system and 37 of 83 -- I'm sorry -- 86 138 kV lines
on leased Audiotone Circuits. The remaining will be completed by 2017.

We have replaced five 300 MVA Auto-Transformers, 638 circuit breakers. All that is the type of work that we are doing to be prepared for the summer.

Major project that is underway now is the Grand Prairie Gateway Project, and that's a new 345kv line connecting Byron and Wayne Substations and that work is in progress. It is on schedule to be completed by June 2017.

We also improved system resiliency. We have done work to upgrade our overhead transmission line, quite a bit of an investment. We also look for new processes and new technology to reduce costs and make the project more efficient. We're utilizing, for example, new conductors which provide a design to operate at higher temperatures and lower costs helping to reduce modifications that are needed for in our towers.

We are using processes like aerial cranes to install conductors which is much more time
efficient than doing it from ground-raised cranes,
so we are always looking for ways to improve both
the technology and processes in improving our
system.

We have a couple of generation
retirement preparedness projects. The Crawford
Static Var Compensator is complete and Audiotone --
I'm sorry -- additional Auto Transformer are at
Goodings Grove is another project which will be done
by 2016.

COMMISSIONER ROSALES: Where are they located?
MS. BLAISE: I'm sorry?
COMMISSIONER ROSALES: Where are they located?
MS. BLAISE: Goodings Grove.
MR. DONNELLY: It's actually part of -- generally
a big feed from the south to the western suburbs and
then into Chicago, and a lot of the investment there
has been a big part of getting ahead of the curve on
generator retirements to make sure that we're not
caught short. We are always looking ahead to what
coal plants might retire.
Looking back, there was Fisk and
Crawford, and those plants retired. We have had a lot of investment to make sure that we're ready, and investments like the transformer, part of looking at that area of the system when you look at the plants in Will County, or Joliet, or that area, and just making sure that we're looking ahead and making sure we're prepared if there is some retirement in the future. We don't want to be caught short. We want to make sure we're ready.

That's an example of one there, and then the Static Compensator. Crawford is another. Technology kind of makes up for lost generation -- loss of coal plant generation on the system.

COMMISSIONER ROSALES: Okay.

MS. BLAISE: Moving on to EIMA investments, we, since 2003, initiated that program working 2012. We are about 82 percent of the way complete with the program of work identified to be done of highlighting the Storm Hardening Projects, specifically focus pocket areas where customers that see outages and extended outages during storms. We have done quite a bit of work around that area and
are seeing the results, and we'll talk a little bit
about the results.

Next. Just highlighting EIMA
benefits that we have seen, we are estimating that
we have avoided about 2.5 million customer
interruptions as a result of the work that we have
done through the EIMA. The Storm Hardening Program
specifically, we're estimating, has avoided about
600,000 customer interruptions.

We continue to do some targeted
reliability work, have impacted well over 200-some
municipalities. Those include overhead to
underground work space for cable solutions,
reconductoring and rerouting lines in order to avoid
repeated outages and interruptions.

Our veg management program, Terry
mentioned earlier, we are on track to complete our
cycle of the trimming that's required for this year,
both in our transmission and distribution programs.
We have removed over 50 percent of the trees that we
have touched since the program began. That really
makes a huge impact during storms.
We will go to emergency preparedness.

I would like to talk about the work that we have done to improve our storm response as well. We do initiate -- we do have an annual storm response improvement initiative that we take on every year, and since 2012 we have implemented over 300 improving initiatives.

Things that we're focused on this year around improving the accuracy of our estimated time to restore has information that's important to customers, and we have put and improved processes to help our crews give us more information about what's going on in the field when they're out there restoring so we can provide better information to our customers.

We streamline the processes in reporting for our crews -- crew management so that we know when crews are available and we can get them to the next outage quicker reducing the outage situation.

We have also leveraged the AMI. We have really assigned -- have a storm role for
someone to monitor the AMI to look for what we call
"nested outages" during storms.

We may have restored the main branch
or a branch of a feeder and we may still have
pockets of customers, because the damage is more
local, like in their backyard, but we may not have
gotten to, so we can tell with the AMI meters that a
customer is still out and we can address it. Those
tend to be what we're focused on especially towards
the end of the storm.

Mutual assistance is also important.

That's the partnership with our local other
utilities. We have participated in the Edison
Electric Institute in exercise planning for the
National Response Event. That's really instrumental
if we use this RAMUP tool that EEI has developed to
enable multiple utilities to manage their crews and
resources in the event of a major catastrophic event
that impacts large areas.

We are active in three Regional Mutual
Assistance Groups, that's at Great Lakes, Midwest
and Southeastern Electric Exchange. That really
gives absolute diverse resources for additional help if we need it.

We have expanded base camp. Base camp is reporting locations where we bring in contractor crews, outside crews to help. We have set up locations where they can -- we can process them, get them training, and get them going and assign them tickets to get going as quickly as possible.

We have established agreements with local municipalities, so now we have about 30 base camp locations that we can locate crews depending on where we need them.

I'll go on to additional emergency preparedness exercises that we have done. We are very focused on really kind of practicing to make sure that folks understand the processes or roles and responsibilities, and exercises are important to that.

We have 63 exercises that we are conducting in 2016. Thirty-five of them with external entities that are impacted during major events are part of our support system during major
events. They include things like summer readiness, winter readiness -- I mentioned the National Response Event -- business continuity, and workplace violence.

We also do some education for our local municipalities and governmental agencies around load shed, for example, and we have held workshops with several partnering counties trying to explain to them how ComEd goes through load-shedding events.

We have looked at emergencies. We have also held contractor symposiums to bring the contractors who come in and help us during storms. We have held symposiums to help us understand feedback from them and how we can be more effective in utilizing that when they come in and help us, and it was held May 10th and there was really great participation from folks.

Contingency planning, the emergency equipment is ready and available for the storm season. We have seven mobile substations, two megawatt generators, and we have 17 ComEd-owned
units, and we also have additional generators on standby with vendors. We also have 31 portable generators and some spare substation transformer fleets providing a list of the transformer sizes and the number that we have as spare inventory.

Supply readiness is important. We've restocked mobile storm trailers that can bring materials out to crews during storm restoration. We always ensure that they're well stocked and ready to go, and we have also initiated a flood mitigation plan a couple of years ago to address substations that are at risk for flooding, and we have completed three of those across the system and we're working on some additional ones.

Key focus areas for us are also around our customer communications. In the call center we have expanded our call center hours, especially -- we are also on-boarding additional temporary customer service reps to accommodate the summer call volumes.

One of the areas we are focusing on is customer -- as I said, is customer communications.
We are really seeing greater participation in adoption of the tools that we put out there for customers.

More than almost 300,000 customers, for example, have signed up for our text alerts to let them know that they're -- that we know they're out of service and give them some expectations, but we also recognize that customers sometimes want to speak with us when they have questions.

I talked about how we have expanded our storm hours and we're adding temporary customer service reps during the summer. We also are in construction of a new backup call center at our Maywood tech center that will be finished by the end of the year.

For those customers that want to use technology, we made it easier for them to report outages so now they no longer need to provide a user ID or a password to report an outage at ComEd.com, and then to help customers better during outages, we have introduced what we call "community care crews," and these are vans that they operate that
have phone charges and water, as well as access to
our outage maps that we take out to the communities
and to get them information about their outages and
restoration times, and they can also -- we commend
them. Having the phone available is a critical item
for customers who have actual phone charges that we
have for them as well.

In conclusion, ComEd is prepared to
provide reliable electric service to our customers
during the summer of 2016.

Our transmission and distribution
facilities are ready to meet the 2016 forecasted
load. Our transmission has reached summer capacity
expansion projects and proactive annual maintenance
is on track to complete by June 1st -- by July 1st,
and storm response improvements, preparedness
drills, and exercises are underway -- have been
taking place and are underway to ensure that we're
ready, and our customer service channels are ready
to respond to customer inquiries.

We thank you again and we are happy
to take any questions that you have.
COMMISSIONER ROSALES: Ironically, yesterday they had a blackout in Seattle. The reason was someone kind of -- at a direct the one was somebody at a substation. How do we make sure that doesn't happen here?

MR. DONNELLY: We do many, many, many -- part of it is our summer readiness program that we talked about here today, many of these. Also, an example, is our design criteria that build redundancies into the system, not unlike the other utilities here in Illinois, so if a component fails, we do have remaining capacity of the other component to carry the load.

As an example, specifically say in the City of Chicago, since a lot of the plants are retired, we have made tremendous investments with transmission and with the increasing capacity of several adjoining substations which kind of gives us some redundancy. If something happens in one area that is catastrophic, we have kind of leaned on the other areas to restore load of the customers.

No system is full proof in terms of,
you know, what the range of actions can be happening, but certainly our robust drill plan, over 63 exercises, also focuses on if something might happen how do we get it on as quick as possible, so we're working hard on that, and part of that is our summer readiness program which is part of that.

MS. BLAISE: I would also add that we have a rigorous inspection and maintenance program on our main pieces of equipment -- on all of our equipment, especially substations. This is a pretty thorough program, and, as part of our summer preparedness, we do have certain corrective maintenance items that have to be done before the summer. We track it.

COMMISSIONER ROSALES: Anybody else?

(No response.)

Thank you all.

MR. DONNELLY: If I could just make one more comment to the Commission --

COMMISSIONER ROSALES: Sure.

MR. DONNELLY: -- if you will indulge me.

I want to publicly thank Claudia for her over 34 years of service to our company,
dedicated service. She will be retiring. I want to publicly thank Claudia for her service. I know she has worked with a lot of people here in this one room. We just appreciate what she's done for us and all of us and wish you the best in retirement.

COMMISSIONER ROSALES: Terry, if you were here yesterday, you would have heard me say the same thing.

MR. DONNELLY: I did hear that. I thought I would just repeat it.

COMMISSIONER ROSALES: I'm glad you did.

MR. DONNELLY: Thank you.

COMMISSIONER ROSALES: Thank you.

Next we have MidAmerican, Jeff Gust --

MR. GUST: Yes.

COMMISSIONER ROSALES: -- Vice President of Compliance and Planning.

PRESENTATION

BY

MR. GUST:

Yes, and thank you for inviting us.
Thank you, Chairman Sheahan and the Commissioners. I am pleased to be here this morning.

As you mentioned, my name is Jeff Gust. I'm Vice President of Compliance and Planning, and I have transmission planning and resource planning, a lot of the NERC compliance and other compliance aspects of what a utility faces.

I am here to talk about summer preparedness this morning. I have a number of slides to go through.

(slide presentation.)

So quickly, just a quick overview of our company, if you are not quite familiar, we are headquartered in Des Moines, Iowa, serve four states, but -- and we do serve -- part of our service territory is in Illinois. We have just over 85,000 customers -- electric customers in the Quad City area, the Illinois portion of the Quad city area. We're kind of uniquely situated in Illinois. We are kind of a hybrid. We have a utility-owned capacity serving our customers.

We recently just completed
participating in the IPA process. Beginning June 1st will be the first time we will have a portion of our load served under that -- under those new contracts.

I was involved with some of that process making sure it went smoothly for us. This is our first time there and very pleased with how that worked, working with the consultant here and working with other folks at the Illinois Commerce Commission and very pleased of how that worked, got the capacity, energy acquired to serve for the next year and couldn’t be happier with that, so I just wanted to make that comment here.

So, as far as what we are facing this summer as far as the peak -- and these numbers are total company. I do have some break out for our Illinois portion, but total company we're forecasting just over 4500 megawatts of peak load in our system.

Last year, as you heard from ComEd, we are expecting to be slightly higher -- forecasting slightly higher than what we had forecast last year.
We do have some loads that are not coming in as fast as we had thought it would. Some large customers are a little late, so, you know, trying to forecast that is a little difficult when that load will actually come on, but I don't anticipate a very -- hitting our all-time peak, but hotter weather could push us over this as indicated by an extreme weather forecast.

COMMISSIONER ROSALES: What was the reason for that forecast?

MR. GUST: Well, when we -- a couple of things that go into our forecast. Peak forecast is both obviously weather and then large customers coming on line. New customers they're late in coming on-line, building their new facilities. It's just they're behind schedule, and so when we forecasted that a couple months ago, we've gotten new updates saying they're behind schedule, so they may not show up during peak conditions this summer, so we may not be as high as we anticipated, so that's the difficulty of forecasting demand.

Adequate reserves to serve our load,
again, we are a hybrid system in Illinois. A portion of our Illinois load would be served by our own capacity and then the remaining portion will be served by the purchases that we made to the IPA, but adequate reserves these numbers are based on ICAP and MISO. UCAP will show lower reserve numbers but we have a lower requirement just because of ICAP and -- UCAP versus ICAP. The difference in UCAP is including forecast traded in units where ICAP isn't. From just a mix of what capacity is used to serve our load, we have coal, gas, nuclear, oil, hydro and wind.

One thing to note in this year, April of this year, we did retire two older coal units, so those units are no longer available to us. Part of the reason why we had to go in with the purchases through the IPA is because of the retirements.

We do have a robust demand-side management program, interruptible load. In Illinois, we had a total about 25 megawatts of both interruptible load and behind-the-meter generation,
so that's a key resource we rely on when it gets hot and you need to call on these resources.

So it's just kind of a graph showing kind of our load, our actual and forecasted loads, and stuff like that, so we did -- we have seen a drop in load. Part of it is weather-driven, another part is just changing load, certain customers coming off and new customers coming on.

Moving on to the transmission side of the business, we don't expect to have any problems this summer and, on the Illinois service territory, we expect to have not to exceed normal ratings of our system; however, if there is a situation that causes the problem, we do have a number of tools, one of them obviously MISO is a congestion management tool and re-dispatching, calling transmission loading relief, calling on our interruptible customers, and so forth.

And you mentioned a question about Seattle. We obviously saw that. I agree with ComEd -- ComEd folks about as a utility what we do we do, constantly look at our system, design it to handle
those kinds of contingency events. We do drill. We do practice.

Another thing that I would note is human performance. Sometimes it's just a mistake that happens that may have caused a certain outage. We focus on human performance and look to improve our human performance, especially in areas like the control center or the substation where human performance problems could cause an outage, so I would just add that as another thing that we are constantly looking to improve.

We have adequate transmission capability. We don't expect any limitations on our ability to serve customers or -- ARES or RES customers this summer.

We do continue to experience what I would say is a significant amount of flows from west to east across our system and where that ends up potential problems is Quad Cities to Galesburg part of our system. We do sometimes see that as a limiting factor that will cause congestion and causing re-dispatch on our system.
I would just note though that last year the Commission did approve one of our transmission projects. We call it our Oak Grove to Sandberg 245 Line Project. We are working with Ameren on that project. They have the remaining piece of that project.

Since your approval last year, we have obtained 100 percent voluntary easements so we didn't have to condemn anyone. We selected a contractor, and they have already started work on that line, sort of tree clearing, and we will actually start the line construction this summer as we get our outages, planning, and so forth. We do expect that project to be completed sometime early-to-mid next year, so that's going on.

On our storm preparation we do believe storm -- weather storms are our biggest risk this summer and whether we are going to have outages or not for our customers, so we monitor -- obviously, we monitor, like our other colleagues, weather on a 24/7 basis.

We use many different services to do
that. We do hold pre-storm calls. We talk about risk and appropriate measures. We have crews on standby in remote areas of our system. If we see a storm coming, we, you know, implement storm resources.

In fact, this morning I got called on a storm, part of our system in Iowa which is experiencing some outages on some storms from late last night, so constantly we are working through storm issues in the summertime.

A little more about our storm response, you know, we use, like I said, field resources both internally and contact resources.

Using mutual assistance, as mentioned by colleagues at ComEd, we are also part of Berkshire Hathaway Energy, our sister utility out west, that we can call on quickly if we need help from them also so just constantly trying to improve on that.

After a storm, we do review lessons learned and try to get better. One of the outcomes of that we are looking at adding additional
technology on improving our efficiency during a
storm response.

You know, in a certain area,

obviously, a number of customers calling in, work
can get backed up, so we are using this new
technology of computer-aided dispatch to help to get
through the lumpiness of the work during a storm and
hope to improve on getting customers back quickly.

COMMISSIONER ROSALES: Is that proprietary?

MR. GUST: I'm sorry?

COMMISSIONER ROSALES: Is that proprietary?

MR. GUST: No. I think this is a system that
many utilities, especially here in Illinois, use.
It's not a new technology, but we definitely have
seen the benefits from our other colleagues and have
implemented it in our company, too.

Our communication also is very
important. We use, obviously, the normal -- the
traditional sources. Social media now has become a
big part of how we communicate to our customers
through Facebook or Twitter. People like to get
information on their phones, and so forth. We do
use a website. We just recently tried to improve
our website on how to get information about outages
and so forth.

Again, we'll buy advertising time if
there's a large area that's impacted by a storm to
warn about the safety of down lines and who to call
if they do see a line down and so forth.

Vegetation management is another key
risk on customer outages. We are on a three-year
trim cycle for the distribution system. We do
annual inspections and we communicate to our
customers both in the spring and fall about safety
issues of trees that contact our lines, and so
forth. We did have a little uptick last year in
customer outages related to tree contacts.

We think part of that is just -- even
though we are on a three-year cycle on a circuit
cycle, we may not hit the fastest growing trees in
that cycle, so we are working through those, I would
say, troubled areas this year and hope to improve on
that going forward.

So, again, vegetation management is a
key part of how we manage some of our risk to
customer outages.

So, in conclusion, we think we have
our -- we're prepared for this summer to serve our
customers peak load. Again, we're a hybrid system,
and on IPA through the auction, we are pleased with
the results of obtaining energy and capacity from
that auction, and then on the transmission side, the
delivery side, we think we are well prepared for the
summer.

With that, I'll take any other
questions you may have.

COMMISSIONER ROSALES: When you referenced
Seattle, one thing you brought up was sometimes
employee mishaps, so what type of training do you do
to minimize those types of mishaps?

MR. GUST: Sure. Obviously, at our control
centers with our operators and dispatchers, they go
through rigorous training, you know, switching
training, making sure they understand when they have
a switching process that everyone understands where
they're at in the process.
We do training in the field about understanding the type of equipment we have, and how it interacts with our control centers, and what are the steps they need to take.

Safety is also a very key part of our training making sure they're following our procedures and they're doing it safely.

COMMISSIONER ROSALES: So when you say "training is rigorous," so this -- do you have this where it's in a timely manner in that you have specific dates and times when training occurs?

MR. GUST: Yes, absolutely. The system operators must maintain their accreditation, so I don't think that's on an annual basis. I think that's more of a -- I'm not sure if it's a three year or four-year cycle, but as far as field folks and how they get the type of training through either where they're -- I can't think of the word -- working with our unions, and where they're at as far as a lineman or, you know, training to become a lineman that go through that type of training again, and then we also require certain training on our procedures,
that's done -- some of that's done on an annual basis, others are done as they get to a certain level of where they're at as a union employee and such, so I can get that information for you.

COMMISSIONER ROSALES: I appreciate that.

MR. GUST: Sure.

COMMISSIONER ROSALES: Anything else?

(No response.)

Thank you.

MR. GUST: Thank you.

COMMISSIONER ROSALES: Next up Ameren Illinois. Ron Pate's Senior Vice President of Operating and Technical Services; Brice Sheriff, Director of Regulatory Affairs; and Shawn Schukar is Senior Vice President of Transmission and Development.

Welcome, gentlemen. Thank you for being here.

PRESENTATION

BY

MR. SHERIFF:

Good morning, Commissioners. We appreciate the opportunity to come before you today
and talk about our summer preparedness. We have three of us presenting today, and we have 20 slides to go through. We'll try to keep it somewhat of a high level, but, obviously, if you have questions, please feel free to intervene at any time.

(slide presentation.)

To get started, Slide 1 or 2 actually is basically just an overview of the topics we'll be covering again today, topics and issues surrounding transmission and resource adequacy, as well as Ameren Illinois' readiness.

Slide 3 is a snapshot of Ameren Illinois as a company, 1.2 million electric customers, roughly 46,000 miles of distribution lines. Similarly, we have obviously no generation. We purchase all of our electricity similar to our 816,000 customers on our natural gas side and roughly 18,000 miles of pipeline.

I think Slide 4 is the heart of why we are here today to assure the Commission that Ameren Illinois has verified that sufficient generation resources are committed to serve the Illinois load.
In addition, transmission and distribution capability is adequate to provide reliable electric service to our Illinois customers during 2016.

This next slide is simply a little breakout of our summer peak loads as of the year 2015 actual, 2016 expected, and 2016 worse case scenario broken out in megawatt load.

The next slide is essentially a breakout between our supply customers, Ameren Illinois supply customers and our RES supply load.

As you see, a large number of Ameren Illinois customers are receiving their supply load from a retail electric supplier, and this is a further breakout of our peak load purchases, fixed-time price load versus real-time price load, and this also shows on the right, as you can see, the capacity acquired built in -- built in the MISO 7.6 required reserved margin within our supply load.

And my last load or last slide is a lot of information on here. This is our demand
response resources. It breaks things out such as interruptible load for RESs, as well as real-time pricing for both residential, small commercial and industrial, large customers, and a further break down of large customers and small customers of power smart pricing programs.

With that, I will turn it over to Shawn.

PRESENTATION

BY

MR. SCHUKAR:

Thank you. Thank you, Commissioners.

On the transmission side of business, we spent a significant investment this year making sure our transmission system is prepared, and, as you can see on Slide 9, we do not anticipate any type of constraints on the system that would limit our ability to bring in adequate supply.

We've also confirmed both through MISO processing and checking with the folks who bring in power that their designations are acceptable so that we're assured that their supply has been identified
as one that can be deliverable.

And then on the next slide is just an overview of our system. We have upgraded several substations. We have 12 new upgraded substations and then we've upgraded several of our 345 and 138 lines to ensure that we have adequate deliverability.

We have worked with the MISO and internally done studies to ensure that we're prepared both from our footprint, and think about our footprint, working with the companies around us to ensure that the system is prepared for whatever may happen on the system.

Then, finally, on Slide 11 on the transmission side with vegetation management, we do circuit patrols of all of our 100kV and above at least annually and then 230 and 345 we do twice a year, and then target trimming schedules to ensure that we don't have any preventable tree accidents that would fall in the streets.

With that, I will turn it over to Ron to discuss distribution.
Good morning, Chairman and Commissioners. I promise not to read the slides, but this is one I do want to read because of the many years I've been doing this this is the first time that I can actually say this.

"All sub-transmission feeders, substations, and distribution feeders are expected to be loaded within applicable ratings for expected and worst case summer peak scenarios on the Ameren Illinois Company Distribution System."

Over the years we have had different criteria, because of the companies we brought in, a couple of companies lagging. We need to make the criteria more stringent and it's been a number of years that we can bring it up, so we are quite proud of that to make that statement this year.

These next two slides are just some questions asked on the EIMA, and particularly what's being done there. Again, what we all see is a lot
of work being done or completed under the EIMA,
putting a lot more automation on our distribution
system, which has been beneficial to our customers,
and upgrading electro-mechanical relays with
microprocessor-based relays to make sure that our
system is more reliable than it has been in the
past.

The next slide, again just a
continuation of system-type projects. Commissioner,
you asked what projects put in place so we could
avoid Seattle on the system, and stuff like that,
and Mr. Donnelly talked about where you have got one
source you have no choice but to feed back to back.

COMMISSIONER ROSALES: When you talk about
Seattle, for instance, when the substation went
down, there was a number of repercussions that
traveled throughout the city. The elevators stopped
working. The tech receivers were not working. It
was all major, so it was surprising the amounts of
damage that it did for one substation. I found it
somewhat surprising, and that's why we are here
today.
MR. PATE: Absolutely. I think, you know, a critical part of that -- and Terry made mention of this, too -- is when we look at relay schemes, when you have a failure -- when you have a source that's lost like that, it automatically kicks over to another source to handle that load, so we do testing on that on a regular annual basis for that stuff, too, so a lot of things that come into play not only redundancy but to make sure the equipment you have in place to keep that from happening.

The next slide we talk about vegetation management. We continue to meet all our legal and regulatory compliance requirements there. As you can see that fourth bullet is definitely showing a drop in the frequency of outages. We are also being more aggressive with take downs, so you don't have to go back, as mentioned earlier by our friends at ComEd educating the public to adopt a tree and then come back the next year and plant another one, so that education is important as well.

The next slide is just some more additional on-going reliability improvements. We
have a circuit inspection and repair program, 
storm-line hardening we talked about earlier, again, 
inspections on reclosers, and capacitors, and 
regulators, to make sure that that equipment was 
operating out there.

Our the distribution, this is actually 
our dispatch office of system operation control. 
We practice the load shed drill with transmission on 
a monthly basis, then, of course, we are 
instrumental in making sure that our work -- the 
critical work they talked about to make sure that 
everything's in place before the peak summer hits, 
then monitor that, make sure we get outages 
scheduled for good reliability of our customers.

The Emergency Operations Center you 
can see that's been activated several times and what 
we have done in the past, but also activated several 
times this year, and that's what we stand on. Any 
time we have even a threatening letter, we will 
activate EOC to be prepared for that.

It's also talking about the estimated 
safe restoration times. We understand that's so
critical to our customers. They need to know as early as they can. They also need to be accurate. We need to understand the gaps as early and accurate as possible. We try to put ourselves in the customers' shoes. They really want to know the amount of power, high power, low power, what caused it.

Our contact centers and communications, of course, we have three contact centers. They're all integrated, so we get calls from the state saying please open all phones, they can answer that.

During major outages, we make sure that we are staffed in the local community, that they have activated their emergency center. They need to have someone there face-on to report that information.

We also have drills and keep constant communication throughout the year, and not just in emergency times, but for that so we can become familiar with that process.

Social media has become so important,
you know, we're using that as a tool to get our
story out. It's hard for somebody to understand
perhaps on one side of town that hadn't been
impacted why they have no lights, and they can see
pictures of those that we post on our website to say
this is the story. This is the substation feed.
This is why it's out. It really helps folks to
understand that. It's become more important to
satisfy the needs of the customers.

So, in summary, Ameren Illinois has
acquired generation capacity and has the
transmission and distribution capability to provide
reliable electric service to our customers, working
to complete our critical maintenance and system
upgrades and, as I reported earlier, and, as always,
simply reported by management company, and ways to
improve -- to dramatically improve our reliability
and customer satisfaction.

So with that, I'm happy to answer any
questions.

COMMISSIONER ROSALES: The on-going training and
exercise, number of hours 2015, you wrote down just
six operations in EOC. 2016 is that year to date?

Is that calendar?

MR. PATE: Yes, year to date 2016.

COMMISSIONER ROSALES: Is the accounting year a calendar or fiscal year?

MR. PATE: It's a calendar year.

COMMISSIONER ROSALES: Any other questions?

COMMISSIONER McCABE: ComEd's mentioned doing some work in anticipation of coal plant closures. Is Ameren experiencing some of the same preparations?

MR. PATE: We certainly are. There's some work ongoing and some planning work being done as well as we can't tell what the impact is going to be. On the transmission side, it's pretty much we can't get inside. We can't get an impact of what we have done so far. Probably the biggest impact is just some switch gears inside those stations and plans that we need to relocate so we have access to those switches is probably the biggest issue that we have, not so much capacity though.

COMMISSIONER ROSALES: Thank you, gentlemen.
Now we are transitioning to the Regional Transmission Organization presentation.

First, we have MISO. With us today is Robert Benbow, who's the Senior Director of System-Wide Operations. Thank you for being here.

PRESENTATION

BY

MR. BENBOW:

Good morning. I apologize. I'm getting over a little bit of a cold, so I'm horse this morning. Good morning to everyone, and we are glad to be here to give our status update on Summer Readiness for 2016.

(slid presentation.)

MISO is one of the first RTOs in the United States, and our headquarters are in Carmel, Indiana, with a primary backup control center in Carmel, Indiana, as well as data centers that are used for business continuity needs for MISO operations.

We also have two other control centers, one located in Eagan, Minnesota, and Little
Rock, Arkansas, that we use for business continuity, and, also, local operations that work with our members in those areas.

We serve 15 states within our footprint and we also have in those states our 22 million customers in the states that we provide services to through our members.

Our services that we provide we talk about reliability coordination and we talk about the Seattle event being prepared for that.

MISO runs a contingency analysis looking at those kinds of conditions and, minus one, it would also include multiple outages like that. We look at that every five minutes.

We can also run a quick CA, or a quick contingency analysis on that to identify what the impacts are going to be on the transmission system, and then we can take action by either through our markets or through our emergency procedures depending on the state of the system conditions at that time.

COMMISSIONER ROSALES: We all agree that at times
there's going to be equipment that goes out. We are here today to find out what happens when the equipment goes out and what we're prepared to do in terms of meeting that forward, so thank you.

MR. BENBOW: Thank you.

Our services that we provide we talk about reliability, coordination, scheduling, and transmission services, planning, balancing authority, balancing load and generalization and market operations and energy markets and also ancillary service in markets, we do all that.

We focus on reliability first and then we focus on efficient value-created operations with our members and market participants. All that good stuff is with teamwork, building relationships, partnerships with our members, our neighboring RTOs, our adjacent balancing authority, and transmission operators as well.

That prepares us for things like heat domes where you get sustained heat across our system, forced outages from tornados, extreme thunderstorms, high winds; winter operations also
include polar vortex, and ice storms and wind shear. We also think about earthquakes. We think about cyber storms or attacks and how we prepare for those and how we ensure resilient operations on those events.

Forecast for this summer, we're expecting above normal temperatures for our footprint and that will lead to a similar load forecast that we had last year. We expect higher than above normal temperature as well.

For this summer, we have adequate reserves to meet our demand. For this summer, we are expecting to see about 127,000 megawatts a load in our footprint but about 18 percent margin above that for reserves, and that was very similar to last year as well.

This slide right here shows the comparison from last year 2015 to 2016. So for 2016, we have slightly less reserves for generation resources that cleared our auctions for this summer due to retirements and then our load forecast for the summer is slightly less across our whole system.
than it was last year leaving us with a similar reserve margin that we had last year looking at 22.9 megawatts of reserve. Those are broke down by looking at peak conditions.

There's some additional resources out there that are in our footprint that we would have access to and that would increase our reserve margin, and then also forced outages were taken for a probabilistic scenario another 7.2 megawatts of generation outages, leaving us with about 17 gigawatts worth of reserves there.

When you break that down from those forced outages, what we see is for demand response we see that demand response makes up about almost 10 gigawatts, 2.4 gigawatts worth of operating reserves that are meant for contingencies, so a loss of a generator, also about 40 megawatts out of 2.4 is used in regulations and excess changes that occurs on the system on a regular interval.

So that leaves us with about 5 gigawatts worth of reserves there that are available under normal conditions. The other 10 to
12 gigawatts that's available when we get into our emergency procedures and we have access through our demand responses and meter generation. So we would have to declare a max gen or a capacity shortage emergency to get access to those reserves and also out emergency alerts to the demand-side management, so that's just part of our procedures that we have in place to get access to those resources to meet our obligations.

COMMISSIONER ROSALES: Can you explain beyond-the-meter generation?

MR. BENBOW: To be beyond-the-meter generation is a small generation that is available to us. It is not part of our market so we wouldn't see the output of those resources, but they would be available to us through our members, through our market participants, and they would tell us what's available, and how much, and then we can actually input those megawatts through them, so it's all part of the meter. We have them in our estimated model, but we don't have real-time data for it, so we estimate it based on the status of that through our
members.

COMMISSIONER ROSALES: So in an emergency, you could have access?

MR. BENBOW: Yes. We have a whole process for what we call the "load modified resources behind-the-meter demand response." They would tell us how much is available to us all through our communications system that we have for an application that we use for our members. They tell us how much is available, what the notification time is for those resources. They have to be less than 12 hours and they can be as much as four hours across our peak, so it's in our tariff for that and we deploy them based on system conditions and needs that we would have for those peak hours, and that's done prorata for those -- we have to provide those resources across our footprint or our subarea that we are in active emergency for.

I think for summer what we see and what seems to be key drivers that would put us in the emergency conditions, if we end up with sustained heat across our entire footprint,
something like what we had in 2012 with the heat
dome, not only for our footprint, but it's also
throughout the United States for a good chunk of it,
and our neighbors were in similar conditions that we
were, so we all experienced that heat at the same
time.

We believe some of that diversity --
for MISO we have a large footprint with 15 states,
so some of that diversity we have with load peak at
different times using that generation to meet
different needs, once we use some of that diversity
if you get a large heat dome across that entire
footprint.

Last year, as I said earlier, we hit a
peaked about 120 gigawatts. Our south region
actually set an all-time peak down there about 33
gigawatts, that was an all-time peak for that area,
but we do not expect those same conditions in the
northern central part of our footprint.

So some of that diversity allowed us
to transfer generation to that area to help meet
those needs in the south. We have that flexibility
across our system with a large footprint.

Heat domes that come in there and they last for three or four days and build up across our entire footprint and then we start to seeing where we get into tight operating conditions and we get into those emergency procedures.

That also affects transfers in and out of our market with our neighbors as well if they need those resources, then they'll be utilizing those resources at their region to maintain balance of generation when we might not be able to get that scheduled interchange from them based on our markets.

The other thing is tornados, severe weather, lightning storms, MISO has now had a large footprint, so we even talked about hurricane readiness as well, be ready for summer that starts in June, actually in the middle of June, and hurricane season should get all the way up to here (indicating), but it doesn't have the impact on all our operations.

Some of the things that we do to be
prepared with our members and our neighbors, we do a lot of coordination, a lot of planning, so in real-time or in operations we're always looking out seven days with our forward reliability assessment. We have a daily meeting every day at 8:30 to look at yesterday's performance, any lessons learned there that would be applied going forward, and then we also look out the next three to five days on what's coming up and then we can use our processes as tools to increase situational awareness with our members by calling severe weather alerts, hot weather alerts for those future days to put members on notice that we are expecting high conditions.

We can even go into conservative operations which basically tightens up the operations on the system by not allowing outages or any outages on our infrastructure or monitoring and maintaining reliability, so exchanging data with your neighbors or your members, doing maintenance on your infrastructure or energy management systems, your market application, we suspend all that during
conservative operations so that we are ready for
anything that might come at us.

We also will see some of this through
our day ahead markets, our forward reliability
assessment as it rolls into real-time. All that
goes towards situational awareness in our
procedures.

We focus a lot on situational
awareness, being aware of your surroundings and what
might impact you, making sure that we're prepared
for those kinds of conditions.

Tools, procedures, our markets we,
like I said earlier, we run a security exchange
dynamic dispatch. That takes into consideration all
congestion on our system and then try to also make
sure we have efficiency for dispatch and generation
to meet the load, and that is done every five
minutes, our input data for that through our state
estimator, and that runs every minute.

I'm looking at all of our members'
data that they provide to us so that we have a good
awareness of what's on the system, and that runs on
contingency data analysis every five minutes.

You identify constraints in that. You activate it into our market, and then our market dispatches around like normal procedures, and emergency procedures that might come out of forced outages, we would automatically re-dispatch or emergency re-dispatch generation to respond to the constraint, so our operators have access to tools or distribution factors for all of the constraints and they could actually have access which impact -- which constrains and actually manually dispatch them to get the system back working at a normal rate.

We also run one-line voltage stability analysis, we use that, and also change the security analysis every 15 minutes to look at changing conditions on the system that might have voltage or reactor feeds that are out there.

We look at certain load pockets within our footprint, too, that have been identified through our transmission assessments, and we have processes and procedures around those that are operating and have been identified.
Our transmission assessment for this summer is not showing congestion outside of what we expect for the normal system operations, so we don't see any concerns from a transmission perspective for this summer.

We have an internal communications system that we use for our members to provide declarations for all emergencies, abnormal conditions, and we do that on a regular basis with them.

We also communicate with our neighbors through that tool as well. That includes also state commissioners, FERC, and NERC that are on some distribution capacity, emergency conservative ops so that person's situational awareness as well as what's going on within their state or within certain regions, and also to our neighbors as well.

Training. We talked a little bit about training, drills, workshops. We hold emergency operating workshops every year on an annual basis to go over our emergency procedures with our members, our neighbors.
We also have a summer and winter readiness workshop that goes over projections for those seasons and what our conditions are and expectations for resources. We share that with them, and we also go over the appropriate procedures for that system.

Training, we train our operators for -- all the operators on a six-person schedule, allowing them to train every six weeks and we conduct four-cycle training events per year that are a six-week program to allow all the operators to go through that training, and not only on the NERC Standard Operating Guide, but our procedures as well, so that they're familiar with them, and also conduct tabletop exercises in abnormal conditions so loss of data or loss of applications.

There's a little bit of talk about human performance. We also train on that and we look at the human performance for reducing errors, so examples of that are looking at displays, making sure displays are all created with a systematic approach for color coordination, so during an
emergency condition on one display, you might show
that in red, so we make sure that red is on all
displays in the control room. That means that you
need to take action to respond to it, so you get a
lot of alarms in the control room.

So you need to make sure you have
consistent processes around that, consistent
displays and color coding, so the operators are
aware of that which means all displays you don't
have different conditions on different displays
showing that.

So visualization is extremely
important with the amount of data that MISO needs to
give the operators to have situational awareness.
You do that with dynamic map ports or displays that
show our transmission system, shows our generation
overloaded facilities. If they are overloaded, it
will give them an indication of voltage problems on
there seeing from a big picture perspective, and
there is different scenarios where certain areas are
being impacted that gives situational awareness of
the system.
We do -- once a year we hold a six-week program with our members and our neighbors where we all participate in capacity emergency conditions, so if we were to experience capacity shortages for the summer, we'd walk through our emergency procedures with our operators, and we have about 125 operators that participate not only internal to MISO but with our neighbors as well adjacent to reliability coordinators.

We go over conservative operations, hot weather alerts, three-way communications, and that is extremely important to make sure that you communicate effectively, and that's a requirement to ensure safety and to ensure reliable operations.

Also, hurricane readiness is just something that we are -- a part of our footprint that's expanded to the south, so we have included that as part of our readiness, so that starts here in June of this year. So we work with our members down in the south region as part of the tabletop exercises around that, and also drill on that so that we understand what our communication protocols
are, our staffing needs are. That's for hurricane readiness specifically that could be applied to any other large event that might occur on our system that would require additional staff and communications with everybody that's involved.

State officials -- so we do -- as part of our communications protocol for summer readiness when we go over communications protocols, we participate in the -- Illinois has a communications program that reaches out, and we get those messages every week for a test.

We do something very similar with state officials across our footprint. We make sure we have a program that test the program once a week as a drill. They get the message if we see where people are. You know, people will change jobs, and we would upgrade our contact lists, and then to make sure they get the communications.

If we would get into a load-shed type of event, then we would get ahold of the appropriate Commissioners for that impact areas, a conference call, explain to them what is going on, where the
issues are, and just go over the system conditions at that time.

We do that with internal blast calls as well to management, to circuit groups, and we test those regularly on a weekly basis.

Transmission system emergencies, forced treatment, transmission outages, we require front-load shed and also a requirement to notify state officials. We would do that on-line and on a one-on-one basis through our procedures and through our test customer reps in that region, and then also if there's any terrorist attack, natural disaster out there, like hurricanes, earthquakes, or other situations, we would also use blast calls to communicate with our states, So I think lessons learned, when you look at a lot of lessons learned, lessons learned from a lot of different events, communication always hit hard, and so that's something that I try to focus on to make sure that we have good communications under adverse conditions.

So, in summary, MISO projects to have
adequate reserves through this summer of
18.2 percent with a demand of 125.9 gigawatts. On
our transmission system, and this is outside what we
would consider normal.

We have a communications protocol in
our state, members market participants that prepares
for any loss of load or adverse conditions, and it's
important that MISO can't do it by itself. We have
to have partners with our members to ensure
readiness for the summer, and we spend six weeks to
do that through workshops.

Any questions?

COMMISSIONER ROSALES: Just a clarification.
Your terminology of neighbors, are you speaking of
other states? Are you talking of other RTOs? Are
you talking about the guy down the street?

MR. BENBOW: Neighbors?

COMMISSIONER ROSALES: Yes.

MR. BENBOW: So my neighbors that would include
other RTOs, such as PJM. We have a daily conference
call with PJM, also with our other neighbors to the
south, SVP, Southern Company, TVA, those would be
our neighbors. ISO in Canada we have daily calls
that they can all participate in going over the
system conditions on a daily basis, and any time
there's an emergency, we would use that conference
call to go over that part of our emergency
procedures as well, so that would also include
working with neighbor balancing authorities.

If we got into capacity emergency and we
needed to call for resources that they may have
available for us to meet our needs as part of our
procedures, we have a process in place to talk to
our neighbor balancing authority and also
transmission operators to ensure reliable operation
across the seas.

COMMISSIONER ROSALES: You mentioned one of the
first things that goes down in a storm in any type
of outage is communications. So how do you -- how
do you resolve that when communications first go
down, yet, you are responsible for communicating to
neighbors and everybody that's involved in the
process?

MR. BENBOW: Loss of communication or primary
communications is what you are asking?

COMMISSIONER ROSALES: Correct.

MR. BENBOW: So we do have -- we have procedures for contingencies around communications, so our primary is through our satellite phones that we have, basically our phones that we have in the control rooms that back up with cell phones. It's also backed up with satellite phones to talk to our members. We can also talk to our members through the web, through the internet, through our MISO communication system, and also with a reliability coordination information system that also goes across to our adjacent reliability coordinators, so there's protocols around lots of primary communications.

So even our regular phones that we have in the control room we have a primary and then there's a totally isolated backup system, different phones that we use for primary and secondary, and then there are cell phones, satellites and internet connections.

COMMISSIONER ROSALES: Any other questions?
Thank you.

MR. BENBOW: All right. Thank you.

COMMISSIONER ROSALES: Last, but certainly not least, is the former ICC Chairman, Mr. Richard Mathias, who's senior consultant to PJM Interconnection, and thank you, former Chairman.

PRESENTATION

BY

MR. MATHIAS:

Thank you. Good morning, Mr. Chairman, Commissioners. My name is Richard Mathias. I am here today representing PJM Interconnection, which is a Regional Transmission Organization that operates in 13 -- in parts or 13 states and District of Columbia. PJM manages the transmission system owned by Commonwealth Edison. I'm here this morning to discuss the summer preparedness of PJM and its member companies.

(slide presentation.)

PJM expects to be able to reliably serve expected loads during this coming summer.
Peak loads are expected to be somewhat higher this summer than the prior summer of 2015, because, as you recall, that was a relatively mild summer in 2015.

We also expect our target reserve margin to exceed the -- excuse me -- that are actually reserve margin to exceed the target reserve margin for the summer.

The load forecasts that we had in prior years, although greater than what we had last year, coupled with demand response and emergency efficiency programs, should help offset the impact that generation retirements and we expect the transmission system to be able to perform adequately.

This is the infomercial where PJM has seen this before in an info-commercial.

Terry Donnelly mentioned the peak load that ComEd has, which would be about 22 to 24,000 megawatts of total peak load and PJM of basically 165,000. So ComEd is a significant member of PJM and also a very constructive member.
There are a couple of characteristics that you heard this morning concerning the lay of the land with regard to what's happening in the energy business.

Two very important characteristics are, number one, the declining rates of growth -- the declining rates of growth with regard to use of energy and then the dramatic change in fuel mix.

This slide shows that each year when we make a projection of a peak demand going forward for subsequent years, for 15 years out, we have a load of demand for the following, so for the subsequent years than we did the year before.

The blue line indicates the demand that we thought would be available in 2013, the load forecast. We made the same forecast for, I should say, forecasts were made the same year as in 2014, and we saw a lower demand.

Likewise, when we did the 2015 load forecast, we saw a lower forecast going forward, so you see a declining rate of increase in the growth through load for the next 15 years.
One of the other dramatic changes is the change in fuel mix. This slide shows the actual production of electricity in the PJM footprint and shows the type of fuel that is used to operate the generations.

You see that the use of natural gas has significantly increased from basically 5 percent in 2005 to almost 20 percent in 2015. At the same time, the use of coal to produce electricity, to produce energy has diminished by almost the same amount while nuclear facilities have provided a continuing percentage of production for energy, and renewables a much lesser extent.

In prior meetings, I noticed a difference -- I noted the difference in the peaks between summer and winter. I noted that in the summer we usually have one peak during the day. That's usually from 4 to 6 or 7 p.m., in the afternoon; whereas, in the winter there's traditionally been a double peak, a peak in the morning around 6, or 7, or 8 when individuals are getting up and going to work or going to school, the
summer peak being at the higher peak, and this slide dramatically shows the peak -- the all-time summer and winter peaks within PJM and note that the winter peak is actually a morning peak. That's the highest winter peak in the PJM system; whereas, in the summertime, of course, it was evening peak.

These next two slides you've seen before. They show that PJM load have adequate reserve margins to meet the targets of a reserve margin of 16.4 percent this year. We have a reserve margin available to us of over 28 percent.

This next slide gives you more detail, the slide which I just mentioned, again I noted that you will see these two slides I believe the best of several years.

Just, as noted by MidCon and ISOs, PJM also has intensive summer preparation activity in getting ready for the summer, and this slide lists those activities.

We are in close cooperation with a number of companies, such as Commonwealth Edison. We also are in close cooperation with MISO and our
other neighbors at PJM. These are very active preparations getting ready for the summer.

We have other oversight entities aside from your interested public utility commissions, such as ICC. We have various regional coordinating councils which oversee and mandate performance by PJM, and other RTOs, and other entities.

We also noted that I think Gene Beyer and Mike said got early telephone calls on May 10th when we had our PJM emergency procedure drill. We have local calls and e-mails which go to public utility commissions across the PJM footprint, which, as I mentioned before, operates 13 states -- parts of 13 states and the District of Columbia.

It's just interesting to see what we project will happen this next couple of days. We see today a peak load within PJM of 108,000 megawatts. We expect that to go up as the heat increases by about 8 or 10,000 megawatts in the next two or three days.

We noted it would have been higher, except that this is the same holiday weekend, and,
therefore, the demand for the weekend will be lower than anticipated. We have our holiday and always we usually see a lower demand on Friday than we do on Thursday, all things being equal.

Another interesting thing to note is that we have almost 600 planned transmission outages today, 600 transmission outages, and these are for maintenance and other reasons.

This is the maintenance season, and so the so-called "shoulder months," March, April, May, September, October, transmission owners will take the transmission facilities out of service so that they can be maintained.

This is all managed by PJM to make certain the system remains reliable, and some of those outages are generation facilities. We have probably 30,000 megawatts of generation also out, either for maintenance or to help with coordinating outages on the transmission system.

So that's an activity that PJM does, and MISO does as well, that it's to coordinate the planned outages on the transmission system and on
generators so that the system will remain reliable.

Commissioner Rosales, at the front of this discussion mentioned that we may be asked about threats and challenges, and I would note that this -- I note some of the threats, challenges, and opportunities for PJM, as well as for its member companies and other RTOs or ISOs.

We note the changing load profiles, and we may not have as many steel mills, but we have data centers which also have a huge need for electric activity.

We also see the changing profiles due to renewable distributed generation, which are noted on the slide, energy resource integration, and other relatively new activities, many of which actually occur at the distribution level, at the level that we regulate.

We also note the change in fuel mix which I've noted earlier, coal nuclear, and gas. The clean power plants seem to be on hold at the present time, and we don't know where it will go, but we have done a tremendous amount of
modernization within PJM, and we met with members of
the Commission and Staff recently to discuss what
was occurring or what we think could occur if the
clean power plant was quoted and what the impact
might be on in the State of Illinois.

I also noted, and I haven't asked the
Commission, and that would be that you continue the
coordination that you have had with the Illinois EPA
and the other state agencies that are involved with
modeling for a clean power plant and be responsive
for implementing.

Another challenge, or threat, or
opportunity is the gas electric coordination, as you
know, and you saw from the prior slide, we had a
tremendous increase in natural gas that would be
used to fire generation facilities.

We have had extensive communication
with natural gas companies, such as Peoples, or
Northern Illinois Gas, or the actual pipelines
themselves. We have -- I think we had a very
constructive relationship developed between the
natural gas companies, as well as the energy
companies, and RTOs, and ISOs.

I, again, haven't asked of the Commission, that is we do not know -- we do not see the contracts that are so-called behind-the-city gate. This means that a generator will be receiving electricity -- excuse me -- be receiving natural gas not from the pipeline, not directly off the pipeline, but rather they'll be receiving from the natural gas distribution companies, such as Peoples or Northern Illinois Gas.

We don't -- the parties would say these contracts are confidential, but it's very important for us to be able to understand what the conditions are for delivering natural gas to gas-fired generators, and we would appreciate the coordination which we have received in the past, I might add, but continue coordination and cooperation from the Illinois Commerce Commission with regard to these contracts which supply natural gas behind the city gate.

I'd also note another challenge, again, or opportunity has to do with renewable and
distributed energy resources. We would note also
the active participation by PJM, and other RTOs, and
Homeland Security, and so forth, with cyber and
physical security systems.

It's PJM's goal, and I believe the
good of many electric utilities and others, to have
fewer and fewer critical infrastructure -- critical
parts of infrastructure, in other words, you don't
want to have one substation that serves only the
city.

We may have had only one substation
that's in Seattle that would serve the downtown
area, but you would rather have a couple so no one
of those would be the most critical or the only
critical infrastructure that's available.

I would also note, as far as the
Illinois Commerce Commission is concerned, are we
talking about resiliency? That also could be termed
redundancy, and redundancy could also be added cost,
and so I think you'll be prevailed upon or requested
by a number of entities to allow the construction of
perhaps another substation, so that the first
substation is not the only critical infrastructure in the particular area which is served by the infrastructure.

Again, as I noted earlier, PJM is expects to be able to serve peaks load this summer. We see this with the summer being somewhat higher than last year because last year was a relatively mild summer.

We expect to have active use of demand response, and I might add that Commonwealth Edison was even before PJM, a leader in demand response and for demand response for the ComEd service territory.

We also expect to be able to use energy efficiency programs to help offset the retiring of generation, and we expect to have the transmission to be able to adequately serve that load within the PJM footprint.

If there's any questions, I would be glad to respond.

COMMISSIONER ROSALES: You asked a lot, Chairman. We appreciate the questions and appreciate the
discussion.

Any questions for the last time?

CHAIRMAN SHEAHAN: I have a question, Rich, not only within Illinois but within the entire PJM footprint. There are a number of nuclear plants at risk as well, I think, even according to your own projections.

Have you guys modeled the impact on reliability from -- I'm not interested particularly here in Illinois, but systemwide, what the impact might be of losing that baseload generation?

MR. MATHIAS: The number one job at PJM is for reliability, make sure the lights stay on, and we value nuclear plants. We value other plants that have a high availability.

We did a study I think a year-and-a-half ago that was asked by the Illinois Commerce Commission with regard to retirements of various nuclear plants, and we know that in that study that at the polar vortex 30 years ago, the nuclear plants that we were interested in they were there a hundred percent of the time and 98 percent
of the time extremely reliable.

So from PJM's perspective, if you are looking at one of our goals, which is reliable operation of transmission systems, obviously we value reliable resources.

So we have not -- we are modeling what occurs with the carbon rules if there are resources retired. Obviously, if any low carbon and no carbon resources retire, we wonder what's going to replace it and whether you would be able to meet the new carbon requirements that are contained in the power plants or other plants that may be put forward, so reliability organization we value nuclear plants, but that's because we were interested I remember in reliability.

There's other considerations we recognize as well, and when I evaluate the value nuclear facilities, and as far as your comments, we see a reduction in the coal resources. I don't know that we have seen an elimination of coal resources, but we see a reduction in the number of coal resources that was shown by one of the slides which
I put up on the screen.

CHAIRMAN SHEAHAN: Thank you.

COMMISSIONER ROSALES: Anyone else?

(No response.)

We would like to thank Commonwealth Edison, MidAmerican Energy, and Ameren Illinois for their presentations today along with MISO and PJM.

I also would like to thank Chairman Sheahan, Commissioner McCabe, and Commissioner del Valle, for budgeting their time in putting this together so we can have this policy session. Finally, I want to thank Bettina Stanford and Martha Reeves for coordinating everything on today's policy session.

They did a hell of a good job.

(Appause.)

They did a hell of good job. We are adjourned. Thank you so much.

(Whereupon, the above matter was adjourned.)