ATTACHMENT 6

RALPH LA ROSSA, PRESIDENT AND COO, PSE&G 165 15 wholesale electricity markets in New Jorsey. This panel				
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18 ROBERT A. WEISHARR, PJM INDUSTRIAL CUSTOMER COALITION 19 SCOTT BRUBAKER, DIRECT, ONE STOP PERMITTING, 95 NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION 21 I also saw former BPU Commissioner Professor Christine Bator. 10 Thank you for joining us. 11 And to my right, Beth McKeever, who will be 22 And, of course, Jerry May, Frank Perrotti, and Mark Beyer from the BPU staff. 12 And to my right, Beth McKeever, who will be 23 And to my right, Beth McKeever, who will be 24 trying to keep us from violating our time constraints 25 trying to keep us from violating our time constraints 26 this morning. 31 We have convened this technical conference to day under Docket No. ECO9110920. By order dated 27 trying to keep us from violating our time constraints 28 this morning. 32 We have convened this technical conference to day under Docket No. ECO9110920. By order dated 28 December 10, 2009, the Board directed staff to convene a 5 technical conference to begin a review of the state's 4 today under Docket No. ECO9110920. By order dated 5 December 10, 2009, the Board directed staff to convene a 5 technical conference to begin a review of the state's 4 today under Docket No. ECO9110920. By order dated 5 December 10, 2009, the Board directed staff to convene a 5 technical conference to begin a review of the state's 4 today under Docket No. ECO9110920. By order dated 5 December 10, 2009, the Board directed staff to convene a 5 technical conference to begin a review the reliability of 6 the bulk power system. The Board is always mindful 6 issues relating to the reliability of the bulk power system and is specifically concerned with ensuring that 5 the bulk power 4 panel 1 will explore the state of the wholesale electricity markets in New Jersey. This panel 6 will examine whether there will be adequate supply of 7 resources available over the next ten years to meet 8 the foreasted demand and will examine where potential 7 reliability and systems congestion problems might exist 19 in New Jersey. The panel will also explore the t			i i	-
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23 And, of course, Jerry May, Frank Perrotti, and Mark Beyer from the BPU staff. 24 And to my right, Beth McKeever, who will be Page 3 INDEX CONTINUED: INDEX CONTINUED: Page 3 Not and to my right, Beth McKeever, who will be Page 5 INDEX CONTINUED: INDEX CONTINUED: NATE COUNSEL STEANLE BRAND, ACTING PUBLIC ADVOCATE, RATE COUNSEL OMMER BORDEN, BUSINESS DEVELOPMENT DIRECTOR, TAR COUNSEL COMMERGE TOM HOATSON, LS POWER DEVELOPMENT, LLC IVAN KIMBALL, DIRECTOR, ENERGY MANAGEMENT CON EDISON DEAN STATHIS, DIRECTOR, 157 REGULATED COMMODITY SOURCING, JCP&L INDEX CONMODITY SOURCING, JCP&L INDEX CONTINUED: THE SERVICE COMPANY RALPH LA ROSSA, PRESIDENT AND COO, PSE&G AND TO BE ABRARAR, MANAGER, STRATEGIC INITIATIVES, PHI SERVICE COMPANY RALPH LA ROSSA, PRESIDENT AND COO, PSE&G TO BE ABRARAR, MANAGER, STRATEGIC INITIATIVES, PHI SERVICE COMPANY RALPH LA ROSSA, PRESIDENT AND COO, PSE&G TO BE ABRARAR, MANAGER, STRATEGIC INITIATIVES, PHI SERVICE COMPANY RALPH LA ROSSA, PRESIDENT AND COO, PSE&G TO BE ABRARAR, MANAGER, STRATEGIC INITIATIVES, PHI SERVICE COMPANY RALPH LA ROSSA, PRESIDENT AND COO, PSE&G TO BE ABRARAR, MANAGER, STRATEGIC INITIATIVES, PHI SERVICE COMPANY RALPH LA ROSSA, PRESIDENT AND COO, PSE&G TO BE ABRARAR, MANAGER, STRATEGIC INITIATIVES, PHI SERVICE COMPANY RALPH LA ROSSA, PRESIDENT AND COO, PSE&G TO BE ABRARAR, MANAGER, STRATEGIC INITIATIVES, PHI SERVICE COMPANY RALPH LA ROSSA, PRESIDENT AND COO, PSE&G TO BE ABRARAR, MANAGER, STRATEGIC INITIATIVES, PHI SERVICE COMPANY TO BE ABRARAR, MANAGER, STRATEGIC INITIATIVES, PHI SERVICE COMPANY RALPH LA ROSSA, PRESIDENT AND COO, PSE&G TO BE ABRARAR, MANAGER, STRATEGIC INITIATIVES, PHI SERVICE COMPANY TO BE ABRARAR, MANAGER, STRATEGIC INITIATIVES, PHI SERVICE COMPANY TO BE ABRARAR, MANAGER, STRATEGIC INITIATIVES, PHI SERVICE COMPANY TO HOATSON, LS POWER DEVELOPMENT, LLC TO HOATSON, LS P		NEW JERSET DEPARTMENT OF ENVIRONMENTAL PROTECTION	22	Thank you for joining us.
and Mark Beyer from the BPU staff. 24 and Mark Beyer from the BPU staff. 25 And to my right, Beth McKeever, who will be Page 3 INDEX CONTINUED: Page 3 INDEX CONTINUED: PAGE STEFANIE BRAND, ACTING PUBLIC ADVOCATE, RATE COUNSEL MIKE BORDEN, BUSINESS DEVELOPMENT DIRECTOR, COMPANCE TOM HOATSON, LS POWER DEVELOPMENT, LLC IN AN KIMBALL, DIRECTOR, ENERGY MANAGEMENT CON EDISON DEAN STATHIS, DIRECTOR, 157 REGULATED COMMODITY SOURCING, JCP&L INJACK E. BARRAR, MANAGER, STRATEGIC INITIATIVES, PHI SERVICE COMPANY RALPH LA ROSSA, PRESIDENT AND COO, PSE&G AND	22		23	And, of course, Jerry May, Frank Perrotti,
25 And to my right, Beth McKeever, who will be Page 3 INDEX CONTINUED: Page 3 Page 5 INDEX CONTINUED: Page 5 Page 5 INDEX CONTINUED: Page 6 Page 7 Page 7 INDEX CONTINUED: INTER COUNCE. INTER			24	
Page 3 INDEX CONTINUED: INDEX CONTINUED: PAGE 5 POSSIBLE SOLUTIONS PANEL PAGE STEFANIE BRAND, ACTING PUBLIC ADVOCATE, RATE COUNSEL MIKE BORDEN, BUSINESS DEVELOPMENT DIRECTOR, COMVERGE TOM HOATSON, LS POWER DEVELOPMENT, LLC 148 IVAN KIMBALL, DIRECTOR, ENERGY MANAGEMENT CON EDISON DEAN STATHIS, DIRECTOR, 157 REGULATED COMMODITY SOURCING, JCP&L 11 JACK E. BARRAR, MANAGER, STRATEGIC INITIATIVES, PHI SERVICE COMPANY RALPH LA ROSSA, PRESIDENT AND COO, PSE&G 165 RALPH LA ROSSA, PRESIDENT AND COO, PSE&G 165 PAGE 17 REGULATED COMMODITY SOURCING, JCP&L 11 JACK E. BARRAR, MANAGER, STRATEGIC INITIATIVES, PHI SERVICE COMPANY 17 REGULATED COMMODITY SOURCING, JCP&L 11 JACK E. BARRAR, MANAGER, STRATEGIC INITIATIVES, PHI SERVICE COMPANY 18 RALPH LA ROSSA, PRESIDENT AND COO, PSE&G 165 RALPH LA ROSSA, PRESIDENT AND COO, PSE&G 165 PAGE 18 REGULATED COMMODITY SOURCING, JCP&L 11 There is enough generation to meet New Jersey's needs going forward. 18 We have three panels today. Panel 1 will explore the state of the wholesale electricity markets in New Jersey. This panel will examine where potential reliability and systems congestion problems might exist in New Jersey. The panel will also explore the types of supply resources being proposed. 19 Panel 2 will explore what obstacles, if any, hinder the development of supply resources in New Jersey. The obstacles may include, but are not limited			25	·
22 23 24 24 27 Taket 2 Will explore What obstacles, it ally, 23 hinder the development of supply resources in New 24 Jersey. The obstacles may include, but are not limited	3 4 5 6 7 8 9 10 11 12 13	STEFANIE BRAND, ACTING PUBLIC ADVOCATE, RATE COUNSEL MIKE BORDEN, BUSINESS DEVELOPMENT DIRECTOR, COMVERGE TOM HOATSON, LS POWER DEVELOPMENT, LLC IVAN KIMBALL, DIRECTOR, ENERGY MANAGEMENT CON EDISON DEAN STATHIS, DIRECTOR, REGULATED COMMODITY SOURCING, JCP&L JACK E. BARRAR, MANAGER, STRATEGIC INITIATIVES, PHI SERVICE COMPANY	3 4 5 6 7 8 9 10 11 12 13 14 15 16	We have convened this technical conference today under Docket No. EO09110920. By order dated December 10, 2009, the Board directed staff to convene a technical conference to begin a review of the state's electrical capacity needs and to review the reliability of the bulk power system. The Board is always mindful of issues relating to the reliability of the bulk power system and is specifically concerned with ensuring that there's enough generation to meet New Jersey's needs going forward. We have three panels today. Panel 1 will explore the state of the wholesale electricity markets in New Jersey. This panel will examine whether there will be adequate supply of
24 Jersey. The obstacles may include, but are not limited	15 16 17 18 19 20		18 19 20 21	forecasted demand and will examine where potential reliability and systems congestion problems might exist in New Jersey. The panel will also explore the types of supply resources being proposed.
25 to project financing, environmental constraints, siting,	15 16 17 18 19 20 21 22		18 19 20 21 22	forecasted demand and will examine where potential reliability and systems congestion problems might exist in New Jersey. The panel will also explore the types of supply resources being proposed. Panel 2 will explore what obstacles, if any,
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and other obstacles that may inhibit projects from being developed in New Jersey.

Our last panel will examine potential solutions that would enhance New Jersey's ability to attract the development of new capacity resources.

The format is as follows:

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First, comments from panelists, then followed by questions from the Board, and then questions from board staff. We want to be flexible with the timing of the presentations, but we would ask that each of you try to limit your remarks on the first panel here to 7 to 10 minutes; and for the second and third panels, try to limit your remarks to anywhere from 5 to 7 minutes.

Responses to our questions should also try to be kept to under 2 minutes, and we'll try and keep our questions to under 2 minutes as well. If you do want to be recognized, if you want to add to the discussion after a question is posed and answered by anyone else, just turn your card towards us, just turn it up, and then you have something to the add to the dialogue.

At the conclusion of today's conference, all stakeholders, including today's participants are encouraged to submit additional written comments to us

Mike, where is PJM with demand response on this part of 1 2 PJM. 3

And then finally, obviously the issue is reliability is always a prime issue and what we do has to do with reliability and also the price to customers and businesses and people who live in this state, the cost to the ratepayer and how do we do it, make it the most reliable in the most cost-effective way.

Thank you, Commissioner.

COMMISSIONER RANDALL: Thank you. All right. Thank you.

Good morning, Commissioner Fiordaliso. COMMISSIONER FIORDALISO: Good morning, Commissioner Randall.

COMMISSIONER RANDALL: Any preliminary comments?

> COMMISSIONER FIORDALISO: No. COMMISSIONER RANDALL: Ckay, Very well,

19 We have Messers Herling, Kormos, O'Sullivan, 20 and Meehan. I have you in that order.

Is that correct?

And, Mr. Herling, if you would, as each of your colleagues would, just state your name and affiliation. Thank you.

MR. HERLING: Yes. Steve Herling with PJM.

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by July 2nd, 2010, to the following e-mail address: board.secretary@bpu.state.nj.us. When submitting your comments, please include our caption and docket numbers.

Now, do keep our court reporter's needs in mind when speaking clearly and relatively slowly. We will be taking one mid-morning break about 10:30.

Before we begin, I would certainly ask if my colleagues, Commissioner Fox and Commissioner Asselta, have any remarks?

Yes.

COMMISSIONER FOX: Thank you, Commissioner. I'm glad we're doing this proceeding. We decided to do this I guess last December. It makes a lot of sense.

Since we've been restructured we've had an issue with generation and not enough generation, certainly in New Jersey and in this part of the PJM region as well.

I am concerned with, obviously, what 19 everybody is going to say and probably ask some questions. One thing that is of interest to me is how does energy efficiency fit in with driving down the need for more capacity and most importantly how do we cut the peak demand so we don't need more transmission or generation until we absolutely need it, and how does demand response specifically fit into that. And for

MR. KORMOS: Mike Kormos with PJM.

MR. O'SULLIVAN: Bill O'Sullivan with the

New Jersey Department of Environmental Protection. MR. MEEHAN: Gene Meehan with NERA.

COMMISSIONER RANDALL: And beginning with you, Mr. Herling.

MR. HERLING: Good morning.

I put some slides together with a lot of data for you. I am not going to go through the slides, you know, in order and then cover every bit of information on them.

Mainly, what I want to talk about is generally the trends in load generation balance in New Jersey, what some of the components of that look like. and where it may be going. You know, in particular, if you look at Slides 9 and 10 of my materials, you know, you see a very gradual growth over the last ten years in both load and generation.

What the significance I think of that is though, if you look at the last couple of slides, 17 and 18, is that New Jersey is an importer of energy, a substantial amount of energy. The imports have gone down slightly over the last few years, but on average you're probably importing about a third of your energy requirements. The last two years with the recession.

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obviously, those numbers are down a little bit.

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But if you think about the trend in both generation and load, I don't see that changing dramatically any time soon. You know, the reserve levels within the state are on Slide 13 and you can see, you know, generally you're about 12 percent shy of your peak demand in terms of capacity within the state.

Now, obviously, you're importing a fair amount of capacity to ensure reliability and that is what then brings in the capability of the transmission system, but the amount of generation growth over the last ten years has basically kept you in a pretty static situation in terms of your imports and your reserve levels.

You know, we've had a reasonable amount of generation built in the last ten years. It adds up to a little over 4,000 megawatts I think. But we have also seen a fair amount of generation retire and we have more that is currently pending.

So basically the net of those is what's reflected in that generation growth slide that I mentioned on Slide No. 9.

The generation that is currently in the interconnection queue, there's a fairly substantial amount of that, but we have seen a very, very high

almost 700 that is currently pending retirement.

I know you raised the issue of demand response. Obviously, the demand response numbers have picked up fairly significantly in the last year or so. If you go back to 2008/'9, you know, our planning periods start June 1 go to May 31st, you had a little under 400 megawatts. The last auction that just cleared 2013/'14 is up around 1,500 megawatts. So that is a fairly significant improvement.

Energy efficiency programs clearing in New Jersey are negligible. It's really only a handful of megawatts.

I'm trying to see if there's anything else. I think that covers most of the numbers that I wanted go through. Obviously, I'd be happy to take questions.

You know, in terms of where the big projects are in the queue right now, we do have a number of peakers in the queue and Northern Jersey we have a couple of combined cycle projects, Southern Jersey, Central Jersey. Obviously, we have got the wind and solar. The solar projects are primarily out in the ocean -- excuse me -- the wind projects are primarily out in the ocean, the solar is pretty distributive.

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dropout rate in our interconnection queue over the ten years, over 85 percent on an energy basis.

What we see now in the queue is still a lot of natural gas. Most of what has been built in the last ten years in New Jersey is natural gas. Most of what's in the interconnection queue is natural gas with about a thousand megawatts of wind and a thousand megawatts of solar in addition to that.

What the success rate of those projects will be only time will tell. As I said, I think we've seen about an 85 percent dropout rate over the time period.

If you look at Slide 4, you can see that the additions have kind of come and gone in spurts. Had a couple big years. And it's really a function of some of larger combined cycle gas plants when they happen to come into service. The last few years, 2007, '8, and '9 have been fairly modest, but it's largely a function of additions to existing generation and every once in a while a new peaker getting put into place, but the big numbers are really the few big combined cycle units that have been in place over the last ten years.

Again, I mentioned the deactivations between what has been retired already and what is pending retirement. That number approaches 2,000 megawatts. We have about 1,100 or so that has already been retired and

1 through your presentations.

So Mr. Kormos.

MR. KORMOS: For the most part Steve covered what PJM wanted to present. We'll sort of maybe address Commissioner Fox's question of demand response.

Some of the areas that we are currently looking at and some of our concerns that we have is, as Steve pointed out, we've seen a huge increase in the amount of demand response, what I call classical demand response which is for the most part peak shaving.

The concern we have actually right now is as we get more demand response instead of generation capacity, the more likely we are to have to use it; and the more we use it, potentially the less participation people will want to be in those categories.

Also, we're getting concerned that our current roles which allow us to interrupt ten times per year for six hours may not be long enough. Again, if you look at the low duration curves, the higher we get in demand response, the more hours and the more days we will need to use it and take it.

So there is some work being right now, what we call DR saturation. Where is that breakpoint? Right now we're not near it. We're looking at somewhere probably in the 10 percent range, but that is a concern.

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We are also looking at pushing other types of demand response -- and I think this is very much in line of where Commissioner Fox was going -- in both energy efficiency and what we call price responsive demand.

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Those kind of categories do not have the same problems as some of the peak load shaving where customers are inconveniencing themselves and interrupting load. There's only a certain tolerance for that. Energy efficiency is energy that is removed from the base.

And again we've put and been able to capture 13 some of the value of that in RPM. We've had 15 megawatts I guess max so far in New Jersey. Some of the other states have done slightly better. There's about 500 megawatts in total in PJM.

But we're also moving to what we call price 18 responsive demand which is customers more responding and curtailing their use or using energy differently based 20 on the price. And this is one thing that will -ultimately the success of those kind of projects highly 22 depend on the states and potentially the retail rate structures that are in place. Things like smart 24 metering and whether the tools are there for customers 25 to actually do that.

1 this country. And I expect it will be very rigorous 2 requirements for air pollution control like we have in New Jersey now.

So we're ahead of the curve in control of our coal-fired power plants, what I call the criteria pollutants. CO2 will remain a challenge for the future.

On the oil and gas, our problem with their quality is ozone. Like on a day like today, we're going to have unhealthy ozone levels. So no jogging this afternoon.

And what we need there is the peakers to be well-controlled for nitro-oxides which reacts in the sunlight that forms the ozone. And we have rules in place, two phase rules; second phase 2015 to '17 time frame to have very good nitro-oxide controls on many many megawatts, many many thousands, perhaps 5,000 megawatts of the peakers in New Jersey. And that is quite a challenge for our electric generators.

On demand side management, I just wanted to mention one thing of concern to us and that's the use of uncontrolled diesels to -- either as peakers or in -- as demand side management. And that's a real problem because, again, on a day like today, if you turn on those dirty diesels, they have about 200 times the NOx emissions as a well-controlled unit so they're operated

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Again, why we sort of value those programs more is because they would be 7 by 24. There would not be a limit on the use of those. It would be simply just customers through normal market reactions responding to a price and using energy hopefully differently and more wisely and efficiently going forward.

So just to address some of the questions, that is sort of where we will go. And I'm happy to talk more later.

> COMMISSIONER RANDALL: Thank you, very much. Mr. O'Sullivan, good morning.

MR. O'SULLIVAN: Good morning. I also have a fairly long handout and I won't be going through it in detail. I'm going to be focusing on New Jersey electric generation, fossil fuel, the coal, the oil, and the gas.

I have three messages. One on coal and that that is a success story in New Jersey as far as cleaning up for criteria pollutants. Ninety percent of our megawatts, we have a bid over 2,000 megawatts of coal will be very well-controlled by a year or two from now. Most of it is already well-controlled.

The remainder of the country and some of our imports will be challenged by the federal rules that are about to be coming out. And we will see probably on 25 July 2nd EPA's plan for dealing with coal-fired power in

on exactly the wrong day.

And we have rules in New Jersey that prohibit to use these diesels as peakers and that -that kind of requirement is likely to expand to our neighboring states, but there's pressure on us to open it up for use of the uncontrolled diesels for peaking and that's a problem, an air quality problem that we expect to be addressing in the other states over the next year or two.

A few things on the slides, just go down on my page, Page No. 2.

New Jersey is in good shape with its coal because we have had administrative consent orders that have taken place over the last, approximately, ten vears.

PSE&G, for example, will have all its units very well-controlled by the end of this year. And I expect them to be amongst the cleanest, if not the cleanest coal units in this country.

And we also have a rule that we adopted last year to catch the few remaining units in New Jersey that are not well-controlled and that has a compliance date of 2012 or '13.

The next page, page 3, gives the status of 25 the coal units. The well-controlled units in New Jersey

Page 21

are three now.

A little known fact is that New Jersey has some of the newest coal units in this country, along the Delaware, very well-controlled. And the four units that are noted here on being controlled, that's the PSE&G three units and the RC Cape May BL England Unit 2.

We do have some coal units that will be shutting down, not burning coal, small units. One has just been announced by Conectiv, soon to be Calpine, that will only burn gas.

Vineland, a little peanut, a 25 megawatt unit is shutting down. I'll talk about that later and the advantages of that. And then there's one unit in New Jersey that's still uncertain. We don't know what the company is going to do. They have an option to either control it, shut it down, or repower it.

And the point here is that even if the three smallest units in New Jersey shut down, it's only 10 percent of our capacity, coal capacity, and probably only 5 percent of our annual capacity of megawatt hours.

And it's a good thing. It's a good thing that very poorly controlled small inefficient units are shut down because it's cost-effective to build new efficient units. It's more cost-effective to build new efficient units than to keep these old units running.

our 2015, slash, '17 -- I'll get to why it's 17 in a minute. And you can see there's a lot of turbines effected, a few boilers, and a lot of megawatts. So there's a big challenge over the next five to seven years.

Page 9, the compliance options, either shut it down and replace the unit or not replace the unit because we've been successful with demand side management with the peaking; or control the nitro-oxide emissions from the unit. And we're fortunate that there are new technology available, selective catalytic reduction for high temperatures that hadn't been available five years ago that is available now. So that is an option for some -- not all -- of these units.

Page 10, we are expecting to provide more time for the control of peakers. The current rule deadline is May 1st, 2015. When we adopted the rule, the companies requested a bit more time and we promised to propose a rule to do that and that proposal is in its final stages of development. And we are looking to provide until the spring of 2017 to do this very major either replacement or -- or demand side management on the peakers.

We do expect to also provide for something we are calling a grid emergency unit and that would be

Page 19

There's some details on page 4 and 5 that I won't go into on each of the coal units in New Jersey.

Let me move to the High Electric Demand Day Rule and that's the peakers, that's the oil and gas units. We have two phases of control requirements. One was last year 2009, 30 percent reduction. That was met with water injection on the turbines. PSE&G, in particular, did a good job adding water injection to I believe 40 of their turbines and also changing the dispatch with PJM on some of the units.

Phase II is going to be a much bigger challenge. That's on page 7. We were looking for approximately a 60 percent overall reduction in NOx emissions and that effects, according to my staff, here about 4,630 megawatts of generation in New Jersey.

PSE&G has already submitted permits to add some or replacement power at Kearney plant and shut down some existing plants.

I want to point out the last sentence here is not quite right. We expect the other HEDD units to either be controlled with SCR being added or replaced or displaced by its demand side management. So a little phrase got left off there.

Page 8 is interesting I think to you, and this is a summary of the units that will be effected by

something like an emergency generator. Emergency generators are not connected to the grid. But some of these existing turbines that are connected to the grid, they can continue to be held in reserve for emergency

use only provided they'd only be used for blackouts or brownouts and real brownouts, real voltage reduction.

Page 12 on emergency generators, I want to point out again that if we are talking diesel engines, diesel engines have about 200 times the nitro-oxides of well-controlled unit and about five times the particulates. And so that's a problem if they're turned on, on the worst air quality days like today.

So we have been aggressive in regulating these. We did loosen up on our allowance for use in the past. It had only been on blackouts. Now they can be used in brownouts as well when there's an actual voltage reduction; not in the case of an anticipated voltage reduction, but there has to be an actual voltage reduction.

One can use a diesel engine in peaking if it's controlled. And we do a case of that at RC Cape May down the BL England station where they control several of their diesels and that's okay. In that case using a diesel for peaking is fine.

I am going to skip Slide 13 on when you can

Page 25

use the diesels.

Trends in permitting and I'm going to close off with this. We can and do permit new and replacement units. As PJM noted, they are mostly gas. And this is the trend of applications received and approved. It's hard to say, but I'm thinking it's approximately 500 megawatts a year that we ultimately approve. The data is plotted on Slide 15.

The point here is that while the air quality in New Jersey has challenges, we have high ozone levels, high particulates, we can still permit new and fairly large generation if it's very clean.

On page 16 we have a list of the pending applications today, and I won't get into those details. You can see they're mostly gas. And on the bottom here is one called integrated gas combined cycle unit. That is pending.

The gas units we have a lot of experience with and I expect those to go smoothly. The coal unit, of course, is a challenge and we have a partial application now and there's a long ways to go before the application is complete and we actually act on it.

Finally here, there's a lot of EPA regulation coming. And as I pointed out, on July 2nd EPA is expected to lay out their plan and New Jersey

have that many units, but it's we're kind of a microcosm of the United States and I wouldn't be surprised if we see the same kind of experience over the next five to ten years as we saw in New Jersey in the last ten years: although I expect to see the federal government schedule to be a lot more compact and perhaps this will all happen in the next five years. So there is a big challenge for particularly the coal industry in this country.

I'm going to go right to the back now. I think I've taken up most of my time. And we have a chart or a graph. The very last graph is the Vineland plant. This is a plant with a little 25 megawatt coal boiler. We have a consent agreement to shut it down because its high air pollution end of this year. They have a permit application in-house to replace with a 60-some megawatt gas unit.

And you can see from the chart the comparison of the emissions and you can't even see the SO2 emissions from the new gas unit. The NOx emissions are almost negligible. The fine particulate and it has higher megawatts. So we have one-twentieth or less the emissions. And we have more than twice the megawatts. And permitting the new gas unit is easy. Shutting down the old coal unit is the wise thing to do here because

Page 23

will be in good shape with its coal units because our units are -- 90 percent of them will be well in control well in advance of the federal deadlines. But the other states will be challenged. And since we get a considerable amount of our energy from the west of us, particularly Pennsylvania, some of those plants will likely shut down.

We currently have several legal actions pending against the Portland plant or the Reliant plant in Pennsylvania and it's questionable whether a plant like that will survive. The air pollution control requirements of the federal government will, I expect, be analogous to what we require in New Jersey.

And there's some more information here on the various federal rules that are coming out. And one of them is a hazardous air pollutant rule which will regulate mercury, particulates, organic caps, and acid gases. And acid gases mean scrubbers. Scrubbers are the most expensive control device on a coal-fired power plant. And that's the requirement that is likely to shut down, perhaps as we saw in New Jersey, maybe 30 percent of the units, 10 percent of the capacity, the megawatts, and maybe 5 percent of the annual -- annual capacity megawatt hours.

You know, we are a small state. We don't

it is so inefficient and such a high pollutant unit, it wouldn't have been worth -- cost-beneficial to control it.

That's an extreme example, but you'll see the same kind of thing happening across the country on other small units. And I think I'll end there.

COMMISSIONER RANDALL: Thank you, Mr. O'Sullivan.

I know we have some questions. Turn to my colleagues.

I'm sorry, Mr. Meehan. NERA, how are you? MR. MEEHAN: Fine. Thank you.

COMMISSIONER RANDALL: We have questions, but we'll wait.

MR. MEEHAN: I will keep it brief and also not go through everything on the slides that I have.

Really, I have three main points that I'd like to make.

The first main point is that there has been a shift in the economic paradigm between how capacity was provided and how it is being provided currently.

The second is, what's happening now. The current situation is that the new paradigm is, in fact, working well. It's producing sufficient amounts of capacity. And I think, as we've just seen from

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Mr. O'Sullivan's presentation, producing clean capacity.

And the third point is that I think it's complicated and there's a need for caution before interfering with that new paradigm in going to non-market solutions.

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Just summarizing my first two slides briefly. We have seen a change with the passage of EDECA from a plan situation to now a market situation where instead of utilities planning and building capacity at ratepayer expense, it's a little more hands-off and that function of deciding what to build, where to build it, when to build it is really a market decision. And there's certainly less control over it. but there's also less risk. The customers don't bear the longer term risk.

Interestingly enough, I think as we saw in the PJM presentation is, as I allude to on my first slide, it really hasn't changed the amount of imports or out-of-state energy that New Jersey is relying on. In 20 fact, that has decreased recently as opposed to increase. And I think that's because the basic situation is just that given the population centers here, given the load centers, there's always going to be a natural tendency to import power from the western areas. It's done from Washington, D.C., all the way up

1 signal of increased efficiency because that's a more 2 efficient way to meet the capacity needed than to add 3 capacity.

And the capacity that is added is clean capacity. A lot of that 4,000 megawatts or 3,500 megawatts is actually new efficient combined cycle capacity replacing older capacity. And I think the Vineland example that Mr. O'Sullivan provided was really instructive on how some of the new capacity is clean.

I will go quickly into how this works with BGS. BGS provides customers, the smaller customers with three-year rolling average prices. So the goal here is to have BGS be a market reflective price, provide a balance between hedging some of the volatility and exposing the smaller customers to short-term market prices, but at the same time keeping market prices so customers are not potentially burdened with long-term contracts, and get out-of-market.

So prices reflect the market so customers have retail choice. And we see now they're starting to exercise that type of choice. And customers aren't locked in and exposed to longer term risks.

And I think it's important not only for 24 compliance with EDECA that BGS remain a market price and a service that isn't reflected by long-term prices that

Page 27

through Boston along the coast, states don't produce the amount of power that they consume in those population centers.

Second point which I start on page 3 is that I do believe the new paradigm is working. I have over 3,500. I think the PJM numbers were closer to 4,000 megawatts added during this period with another 800 megawatts coming through 2014. And I think the point is that even after retirements what we are seeing is that capacity is keeping up with the load requirements, with the capacity requirements needed in the state.

Now, it's not producing large excesses but in a way that's efficient. That's one of the things that we envision from -- as a benefit of some of the deregulation was to not have excesses for which customers borne the costs.

Additionally, and I think it is a key point, is that the system in the RPM is encouraging a lot of demand response. When we see the rather dramatic increase in demand response from a situation where there were maybe four or 500 megawatts and mostly all of interruptible load control to now a situation where you have over 1,200 megawatts and a lot of it actually customer responsive demand to price, that's a real

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could move away from the market, but it's important both in terms of maintaining customer choice and in maintaining the viability of BGS.

The point I will sort of close on since one of the things being looked at here is just long-term contracts is that there would be a fair amount of complexity working these long-term contracts into a new paradigm, potentially the risk of effecting things like the viability of demand response, if it lowers or effects the capacity market. But even more so, the 11 risks that the new capacity that we've seen come out in response to market signals. Investors are going to be much more hesitant to make those type of investments if preferential treatment is given to just one or two resources.

And I think that's the complexity that really has to be looked at when you evaluate how the Board may want to act with respect to new capacity.

With I think the primary question being if certain resources are given contracts and others are not given contracts, will it at all be viable that any resource can ever be built without a contract with that situation. To me, that's the biggest complexity that I see.

I will just sum up saying that I do think

1 the current situation is working. Supply has kept up 2 with demand. The level of imports have gone down. There is clean capacity and there are capacity excesses and at the same time a significant amount of demand

response.

COMMISSIONER RANDALL: Thank you, Mr. Meehan.

Now, questions from the commissioners. COMMISSIONER FOX: I have a lot of them so why don't you.

11 COMMISSIONER RANDALL: All right. Who would 12 like to kick it off?

Go ahead, Commissioner.

COMMISSIONER FIORDALISO: Whatever.

COMMISSIONER RANDALL: Deferred.

COMMISSIONER FIORDALISO: No, you broke down

17 yesterday, Nick, you go first.

COMMISSIONER ASSELTA: It's going to get

19 rougher.

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Well, thank you all four of you for coming here and giving us your insight and vision on the future

22 here for New Jersey. 23

And let me begin by first asking

24. Mr. O'Sullivan -- let me thank you, by the way, for 25 making Vineland the poster child for dirty energy since

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1 · I live one mile from this particular plant for 58 years and I've never had a problem.

But let me ask you something because, you know, I've watched over my lifetime in the plant that operates in Vineland -- since we're going to use Vineland as an example here -- of turbine by turbine being shut down due to DEP regulations and new regulatory reform over the years, pushing Vineland away from its current plan into this easy, as you I guess, quote, unquote, it's an easy way and easy fix, but many residents in Vineland don't feel that way because it's a very expensive fix.

Do you take into consideration when you impose shutdowns of these units, town by town or wherever these generation units are, do you take into consideration the ability for that particular municipality to be able to afford to shut that down?

MR. O'SULLIVAN: Make it clear that we don't require shutdowns. We require the units to be clean, just as PSE&G has cleaned up its units. And RC Cape May --

COMMISSIONER ASSELTA: So let's take Vineland --

MR. O'SULLIVAN: Vineland had a choice. They had a choice of controlling the unit or replacing 1 it. And they picked the more economical of the two. 2 COMMISSIONER ASSELTA: Which is to build a 3 new plant. 4

MR. O'SULLIVAN: Right. The long-term, if you look over 20 years, that will be cheaper because it's a higher efficiency than if it continued to run that old coal plant.

COMMISSIONER ASSELTA: Okay. Getting back to diesel fuel because I know diesel is probably the most difficult issue here for air quality issue.

New Jersey Transit in New Jersey, do you -tell me about what type of aggressive regulations you've put in place to force New Jersey Transit to operate more efficient vehicles?

MR. O'SULLIVAN: Okay. New Jersey Transit, the buses are currently retrofitting the buses with particulate traps. That is pursuant to legislation that was enacted several years ago to retrofit all the publicly owned diesel vehicles with devices that will reduce approximately 90 percent of emissions. So that's underway now.

COMMISSIONER ASSELTA: Are you applying those same regulatory reforms and restrictions to private sector trucking companies?

MR. O'SULLIVAN: That's under consideration

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now.

COMMISSIONER ASSELTA: To do the same thing. So currently those restrictions you have just suggested for New Jersey Transit have not yet been proposed to private sector trucking companies. Correct?

MR. O'SULLIVAN: Not in a mandatory way. We have funded various means, some pilots, but that's only scratching the surface. It's a challenge for the future.

10 COMMISSIONER ASSELTA: Thank you. 11 Can we go -- let's go to somebody else 12 because I have questions for other people.

13 COMMISSIONER FIORDALISO: Thank you. And I 14 too want to thank you for being here today and forums like this are beneficial, not only to us and staff, but 15 16 I think to the general public. 17

I guess my first question is for PJM. We have aging generation here in the State of New Jersey and how many blooming generation retirements do you think we can expect in the next five years?

21 MR. KORMOS: Probably -- unfortunately, I 22 wish I had that answer. We would be better prepared.

23 In PJM in total we have seen roughly 10,000 to 11,000 megawatts of older inefficient coal units 24 25 that, again, with some of the new environmental

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regulations, we probably would agree are prime candidates for retirements. Some of those, as discussed, are in New Jersey.

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We've also seen right now the market monitors put out a number -- I believe it was 11,200 megawatts of generation that is out of the market. It is currently not recovering its incremental costs and some of that was due to the economic downturn, effective loads are down.

So we don't have a great handle on it. But our anticipation is that they will be significant. We've seen this in prior years. They sort of come in waves on us. But unfortunately we are only required to be given 90-day notice on a retired generator.

Most of our generator owners -- I'll be 16 clear -- are much better than that. They will give us in most cases years notice so we can better prepare for it. But it is a major concern for us at this point that we will see a very large number of generators shut down.

COMMISSIONER FIORDALISO: Any specific area of the state at this point from your analysis and research and so on where generation is needed immediately or in the very foreseeable future?

MR. KORMOS: Northern New Jersey -- and 25 maybe I'll let Steve talk a little bit about it --

1 and we don't have any better information than that. 2 COMMISSIONER FIORDALISO: That's it for now. 3 COMMISSIONER FOX: I have zillions of 4 questions. I have follow-ups to what Joe asked. 5 Thank you for asking that. 6 And I'll ask one or two others. 7 COMMISSIONER FIORDALISO: That's why I asked 8 it.

COMMISSIONER FOX: I think it was Mike who mentioned the 90-day notice requirement for shutdowns. I don't get it. Is that a FERC requirement? Because I think PJM asked for lawful notice and FERC struck that down and why did they strike that down because you can't plan if you know they shut down whenever they decide to shut down in this market.

MR. KORMOS: It was just an issue that contractually they had no obligation under the PJM agreements to give us -- I should be clear.

One of the reasons we put RPM in place was the three-year period that we have locked in enough capacity locationally and reliably that I think we've mitigated it in many cases because through RPM there are fairly significant penalties if a generator were to retire having been accepted in RPM and now under contract.

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Northern New Jersey is probably our most difficult area to import energy into it on the high demand days. We have a number of transmission upgrades that are in the process of being developed, one of them is the 500 kV Susquehanna-Roseland line.

COMMISSIONER FIORDALISO: I am a little familiar with that.

MR. KORMOS: So is Steve, just to be clear. So that's probably our biggest concern right now. Until that 500 kV line is in place, I think that is sort of our most fragile area that if we were to see retirement up in that area, it would be difficult for us to maintain the reliability at this point.

MR. HERLING: The next area of concern obviously would be if the status of Oyster Creek were to change. The transmission system getting down to that area would need significant upgrading or obviously replacement capacity, but that's a big piece of generation in that area that we could not do without right now. So we'd either have to replace the generation or get some transmission in there in a hurry.

COMMISSIONER FIORDALISO: Do you anticipate that status changing in the foreseeable future?

MR. HERLING: I don't. But we see a lot in the Trade Press about the issues with the cooling towers

That's why I said I don't believe while the 90 days is still there, it hasn't been as big an issue. We still have the issue for units that are not taken under RPM should they decide to shut down, they would not have the same financial difficulties as a unit that was in RPM.

Why FERC ultimately went with the 90 days is that generators did complain that they had the right to shut down basically at any time. And that again there was no contractual ability in place to keep them around.

COMMISSIONER FOX: PJM was asking -- I thought you asked for a longer notice period. Correct? MR. KORMOS: I think we were asking for a

minimum of six months, but I'm struggling to recall.

MR. HERLING: I don't recall what we had asked for. If you look at most of the generation that has announced retirement recently, other than catastrophic failures, we have gotten fairly long notification times. It has not always been long enough to get the transmission upgrades in place to safely allow the units to retire, but the owners have given us a pretty fair amount of notice.

COMMISSIONER FOX: Because they are nice guys.

MR. HERLING: Absolutely.

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COMMISSIONER FOX: How much generation or demand response would be needed in Eastern MAAC or maybe even Northern Jersey because that is where need is to lower, significantly lower RPM prices which in our opinion is killing businesses in the state.

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MR. KORMOS: I don't have a good number for that, but we just announced it yesterday at our markets reliability committee, a plan in place to basically run some scenarios off last base auction, looking at those kinds of actions: How much more demand response; what effect of the price would have been for each of the LDAs; more generation; also transmission lines in; also transmission lines are out.

We plan on having that information published 15 by the end of August. The list of scenarios we are going to run are going to be posted. We're asking for input right now. And we would encourage New Jersey for 18 you to provide that information to us. We will post the request we have and then the ones we're going to run sometime in the mid-July period, the analysis will then be run hopefully within the next six weeks.

COMMISSIONER FOX: So we'll be getting that. MR. KORMOS: Hopefully we'll have a much better answer for you in the near future.

COMMISSIONER FOX: Ask one more. And Mike

So I think that is where some of the success can be seen. I think we want to try to drive that down through all aspects of the demand of the markets, particularly into the residential areas at this point.

COMMISSIONER FOX: Following up on that, I've been told recently that Eastern MAAC that PJM says there's not much more room for more demand response.

MR. KORMOS: The classic type. The classic type being that it's contractually committed to us for only ten days a year and for a six-hour period. And for the most part, we have to wait until we declare an emergency to take it.

And first off, we don't like living that close to the edge and I don't think anybody does: That we have to drive ourselves into emergency to use it. And that's why we are encouraging a shift from that type of demand response to the price responsive demand, which is not that we are asking a customer for one of those ten interruptions, but instead they are looking at price and they are just doing it on their own.

I think the difficulty is how to quantitize 22 that and now do we monetize a value to that to make sure 23 the customers see the benefit. The nice part about the current demand response is you can offer that into RPM, you can offer that into the energy markets.

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mentioned this again. It's something I think we really need to focus on. There's was a PJM or some people from FERC or business school at Rutgers about two months ago, which is an excellent little group. Price responsive demand and dynamic pricing. I think that's what you're looking at and dynamic pricing. How would you see that fitting in? Where is it working well? Is it working elsewhere in PJM well?

Gene, you know places where dynamic pricing is working to help cut the peak and is that doable now in the Eastern MAAC region?

MR. KORMOS: It's doable, though, again, I think it's very dependent on the states and the retail rate structures that states have in place that will allow customers to respond to price, but also making sure that we have brought the education and the tools for customers, for the most part, to automate this price response.

Long-term people manually interrupting processes or manually turning air conditioners off I don't think is what we envision. I think it is very 22 doable. I think it is working in some cases, but they are predominantly larger, either commercial or 24 manufacturing that are on realtime pricing and I know New Jersey has some of that for the larger load centers. Page 41

Some of the energy efficiency and price responsive demand I think it's a little more difficult 3 to make sure we're getting what we paid for. So we don't want to necessarily pay for just a promise, we want to pay for actual results. I think that is where our work is in both the academic institutes as well as the states.

COMMISSIONER FOX: Can you define for us what you mean by price responsive demand as an example?

MR. KORMOS: Again, it is a customer who is willing to interrupt their expected load based on a 12 certain price. So rather than waiting -- and it's any 13 time that price -- and the obligation is at any time the price is above that they will be interrupting their load. Doesn't mean whether it's ten times a year or a hundred times a year, whether it's six hours in a day or 20 hours in a day.

COMMISSIONER FOX: Would that be a contract arrangement for that individual or would that be via tariffs? How is that done?

MR. KORMOS: I think that's where we're 22 working out the details. We're going to particularly from a capacity perspective pay on a forward basis. You want some kind of contractual and ability to meter and verify that you got what you paid for. And I think

that's again where a lot of our work is being done as to 1 2 how that is most appropriately done and what others are 3

doing. But again I'll offer that is really where we need to interact with the states to make sure the

wholesale programs dovetail in with the retail programs. COMMISSIONER FOX: And you have a work group?

MR. KORMOS: There are work groups, yes. COMMISSIONER FOX: What's your timing of

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MR. KORMOS: 12/1 is the FERC filing so sometime this fall.

COMMISSIONER FOX: And is the participation by the states and our staff and then with OPSI, that kind of thing, what's the time limit? Will that be part of the stakeholder work group?

MR. KORMOS: The work groups are open. Unfortunately, I do not go to those meetings. OPSI, the organization of PJM states is

representative of those working group meetings, Raj Barua who is the director.

22 COMMISSIONER FOX: Thank you. 23

COMMISSIONER RANDALL: Taking a break from your questions.

24 25 COMMISSIONER ASSELTA: Do you have

1 2 MR. MEEHAN: No. My data just went through 3 2008.

4 COMMISSIONER RANDALL: All right. 5 MR. MEEHAN: So I think PJM has provided

6 data after that. The RPM started in 2007 so there would 7 be a little bit overlap there. But there wasn't much added in '7. I think they're showing over 800 megawatts 8 9 committed through RPM through 2013 and '14.

10 MR. HERLING: If you look at my Slides 3 and 11 4, you can see the additions by year and Slide 3 shows 12 which of the transmission zones the additions were in. 13 So you see 2,800, PSE&G; 1,400 and change in Jersey 14 Central; and almost 300 in Atlantic Electric.

COMMISSIONER RANDALL: Thank you.

16 And this is I guess for PJM, someone 17 mentioned Oyster Creek.

MR. HERLING: That was me.

COMMISSIONER RANDALL: I think if you could possibly supplement our record after today using perhaps a hypothetical scenario as to the impact if there were a shutdown, is that something -- a model that you can run for us and then submit after today?

MR. HERLING: We are planning this year in our regional transmission expansion plan cycle to do

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questions?

COMMISSIONER RANDALL: I have a couple of general questions.

Mr. Herling, in your initial remarks I know you described New Jersey as a net importer state. Within the PJM region, how many are -- of the states are importers versus net exporters?

MR. HERLING: And I don't know that with -exactly. I know Maryland, Virginia, Delaware, are all big importers as well. As you go further west, I would assume the states are primarily exporters.

COMMISSIONER RANDALL: Thank you.

And, Mr. Meehan, in some of your slides you do reference from 1999 to 2008, 3,500 megawatts of new capacity was added in New Jersey, do you have any color as you can give us as to where that was within New Jersey, that 3,500 megawatts, if anyone knows?

MR. MEEHAN: Well, actually, a fair amount of it was in the northern part of New Jersey. You probably had the three biggest additions would have been three big combined cycle plants, a little bit of peaking at Linden, Bergen, and Sayreville. So that would probably account for almost three-quarters of that capacity.

COMMISSIONER RANDALL: So nothing since

Page 45 some sensitivity analysis around at-risk and generation. 1

2 Some of the categories that Mike described earlier, we

3 are going to look at on a very global basis, but we will

4 look at some discrete sensitivities. One would be 5 Oyster Creek. So we'll be able to provide you with some

6 information.

7 COMMISSIONER RANDALL: Thank you. 8 Commissioner.

9 COMMISSIONER ASSELTA: Thank you.

10 Mr. Herling, Vice President of Planning, you 11 project 5, 10, 15, 20 years out. Is that what PJM does 12 or give me a sense of -- and we all know capacity is in

Northern New Jersey. 13

> Let's talk a little bit about South Jersey and, obviously, the Oyster Creek issue is looming, maybe not today, maybe not tomorrow, but down the road at some point in time.

18 Would it be PJM's position to place 19 generation in Southern New Jersey to help offset what 20 could potentially happen and also potential growth in 21 this state is still in Southern New Jersey?

MR. HERLING: Well, PJM would not specifically try to direct generation to be placed anywhere but obviously additions of generation in 25 Southern Jersey would be beneficial to the state. We

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would probably need to look at expanding some transfer capability north to south or south to north as the case may be.

COMMISSIONER ASSELTA: And infrastructure interconnection issues.

MR. HERLING: Exactly.

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COMMISSIONER ASSELTA: Should we be doing something here at the BPU to help facilitate that?

MR. HERLING: Well, we are already talking to New Jersey about what transmission capability would 10 11 be required, for example, for wind integration out in 12 the ocean, for example. We'd be happy to work with you to look at what kind of transfer capability would be 13 14 required to support different generation build-out 15 scenarios. And, you know, whether that be, you know, 16 new nuclear or other types of generation, we could certainly look at that on a fairly long-term basis with 18 you.

COMMISSIONER ASSELTA: So as a matter of record, you would be supportive and it's in your opinion that Southern New Jersey could use new generation opportunities and would obviously help the general economic development of Southern New Jersey for the good 24 of the entire state.

MR. HERLING: Well, my, you know, unbiased

here might do to continue to encourage the role of natural gas besides for power generation, for other applications and things of that sort, what do you suggest that we as a regulatory agency might be able to do to encourage the natural gas applications?

Anybody? Nobody.

MR. MEEHAN: Well, I wish I could answer that question, but I think it's sort of outside the realm of my expertise because I think the main application that you have is the transportation application.

COMMISSIONER FIORDALISO: Right. MR. MEEHAN: I personally just don't know enough about that and don't know if the board would have any ability to do that other than perhaps to think about how the distribution of gas into transportation could be -- could be enhanced.

COMMISSIONER FIORDALISO: Is PJM looking at anything relative to natural gas as an example?

MR. HERLING: We obviously are not looking at anything outside the electric utility structure. You see -- anecdotally you see a lot of discussion about the transportation, for example, and it sounds very interesting. And with the gas and the shale gas that

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position would be generation anywhere in New Jersey would definitely benefit the state in terms of reliability. I know there are opportunities for a number of projects in Southern Jersey and they will certainly be beneficial as long as there is transmission capability to ensure that we can get that energy to the load all across the state.

Obviously, we are seeing some retirements in Northern Jersey. We do have a lot of load in Northern New Jersey. So to the extent that the generation is built further removed from those load centers, we'll just have to ensure that we get the transmission capability in place to deliver the energy.

COMMISSIONER ASSELTA: Okay. Thank you.

alluded to the fact that -- and these are not your words, these are mine -- that any good energy generation, energy plan, strategy -- whatever you want to call it -- involves a number of different components, obviously, whether we're talking about renewables. whether we're talking about coal, whether we are talking about nukes, or whatever we are talking about, I just

want to explore for a moment natural gas and what we

COMMISSIONER FIORDALISO: Lisa. COMMISSIONER RANDALL: Yes. COMMISSIONER FIORDALISO: Gene, I think you

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seems to be available that would potentially indicate that that would be a direction as a country we might 2 3 want to look at, but PJM is really not in a position to 4 do any investigation there. 5

I'm not sure what the pipeline capacity is for delivering a lot of new natural gas to support yet more development of combined cycle plants, for example, and that's something we can look into. But clearly it seems like the supply, at least with the shale gas recently, looks promising.

COMMISSIONER FIORDALISO: It does look promising and something I think you're right as a country we have to look at it.

If I can just to switch gears for a moment. Getting back to demand response for a moment, and are there specific areas of the state from PJM's perspective where demand response is more needed or are we looking at the state in its entirety?

MR. KORMOS: I think it changes year by 20 year. And I think if you looked at RPM, the reliability pricing model, and how the prices have moved, I mean 22 Northern New Jersey has bound meaning its had a separate price above and beyond the rest of New Jersey. In most cases New Jersey has, in fact, cleared with the rest of Eastern MAAC, which includes New Jersey and

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So I think there potentially is going to be a need in Northern New Jersey, particularly with the potential there is more at-risk generation in Northern New Jersey from what we've seen and from what we know. But I think overall it's been beneficial across the entire state from an RPM perspective for at least the last three or four years.

So I wouldn't limit it there, but I think it really is going to play out what happens with generation. Is it replaced, is it simply retired, or is it cleaned up?

12 13 COMMISSIONER FIORDALISO: Thank you. 14 COMMISSIONER RANDALL: Commissioner. 15 COMMISSIONER FOX: Oh, let's see. 16 Do you want to say something, Bill? 17 COMMISSIONER ASSELTA: He's ready to run. 18 MR. O'SULLIVAN: I heard you earlier, I had

my card up. I just wanted to add to the question on natural gas for vehicles. And New Jersey is one of 17 states to have a requirement that a growing percentage of new vehicles be low emission vehicles and there's two

key choices. One is electric vehicles where we see most 25 of the folks today, but another choice is gas vehicles.

depends, but it is significant.

COMMISSIONER FOX: What EPA requires us to do is we do it based on environmental health impacts, as was said, is that we have to take care of what goes on in our state even though we're getting a lot of pollution from out of our state.

MR. O'SULLIVAN: Yes. And we do work with the states through the Ozone Transport Commission and various other groups to come up with regional strategies and we are encouraging the federal government to do things more nationally and I think we'll see that soon and take some of the burden off the states to do things as a region or individually and we'll see more -- more national requirements to reduce all particulate coal plant emissions.

COMMISSIONER FOX: It's about time. Following up on that regarding coal plants in the rest of PJM, it was notified, Bill, that EPA plans coming out probably in July -- excuse me -- the coal plants, what will be the impact for planning purposes for PJM? What are your expectations?

Obviously, you don't know what is going to exactly happen when power plants or coal plants have to shut down, do something else, price it out, and decide they're going to shut down or put on scrubbers or

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Of course, electric vehicles will have some impact on this group here because an increase demand for electricity, hopefully off peak, but gas vehicles are also an option for satisfying a low emission vehicle requirements.

COMMISSIONER FOX: Yes. The off peak is important. We don't want them plugging in during the high peak period of the day. And we need to figure out how the heck we do that. I mean do we have a sort of system that utilities don't allow them to use it or price it.

Bill, regarding the issue of -- I'm tying to find my note on here -- how much of our pollution that you're dealing with by DEP and the rules from in-state and how much is transported from out-of-state, specifically those coal plants in Virginia, West Virginia, Ohio, etcetera?

MR. O'SULLIVAN: That's a tough question. It depends where you are in the state. We generally respond about 30 percent on average on our air pollution is from out-of-state, but that's a very rough figure.

In Warren County, New Jersey, right next to Portland Power Plant that is owned by Reliant, a hundred percent almost of the sulfur dioxide non-attainment issue there is caused by one power plant. So it all

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whatever they can do, because we're not talking carbon yet, we're just talking about regular coal pollutants. What does that mean with PJM reliability and the need for more generation?

MR. HERLING: Well, I think Mike mentioned earlier, we've looked at kind of the balance of the coal fleet in PJM and how old some of these units are which have scrubbers already and which do not. There's a fairly substantial amount of older, smaller coal units that, you know, very well could be at risk for needing to shut down because it's just not economically feasible to clean them up. So in all likelihood you can see some of the older small units shutting down.

The bigger units they spend the money to get them cleaned up. If you look at the replacement generation, you know, the interconnection queue right now, there's very little coal in the interconnection queue. There's mostly natural gas and wind.

So our expectation I suppose is that we are going to over a period of time see some of those older smaller units being shut down and replaced with other types of generation and the bigger coal units being cleaned up.

COMMISSIONER FOX: Following up on that and also something that Bill said, the options on a high

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electric demand day scenario and peaker options is to 1 2 replace the unit or demand side management. The thing 3 is nobody can require demand side management, can they? I guess the states could. And then obviously nobody can require replacement of a unit which is part of our 6 problem. When Public Service shuts down a generating 7 station, nobody can require them to replace it.

MR. HERLING: That's correct. And as Mike was saying, with demand response, I think it's more an evolution of the types of demand response that we have. The type that we have today that we can only call on ten times a year, that is not going to effectively replace anything. We really have to move to a different pattern of customer behavior in terms of demand response to effectively accomplish that.

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COMMISSIONER FOX: Actually, Frank has a really good question.

COMMISSIONER RANDALL: I want to invite him up to pull up a chair to the mic.

And I have one question. We're not here to discuss wind or solar or renewables, per say. You 21 mentioned wind is part of the interconnection queue and where is that wind from in our interconnection queue? 24 I'm curious.

MR. HERLING: Right now what's in the queue,

We'll develop analysis of some of these larger units that are at risk. And once you have all that information, you can put it side by side and see what it looks like.

COMMISSIONER RANDALL: Thank you so much.

COMMISSIONER FOX: Thank you.

Obviously, cost-effective, this is what we're looking for so cost benefit analysis is something. You guys do a lot of good numbers. My concern is, for instance, should Oyster Creek shut down -- and there's a lot of reasons why it probably should and there's somereasons why it shouldn't. There's an infrastructure already there.

What is the best kind of facility to locate near that infrastructure so we don't have to have ratepayers paying for new transmission lines for generation elsewhere? And there's obviously a great system set up and it should be like 9 or 10 percent of electricity.

MR. KORMOS: It's a good question and important for me to note again, is, we sort of mentioned PJM has no ability or authority to require generation to be built, even if it is by far the most cost-effective.

Our best we will be able to do is provide

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5 percent is out in the ocean, guessing maybe 35 percent or so in the mountains, in the Appalachian Mountains, and the rest would be 60 percent out in the Midwest from the Ohio and further west, Indiana, Illinois.

COMMISSIONER RANDALL: And my final question and it relates to transmission, whether -- because you did mention offshore wind and we've talked hypothetically about a need that could arise in an Oyster Creek shutdown.

In either scenario, you have attendant transmission requirements, whether it's to replace an Oyster Creek or to deal with new offshore wind construction. Would PJM be in a position where, looking at both those options, there would be a cost analysis in terms of the relative cost to ratepayers for that transmission, comparing, for example, the ratepayer cost for replacement of an Oyster Creek versus ratepayer cost for transmission for new offshore wind? You would be looking at the relevant cost for those.

20 MR. HERLING: Up to now we hadn't been 21 looking at those as one thing we would compare to 22 another. But we are going to be developing some 23 analysis of the costs associated with different wind build-outs, for example, different amounts of wind in 24 25 the ocean as opposed to the Midwest.

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you with information, provide transparently the information out to everybody so we can see what we are looking at but ultimately not be an authority. Right.

Whether you would take Oyster Creek and put a combined cycle plant there in place is probably an option that should be evaluated and investigated. I think a lot of this conference is what is the best way to have those things happen in the market at this point.

We can help provide the information. We ultimately won't order it. Actually, our obligation is on the reliability side that if the generation does not materialize, we will be required to put the transmission in place to ensure that the power stays on in New Jersey for the future. So that is sort of where we are at.

COMMISSIONER FOX: What is ironic about this is the way the system has been set up which has worked to some degree and some degrees worked really well. It's up to the marketplace where to locate generation and then all PJM can do under how they're set up is order transmission.

Nobody, I think -- FERC certainly can't, and I don't know if we can -- you guys have to look at it -can say generation has to be built in a certain place; and, therefore, if somebody can't do that, ratepayers are going to have to pay because PJM will order

Page 58 transmission be built. It's just ludicrous and I said that to FERC on a number of occasion and I've said that to members of our delegation. There's a hole and I think that hole is nobody is in a restructured state. Nobody has taken care of that in a cost-effective way for ratepayers.

COMMISSIONER RANDALL: I agree there may be limitations as to what this Board can do, and obviously with regard to new ordering any new generation, operation or construction of new generation.

Commissioner.

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12 COMMISSIONER ASSELTA: Besides Mike or 13 Steve, PJM's commitment to information, are there 14 financial resources available from PJM in solving some 15 of these?

MR. KORMOS: No. I don't --

COMMISSIONER ASSELTA: Do you have the access or the ability to create financial resources in the generation opportunity corridor again?

20 MR. KORMOS: Again, I think the financial 21 resources we have are through the markets that we 22 administer, things like RPM. And I should be clear, 23 there is a backstop mechanism in RPM that ultimately you

24 can go out with supplemental auctions to try to

encourage generation, be willing to pay more than what 25

COMMISSIONER ASSELTA: -- using one of those 1 2 tools --

3 MR. KORMOS: Ultimately --

COMMISSIONER ASSELTA: -- on a new

5 generation site in New Jersey?

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MR. KORMOS: It is done through our operating agreement we have with our membership which is filed at FERC. Any changes to that require a two-thirds majority vote of our members to support a change. We have some ability to file what is called the 206. It's basically a complaint against ourself. If, in fact, we cannot get the membership to agree to a change that we feel is needed, we -- I don't want to necessarily bring up shortage prices. But we have one going on with shortage pricing right now which is again looking in the energy market. We were sort of talking about the capacity market side.

On the energy market side, how we take into account that when there are shortages in the realtime energy markets and reserves are becoming tight, how do we ultimately reflect that into the market prices to again get encouraged, particularly locationally. That was one ultimately we did not get consensus on.

I will guarantee there will be litigation at FERC now to determine what the ultimate outcome of that

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cleared in the three year auctions kind of things, those --

COMMISSIONER ASSELTA: Those are the financial tools.

MR. KORMOS: -- yes. So those financial are tools out there. Again, it is limited, what we've been given authority in FERC and there is a long, long history under RPM and there have been alternate proposals as to how we might do things better. There's things like new entry pricing. While we have a form of it now, there were potentially more generous forms --I'll use that word loosely -- that some people supported and some did not and ultimately FERC chose not to go with it.

So we have some financial ability through 16 the markets to encourage. We will always be willing to look at those and we continue to look at those and we continue to try to make changes that ultimately parties --

20 COMMISSIONER ASSELTA: How do you make that 21 decision? Do you as a group --

22 MR. KORMOS: Ultimately --23

COMMISSIONER ASSELTA: -- to embark on a

24 financial commitment --

MR. KORMOS: Ultimately --

Page 61 is. So we have those processes. It is not something 2 that is done quickly. It's typically an 18-month to 3 two-year process.

COMMISSIONER ASSELTA: Thank you. COMMISSIONER RANDALL: Commissioner Fox. COMMISSIONER FOX: I have one final question and then I want Frank to ask his question.

But, Gene, you were talking about that you've seen that the current paradigm is working and BGS should remain market priced. Two questions which are interrelated.

How does new capacity impact BGS?

And then also long-term contracts for new capacity, you were kind of around the edges on this, preferential treatment impact and there might not be --I guess you said there might not be any new build without that contract. Could you go into that a little bit more and how it would specifically impact BGS?

MR. PERROTTI: Kind of along the lines of that question, if you could as part of your discussion, there's the BGS-FP product and there's potentially what you would buy from a merchant generator, could you explain the different products and what they mean to the state and should you go the route or should the state go the route of purchasing the power from a merchant

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generator, how that might be incorporated into the BGS process or how you deal with it under the BGS process.

MR. MEEHAN: Okay. I'll give that a try. There's a lot of questions so feel free to follow-up if I don't address them all.

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I think starting out with just the whole market price issue. I think having BGS be market price is important, not only for compliance with the structure, but because it does provide for retail competition, it does provide for retail choice, and I think a lot of the things like demand response and price responsive demand are going to be delivered through that type of structure.

Getting to how the market and the products 15 interact, I mean generally we see the BGS suppliers as assembling portfolios that can come from different market sources, including potentially generators. And I 18 think the point I made in the prepared presentation is 19 that having those two tiers of BGS with one sort of 20 being sort of a three-year fixed price creates a demand 21 for people to buy certainly energy hedges that will, in 22 fact -- that generator looking to enter the market knows 23 there will be a market to sell that type of product 24 which can increase the willingness to enter. It's not

customers pay for that transmission. I think under the current system, there is sort of a bias to reuse existing sites because the generators would be responsible for upgrades.

Now, Frank, your last point I think it was how this could integrate.

MR. PERROTTI: As well as a differential and the fixed price as to what you would purchase from a generator if you entered into a separate contract.

MR. MEEHAN: Right.

With BGS I think you're purchasing a couple things. You're purchasing not just generation service from a single generator, but you're purchasing the energy, the capacity, the ancillary services, you're purchasing the load following, and you're also purchasing the option. You're not really making any fixed commitment for any quantity. Customers can migrate at any time.

But when you purchase from a generator, you tend to be purchasing either the output of a unit at its dispatch or sort of just a block of energy and a fixed quantity that you're locked into with that.

So I think there's a difference between those two products and I think the other thing that comes about is when you purchase from a generator, if

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available within the time frame of construction, but they know that once they are built they're not going to be subject to the year-by-year variances.

25 going to support the entry decision because it's not

My concern, Commissioner Fox, on the issue of the preferential treatment really gets to the fact as of right now the generators who decide to build the 4,000 megawatts, it has decided to build the other 800 megawatts it is going to build is doing that and the ones that are not retiring are doing that in response to a market price.

If you were to have contracts that would come in and drive that market price down where the new entrant has paid a higher price than others, I think over time the equilibrium you're going to get to is people aren't going enter unless they get a contract. And once you go down that road, you have to face the possibility that it becomes irreversible, that you really need to either let the market decide how to enter or have contracts enter.

I think your transmission point is a good one, but I know there are certainly some cases where when you want to build a generating facility the generator is responsible for upgrades. So I think that is a good valid concern. You certainly don't want them to build wherever they want to build and have the

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you purchase on a longer term contract, and it gets out-of-market, there's a question of who's really going 3 to pay for that.

And if it's not -- it's hard to say the BGS customers would have to pay for that because you don't know if you're going to have BGS customers. So then you have to think, well, is there any framework that says, well, all customers have to pay for that, much like the way the NUGs work right now, where the NUG contracts get honored and you get paid out and then there's the NUG transmission charge. Would that work for a new plant would be one question.

MR. PERROTTI: Under the current BGS construct maybe explain with how we deal with what we call committed supply and NUG contracts that are currently in place.

MR. MEEHAN: Sure.

Under the current construct, they are really on the side from BGS. We looked early on in the early stages of BGS, the concept was let's put the committed supply into the BGS product and we got too much feedback from the BGS suppliers, that they couldn't serve as a backstop for all NUG outages. Right now the NUG supply is bought by the utilities and then it's sold into the RPM market, into the energy market; and to the extent

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that there's a shortfall, that gets charged to all customers, not just to the BGS customers.

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COMMISSIONER FOX: Frank, great questions.

Just following up to what you just said, I think what you said is the price responsive demand would be through BGS, the BGS structure; but you're saying that then it would be part of the supplier's obligation when they bid in and there's no way that the utility could be required to do that. Like, for instance, either a utility could either do it themselves or put out a contract to bid for demand response type of contract.

MR. MEEHAN: I think I was more thinking -that -- those are certainly possibilities. I was more thinking that as we get migration, as we get people willing to offer these types of products, have some advanced metering, that the price responsive demand could come from third-party suppliers taking customers away from BGS.

COMMISSIONER FOX: So it wouldn't have to come from a third-party supplier, BGS bidding in it. It could come through the utility which I think would be less costly for the ratepayers because it would be less risk for suppliers bidding into the auction.

MR. MEEHAN: That's a possibility, yes.

EDCs, and I think we feel that three years is sort of a nice balance there, but I don't think as you start to go longer, you do disconnect more from the market so that's the con. And the pro would be you would have some more stability, but you'd also complicate the situation. I wouldn't say it would impossible to have three, four, five year tranches weighted in there, but you have more market disconnection possibilities.

COMMISSIONER FOX: Now, PJM is telling us and I think a lot of us agree that we might need more generation in New Jersey, especially in Northern New Jersey where the load is and we're paying a lot through RPM.

And, Mike, you know how I feel about RPM --I won't get into now.

MR. KORMOS: Thank you.

COMMISSIONER FOX: Gene, you said the system is working well. How would you get more generation built because we're not getting generation built with how we're doing the BGS right now?

MR. MEEHAN: Well, you know, there has been about 4,000 megawatts built and a lot of it has been in Northern New Jersey and there's been retirements.

COMMISSIONER FOX: Combined cycle.

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COMMISSIONER FOX: One final question, unless I have a follow-up.

Do you see any way on the BGS auction itself -- we started the first year, Frank, with one year and we moved, because I was scared to death to three years bidding now -- do you see it working -- and obviously it being more costly because it's more risky -- bidding out four or five years which would then give more ability for generation being built, who would know what they'd be getting for five years?

What are pros and cons, Gene?

MR. MEEHAN: I think the cons to it are that even if you do five years, there's a three-year construction time so you're not really going to -you're going to provide -- again, it's more letting people know once they build they have an opportunity to get a hedge to lock something in. They're not going to make the decision to enter based on either three or five years.

The concern I have and you've seen this every year when we go through it is I don't think they're represented well here today necessarily. But there are the third-party suppliers who are interested in serving load and who are constantly pushing to go one year as opposed to three years.

MR. MEEHAN: It's been mostly combined cycle type generation which is probably the most suitable generation, the only thing you really can put in Northern New Jersey.

You have had quite a few retirements, but then you're also having some of the plants retrofit and not retire. So I know our RPM prices are high, but the thing is the markets have cleared here under what PJM calculates as the amount of money that a new unit needs to come in, you know, to earn a return.

So it's under that cost of entry that's calculated by PJM and I don't think New Jersey has ever really cleared above that -- above that price.

COMMISSIONER FOX: Can I ask one more? COMMISSIONER RANDALL: One more? COMMISSIONER FOX: One more. Because Gene keeps on pushing my brain.

17 18 I guess actually for PJM and for Gene.

I think part of the cost for Northern New Jersey, we happen to be across the river from New York which has a bigger load and they pay for more their 22 electricity; therefore, Northern New Jersey has some 23 facilities that are kept in operation to sell the electricity to New York. Other than making one big RTO 24

25 where we include New York and New England in with PJM --

we can do that. We were planning to do that during the 1 2 remainder of the year as an at-risk generation

3 sensitivity within the context of the planning process.

4 I have to take a look at what we can do and how fast.

COMMISSIONER RANDALL: Anything you can do 6 to expedite it is much appreciated.

7 We are going to take a 10-minute break and 8 reconvene with the second panel then.

9 Thank you, gentlemen.

10 (A short recess is taken.)

11 COMMISSIONER RANDALL: Thomas, We can get 12 our second panel settled in.

All right. Thank you. We are ready to 13 14 proceed with our second panel.

15 Would the new members of Panel 2 kindly 16 introduce yourselves?

17 MR. BRUBAKER: Thank you. And I'm Scott 18 Brubaker from the New Jersey Department of Environmental 19 Protection.

> COMMISSIONER RANDALL: Thank you. MR. ALLEGRETTI: I'm Daniel Miegretti with

23 MR. HORINE: Jay Horine with JP Morgan. 24

Constellation Energy.

MR. CHIN: Brian Chin with Cir. Group. 25

MR. DE PILLO: Ray DePillo wird: PSEG Power.

in the past PJM has wanted to do -- how do we deal with that issue? Because I think that's probably part of the problem, not getting new generation in Northern New Jersey as much as we think we need to pull down RPM to any level because people get more money through selling electricity to New York.

> MR. O'SULLIVAN: No, you go first. COMMISSIONER FOX: Anybody want to take a

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10 MR. MEEHAN: There are exports to New York 11 going on. I don't know how you stop those. You can't 12 really stop shipping the power out but, you know, I 13 think that is -- one thing is that the supply has been 14 able to keep up, not only with the load growth, but with 15 those exports; but certainly I guess the price here 16 would probably be lower if you had less exports to New 17 York but price differential is reasonably significant 18 still. So I would think, you know, there's some 19 construction in New Jersey that is planned to go

22 But you're not going to want to hear this, 23 but, obviously, if you got the price up, it would stay 24 here, as opposed to go to New York but that's clearly

directly into New York even that it would probably be

better if it stayed in New Jersey.

25 not the objective.

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COMMISSIONER RANDALL: Bill.

MR. O'SULLIVAN: I just want to point out that on my Slide 15, the power approved last year, one of the plants was the Bayonne Plant that is a pretty substantial plant providing power to New York.

COMMISSIONER RANDALL: We have the benefit of having PJM and NERA remain with us later today.

Anything we need to wrap-up with? COMMISSIONER FIORDALISO: I will wait.

MR. PERROTTI: Just one follow-up on the

Oyster Creek discussion, just as a request.

In years past you have provided an Oyster Creek analysis to us that was kind of like outside of 14 the planning process where you did a couple scenarios 15 and at the time it was relating to several retirements in Northern New Jersey, I wonder if that same analysis 17 can be done as the follow-up to Commissioner Randall's 18 question and Commissioner Fox's question.

There was a couple of slides that gave us a 20 couple scenarios based on the current environment should Oyster Creek retire, kind of outside the planning process.

23 Is that doable on more of an immediate time 24 frame? 25

MR. HERLING: I have to look at how quickly

Page 73 MR. WEISHAAR: Bob Weishaur, McNees-Wallace, 1 2

counsel for PJM Industrial Customer Coalition. 3 COMMISSIONER RANDALL: And we also have our

friends from PJM and NERA who are remaining with us.

Thank you, gentlemen.

Before I forget, in terms of our lunch break we have some refreshments for all of our panelists which we are hoping you will join us in, if you don't have other plans, shortly after noon. It will be on the 9th floor, Rooms 4 and 5.

Thank you.

Again, we have the opportunity for some brief opening comments from the new additions to this panel.

And I have Mr. Brian Chin, I have you first. Thank you.

MR. CHIN: I'm afraid I brought far too few handouts here, but I am going to go through them very quickly.

COMMISSIONER RANDALL: If you can pull that close to you. Thank you.

MR. CHIN: Just by way of my background, I'm the electric utilities equity analyst at Citi Group. I have been following electric utilities and power producers in Citi in a research capacity for roughly

about ten years now and I also cover demand response companies as well for Citi so I am a familiar with a lot of different resources.

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MR. CHIN: And the perspective that we have here generally is that at this point the need to try to intervene in -- in the markets to try and create a carve-out or a separate two-tier system here to facilitate generation investment is probably not necessary at this point.

This is a cyclical process that we go through, just a handful of observations that I've got from looking at other states going through the same exercise and debate I think might be useful.

If you happen to have my handout, if you just flip over to page 3, this is basically how we visualize this situation here.

You have a reserve margin forecast that shows at some point in the future you run into a reliability issue. The second major element is that the commodity markets, capacity, energy, you only see so far ahead. Right. There's a little element of myopia there. And then the third point is that the time it takes to develop resources arguably is longer than the

today: Are reserve margin forecasts more likely to tighten or loosen? And our view on this is that the forecast -- where we are in the cycle right now is that these reserve margin forecasts are probably going to start to incrementally tighten from here, but at a very, very slow pace.

Our view is that the economic outlook is relatively modest, will probably be so for the next two to three years, and you are seeing smart grid conservation programs develop at a slightly faster pace than before.

The second factor is: Are resources taking longer or shorter to develop? And we think that there's a little bit of a push here. In general lower natural gas prices will tilt the focus of resource development for its peaking and combined cycle gas turbine units. So that will shrink the time it takes to develop the average power resource.

Offsetting that is a more restrictive environmental policy environment going forward. So we think this is a little bit of a push factor.

And then lastly: Are commodity energy capacity markets becoming more accommodating or less? Our view is these are becoming more accommodating. Not only has the most recent capacity auction price hit an

Page 75

myopia of commodity markets and capacity markets.

So the question for you policymakers is: Do we need to intervene or create some sort of additional policy step to try and bridge that gap?

Now, I think this is an ongoing debate.

And if you flip over to page 4, many of the issues that we see come up in other states and regions typically follow along the following: Reasons why policy intervention is needed; commodity prices don't provide enough signal to invest in new capital; environmental policy uncertainty is high; tight reserve margins aren't reflected in commodity and capacity markets.

And what we observed is that the beneficiaries of folks -- beneficiaries of policy intervention typically are reliability advocates, project developers, and project financiers.

Usually, the arguments that counter or try to argue against policy intervention is that ultimately it undermines the integrity of the competitive power market. So beneficiaries of nonintervention tend to be owners of preexisting resources and energy traders and risk management traders.

So if we step away from the static arguments, the things that we think about on the margin

Page 77 inflection point or turnaround, but what we're seeing from the equity markets is that investors are paying much more attention to how capacity is priced.

I find in my conversations with investors that an education about how capacity should be valued now is half the discussion, not just looking at energy margins.

So I think the net effectiveness then, if you flip to page 6 in my handout, our view is the combination of these all factors suggest is that the need to consider a separate carving out of generation investment under a longer duration contractual element is probably there's probably less need for that right now.

We think the balance of risks over the next three years of that intervention may escalate gradually from here, but you probably have a little bit of a window of time of one to two years before you really may need to consider the decision more closely.

Lastly, on page 7 -- and I'll end with this prior to handing it over to the next speaker -- one, two points that I heard raised in the prior panel:

Is RPM working enough? Our view is yes.
The capacity markets are working. While you have not seen an alleviation of concerns about generation

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resources in Northern New Jersey, we think without RPM that situation would be more exacerbated than it is today.

And certainly from our discussion with investors, this is a key element when you look at generation, particularly deregulated generation. Investors need to understand and appreciate it.

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Secondly, is demand side management a solution going forward. Our view on this is that demand side management is certainly an item that helps bolster reserve margins, but it comes so at a fairly high cost in the energy markets.

One of the analysis that we had done a year ago is if you look at the data available on PJM's website and how demand response is bid into the energy market, within the first 5 or 10 percent of the bid that are bid into the day ahead energy market, you find that demand response resources often price out at a very, very high dollar per megawatt level.

So when we think about demand responseresources, our view is that this is a very cheap form of adding capacity but a very expensive source of energy to draw on. And it's reflected in one of earlier panelist comments that demand side resources there's only so much 25 demand side resources that you can rely on that are

understand that there are obstacles within the state and 1 2 I'm going to elaborate on a couple, for the most part 3 New Jersey has benefitted from the competitive markets 4 thus far and continuing for the future believe that we've met the reliability requirement and we've met it 5 6 in the most effective means possible.

Within the past five years, our company has brought into commercial operation more than 1,100 megawatts combined cycle, more than 300 megawatts of peaking, all located in the State of New Jersey.

Looking forward, the competitive market structure administered by PJM continue to send us the appropriate price signals. In a most recent RPM auction, for example, we did offer and clear another 89 megawatts of peaking facilities. In the auction prior to that, we offered in 360 megawatts of generating facilities and cleared approximately 180, all located in Northern PS.

In addition, with the market signals we have received, we've invested more than \$3 billion in capitalimprovements since 2005 in our nuclear and fossil fleets located in-state. The results have included significant environmental improvements, the retention of more than 1,500 megawatts of generation and the development of more than 500 megawatts of incremental new generation.

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given a fixed window restriction. Right? Another way that that is reflected is if you do price responsive demand response. It's a very expensive resource to draw on.

Folks that offer to curtail their power supply have to compare what else could I be doing with that power. Could I be running my manufacturing plant, could I be generating profits from my plant, or is it better for me to shut off my power and sell that into the energy market.

So I would encourage you to think about demand response in effect like a super peaker: Cheap to install but very expensive to draw down in the energy market. So be cognizant of that as you're moving forward with the policy.

I've probably run out of time so let me hand it over to the next panelist.

COMMISSIONER RANDALL: You fit a lot into your time and our court reporter is still with us here.

From PS Power, Mr. DePillo.

MR. DE PILLO: Thank you. And I appreciate the opportunity to speak to you about some of the obstacles that may exist in the State of New Jersey here in developing new generation.

First, I'd first like to state, although I

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It's also created and retained hundreds of jobs within the state. PSEG Power can plan to continue investing in New Jersey and the generation fleet over the next several years as the market needs arise.

To be very direct, what we do is we rely upon the market signals and the stability of those markets in order to make these kinds of investment decisions and we believe responding to these signals going forward would provide both the best results for us and the customers in the region.

The State of New Jersey has been a leader in developing competitive electricity markets and its steadfast support of these markets directly benefitted customers in the state.

I'm going to switch over to BGS very quickly here. It's served as a model market for other states and basically saved the customers, the State of New Jersey, millions of dollars through efficiency achieved through energy procurement. The design has insulated the customers from price shocks that have been experienced from elsewhere throughout the region while still allowing them the opportunity to shop when wholesale prices decline as they have recently.

New Jersey customers have also benefitted significantly from being a part of a larger more

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elaborate market like the PJM construct, insuring procurement is made in the lowest possible cost available.

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So I do want to touch upon what we perceive as some of the obstacles of generation development. I think Mr. Chin highlighted our first and largest concern is that we, looking at this region, New Jersey, New York, Pennsylvania, and other states, see that there's more generation supply than there is fundamental demand.

As we look forward at the markets and making our investment decisions, current energy markets prices are very low and they're forecasted on a forward basis to remain low for the foreseeable future. The projections that have been assumed in the planning process through the RPM model have identified the need for some amount of resources to meet future peak demand. but only in very specific and defined locations.

The markets in general have responded by fully meeting these needs at the lowest incremental cost. And by that I mean, the first supply choices has become demand response and energy efficiency, the cheapest resources to put in place, followed by some peaking capacity and more base load types of generation.

We expect that as the economy recovers and demand increases the market signals will react

prior panelists -- it's a very difficult road to pull 2 yourself from.

Developers in those kinds of instances are going to demand significantly more premium to build on a merchant basis when there are alternate sources of basically -- I don't want to say risk-free money available, but certainly less risky alternatives via long-term contracts. So it becomes a road that becomes difficult to pull yourself from.

Finally, I think the largest hurdle in developing generation that we've encountered has been the permitting process and siting of new generation. And I have to commend the New Jersey DEP. They have been working with us in our development activities very well, but that doesn't mean that process isn't a little bit long and isn't a little bit costly,

Within the process, one thing to be cognizant of is some of the emission offset requirements that are necessary to build new generation in this state; in particular, the fine particulate matter rulings PM 2.5. It's a federally enforced environmental standard. However, the state has basically restrict -not restrictive, but created -- there's a very small supply of these particular offsets and the supply itself has an imposed life span on the credits imposed by the

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accordingly and a developer, such as PSEG Power, will respond to those signals appropriately.

The second major issue that we see as an obstacle -- and I think Brian also touched upon this -is regulatory certainty. As a developer, we require a certain amount of regulatory certainty to make these types of capital investments. The markets that we rely upon for committing this capital have been under almost constant pressure to fundamental changes. And to be honest, I think that scares away a lot of developers and potential developers.

This uncertainty, whether real or preserved around the market construct, discourage not only the developers, but also the financiers who basically look at forward markets and call into question whether a particular construct will be there two or three years down the line to kind of management the earning certainty that they're looking for.

I also believe that the threat -- and I know -- I'm going to point to Connecticut in this example -- the threat of external intervention is -actually causes more problems than it does good. We have experience with Connecticut, and I do look forward to speaking about that more, but once external 25 intervention starts -- and I think we've heard from

Page 85 state. This is -- this really exacerbates some of the shortage conditions associated with these offsets on a go-forward basis.

As far as next steps, I think -- and this is my personal opinion -- the next best thing that can be done is to gain an affirmative commitment to competitive markets and the BGS structure from this commission and from the State of New Jersey. I think that there are certain things that the BPU can do to help enhance the current competitive market structure by advocating with both PJM and the FERC to help improve some of the market designs that better align our development objectives without having a negative impact on the markets or the BGS construct.

Some specific measures that I would be happy to discuss further would include aligning the RPM process with the transmission planning process across a consistent horizon and with consistent assumptions to basically optimize the generation and transmission development in such a way that it achieves the total lowest total costs to consumers.

Second -- I think Mike mentioned this earlier -- the persistence pricing mechanism could be expanded to provide more certainty to generators that are building into the RPM price signals and thus reduce

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the kind of premiums they do require.

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And, finally, if the state feels it needs specific types of generation or things like that, it could look at basically adding those requirements into the RPM construct itself as a constraint. This could pretty much provide a clear price signal as to what those requirements are going to cost you and not be disruptive to the rest of the traditional generation market.

I think what the state should avoid doing is giving into the seduction of out-of-market solutions. While out-of-market solutions can appear attractive at first blush, they fundamentally alter the markets and most importantly shift risks and additional costs to consumers undermining some of the key benefits which we've seen with competitive markets. These efforts are always well-intentioned but are often harmful to customer rates and deter merchant development when needed.

As I stated, one of the things that we do is we are looking for more certainty. We feel that these markets are sustainable and are sending the proper price signals and we do require them to on a go-forward basis to continue to make the kinds of investments that we have in the State of New Jersey.

make this shift, ratepayers were asked to pay a burden 2 of stranded cost recovery. And I think that's 3 appropriate. But they were also promised that at one point in time, we will be free of having made that transition and investment risk will be moved from 6 consumers onto the backs of investors. We're better 7 able to understand those risks and manage those risks.

So I am a believer in the merchant model and I think the points that have been made by Ray and Gene about the possibility of fundamentally undermining that by beginning to implement out-of-market solutions through long-term contracts is a very dangerous road to go down, particularly for the consumer. I think we've gained a great deal in this paradigm shift and we should not lose sight of it.

One of things though that is an obstacle is the fundamentals. As Gene pointed out, capacity additions are basically keeping pace with capacity retirements. Reserve margins are being met. There may be some particular localized areas of concern, but by and large there aren't a lot of reason to invest in a plan on a merchant basis because supply and demand are telling you, they are relatively in balance at the moment and likely to be in the near term. Longer term that's going to change. And as Brian pointed out, there

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With that, I'll and look forward to your questions later.

COMMISSIONER RANDALL: Thank you very much.

From Constellation, Mr. Allegretti.

MR. ALLEGRETTI: Thank you.

Commissioner Randall, members of the Board, it's a pleasure to be here and to share some

observations on this important issue.

I will disclose at the outset that I do not consider myself to be an expert on PJM or New Jersey so much as some of the neighboring regional markets -- New England, New York, Ontario -- and so I bring a slightly different perspective, at least in terms of some of the particulars.

I really want to underline something that 16 Gene said this morning about the paradigm shift and how capacity is procured and produced. It's really important not to lose sight of that because we have finally restructured electricity markets in a way that resource planning in which the prognostications of the prognosticators were used to make 15-, 20-year

17 18 19 20 has freed the consumer from least cost integrative 21 22 investment decisions that were paid for by captive 24 ratepayers whether they turned out to be good investments or not. And in exchange, as a transition to

Page 89 can be major shifts and changes that can cause that to happen more rapidly, which leads me to the second obstacle that I want to discuss and that's timing.

One of the reasons to fall back on planning or out-of-market solutions is the concern that as the supply and demand fundamentals change, if they change quickly, it takes time to permit and build a new power plant. There's no question about that. Capacity additions don't come overnight. And you can have a gap.

And in the past we've seem gap RFPs in places like Connecticut and Maryland to address this. But the good news is we have a new tool and that tool is demand response and the ability of demand side solutions to bridge those gaps to be implemented very quickly in response to appropriate prices and signals is tremendous.

And I think it's not only in terms of being a capacity resource, as Brian pointed out, but I think there is actually more potential in the energy side than is currently being seen in the marketplace today.

We have a virtue opt platform that allows us to aggregate dozens of office buildings. We can do a little precooling overnight. We can take out one out of ten of these fluorescent ballasts. We can cycle some things -- refrigeration in grocery stores and so forth,

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things that are not terribly perceptible or painful. 2 It's not like taking a whole shift off and shutting a 3 factory down.

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They can produce megawatts during peak hours. They can really help to extend these gaps and provide the bridge as needed as forward prices send the signal for new generation investment to come and supplement.

So I think we do have a solution to the timing obstacle that we didn't use to and I think that's good news.

The third one I want to touch upon is competition between the states. I've heard concern that New Jersey is an importer and I heard some concern that New Jersey is an exporter. I think it's great that you're both, and that is fundamentally what happens in a marketplace characterized by open and free interstate commerce.

To the extent that New Jersey is an 20 exporter, there are pros and cons to that. You don't have the benefit of that energy. On the other hand, you're selling it into New York and you're benefitting from the economic development, the jobs, the production, 24 just as you would exporting any other product. To the 25 extent that New Jersey isn't an importer because the

plants located right on New Hampshire's seacoast which 1 2 is only 30 miles. And so I think the market place 3 responds very well when those opportunities become 4 available.

So in conclusion I agree with Gene and Brian and Ray and I think the paradigm shift has happened. It's very important to keep our eye on it. There is some work that can be done to these obstacles, but largely I think it's a good news story. Thank you.

COMMISSIONER RANDALL: Mr. Horine from JP Morgan, you agree with your predecessor, sir? MR. HORINE: I'll pass and wait for a specific question.

> COMMISSIONER RANDALL: That's fine. We'll move to Mr. Weishaar.

And I'm curious, you're also PJM, but you're the Industrial Coalition. Can you just describe what that is?

MR. WEISHAAR: Sure.

The PJM Industrial Customer Coalition -don't put a lot of emphasis on the PJM, it just happens to be where all facilities are located. The coalition is comprised of 28 large commercial/industrial customers, some of which have pretty large facilities in the State of New Jersey. Most have one or more large

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1 cost of land and labor and permitting in other states is lower, you benefit from lower cost electricity in New Jersey than would otherwise be the case if you relied entirely on interstate resources.

So while I understand the concerns about 6 competition between the states for the siting of plants, I think it's actually helping. And I think it helps to discipline states to look hard at what are the costs and what they can do about them and what the benefits are in interstate commerce.

I also couldn't help but want to touch on question that Commissioner Fox raised about the transmission facilities associated with a retired nuclear unit. We've had some experience with that in New England.

The Maine Yankee unit was decommissioned and 17 Seabrook II was canceled before it was ever built. In 18 both cases a significant amount of unused transmission 19 capacity was made available and it was sucked up by gas 20 plants in no time. There was a tremendous build-out of 21 natural gas, combined cycle generation in the State of 22 Maine to the point where the state is now export 23 constrained in terms of transmission. The excess 24 transmission capacity for the Seabrook unit was quickly 25 taken up by the development of several natural gas

Page 93 facilities in the Eastern MAAC region of Pennsylvania, 1

2 but it is a true customer focus. It's been around since I guess '95 when PJM underwent fairly substantial

4 restructuring.

I want to focus on kind of the topping of this particular panel. We will get into solutions this afternoon. But I think the relevant question to ask here is not necessarily the obstacles to development of supply resources, but a cost-effective development -cost-effective solution to the development and retention of supply resources and what are the obstacles.

From a customer perspective, we actually view RPM itself as one of the primary obstacles to integrated practical -- and I emphasize practical -cost-effective solutions to resource adequacy challenges.

Since PJM implemented RPM, and are now going on three years or so, and we've cleared auctions, New Jersey customers are now on the hook. Starting June 1 of this year going through May 31, 2014, New Jersey customers are on the hook for just over \$5 billion in payments. There's nothing you can do about that at this point. The resources are what they are, and it's just a matter of the cost flowing through customer bills over the next four years. That's a very large number.

And customers -- certainly a lot of customers -- my group members understand it, sophisticated industrials know what happens in a base residual auction in a reliability and pricing model, but there are millions of customers who do not and they are sitting there and the only action that needs to be taken at this point is pass those costs through to their bills.

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A question that we continue to grapple with is: Is RPM delivering the goods; is RPM the solution to resource adequacy; is RPM a cost-effective solution to resource adequacy. Certainly, if you raised the price to a thousand dollars per megawatt day for an extended period of time, you will get resources, you'll get demand resources, you'll get generation resources. The question though is, is that a cost-effective solution. And arguably it is not.

We have heard concerns from state commissions. We have heard very loud concerns from consumers that have already paid the bills and will be paying bills for the next few years. We have heard concerns from generation developers.

Price certainty is a problem. The fact that they're only getting a certain price for one particular year. The unpredictability in price outcomes is a

I am Scott Brubaker. I am currently
Director of the Office of Permit Coordination and
Environmental Review at the department. Just make a
couple comments. Also in full transparency my
speciality is in the land use arena — I don't know if
my colleague, Bill O'Sullivan, stayed but any air
question would be better directed to him.

I will say that obviously since this is the obstacles part of this gathering and DEP was asked to speak here, I can infer -- only infer that we're in some sense seen as an obstacle and certainly I acknowledge that historically and currently to a certain extent. We have been more process oriented than results oriented.

And as everyone here knows, we have our rules that we love and we need to follow them and nothing I'm going to say here will—is going to change that. But I will say, I need to say that directionally right now the DEP is all about getting your projects done, getting projects done.

We are committed to streamlining, simplifying the processes associated with our rules, while not compromising the environmental standards within those rules. That is the mandate of our Commissioner Martin and one that we are transforming ourselves to do every day.

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problem. They are not capable of forming capital to make investments in new generation and new resources given the construct that we have.

The other issue we have is we get reports on whether the market rules were applied correctly, the FERC rules were applied in RPM correctly. What we are not getting is an annual or consistent look back on whether RPM is the most cost-effective solution; is it doing what it is intended to do.

Any type of solution -- we'll get to the solution later -- but part of identifying the obstacles is to look at the current construct that we have for resource adequacy and arguably it is in itself an obstacle to cost-effective development and retention of adequate supply resources.

So I look forward to sharing thoughts on solutions. We will get into the kind of the role of the states, the role of PJM, how demand response impacts it, but you can't lose sight of the question of whether the current market design is contributing to the problem.

Thank you.

COMMISSIONER RANDALL: Thank you.
And Mr. Brubaker from DEP, welcome.
MR. BRUBAKER: Thank you, Commissioner

Randall and other commissioners.

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We are -- we are becoming -- attempting to become more a customer service oriented organization and a more outcome based versus a process based organization. And I hope that you have or you will see the results of those efforts in the coming months.

I thought again since this is the obstacles portion, I thought I just had a couple thoughts from the department's perspective of obstacles to success and I'll define success as getting your project, getting your power facility, your power lines, and some cases gas pipelines maybe, approved and under construction.

I thought I'd give from the department's perspective just some principles I thought -- there's some obstacles to success that the department would see to those kinds of projects out there and they are simple and they're probably not new to anyone, but I just thought I'd identify them.

Number one, I think obstacles to success is projects, entities not giving themselves enough time to get all the approvals they might need from DEP to get their projects started. In other words, not starting the full court press to get moving on your project just as soon as one possibly could. I think that's key. Things always take longer than we think they will and surprises always do happen along the way and time is the

great equalizer of all those things.

Most of DEP permits are 90-day clocks. We must get the permit issued in 90 days; however, the detail in that -- sometimes the devil is in the detail. That's 90 days from the time an administratively complete application is in-house and those administratively complete applications require sometimes much upfront work, and we call them plug-ins to the actual permit process. You need your wetlands letter of interpretation. You might have historic resource issues. You might have state house commission processes to go through.

So when we say a project is administratively complete, all those prior approvals -- maybe you need a Highlands exemption -- we've all been certainly through that -- but these processes all take time. Once a project gets to DEP and is administratively complete, we must get the project done and reviewed within 90 days.

19 So I think another obstacle to success is
20 not having the right local consultant or support team.
21 We have seen -- I have seen in my short tenure as
22 director of this office situations develop because
23 out-of-state entities were used as environmental
24 consultants, for instance. New Jersey has complex and
25 strict environmental laws that I have found by

have had less environmental constraints, less
environmental permits, less expensive situations like
that. So I can't emphasize enough how much
communication and contact with the department early on
in the planning stages of a project can lead to a more
successful and positive permitting experience at the end
of the day. Okay.

My office -- I'll make an unabashed promotion in my office -- that is actually my responsibility, my office, the Office of Permit Coordination and Environmental Review under Commissioner Martin is right in the center of his transformation of the department and I am responsible for coordinating large, multimedia permit projects that cross over many aspects of the department, both the green side and the other side, the regulatory sides, and I'm responsible for keeping those projects moving, for making sure that different parts of the department are prioritizing these projects appropriately.

And we serve -- the services we have, we are one point of entry to the department. We serve this important role of organizing a preapplication review or discussion with the department to identify any fatal flaws in a project, to offer informal comments about a project to how environmental consequences can be

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experience success is best ensured by having people work on those projects that are familiar with the New Jersey version of all those rules. So I think that's an important principle.

I think another obstacle to success is not understanding all the approvals one may need to get their project authorized. Linear development, for instance, runs the gamut of different kinds of approvals. We know there's over a million acres in this state that are in public hands. They're either green acres or they're some state park or something to traverse those lands, for instance, requires very public processes that are not easy, are not designed to be easy, and take time. So recognizing that many, many processes are involved in authorizing most types of linear development.

Just a couple of others, the other obstacles -- and this is an important one -- is the failure to avoid or minimize impacts by incorporated environmental considerations into the early planning stage of a project. And I'll talk about my office's involvement there in a minute.

But we have seen many times -- I've seen in my short time here that a thorough review of alternatives may have resulted in a project that would

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- 1 minimized, we did the critical path time line for
- 2 projects to give the entities some of the certainty we
- 3 know is desired out there by the market, and we hold
- both the DEP and the applicants to an accountability for that time line that's developed and then we problem
 - that time line that's developed and then we problem solve as issues arise along the way.

So we take ownership of some of these larger projects. The pipelines, the electric lines seem to fall -- so far have fallen within my purview and we're attempting to provide the role of coordinating and facilitating successful permit issuance for these types

12 of projects.13 Thank you.

COMMISSIONER RANDALL: Thank you.

As Director of the Office of One Stop

16 Permitting, you must be a popular fellow these days.

17 MR. BRUBAKER: In fact, I would love to stay

for the actuals solutions part, but I need to go back to Trenton and try and get a gas pipeline permitted this afternoon.

20 afternoon.21 CO

COMMISSIONER RANDALL: Thank you.

22 Questions? Comments?

Commissioner Fiordaliso.

COMMISSIONER FIORDALISO: Thank you. Thank you. And, as I said to the first panel, thank you for

being here and sharing your expertise with us.

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I have a couple of questions that come from I think maybe different directions. Our first panel indicated -- someone -- I think it was Steve who might have mentioned the fact -- that we really have to take a very in-depth look into consumer behavior. And I took that to mean, of course, on how they use energy and what direction they go as far as trying to minimize that energy, energy efficiency, and so on.

There was a recent article in Time magazine that stated that the average American household has 26 plug-in devices. Some of these newer projects -- and I don't even know what some of them are -- newer projects such as the video game sets, like PlayStations and XBOX, which kids usually leave on around the clock uses as much energy as two refrigerators.

With that being said, and I agree we have to 18 -- when I go out and speak to groups, I'm always talking about behavior. What can we do individually, collectively to try and minimize our use of energy and, you know, as simple as walking out of a room and shutting a light off. It doesn't get much simpler than that.

But how do we -- and if you have any 25 thoughts, I would really appreciate them -- because the 1 has evolved. It's gotten very competitive now for those

2 larger commercial/industrial customers. They're not so

3 much low hanging fruit. And I think as businesses

4 became more and more aware of their options and choices

and their ways of managing their cost of electricity,

6 they become more interested in terms of what they can do at home. Now that I've seen it at work, what can I do 7

at home.

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I think we're going to see the same thing on the demand side. I think we're really going to see the penetration of price responsive demand happen first with the low hanging fruit, with the large commercial/industrial sector. And as they begin to become much more mature as a market and the market penetration of these new demand products, things like our virtue opt platform take hold, we'll start to see that move down to smaller and smaller customers. So it's coming.

And I think the most positive policy choice that you can make is to continue strong support for competitive retail markets for both commodity and demand based products. And as those markets develop and mature, it will work its way all the way down to the XBOX.

COMMISSIONER FIORDALISO: Anyone else have a

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behavior is such an important aspect in energy efficiency and so on, but 26 plug-in devices.

Certainly, we're not going to minimize the technology industry from producing more of these plug-in -- I mean in ten years we might have a hundred plug-in devices. I don't know.

What do we do? What steps can we take as a regulatory agency, as a society, to try to minimize, to try to encourage energy efficiency when we have that number of plug-in devices. If anybody has any thoughts, I'd welcome.

MR. ALLEGRETTI: I'll bite.

COMMISSIONER FIORDALISO: Okay.

MR. ALLEGRETTI: It's been fascinating to watch the evolution of the retail competitive electricity market. And it really started with a principal and a primary focus when the markets first opened of the largest commercial/industrial customers. They were low hanging fruit in terms of taking advantage of greater efficiencies through the kinds of commodity based products.

And we're now starting to see a tremendous growth in the small business and residential sectors, just in the last couple of years across the country that we haven't seen until recently and that's because market 1 thought?

> MR. WEISHAAR: How do we incent customers to use electricity. Well, basically, I think it boils you down to three policy options. You mandate efficiency standards and the Department of Energy has done that for certain devices or you encourage efficiency standards for certain devices.

Second option is to penalize via price where you expose retail customers directly to a wholesale price, whether it's price gapped at a thousand bucks or whether kind of escalate the price above a thousand bucks to say \$2,700 a megawatt hour.

Third option is to incent via price. And I think what I heard Dan saying is that retail competition gets fierce. Retail suppliers will come up with creative and inventive ways to focus on the third option which is to incent via price.

COMMISSIONER FOX: What do you think about that?

MR. WEISHAAR: I think looking at the retail industry what has happened with retail competition is --Dan is correct -- that for larger customers there is fairly fierce competition over the retail margin associated with competitive supply. So what profit the retail supplier takes out of the supply chain.

27 (Pages 102 to 105)

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Where we continue to struggle from industrial customer perspective is the underlying cost, the build-up cost before you put the retail margin on top, the cost of capacity, the underlying cost of energy and ancillary services and transmission, and that is where we have the concerns about whether we have a truly competitive environment.

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Certainly on the retail supplier side there is strong competition on the margin and suppliers have come to customers with creative ways to either structure 11 . the pricing or reduce consumption or change the load profile. And those are good things. And I think from a retail competitive standpoint that's correct.

Our underlying problem is with the wholesale level. So I'll leave it at that.

COMMISSIONER RANDALL: Commissioner. COMMISSIONER FIORDALISO: Jay, you looked like you were going for your mic.

MR. HORINE: I was simply going to add that the good news -- and if the topic is obstacles -- the good news is there are a lot of companies out there that are trying to help consumers and businesses better understand the money that they spend on electricity. And to me, it's a little bit like healthcare. You go 25 back 50 years, you didn't really think about one doctor

too young. But after the gasoline lines went away, 1 2 there was a little need for or little talk about an 3 energy policy. In the late '70s we're sitting in gasoline lines and talking about energy policy and there 4 5 was little need after the gasoline lines went away and 6 so on.

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And it got us talking again when somebody came up with something is happening to the earth. Well, since we all share the same piece of real estate that kind of perked people up a little bit. Well, maybe there is something happening to the earth and maybe we have to.

And that educational process goes along with that, in showing people how they can reduce that consumption. And it's a laborious effort because sometimes you think you're just touching one person at a time. And some of the scientists predictions, whether they're true or not, I don't know, but some of them are rather dire when you hear them. So how much time do we have in order to reverse certain things.

If I could just go on to one more question which kind of comes in since I have two financial people here, Citi Bank and JP Morgan -- they're still in business. Right? Yeah. Okay.

COMMISSIONER FOX: He's not laughing.

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versus another and how much did they charge and we're all learning a lot more about it because it's such a big part of what we all spend out of our own pocket. And the same thing for power.

I first say, Commissioner, I think that you

probably shut off a number of XBOXES and PlayStations when people go home tonight when they just found out what you said about them and their use of electricity, but the more people learn about the cost of electricity, the timing of the different cost, what various devices use in terms of electricity, I think there's an education process that is, you know, you're part and partial of, but it's attendant to a whole variety of people where if you look 5 or 10 or 15 years down the road I think people are going to be much better educated about the cost of electricity by device, what they use and the differences in timing. And I think that that just has to be an overall good thing. But there are a lot of companies out there trying to use technology to bring that to bear.

COMMISSIONER FIORDALISO: I agree. And that educational process, you know, it's been a very interesting process and some of us in this room are old enough to remember sitting in gasoline lines in the early '70s. I hadn't gotten my license because I was

Page 109 COMMISSIONER FIORDALISO: That was only a ioke. I don't know anything.

3 We've been -- ever since we initiated our SREC program here in the State of New Jersey we've been 4 5 trying to -- again going back to education -- educate financial institutions, banks, etcetera, on our SREC 6 7 program. And, unfortunately, somebody said before 8 timing. Well, timing is everything, isn't it? Because 9 when we initiated the program shortly thereafter the bottom fell out of the financial market and to try to 10 11 get people to loan money was like trying to get them to 12 sell their first born. And in many cases they probably would have done that before loaning money. 13 14

But it's been a difficult process and we've been working very closely with the Department of Banking and Insurance. Commissioner Considine has been extremely cooperative in getting us into venues that provide us an opportunity to explain the SREC program to potential lenders and so on. And Mike Winka and Scott and I have been going around and talking to banks and so on and there are some who are interested in it and so on.

That being said as a background -- and someone in the first panel talked about -- or right now -- I guess it was you, Ray, who talked about

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certainty. And obviously the greatest gift that any regulatory body can give is certainty and so on and that is what we have been trying to do as far as our SREC program is concerned and so on.

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Do you have any ideas on what we can do additionally to encourage lenders to become involved -and I'll just take the solar market as an example since I was talking about SRECs -- in lending money, in promoting long-term contracts -- that type of thing, any suggestions? And I know we only have a limited amount of time and you may have a very long answer, but it's something that's very important for the program. I think we're going in the right direction, but I'd like to hear from the experts.

MR. CHIN: I'm actually going to respond, not as somebody from the financial community. Since I cover equities my expertise in how to facilitate lending into the SREC market is probably not adequate. But I'm going to speak as a private New Jersey citizen because my wife and I purchased solar panels on our house two years ago.

And I remember it wasn't an easy decision for us because when you're debating about whether to buy 23 an asset that's the price of a very expensive car, for example, it's not a decision that you go into lightly

1 process with investors. Investors have a lot of options

2 for them to spend a bunch of time learning about

3 something that is relatively small market. It's

4 decision that they have to make. So I think there's a 5 balance of the time that you spend educating lenders,

the time that you spend educating investors, I'm sure

7 some of that will be frustrating to you, but I don't

8 know a better way to continue to work with, not only 9 yourselves, but with as many constituents as possible to

help explain the purpose, what it serves, the pros, the cons, and to your point, Brian, to try and simplify it.

COMMISSIONER FIORDALISO: So the step-by-step educational process, hitting that banker or lending institution one by one or in groups or whatever.

So you think we're going in right direction.

MR. HORINE: I don't have necessarily a better solution. It's not an easy solution, but I'm not sure I have a better solution.

COMMISSIONER RANDALL: In the interests of time, I realize a couple of my questions are actually just as suitable for the third panel so I am going to hold some of my thoughts for the final panel.

Commissioner Fox? Asselta?

COMMISSIONER FOX: The obstacle guys, but others feel free to jump in, but what do you think, each

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and you have to think about is this an investment for me that I can put towards alternate uses with my capital.

And what I found was on the educational process around describing the SREC to somebody who is not a financial professional is very difficult. My wife is far smarter than I am, but she is not a finance person. And for me to describe to her what an SREC was, I can't tell you how many dinner arguments I had. And when we tried to go on to state resources on the Internet to help explain what is this, how does this work, it was very, very difficult.

So whatever you can facilitate to help describe to the average homeowner how the SREC market works in very simplified terms will be something very helpful. I ended up having talked to a colleague at PSE&G who is our utility to give me a little bit of help in trying to explain it to my wife.

So that is more of a private citizen's point of view, but I think that would go a long way.

MR. HORINE: And I'm not an expert in financing, but I would echo what Brian said, that there's an education process and it's kind of like losing weight. You can't just go run 50 miles in one day and solve, you know, a little bit around your waist.

I think that it's an ongoing education

1 of you, is the major obstacle to generation being built 2 or -- and/or to demand resources being used better and 3 how much of it is financing and how much of it is 4 something else? 5

Please go left or right and then we'll go to the first panel guys.

MR. ALLEGRETTI: I think the biggest obstacle is really the fundamentals, supply and demand. The supply is already there. And if it weren't, I think people would be developing much more aggressively. I hear a lot of the developers, say, I've got to get a long-term contract, the market prices just aren't good enough. Well, the market is telling you your product isn't needed here and now. So I think the biggest obstacle is fundamentals.

On the demand side, it's a little bit different. I think we are working toward the implementation of price responsive demand programs. I know PJM has taken a very aggressive stance in trying to promote that. It's been a high priority for them. That's going to take some time. It's going to take some customer education. It's going to take prices too.

People respond to prices. It's a lot easier to get someone on time of use rate plan if you can really sit them down and show them how they're going to

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save money doing that, rather than just say, would you like one.

It's going to take some time. And it's education on the demand response side. On the supply side, the fundamentals have to catch up. The marketplace is just saying don't do it.

MR. HORINE: Yeah. I think that there's -- I think the issue -- and Brian laid it out nicely on his -- I think it was your first page, Brian, when you talked about. It takes a while to develop projects so the prices go along and all of a sudden you need resources.

I think the obstacles are an ongoing balance of how do you make sure that your constituents are able to get power at an affordable price and that you're incentivizing a new build, while at the same time people have adequate access to capital.

And some things may be, as you said, Commissioner, are outside of your control. You may be in the middle of a financial crisis. You may have people that are deciding to lend in other places.

So to me, I think you have to be mindful of what Daniel said. I think you also have to take into account that this is a competitive environment and people have the ability to put money here or elsewhere

supply and demand and the forward market signals that
are being given at this point in time. There are some
very locationalized needs that have been identified and
they've all been met.

As far as the demand response goes, I think what we have seen is a very successful demand response program. And I think what's been driving that is a clear response to the pricing signals that have been sent. The increase in New Jersey and in northern Public Service, in particular, if you consider how the capacity prices have evolved and what kind of response you see is a testament to that.

And I think even getting back to Commissioner Fiordaliso's question, how do you get people to respond appropriately, the underlying answer to everyone's statement was you send them the appropriate price signals. And just like any other consumer purchasing any other product, they're going to make a decision whether or not to consume at that point in time.

MR. WEISHAAR: I don't feel I'm qualified to speak on the generation aspects because I don't develop on generation, but certainly on the demand response I think the other panel hit the nail on the head.

The price needs to be right and customers

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to develop resources here or elsewhere and be mindful of sort of the proposition that you're offering them to be pretty transparent in your own mind about what are people going to get versus if they invest in other states or in other kinds resources.

MR. CHIN: I'm going to largely echo what Daniel and Jay have said. We think the commodity markets are giving the signal that now is not the right time to invest in generation. And like I said in my earlier comments, there's a little bit of myopia around the commodity and capacity markets relative to how long it takes to build generation and that's a policy issue that you have to balance.

But overall I think the commodity markets are giving off the appropriate signal. And that I wouldn't view as an obstacle. I'd view that as just proper capital allocation and efficiency.

On demand response I think I'd echo Daniel's and Jay's comments. It's more of an educational process in trying to develop policies where price responsiveness can be a better part of customer behavior.

But I'll leave it at that.

MR. DE PILLO: As far as obstacles, I see it as I stated earlier, that the number one obstacle, reiterating what was already said, is the fundamental

need to understand the price. We may have some differences in the panel. We certainly have differences at FERC about what price needs to be right means, whether that is cost avoidance on behalf of a customer or by a customer or whether that means compensation to the customer for engaging in demand response.

From our perspective taking RPM as a given, the demand response component of RPM has worked reasonably well. We have seen fairly, fairly healthy levels of demand response as part of the RPM construct. Again, it's getting into the question, is that cost-effective demand response, is that just a reaction to a bad situation, but put that aside.

Where we need to do further work is to just kind of reinvigorating demand response in the energy market. We had a pretty good year three or four years ago. We changed the compensation scheme. Demand response kind of withered away, and I think we need a reinvigoration of demand response in the energy market.

FERC has proposed a NOPR that we support. We think it's a right outcome. And we have to understand that that really plays into the capacity market too. If we get healthy levels of demand response in the energy market during peak load times, that impacts load forecast going forward, avoids the need for

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a gross-up for a reserve margin on those load forecasts. You get a lot of benefit from the capacity side by getting response right in the energy market.

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COMMISSIONER RANDALL: Commissioner. COMMISSIONER ASSELTA: Yes. Let me swing

this back to DEP and, Mr. Brubaker, thank you for your candidness, number one, and thank you for a renewed, let's say, vision for DEP that I haven't seen or heard in probably a decade out of that particular agency.

You mentioned some good things about obstacles and how to avoid, given time lines are important, and whoever is projected to build or operate new generation should take those new time lines into consideration, build in enough time, local consultants and support teams create a great suggestion.

I want to just focus on the one million acres of state owned preservation land that has obviously been created over the last 15, 20 years, and are you committing to looking forward and favorably on potential opportunities, let's say -- want to put this in a really concise way -- where these one million acres 22 could probably produce a public good issue, whether it's a utility wanting to do something on preservation land, whatever that is, laying pipe, laying lines, etcetera, 25 etcetera, but most importantly involving our nuclear

even the local governments didn't know that those lands were being purchased by DEP, consequently taken off tax rolls, etcetera, etcetera.

So getting back to my original question: Is this department and DEP committed to having a more fresher, open look at potentially using some of these one million acres for projects for the public good?

MR. BRUBAKER: I appreciate the question. I'm just not feeling like I'm prepared to respond to that level of the policy.

COMMISSIONER ASSELTA: But you're a land use guy. Look favorably on those projects as maybe you haven't looked in the past.

MR. BRUBAKER: Again, I can speak from experience and I'm glad to do that. We have committed and we are currently engaged with several energy projects that are traversing using these state lands. We are actively engaged. I am personally actively engaged in coordinating, facilitating, seeking to make those processes work to accomplish those, in that case, for the public good.

COMMISSIONER ASSELTA: That's a commitment in my eyes.

MR. BRUBAKER: Yes.

COMMISSIONER ASSELTA: Thank you.

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facility and not only Oyster Creek that has a current problem, but potentially the expansion on Pope Creek and Salem operation down there is going to need DEP approvals down the road and your help.

So my question very simply is: Are you committed and is this administration committed to working hand-in-hand, glove-to-hand with the utilities on these issues?

MR. BRUBAKER: The answer would be yes. I'm not commenting about the agency's position on Salem nuclear power or anything else, but I can speak mostly from my experience. The issue is a little different. It's not so much when we talk about public land, we talk about green acres land, we talk about state parks, traversing them, using them, it's more of an ownership issue really than an environmental issue. These are lands that are owned by the citizens of New Jersey and there are very public processes in place that would allow the diversion of those lands for any kind of --

COMMISSIONER ASSELTA: Let me dig into that, drill down because the citizens do own these lands. They paid for it through tax dollars. But as you well know, over the course of the last ten years many of those purchase properties the citizens of a particular town didn't even know they were purchased. Sometimes Page 121

MR. BRUBAKER: Thank you.

COMMISSIONER RANDALL: That's why you got to get back to the office, working on it.

Commissioner. And then we're going to go to staff with the last question.

COMMISSIONER FOX: This is for Mr. DePillo from Public Service, and obviously other people comment.

I think you said we have more supply than demand. And then could you expand on that because I think a lot of people wouldn't agree with that because we're importing. We have more supply and it's costing us a lot of money because of RPM. And then, secondly, you mentioned twice there's peak demand in specific areas and it's being dealt with or something.

Could you identify those areas and how it's being dealt with?

MR. DE PILLO: Sure. Thank you.

First of all, let me start off with the 19 overall supply and demand picture. As you look at a region-wide system like PJM, what you'll see going through the various RPM results reserve margins is 22 basically in excess of 20 percent. Typically, they 23 could be somewhere in the 15-to-18-percent range to solve their reliability criteria. So the market is generically wrong.

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Now, if you want to look at just the State of New Jersey, the State of New Jersey, whether or not it's an importer or an exporter is really a function of the underlying economics. The State of New Jersey should be perfectly happy to be an importer if they can procure energy from cheaper sources outside the region. It's in the best interests of the customers. It's in the best interests of the state to do those kinds of things. So I think that that's actually a function of the markets working.

And when I say that we've had some signs of tightness -- I believe Mr. Kormos referred to it in the first panel -- if you look back at the '12/'13 capacity auction, the northern Public Service region did separate. There was some need for additional resources in that particular market relative to the rest of the region.

17 18 If you come -- move a year forward into the 19 '13/'14 auction, that separation was basically taken 20 away and we looked at potentially some needs in a larger 21 region being Eastern MAAC and Olive MAAC. The market 22 also responded to those signals basically supplying both regions below -- putting more supply in those regions 23 24 than -- than was the initial reliability requirement 25 established. So that those two were fully satisfied.

Southeastern Pennsylvania. And because of the RPM, our 2 businesses and homeowners are being killed. MR. DE PILLO: I wouldn't necessarily go

3 4 that far, Commissioner Fox. I think what I would say is that the reliability requirement has been met and there 5 certainly are price differentials as there has been 6 throughout the existence of PJM and competitive electricity markets. And I also wouldn't go beyond and say that the customers are getting killed. I mean when you think about the capacity component of the customer 10 11 bill, now we're getting back into the overall BGS 12 process. Yes, on their face the capacity payments themselves look very high because you talk about numbers 13 of \$200 a megawatt day. In essence, for having that 14 15 reliability the capacity component, including the 16 reserve margin makes up less than 20 percent of the generation component of the BGS bill. So it's a very 17 18 small component of the overall energy picture.

COMMISSIONER FOX: We still are losing business to across the river where they have coal generation and they don't have the higher RPM. MR. DE PILLO: Believe me, no one is more interested in preserving jobs and bringing business to the State of New Jersey than we are. We directly

benefit from that and we encourage any solutions that

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from a reliability perspective.

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So that's basically what I mean. And even if you think about the response that you've seen, the response has been pretty diverse. You've seen a lot of response to the price signals from demand response. That has become a viable source of competitive supply at this point and you've seen new generation also proposed and clearing in these markets so.

COMMISSIONER RANDALL: Any other questions? COMMISSIONER FOX: Why is the cost higher here then?

MR. DE PILLO: The cost is higher here because what we are doing -- what basically is happening is there is a need for some level of resource commitment in this region to help meet that reliability requirement. So we are paying for those incremental megawatts to help support this region and subsequently the largest oversupply sits out in the west or what they would refer to as the rest of RTO where you're seeing capacity prices clearing and the \$20 type megawatt day showing that there's a great oversupply in those regions.

COMMISSIONER FOX: So your statement about we have more supply than demand is obviously PJM-wide. It certainly isn't relevant to New Jersey or Delaware or

would help do that.

COMMISSIONER FOX: Commissioner, can I see if any other panelists have any other comments on that? COMMISSIONER RANDALL: Sure.

Comments on that?

Then if there's nothing else, we do have one staff question from Mr. Perrotti.

MR. PERROTTI: Thank you, Commissioner.

Assuming that the PJM dissertation is correct this morning -- and I know Commissioner Fox just mentioned it -- that supply is in excess of demand. And then I also heard in the second panel that because of that the commodity's market isn't really ready to invest in the generation and there was this term out-of-market generation that I heard this morning.

Assuming a developer decided to develop some out-of-market generation, how does that impact rates and how does that cost of developing that generation compare to generation that may be existing in today's markets?

MR. ALLEGRETTI: A story from the Nutmea State. In Connecticut, the State of Connecticut decided to go out and enter into a bilateral contract to procure capacity and to pay for that capacity at a rate that was irrespective of the price of capacity in New England's forward capacity market which is analogous to RPM. In

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New England new entry, new capacity sets the clearing price for all capacity in the auction.

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And by entering into a bilateral contract and bidding it into the auction at zero, they were able to manipulate down the price of capacity region-wide. Hooray. Lower prices for everyone.

The problem is it completely undermines the goal of the forward capacity market which is to sustain and to promote an adequate level of capacity across the region. And it creates the need for new capacity additions to all of the out-of-market because the market is no longer functioning. And pretty soon you have D lists and retirements occurring because the market is not functioning because someone has manipulated it down.

This resulted in the need for New England to 16 revisit the market design of its forward capacity market and to develop an alternate price rule to address these out-of-market type purchases in order to sustain capacity market prices at the appropriate market based levels. They made a filing with the FERC which is currently pending and we will certainly see the outcome of that.

But that is I think a cautionary tale of what can happen if you begin to go down the road of developing out-of-market solutions in the hope of

In their attempts to try and suppress prices 1 2 what we've seen is the capacity market results have 3 shown no noticeable difference as to whether that capacity existed or did not exist. They cleared at the 5 floor with significant excess beyond what was procured 6 by the State of Connecticut so zero impact there. 7

The energy markets they built primarily peaking and combined cycle units in the State of New Jersey, none of which has gone commercial yet. However, the general prices in New England are set far and wide on combined cycle economics. So you're not going to see any real price relief in the energy markets from these investments either.

What you will see is customer rates increasing as a result in the State of Connecticut. 15 Where most retail states have seen price declines over the past year and a half, Connecticut is one of the very few regions that have seen their prices go up. And that is primarily because of their funding of the quick balances to these, increasing fixed cost to the customer. And this is not even with those projects going fully into service. The rates are going to increase again further as the projects come into service and go commercial in the coming years.

COMMISSIONER FOX: In Connecticut they use

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creating a near-term price effect. You fundamentally undermine your long-term reliability and investment and then that's a bad thing.

MR. PERROTTI: Left to right if you could. COMMISSIONER RANDALL: Any other comment? I know Mr. DePillo wants to talk about Connecticut.

MR. DE PILLO: Well, I do -- having a large generation presence in the State of Connecticut and actually having responded to one of the out-of-market RFPs and one we are currently developing a facility in Connecticut, I do feel I should give a little bit of background on that market as well, and I agree with everything Mr. Allegretti said.

In particular, I personally view the Connecticut market as an attractive market from a generation development standpoint. It's generation fleet is older and less efficient than what exists in New Jersey. The transmission infrastructure is not as robust.

It's set up to be a nice market to invest in as a merchant generation developer, except for the fact that the state has decided that it will offer out-of-market contracts as it sees fit to help meet demand and potentially try to suppress prices.

construction work in progress, ratepayers pay for it.

2 MR. DE PILLO: There is some contemporaneous 3 recovery on the investments made in the State of 4 Connecticut, much like other regulated structures.

COMMISSIONER FOX: Wow.

COMMISSIONER RANDALL: Any other comments on the original question?

Yes.

MR. CHIN: When we were looking at the State of Maryland go through this question of do we try to backstop out-of-market contracts, what we observed from 12 the equity capital markets was investors that owned generation in Maryland started to wonder, well, wait a second, I had invested in this company under the view that although energy markets are below what is necessary 16 to facilitate new construction that at some point if the markets and the regulatory processes are certain, that margins would rise high enough and I would get a price signal and I would be a beneficiary of putting my capital at risk and buying preexisting assets. Those margins would rise, my assets profitability would rise, and ultimately the market would help set a price that would clear to facilitate new construction.

When the State of Maryland started to investigate and the legislature started to propose doing Page 130 out-of-market contracts, that whole construct came into question. And if you didn't have any degree of certainty that the state would hold to a competitive market structure, then the investment question became why am I owning or holding onto an asset that may not ultimately recover those replacement cost economics down the road. Instead this might be a stranded asset, maybe it's better for the company to not own that asset. Take that ongoing cash cost and deploy it somewhere else, maybe give it back to investors and shutdown the asset.

So you can see very quickly the investment mindset starting to change as we started to follow these legislative proposals. And so I think any sort of move in that direction may seem like the right idea to get generation in the ground now, but ultimately it undermines your ability to attract capital down the road.

Like one of the other panelists said, you start having to provide that preferential treatment to all the generation new capacity that's coming in and the preexisting investors are going to start looking at maybe we shouldn't continue to own our asset, maybe we should actually mothball that asset.

So it's a fine line that you've got to walk.

It's unfortunately tough policy choice to make, but I do

That doesn't mean that we don't have a lot of work to do on the capacity mechanism that exists in PJM. We do. But to say that the solution to that is start going down a path of one-off contracts from a customer perspective is not I think an optimal outcome.

Packaged with that and sort of an alternative issue is, if the state does go down that path — and I think Mr. Perrotti's question raised the issue of cost allocation. How do you recover the cost of one-off contracts if you decide to go down that path.

I think you have to look very carefully or answer the question: For which customers are you procuring the capacity? If you're procuring it for BGS fixed price customers, then the cost should be allocated to BGS fixed price customers. But you have to have some idea of customer base for which you're procuring the capacity. The cost then needs to be allocated to those customers.

The idea that you would just procure capacity and then allocate the costs across all customers in New Jersey irrespective of whether customers are individually paying for RPM I think is a difficult outcome for a lot of customers.

So those are my thoughts from a customer perspective.

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think that you do heavily undermine the integrity of the markets if you start moving in that direction.

COMMISSIONER RANDALL: Thank you.

And I think this is the final question before the break.

MR. WEISHAAR: I would like to try to unpack Mr. Perrotti's question. I think there was a lot packaged into that question.

I think the core of the question is, should the state procure capacity on a one-off basis, look at a particular project and procure on a one-off basis.

From a customer perspective, our strong preference is that we get the market correct on a regional basis. And I think there are a lot of efficiencies to be gained and delivered to customers if we utilize competition as much as we possibly can to procure capacity on a regional basis.

I think there are a long series of potential pitfalls with one-off contracts. For example: Is there really a need? How do you structure the contract? For which customers are you procuring the capacity? What happens if the project fails? What's the appropriate length of the contract? A myriad of questions that need to be thoroughly analyzed and answered before the state takes on the challenge of a one-off contract.

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COMMISSIONER RANDALL: Thank you.

Our economist, Mark Beyer.

MR. BEYER: I'll ask the question. I'm not sure we'll have time to get the answer.

Commissioner Fox talked about why isn't generation being built, and you look at supply and demand and all the things that go into an investment decision are complex: What will your competitor; can you get the permits.

Where in that hierarchy does the potential for an out-of-market solution fit in? Is there something that that potential would cause you not to move forward? And if that is the case, would a possible policy perspective be for the regulatory body to say we do not support out-of-market solutions, we prefer to see the market ensure that supply and demand is brought into balance?

MR. DE PILLO: I'll just speak from our personal experience. The way we would view investment is much like we do in Connecticut. And I mentioned the Connecticut market as being a fairly attractive market for a merchant development. But I will also go on the record and say is we cannot recommend developing anything in the State of Connecticut on a merchant basis to our board or our other senior managers primarily

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because you've got this constant threat of the overhand of some other non-market based solution dropping in and basically destroying the economics that you relied upon in making that investment decision.

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So I think from our perspective if you're going to adopt the merchant model and continue to believe the benefits of the merchant model, I think you are exactly right: One of the best things that this commission can do is reenforce that particular view and support generation development on a merchant basis in the state.

MR. ALLEGRETTI: I couldn't tell you just exactly where the tipping point is, but certainly New Jersey competes with 49 other states for allocation of capital, for national, and multi-national firms that look to develop these plants. And the stronger the commitment is to market principles and the less precedent there is for out-of-market options, the higher 19 up that list New Jersey moves and the more likely it is to attract capital for merchant investors like ourselves.

21 COMMISSIONER RANDALL: Thank you. 22 23 Thank you all. 1:20, we will see you all. 24 then. Appreciate your time and your continuing 25 attendance.

Light. MR. BORDEN: Mike Borden with Comverge. We're a demand response company. I'm a business

developer for Comverge.

MR. LA ROSSA: Ralph LaRossa, with PSE&G. I'm hoping the lights stay on here today.

MS. BRAND: Stefanie Brand. The the acting public advocate for another couple of days, but you all know me as the Director of the Division of Rate Counsel.

MS. KIMBALL: I'm Ivan kimbelt with Con-Edison. I'm the director of electricity supply for Con Ed and I also do the same function for Orange and Rockland utilities representing Rockland Electric today.

MR. HOATSON: I'm Tom Hoatson with LS Power Development.

COMMISSIONER RANDALL: TUBBLE YOU all. Got a big group and some good an activate to cover this afternoon. We'll try and keep of schedule, but I invite the new participants to number of remarks they would like to make, beginning will be rate counsel.

Thank you.

MS. BRAND: Thank you, Continues oners. I don't necessarily want to some the old Monty Python guys, but I'm going and now

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(A lunch recess is taken.)

COMMISSIONER RANDALL: Good afternoon, everyone. If we can get ready for our final panel for the day.

Preliminary, I'm advised that if you sign the sheet that was circulated for attendees, we will put you on our distribution list for the e-mail version of the handouts that have been referred to by our panelists.

Where is that handout sheet available, Frank? Do you have that available?

MR. PERROTTI: By both sides.

COMMISSIONER RANDALL: Each side. And we

14 will automatically put you on our distribution list. 15

Thank you.

Good afternoon gentlemen and Stefanie.

Thank you.

MS. BRAND: A creature all her own. Right?

COMMISSIONER RANDALL: If I can thank those

20 returning panelist and briefly go around asking for name and affiliation of our new participants. 21

MR. BARRAR: I'm Jack Barrar. I'm with PHI Service Company but representing Atlantic City Electric.

MR. STATHIS: Dean Stathis with FirstEnergy

Service Company representing Jersey Central Power &

1 for something completely different.

I have to tell you listening this me and, you know, I learned a lot, but I also have to tell you that from where I sit and for the people that I represent, we do not agree that everything is just working fine.

What we know is that New Jarsey is in the top ten states in terms of overall energy paties, that people are having difficulty paying their cleanic bills, especially in the recession. I don't necessarily profess to have the solutions. It was a little bit daunting actually to be on a panel called Solutions because I don't think any of us really have all the solutions, but I would encourage you to start with that.

We know there's a problem. You know, I guess a lot of the panelists this morning dign't think there was a problem; but I will tell you that from the perspective of the ratepayers of this state, we know there is a problem. It may be due to the fact that we have insufficient capacity. It may be due to transmission issues. It may be due to congestion. It may be due to the fact that we border New York which is not within our ISO but has higher prices so it's very easy to build a line under the river. It could be all of those things.

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And what I would ask is that we focus on 2 , identifying the problem and then looking at the 3 solutions.

Long term contracts -- I also -- I quess 5 would challenge the assumption this morning that 6. long-term contracts are some form of out-of-market tool. 7 I think they are within the market.

8. When economic actors negotiate a contract or 9. start to look for a -- through a competitive process of 10 some sort for the best deal that they can get it is a 11 market tool. It may be outside of the market that we 120 have been utilizing, this three-year market, but it's 43 just a different market tool. And it may be one that 14 will help provide, you know, for a portion of our BGS 15 needs at a price that is more stable and potentially 16 cheaper.

17d ma I also challenge some of the statements that 18, were said this morning that you can't pull out a 199 thousand megawatts and try to see if you can procure it 20 othrough a long-term arrangement because that's actually

21 precisely what we are doing with solar. We are seeing 22 long-term contracts, enabling the development of solar.

.23 Hopefully, that will end up being another 24 generation supply for the State of New Jersey and it has 25. been used in other states and it hasn't brought the

2 that New Jersey ratepayers are going to get the benefit 3 of that and it doesn't necessarily mean that it's going 4 to contribute to solving our capacity needs. And, you 5 know, make no mistake, the capacity auctions in this 6 area have been through the roof. They have been through 7 the roof. And I don't think anyone can argue with that.

And it may be that it's only 20 percent of our commodity portion, but that is still a big chunk and that is still something that's contributing to the fact that New Jersey's electricity prices are in the top ten in the country.

It was a \$11.64 per megawatt hour for the 2012/2013

planning period. The 2013/2014 we jumped to 20,42.

We did also hear this morning that we don't know what facilities are going to retire in the next several years. We don't know what's going to go to New York in the next several years. We don't know what's going to be built in the next several years. And yet we keep hearing, don't worry, everything is fine in terms of supply.

And I, for one, am skeptical about that. It's probably true we will not have broad-scale blackouts. Yes, we will meet our demand and that's fine. And what at price? And I think that is really

Page 139

1 market to a crash.

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2 What it may have done is create a tougher 3 competitive market where some of economic actors who are

4. really doing very well in this current market and that

15/11/may be why they think it's working fine. It may be that 6 it will result in some more competition and some lower

prices. But I think lower prices are good. I don't

8. think that they are something that we should look at as

9. a negative that somehow deflates the market.

I did want to talk a little bit about, you 10: 11 know, some of the information that we got this morning

12 in terms of new supply and how we're not having a 13 difficulty in terms of the amount of supply. And, you

14 know, point out that looking at Slide 4 of the PJM

15 presentation -- I'm sorry -- I didn't bring my own

16 slides today, decided to just talk -- a large portion or

17 a number of the items on that list are, in fact,

18 dedicated to New York.

19 For example, the 1,100 megawatts that went 20 online in 2006 is mostly from the Linden Cogeneration

21 Facility which is dedicated to New York. Some of the

22 357 megawatts that went on in 2008 are the

23 Sayreville/Parlin facility which is also dedicated to

24 New York.

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So while these may be in New Jersey and they

Page 141 the question. We may have adequate supply so that the lights don't go out, thanks to some of my colleagues sitting around me. But the real question is at what price.

And I also wanted to focus on a question that Commissioner Fox asked which was, you know, how do we make sure that when we, for example, build transmission facilities near a plant that's going out, how do we make sure the ratepayers get their money's worth and they have the ability to utilize those facilities. And the answer, well, we hear that in Maine apparently all worked out for the best. The fact is we have no ability to make sure of that.

The only power that the customer's play through in this scenario is through their power of purchasing. We are the ones who are buying the commodity and the only way we can influence in order to make sure that we get the best we can get is through our purchasing power. And that means looking at whether or not offering up a long-term contract, doing a competitive solicitation for a long-term contract is something that might yield through our purchasing power -- this is what I'm sure the industrial customers are doing, what large customers are doing when they go out and shop, whether it makes sense for us to look at

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whether we should take a small piece of this, do a competitive solicitation and see if we can use purchasing power as a way to get a better deal.

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No one, including rate counsel -- maybe some people but not rate counsel -- are arguing that we should throw the auction out the window or that we should make radicle changes to way we do business here in New Jersey, but we do think that we might be able to improve upon this process and get a contract or get something that will help bring prices down.

I think that's a good thing. I don't think it's something that should be discouraged. It's something that should be encouraged.

COMMISSIONER RANDALL: Mr. Borden from Comverge.

MR. BORDEN: Can people hear me?

COMMISSIONER RANDALL: No. If you can turn that on and keep it close. That's it.

MR. BORDEN: Okay. I tend to talk real loud

because I don't hear that well anyway.

I provided a handout. I'm not going to wander through the whole thing in the spirit of limited

23 time and limited ideas -- not limited ideas, but trying 24

to get to a few ideas. I'm going to react to a few of

25 the things -- I'm going to confine my remarks to a few

I wish I had all the business, but we don't and that's fine.

3 But in Maryland and in Pennsylvania now -on Maryland first and then Pennsylvania -- through the Act 129 implementation, those commissions are forcing --6 forcing is probably too strong of a word -- but those 7 utilities to forward sell the capacity they create in those programs into the PJM markets. 9

I doubt that you guys have forced your utilities to do that yet since you just got around to approving them recently.

So for PJM to take the view that maybe we're at the saturation point sort of excludes five, six, seven, 800 megawatts of New Jersey demand response that hasn't even hit the market yet. All right. So I want to just leave that as a question.

I also am aware that if I take a look at the forward pricing -- and I'm a megawatt guy and dollar per megawatt or dollar per kilowatt year kind of pricing quy so I'm going to bounce back and forth a little bit between the PJM price -- the PJM price is in dollar per megawatt day. That doesn't mean anything to a former power trader like myself. I speak in megawatt hours and kilowatt to kilowatt year. So bear with me on a translation.

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of the things I heard earlier today and at least one thing I expect to hear on this panel from a more conventional supply development perspective. Okay.

It's not very controversial today. It's certainly in the mid-Atlantic that demand response plays a huge role in the future capacity situation for the mid-Atlantic states. That's pretty much conventional wisdom these days.

But I do want to react to a statement I heard about -- in PJM that we may be getting near a saturation point for -- these are my words but the direct load control bearing of demand response, which, I don't want to use too many acronyms, but the ILR programs of the past which I think maybe were ALM before 14

And the reason why I want to say that, that's questionable whether PJM is at a saturation point there. I'm sitting next to three utilities here who are at the very beginning of the stages of revamping the demand response programs for residential and small commercial customers and they're all going to be big programs and we're hoping they're all going to be great programs.

Comverge happens to be contracting with PHI 25 for Atlantic City. We have a turnkey contract with PHI. Page 145

The 2013/'14 forward capacity price for 1 2 summer of 2013/'14 is roughly \$89 per kilowatt year and all I've done there is taken the price of I think it's \$245 per megawatt day, converted that with a .356 factor, forget gross-ups and losses. You know, at this 6 level that's good enough. It's about \$90 a kilowatt 7 year.

If you look at the underpinning of that, part of that is the cost of new entry that was used in determining the market clearing prices and that I believe was \$132 per kilowatt year, gross number for cost of new entry for I believe what is interpreted to be a peaking power plant.

I would like to say right now that those prices suggest to me, if those prices are sustained, that demand response doesn't need any help from anybody to make it in that market. And I believe the same cannot be said of conventional peaking generation. All right. Because simply the \$90 is too small compared to the \$132. And when that turns around, who knows.

I believe without seeing the costs of all these programs, right, that at \$90 a kilowatt year. you're not going to see a whole lot of merchant demand response development; but through contracting with the utilities under competitive solicitations, you should be

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able to get residential and small commercial demand response to fit in underneath the \$90, possibly including any incentive payments you want.

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I don't think you can get away with \$120 per summer season kind of incentive payment that I believe PECO is prepared to pay, but there's a whole different circumstance there.

But I believe that the forward markets that we see right now, if sustained, are great for the development of demand response resources of the old kind and any new kind.

There was some discussion -- the PJM comment had to do with, well, getting saturation with direct load control but would rather see more price responsive demand response. I think the good news here is that the same infrastructure you build for direct load control will also apply to price responsive, at least in the residential/small commercial sector.

If PSE&G, JCP&L, and Atlantic City Electric put in smart thermostats, you know, that's the same infrastructure you're going to need for price response. And I'm guessing and we're pretty sure that based on some previous experiences that if you're going to get 1 kilowatt per switch or smart thermostat out of a 25 direct load program cycle and get 50 percent or 2 or 3

Page 148 You're going have a 500 megawatt combined cycle peaking plant, you're going to have 15, 20 people full-time. You'll have a larger permanent workforce with demand response of the residential/small commercial kind than you will with a combined cycle.

And we can talk about this on the panel, but I think I probably overstepped my bounds in terms of the amount of talking. Aren't you glad I didn't read it? You can read it on your own. You can get back to me with any questions.

Thank you.

COMMISSIONER RANDALL: Thank you. Mr. Hoatson. Good afternoon.

MR. HOATSON: Good afternoon. And thank you, Commissioner, and thank the Board and staff, Frank Perrotti and Victoria Fisher, who I don't know, for putting this thing together. I thought this morning's panels were wonderful, a lot of good information.

Like Stefanie, I probably disagree with a lot that was said this morning and I'd like to just address some comments of some things that were put out in front of us this morning.

As a developer of generation projects, I find it difficult that people suggest that there's no need for new generation in New Jersey. If it's not

Page 147

degree temperature setback, you're going to get more kilowatts out of the same home as you go to price response because they'll essentially be cycling themselves at 100 percent.

The one last point I want to make is that 6 the -- for -- if you want to compare the local employment effects of a demand response program, especially the residential/small commercial program where you're installing devices. Right. The same isn't true of C&I demand response for the most part by the way.

You're going to have I think relatively a larger local employment effect for demand and response program. Say, 500 megawatts, you put 500 megawatts of residential/small commercial demand response in New 15 Jersey, you're going to have larger and more local employment effects than you will with a combined cycle 18 natural gas plant. That's both into the construction 19 phase, especially if you do a two-year ramp-up to the 20 500 megawatts in demand response. That's about 250 to 21 300 people full-time putting in devices. You also have 22 a longer -- you'll also have 50 to 60 full-time employee effect on permanent employment, especially if you're

going to do term management. In other words, you

maintain a steady state.

Page 149 needed at \$245 a megawatt day, I don't know how high the

2 price needs to go to incent new generation. And,

3 remember, that \$245 a megawatt day, there were 2 and a

half percent of the load was withheld from this auction. 4

5 So I would assume that would have been above \$300 if

6 that 2 and a half percent wasn't withheld out of the 7 auction.

So the pricing signal is there. Take it from a developer that has 20,000 megawatts of development and power plants in their portfolio at one time or another.

The other interesting thing is the entire state cleared as one price, this RPM auction. Last year it brought out earlier -- I think maybe Mr. DePillo brought it out that the state separated, Northern New Jersey, northern PSE&G, separated that price higher than the rest of the state.

This past auction the price cleared as one 19 with all of EMAAC at a price even higher than where PSE&G north cleared last year, which indicates the capacity situation is getting worse, it's not localized. It's the entire. State, in fact, it's the entire eastern part of PJM.

Again, as a generation developer, I am ready 25 to do the deal at \$245 a megawatt day if anyone's

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interested. The issue is not the price. The issue is the term. RPM still only allows a developer such as ourself one year of revenue. There is a possibility to get three years. The hurdles to get over that are very, very difficult. One of the more barriers to do entry that RPM provides.

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And I just don't know -- I agree with what Bob, my friend, Bob, said this morning, I don't know how high this price has to go before we incent people to build. As I said, I'm ready to do it at the price you see today. So price isn't the issue.

I guess it's got to go extremely high. I don't know where it is. But certainly from our perspective it's there now.

RPM has done an excellent job of incenting DR. I take an issue with the gentleman from Comverge. If you look at the new saturation level that PJM is proposing this past RPM auction, they actually overprocured DR in MAAC relative to that saturation point that they proposed. I don't think there's any room to meet our capacity demands in the capacity market at least through additional DR.

23 Price responsive demand I think is the way 24 to go. That's probably going to be very, very effective 25 in supporting DR going forward. There's been talk, as

And I think, as the gentleman from PJM explained this morning, there's the potential for many, many more retirements, either in New Jersey or even across the entire footprint of PJM. We heard numbers of 11,000 megawatts at risk of having to retire because of either environmental issues or just the market can't sustain those units. Very risky to the State of New Jersey.

Agree also with the regulatory uncertainty. That's a big obstacle for someone such as ourself to develop a power plant. Maryland and Pennsylvania, much like the State of New Jersey is doing today, they're looking at what they want to do to fix this to RPM.

They see the issues of generation not getting built. As RPM prices go higher, I would expect more activity from some of the commissions in the surrounding area looking at RPM, you know, RPM may go away in the future.

Again, it's a regulatory risk that someone such as ourselves cannot build a power plant recognizing the risk that's out there.

Changing RPM is the solution. We tried it about two years ago. We filed with FERC to extend the new entry pricing from the three years. We requested a 10-year term. PJM supported a seven-year term. I

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Stefanie mentioned, 4,000 megawatts added in New Jersey 2 I guess it is. I looked at the data. That goes back to 3 1997. So that's anywhere from 10 to 13 years. I 4 noticed most of it was built before RPM came in. Most 5 of it was built before 2007. I would assume a lot of 6 that was built with some form of a longer term contract than one year, maybe even a longer term contract than 7 8 three years. I would argue it's probably a long-term 9 contract of the some sort, be it a specific contract, a 10 toll or some other mechanism, but there is a term to it and it's much longer than what's available in the market 11 12 today.

And the market -- financial markets are vastly different than they were ten years ago, five years ago, even three years ago. Vastly different. You can't support financing a generation plant on a one-year. You just can't do it now. The markets are 18 vastly different. We saw the economy turn. We saw the credit markets turn. It's a whole different environment out there trying to get project financing to build a high intense project such as a new generation station.

We're also seeing more retirements than additions. This past auction was very revealing again, almost a thousand megawatts didn't clear, 900 plus or something retired.

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believe the BPU was supportive of that longer term and filed accordingly. Unfortunately, FERC turned that down. So we're still stuck with a three-year term which from our perspective just doesn't do it.

And I touched on the biggest obstacle to us, which wasn't discussed in a previous panel unfortunately and we'll provide some written comments along these lines is project financing. A developer such as ourself requires projects financing and that requires a long-term revenue stream that's quite transparent and visible. Again, in today's market you just can't get the financing on a one-year term or even a three-year term that RPM offers.

And, of course, BGS is a whole different animal. It doesn't incent new generation at all because it's a whole different product, a whole different structure. It's very effective in what it wants to do; but as far as incenting new generation in the state, it just doesn't work at this point.

We do have specific ideas on how to solve this, Commissioner. We'll be putting a detailed proposal together as part of our final comments that we'll issue. It does deal with slightly modifying the BGS auction to put a piece of it into a separate auction for a long-term contract at 15 years with the local

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utilities. We think that's probably the only way you're going to incent new generation. It's not out-of-market. It's a market.

If anything is out-of-market, one can argue RPM is. You have an administratively determined cost of new entry and an administratively determined demand curve, and that's a market.

I mean the purest market to me is you go out to market and you say, here, how much are you going to charge to build this plant, and we come back and say here is what it's going to cost you. That's the market to me. You have administrative controls over a market, I question the effectiveness of the market.

So as I mentioned, Commissioner, we will be submitting some formal comments. We're going to address the obstacles that aren't addressed this morning. We're also going to address a very specific solution that we feel will work for the State of New Jersey, incent new generation, get the generation built, put pressure on RPM prices, put pressure on energy prices, create jobs, create taxes, and help the state move forward.

22 Thank you.

COMMISSIONER RANDALL: Thank you.

Now, we hear from the companies.

25 Mr. Kimball.

current rules for RPM don't provide for a longer term
 contract and the utilities are reaching those agreements
 with power producers or generators, then the rest of the
 market is going to react.

I think the presentation by Mr. Meehan earlier touched on some of the unintended consequences you get with out-of-market contracts. I detail some of the issues in my comments on that. So I guess I am speaking off-the-cuff, as opposed to going through my comments here.

And I guess one of the other things I didn't go into a lot of detail in my comments and maybe just kind of wrap-up my comments because, as I think Mike mentioned, you can read the comments later, and that is another comment in terms of the regulatory risks that the generators have for changes to the marketplace, and we feel like contracts between utilities and generators almost exclusively shift that regulatory risk to the utilities because there seems to be an asymmetrical pressure on changes to the market and who bears those costs when long-term contracts exist between the utility and a generator.

I think the logical progression is, well, if the generator was built, it must have been needed for reliability. And if the utility doesn't allow the

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MS. KIMBALL: Thank you.

I guess the easiest thing for me to do is just go through my comments here. I have them written and I'm not really as prepared to speak off-the-cuff as the other panelist here.

I guess just to summarize, we have issues with long-term contracts at Con Edison. We have long-term contracts that are currently above market and that causes a lot of heartache for us.

I would tend to agree with Mr. Hoatson that if the market structure is changed to allow a 15-year contract as part of the market, then it's not out-of-market. But if the market structure is RPM and there's a separate contract between a utility and a producer, I would argue that is out-of-market. So I want to --

MR. HOATSON: Semantics.

MS. KIMBALL: Right. Semantics.

But I think one of the things I touched on in my comments is that the market is going to respond to what happens surrounding the market. So if the market rules change to allow transparency in the market to observe what happens in a 15-year contract within the market construct, then all the market participants are

market construct, then all the market participants going to react to that construct; whereas, if the 1 generator to add on these additional costs above the contract terms and they're unable to continue

financially, that would be a reliability risk and

4 something that's not good for the customers.

5 But we don't see there's a commens.

But we don't see there's a commensurate benefit to utility customers if there are changes in the marketplace that would tend to benefit the customers in allowing a restructuring or change to the market contract that would then provide those benefits to the customers.

So I guess I'll keep that as my summary of the comments that we have here and keep the comment short.

COMMISSIONER RANDALL: Thank you.

Jersey Central Power & Light.

MR. STATHIS: Yes. Thank you.

Dean Stathis of FirstEnergy representing Jersey Central, and I want to thank the commission for allowing Jersey Central to comment today on this very important matter.

I think we'd like to advance three themes today. Each theme is grounded in a business reality at Jersey Central. Let's go over those realities first before we get into the themes.

As a lot of people know here at FirstEnergy,

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Jersey Central is a wires company. We own only 200 megawatts of storage so we own very little company-owned generation.

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The second business reality is we have a very large NUG portfolio and it's overmarket and this is something that is a detriment to the balance sheet and to our credit rating.

The third business reality is that we have a very peaky load shape. Even though, if I have my numbers right, we set a record peak in 2006 when the economy was humming and there was actually a hot summer and it was 6,702 megawatts. And back last year we had one of the worst recessions, we had a cool summer and that number dropped almost a thousand megawatts to 57 and change.

An interesting piece of that though is even with that activity our load shape from valley to trough actually has been consistently moving up so we are actually becoming a more peaky utility.

So those are these business realities which 21 drive the three themes here today.

22 The first is because we are a wires company, 23 we rely on the market. We rely on BGS. We rely on RPM. We rely RTEP to help relieve congestion. We believe those constructs and those markets are working well. 25

restructuring in the first place. They actually 2 shift -- shift risk to the ratepayer and not to the 3 merchant and we believe we need to make sure we are trying to bring market solutions to the forefront and 5 that would in my mind would be a step backward.

The other thing I'll note we have had instances, as we have had a fairly large portfolio, we have had some of these long-term contracts reach expiration and, guess what, some of the plants no longer turn merchant, they were mothball.

So it's not a guarantee. It's not proven to be a working instrument that would bring long-term solution to the generation issue.

Finally, the peakiness. We are happy with companies like Comverge and others to supply some of these solutions because we think there's tremendous opportunity at Jersey Central Power & Light to apply a lot of demand response programs and also renewables.

We've had a tremendous response to the renewable program that NERA is running and we're running in conjunction with Atlantic Electric so much so that we've had to reorganize our retail interconnection process because we just can't handle the flow right now. So it's a tremendous response.

So we're optimistic that we'll hit our 42

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They are reasonably well-formatted.

Can they be improved? Absolutely,

And we think the first theme is let's -- I think we need to put a lot more effort into process improvement in each of those constructs, particularly RPM and particularly what we see in the queue. If you believe the queue, there's an awful lot of gas-fired generation in both Jersey Central, ACE, and PSE&G. I think it's something on the order of 3,000 megawatts in the next three or four years.

How is the gas industry going to accommodate that and coordinate that? Is there sufficient infrastructure available on the gas side to handle that?

I don't know if that's a PJM working group or if that's a collaborative that needs to be set up. But if you believe the generation queue and the numbers you're seeing, I think the gas industry needs to be clued in on that.

The second theme speaks to long-term 20 contracts. We have a horrific, horrific experience with NUGs. We have an overmarket portfolio of \$1.6 billion since 2003. So that's 1.6 billion the ratepayers are on the hook for since 2003.

If you think about it, the existence of those long-term contracts were really the driver for

Page 161 megawatt target which compared to Ohio, and I'm intimately involved in the Ohio process, it's night and day. The Ohio solar market is -- to use the word thin would be kind. It's almost not existent.

On the demand response front, we have our smart grid IDER, integrated demand -- Integrated Distributed Energy Resource, Easy Green, I should have used that. It's easy to remember. That has worked -that has worked as a pilot program very well. With this start of the heat wave this week, we've actually had incidents to use it. So we think there's tremendous potential in it.

We're going to implement in three phases up to 38 megawatts. We think that is something that is hopefully attainable. Of course, we won't know. We'd like to get through summer, do some performance review, and see if those kind of numbers still make sense.

But we're optimistic that we're on the right track and hopefully we can do something about that peakiness issue which is certainly a major problem for reliability purposes.

So thank you for the comment and thank you for the opportunity.

COMMISSIONER RANDALL: Thank you. ACE.

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MR. BARRAR: Thank you very much. I'm Jack Barrar and my card says PHI Service, but I really represent ACE.

COMMISSIONER RANDALL: Can you just speak a little closer.

MR. BARRAR: Sorry about that.

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COMMISSIONER FOX: Can somebody give him another mic. It's not you. We give that to the people we don't like, but it wasn't supposed to go to you.

MR. BARRAR: Well, this is my first time here. Anyway, I appreciate the opportunity, like the other panelist said, I've learned a lot today and there's clearly a divergence of opinion about a lot of things here. And I think that's because everybody sort of views the future differently and interprets events differently.

I think ACE's position is that we think things are working pretty well right now -- and I can respect people who disagree -- but here is why.

I think you basically have market prices and they're basically stable and that's a good thing. And I think we basically have a system where the loads -- the supply we've contracted for pretty much follows the loads we have.

So there's a balance between supply and

long-term contracts, if that's the way this commission 2 wanted to go, is there's some things that have to be 3 done in advance of that from the utilities' point of view to protect the customer, protect the utility. 5 There's going to be additional migration rules. 6

Like other panelists have said, a lot of long-term contracts are out of the money. And they can be -- depending on the term of the contract, they can be out of the money for a very long time. It costs customers lots of money. So we have to be concerned about that. And if customers -- you know, there's not a lot of retail competition right now for residential.

There's not been a lot of migration; but if residential rates really start getting above market, you can see that. And then the customers that really can't aren't desirable customers from retailers won't be served and they'll be stuck with even more costs. So that's a serious problem for us.

We also in some of our other jurisdictions haven't had very pleasant experiences with long-term contracts. I won't get into that. Basically, I think you really need to think about unintended consequences, how risks will shift around, and what -- all the additional work that has to be done, the issues that this commission -- will come back to this commission on

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demand on the local utility level and that's a good thing because then all the risk that should be on the generator are on the generator and they're not on the customer.

And I think where ACE comes down, and like Jersey Central, we are also a wires company. We ought to do right by the customer here. This is pretty much what's right by the customer. Everything I've said so far is good for the customer.

And another thing that I don't think anyone has mentioned previously is the system we have now, and we're all pretty familiar with it, it's very transparent, there's a lot of risk controls, and the chances for any sort market manipulation are pretty diminished because of that.

Any time you want to change that system 17 you've got to think about, as Gene said earlier, 18 unintended consequences. You now have to -- if you 19 wanted to go -- I think the main topic of discussion 20 here is the long-term contract, now you're sort of 21 changing that basic paradigm as, you know, we've all 22 done with BGS and now you're talking about a new set of risks that are faced by customers and faced by the utilities as well.

So we have to have in order to enter

1 cost recovery, how often should the cost be adjusted, is 2

it annual, quarterly. These are -- you're going to destroy some of the balances that are present.

Now we can deal with those if we have to, but I think overall we'd really prefer that the current system stay as it is so we won't have to deal with those issues. In some of our other jurisdictions we've had to deal with them and they are long and protracted. So if you don't need that, I would recommend not going down that path.

COMMISSIONER RANDALL: Thank you.

12 MR. BARRAR: Thank you.

COMMISSIONER RANDALL: Mr. LaRossa.

MR. LA ROSSA: It's always nice to note I am at the rear -- the end.

COMMISSIONER ASSELTA: You said bringing up the rear?

MR. LA ROSSA: What was that, Nick? Did you use another comment about what?

It's good to go towards the end because I think you can tie together a lot here. The whole theme of what I really wanted to talk about is balance and the need for balance.

What I want to start by answering a question or maybe asking a question and may answer one that

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1 you've added in one of your other sessions. How many 2 megawatts of generation do you think is offline in New 3 Jersey today when it's 95 degrees out? Over 4 2,200 megawatts did not clear today in the marketplace; 2,200 megawatts of generation is sitting idol in New 6 Jersey today.

So when we talk about adding additional generation, let's just discuss what may actually exist today that didn't clear.

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I think Tom had a good point: Is the price high enough. It definitely wasn't high enough for the 2,200 megawatts. We got beat by Pennsy. No doubt about it. Those generators got beat out by Pennsy today. Open marketplace. They lost. Could be PS power plants. Could be -- there were some NUGs that we're paying for that didn't clear. Those are the things out there. End of the day they're not running.

So when we think about solutions, I really 19 want us to think about that balance. And I'll start 20 about the balance from a reliability standpoint. We can 21 talk in a lot of the different places about reliability, 22 but the two guys from PJM that are sitting here will 23 tell you that it all starts with that balance, making sure that we keep the lights on.

And I will try to bring you back in history

But we have found a way to strike that balance here in New Jersey. And we have a contract. It's a BGS contract. It's an auction process, but it's a three-year contract that we have.

If we want to look at changing that, let's step back and ask ourselves why we need to change it. There is nothing stopping a generator from putting a plant in today. So I'll repeat that again. A generator can install a plant and build one today. They're in the queue. We heard it: 3,000 megawatts. Nothing stopping

One thing Tom said, which I agree with again, it's about the risk. He can't bear the risk so are we going to put that on the ratepayers by putting the contracts in place and putting it on the balance sheet of the utilities. It's a question we have to ask ourselves. But it's a question of risk. It's not a question of ability to build. It's where that risk is going to be placed. And if put the risk on ratepayers, then Dean is absolutely right about what he said: It's the son of NUG. We'll be having NUG contracts next.

So where are you going to strike that balance? It's not an easy answer. You put the credit on the balance sheet of utilities, they're going to pay for it twice. They're going to pay for it in NUG the

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a little bit and remember that day where we had that small outage a few years back and where that outage stopped. We didn't stop it at the borders of New Jersey, as Commissioner Fox may have wanted, but we certainly stopped it here because of the balance that we had in system. And that's not the credit of PSE&G and maybe it's not Steve or Mike, but it's probably to their predecessors in the balance they put forward.

It's a balance of having energy efficiency in place, it's a balance of having demand response in place, it's a balance of having transmission in place, and it's a balance of having supply in place. So we learned from that history to some degree.

I think we also learned from a cost standpoint about balance. I think if you look back over history, there's been a few other states that have had missteps.

So let's start with Maryland. They didn't do it as well as this Board did. They were basically in a spot market straight out of the box. What a nightmare that was for the commissioners; what a nightmare that was for the state as a whole.

23 Take the other end of the spectrum, folks 24 that went to long-term contracts. California. What a 25 mess that was for that state and where they sat.

Page 169 contract and they're going to pay for it because their cost of capital for installing pipes and wires are going 3 to go up, wires in a couple of my peers cases. The cost of attracting capital is going to go up.

So where do you find that balance? Stefanie is absolutely right. We shut off way too many customers in the state today, but we've got to find that balance. So I ask you to look back, think about what we've done and try not to find any one solution that puts all of our eggs in one basket.

The commissioner asked this morning about the Marcellus Shale. I had the opportunity last night to watch the HBO documentary Gas Land. Oh, my goodness, did that raise concerns about whether or not fracking that gas is actually going to create a problem and whether or not we can count on that supply. I'm not sure.

If any of us knew, we wouldn't be working here. We'd be working on the commodities market. Well, Brian maybe is. But the answer to that question is very complex so we need balance whether or not we can count on the gas. We can't count on any one generation solution. We can go back and look at what happened in Connecticut last year. Plant was just about to come online. We lost the plant.

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So strike the balance. Find a piece of Comverge, find a piece of energy efficiency, find a piece of generation and strike a balance in the time line that's going to get the solution and what's best for the customers. Let's not overreact and go to one end of the spectrum or the other.

COMMISSIONER RANDALL: Thank you all. We'll certainly open it up for anyone who wants to address any questions, just raise your hand and we'll get though it for those who want to answer.

Commissioner Asselta.

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COMMISSIONER ASSELTA: Balance. Balance. I like that theory. And if, in fact, this country is moving closer and closer to eliminating coal-fired plants, as we see in Washington, that's going to be policy, it's going to be projected in the next three years, possibly eight, who knows, and those coal plants will be shut down or too expensive to even produce electricity anymore.

How do we replace that particular capacity; and if we don't go into a long-term contracting basis to produce the financing, who is going to take a chance on producing or building a generated coal-fired -- not coal-fired -- gas-fired generator which I think is the future.

leaving the XBOX on because I do know what those are, 2 Commissioner, and I do get him out of bed at night and 3 have him come downstairs and shut it off because I'm not paying Orange and Rockland another dime. 5

COMMISSIONER FIORDALISO: Do you play with 6 those things?

MR. LA ROSSA: I do. I do. I will give you my screen name later.

But I think all of those things,

10 Commissioner, are valid. To jump in any one place and to make an assumption that they're all going away, again 11 12 I think there's a lot of people who would make a lot of 13 money if that is the case.

COMMISSIONER ASSELTA: So doing nothing is actually doing something.

16 MR. LA ROSSA: Well, I think the gentleman 17 to my left have a whole bunch of projects, both demand response, generation projects, transmission projects, 18 19 offshore projects that are in their queue that are 20 balancing that portfolio for us. 21

COMMISSIONER ASSELTA: It's been established a lot that generation is not even in the state generation. Correct?

24 MR. KORMOS: I think it was a mix of both. 25 I think everything Ralph said is -- we have projects,

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MR. LA ROSSA: It goes right back to what I said. There's multiple solutions to that.

3 COMMISSIONER ASSELTA: Give me one for that. 4 That's an obvious one.

Do we agree that that's going to happen? MR. LA ROSSA: No. Because we have a fully democratic Washington and we can't get out of the committees whether or not we're even going to have cap and trade. So to think that the Pennsy and the West Virginia politicians are going to roll over and have those coal plants shut down --

COMMISSIONER ASSELTA: Two States. MR. LA ROSSA: -- well, it's enough to stop it from coming out of committee. So I don't want to bet that it's all going to go away.

COMMISSIONER ASSELTA: I don't want to bet, but the worst case scenario is that's what's going to happen. You're not onboard with that so my question is no.

19 20 MR. LA ROSSA: I just -- Commissioner, I 21 really think that what we have -- if you take one end of the spectrum, we can also say that the solution is 22 23 completely a nuclear solution or the solution is 24 completely offshore wind, the solution is, you know, 25 completely Comverge, or we're going to stop my son from Page 173

gas projects in New Jersey. There is the potential for nuclear, not in queue yet, but has been announcements about potential development. There is offshore wind in Jersey as well. There is solar. And Jersey is a small 5 part of the rest of PJM so. 6

COMMISSIONER ASSELTA: Okay. Thank you. COMMISSIONER RANDALL: Anyone else from the panel want to jump in?

9 COMMISSIONER FOX: They are very quiet 10 group. 11

MS. BRAND: I'll oblige. I very much agree with Ralph about the concept of a mix. There's not one answer to these questions.

I want to point out that some of these things that are in the queue, for example, offshore wind, which many of us have been talking about all week, the developers made it very, very clear that absent a long-term commitment, they are not building it.

So I think that goes to the... let's not put all our eggs in this three-year market basket or one-year market basket, let's look at a mix that has three-year, one-year short-term solutions but also some long-term solutions.

And I guess I also want to sort of respond 25 to the argument that that might shift risk to

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ratepayers. Let's be honest here. Ratepayers already bear the risk. We are already bearing the risk. The prices that we see include risk premium. And when it comes down to it, whether things go right or wrong, the ratepayers will bear the risks and they will pay the prices.

So the question is not will ratepayers pay. It's how much will they pay. How do you make it so that when they are paying, they're not paying more than they need to pay. And I think that the way to do that is a mix and it is with balance and that there's -- and it doesn't have to be.

Listen, I know the NUGs did not turn out how everybody wanted, but that doesn't mean that you're going to repeat those mistakes necessarily and that you automatically preclude anything that is of any length in terms of arrangement just because there were some bad ones entered into previously. Maybe we've learned a few things in the last 20 years or so, but you do need to mix and you do need to make some commitment from a customer to pay for something before a lot of things that are in the queue will get built.

> COMMISSIONER RANDALL: Commissioner Fox. Go ahead, Tom.

MR. HOATSON: Let me follow-up on a couple

1 Well, obviously, they're very inefficient units. That's why we need to start incenting new generation, new efficient state-of-art clean burning generation in this state to start replacing 2,200 megawatts of generation that we're paying, part of it \$1.3 billion for this year to have there sitting 7 there idol on this 95 degree day. And the signals are there. The terms just aren't there to support replacing that inefficient generation that should be running today 10 that isn't running today with new efficient generation.

And I'm hesitant to address the NUGs because it's the new four letter word in New Jersey. And ${\bf I}$ 12 didn't really get into our proposal for the solution. I could do that if you want me to do that. It may take some time. I don't want to take up anyone's time. But just let me tell you it's a very, very different product than what the NUGs were many, many years ago when we entered into those.

First of all, utilities were forced into those contracts by the developers meeting certain efficiency standards under the 1978 PURPA law. The price was actually calculated by the utilities as their avoided cost. And if the developer met those efficiency standards, the utility had to enter into those 25 contracts.

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of things I heard.

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First of all, I agree with the balance. You know, we need the proper balance of the generation mix, the demand side energy efficiency. We also need the proper balance within a supply portfolio which should be and people will tell you that a balanced portfolio is a piece of the long-term, a piece of midterm, a piece of short-term. That's how to get a properly balanced portfolio. And I don't think a lot of people would argue against that.

I also heard this morning, I think 85 percent of the generation projects in the interconnection queue eventually withdraw. So while we're throwing out these numbers of all this generation in the interconnection queue, 85 percent will probably never come to fruition. A lot of that is because, as Stefanie said, you can't get the long-term contract to support the development of those.

Let me also address what Ralph said about the 2,200 megawatts sitting idol today. Just remembered, I had to just look at the number because I had to remember it's a '10/'11 delivery. That's part of the \$1.3 billion we're paying for in RPM prices is for those units not to run on a very hot day. And why is that?

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Our proposal: No one is forcing anyone into those contracts. They're going to be competitively bid. They're not going to be administratively set on a price. If the board thinks that none of them are competitive or for whatever reason our proposal would allow the Board to reject any or all bids and not enter into any long-term contracts.

Our contract also would be for a capacity product, not an energy product. What we're doing with the energy is we're going to go third-party manager in to manage the energy on what we call on behalf of the ratepayers. So what we're going to do is manage that energy. It's going to be bid into the wholesale market of PJM on a daily basis. It will probably clear 60 percent of the time. Those energy margins we're proposing to give back to the ratepayers to offset the costs of that long-term contract.

So it's a very, very, very different product than the NUG contracts were back in '90s that we are paying for. As part of the stranded cost, now we always look at the NUGs as the stranded costs and the long-term contracts. There's the other side of stranded costs, the generating asset that were either divested or sold or transferred. Those were also built under long-term contracts. If you recall back in the argument, it was

in-state.

the regulatory compact. Utilities argued that they built these plants with the understanding that they could recover the cost of those plants over the life of the plant. And we're not talking 15 years, we're talking 30, 40 years.

In fact, one of utilities, 75 percent of that stranded cost is for the overruns on one nuclear power plant that we're still paying for.

So I think you need to put the NUGs in perspective. I know Jersey Central, unfortunately, for other reasons was forced into the cogeneration bids entered a NUG contract through the little accident of Three Mile Island years ago.

But we need to put all this in perspective.

A totally different product. I understand the NUGs was an issue. People were forced into those.

Administratively determined. We're talking a competitive process here to determine prices and it gives the board total freedom to either allow those contracts go forward or not to allow them to go forward.

21 COMMISSIONER RANDALL: I just have to ask a 22 question.

MR. WEISHAAR: Go ahead.

COMMISSIONER RANDALL: Raise your hand, we

25 will get to you.

thousand percent, it's much more expensive to do
offshore wind. And so the question comes down to are
you going to create a new industry. That's what the
whole question comes down to on the offshore wind. It's
much more expensive and if you can't get the
manufacturing jobs here, we would question why you would
be paying out-of-market.

That's a policy call rather than anything else. And I think at least us, as a company, our affiliate has said that pretty adamantly. That it's definitely a higher cost and the only way to do it that would make sense if we were to bring some manufacturing jobs along with it to the state.

MR. WEISHAAR: From a manufacturing perspective, the job count is a net positive because if you enter into very expensive offshore wind projects, you will lose jobs in the manufacturing sector in-state.

COMMISSIONER RANDALL: Comments.

MR. MEEHAN: I just want to respond to a couple things.

First, Commissioner Asselta, when you said that a lot of the new capacity wasn't in-state, I'm not sure that's really accurate. The Linden Cogeneration --

COMMISSIONER ASSELTA: Projected.

MR. MEEHAN: -- is in one of those 4,000.

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We're talking about long-term contracts, some here don't -- would prefer not to see them at all, but some feel convinced that, of course, the only way to incentivize new generation here is to offer the long-term contracts. And with that, comes a ratepayer risk and cost, as I've heard described, those contracts are going to be out of the money, ratepayers are going to wind up paying for some portion of time.

So within the sphere of new generation, it occurs to me that there is a material difference between taking several years to build on-land generation versus wind generation 20 miles offshore. I don't know how long it's going to take to get that.

But we've got -- talking -- has anybody put wind turbines 20 miles offshore yet? We'd love to be the first.

But when you talk now about long-term contracts necessary to achieve either that goal offshore or the onshore goal, it strikes me as a material difference to the ratepayers.

Would anyone like to comment on that?
In terms of the potential cost to ratepayers in incentivizing one type of generation versus another type of generation.

MR. LA ROSSA: I would agree with you a

Page 181 Most of that 4,000 megawatts, except the part that is temporarily being exported to Long Island would be

But more importantly what I wanted to say is I think it's not that long-term contract is a bad thing and it's not that it may not be part of some mix, but customers have the option of entering into long-term contracts on their own and not having -- whether it be the Board, whether it be the utilities, whether it be another part of government or the developer telling the customer you have to have this long-term contract.

Just because we had a bad experience with NUGs maybe the next long-term contract would be in the money rather than out of the money. I don't think you can predict that. All you can probably predict is that it's not at market. And if it's below market, it harms the ability of third-party suppliers to compete. If it's above market, I think you have a lot of complexity in who pays.

I think Mr. Weishaar went in this morning and he just raised that issue of how you allocate the cost of long-term contracts. Certainly, the large industrial customers aren't going to want to sign-up and pay. They can do it on their own.

The BGS customers, unless you restructure

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that, one of the beauties of the BGS customers is they're free to leave. The price can only go so high because they can leave. They always have the option to leave.

And what concerns me is the situation where you have a long-term contract, you're maybe -- you're more affluent or you're higher use BGS customers who can leave, but yet you have, if this thing goes out of the market, you can have a very small base of customers who aren't attractive to suppliers who end up bearing the cost of this contract or you could have such a small base that there is no way to bear the cost of this contract. So you really have the complexity before you dive into this of how do you recover the cost.

Yes. You can integrate it within BGS, but you can't necessarily assume that's going to be enough BGS demand to pay for it. So then you have to figure out who else is going to sign-up for this and make sure that those customers really understand and want that type of risk before you do it.

MR. WEISHAAR: I've heard a lot of different suggestions and I think we sort of need to drive to some practical outcome at some point. Let me throw out a couple of concepts that are somewhat appealing to industrial customers and we've thought about these

not be forced to pay RPM price. If a large industrial has supply or has flexibility to get off the system during peak demands for a long period of time, then you're not procuring capacity on their behalf.

Define the residual load, define the customer base for which PJM or another procurer is obtaining the capacity that will allow you to align the cost of the procurement with the allocation and the cost responsibility.

Competition needs to play a role where competition can play a role. Part of the big problem with RPM and with capacity markets, and we just can't seem to get around it, is that there are high levels of concentration of generation ownership in RPM.

When you look at RPM and as a result of mitigation the first 120 to 125,000 megawatts of generation on the supply curve is mitigated to zero. Why? Because market power is rampant.

When you're engaging in a competitive procurement process, you have to recognize that upfront and implement mitigation of bids accordingly.

How do we get there? I think you look at sort of the RPM prices and where are they hitting the hardest -- certainly New Jersey, Delaware Maryland, D.C., and at least the eastern part of Pennsylvania are

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issues for quite a while.

I think we need to move in a direction of competitive procurement. I don't think RPMs work and I think a lot of people realize that RPMs working and moving in the direction of a competitive procurement seems to make sense. The concept of balance seem to make sense.

A staggered portfolio where you have contracts of different lengths seem to make sense. Having PJM play the role of the procurer, essentially as it does for RPM, seems to make sense taking a regional perspective to procurement, looking at load diversity, I think are attributes that PJM can and does bring to the table.

And as we look at potential reform or replacement of RPM, I think PJM should continue to play that role. I think if you look at procurement from a utility perspective, the utility's specific perspective it's a bit myopic. That's how we ran into problems under a traditional cost base rate of return type approach. So let's take the regional attribute and try to make it work.

I think you need to procure capacity for residual load. If a municipal and cooperative customer has long-term supply lined up, for example, they should

getting hit particularly hard and I don't see any relief in sight in terms of high RPM clearing prices.

It would make sense for those commissions not to act independently but to coordinate, perhaps approach the PJM board and approach PJM management and start brainstorming solutions. And I think you need to start now.

As I said at the outset today, New Jersey is already in the hook for \$5 billion worth of costs over the next four-year period and solutions at FERC take time. FERC ultimately has to approve reforms to RPM. PJM will insist on a stakeholder process, as it does. That takes time.

So to say time is of the essence is an understatement because the longer we sit around and do nothing, the more quickly we're going to continue to rack up pretty high RPM costs for the future.

COMMISSIONER RANDALL: Commissioners. COMMISSIONER FOX: A lot of questions. I'll just ask one group. This is for Stefanie, Tom, and I guess for Bob.

Based on the conversations of the other panel members, the point -- do you disagree with the point that was made pretty clear this morning that if you have one out-of-market -- or whatever you want to

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call it -- contract, that will then throw off the rest and nobody else is going to build the generation or produce any more electricity because they're concerned that it might basically upset the apple cart or you think that that's not the case?

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MR. WEISHAAR: I don't think you necessarily get into that parade of horribles. I think the question is what is best from a customer perspective. And clearly procuring new resources or entering into contracts in an orderly, coordinated, integrated fashion is a far superior outcome from a customer perspective than engaging in a series of what I called it earlier one-off deals.

And any time you go down the path of looking at a particular project and deciding whether or not to enter into a long-term arrangement, there are a long series of hoops and you have to jump through, a lot of questions you have to answer about that.

So our preferred alternative is that this be done on a kind of an orderly fashion, not on a one-off basis.

MS. BRAND: I think this also is a question of degree. I think you don't take half the market or two-thirds of the marketing and do that. I agree with the concept of the orderly approach. You take a

years old now and not much of any substance has been 2 built in New Jersey, maybe some peakers here and there, 3 but we have problems with our older peakers and there's a lot of at-risk with those, but we're building more.

Hopefully, they're up to some new environmental standards so we're not in the same boat we are ten years from now with the new peakers are putting down. But nothing of substance is getting built. And for that reason, 2,200 megawatts aren't running today that we are paying for. If they were new efficient plants, they would have cleared the market and would be running today.

There's a concept of value that no one ever talks about. I don't mind paying something to get something back but, you know, when the cost to me went up a billion dollars overnight when RPM came in without anything new being added, I have to question what's the value of that.

I think you need to take a look at what's going on out there. I think the situation is getting critical. Our written comments are going to outline -you know, we think we are coming to very critical part right now where New Jersey is going to be challenged on capacity. I understand the market is long, but New Jersey has some serious issues that were touched upon

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thousand megawatt tranche and you see what you can do with it and see what it would look like and see what you would get. And hopefully --

COMMISSIONER FOX: You don't think then others would be expected that once we do that, we're going to do it again and maybe do it again.

MS. BRAND: If it works, you should do it again. Then it's an improvement on the market. I think that saying if you have a 10,000 megawatt market and you pull out a thousand megawatts to do something different with it and still have a 9,000 megawatt market that you're not going to have a competitive market, no, I don't agree with that.

MR. HOATSON: I pretty much agree with what Bob and Stefanie said. You know, as someone in the business of developing power plants throughout the country, we obviously think the way to do it is some procurement process outside RPM or change RPM. We tried that. It didn't work. But you know that's really the 20 solution. RPM would work if you just give a longer term 21 to new entry.

It wasn't -- PJM supported the seven years. 23 That's a little tight. It's much better than three I 24 can assure you. But I think it is a sense of balance and a sense of when you need it. RPM is, what, three Page 189

this morning. And I think we need to look beyond next year, beyond two years, beyond three years, and we need to look ahead and be prepared for what comes down the road.

MR. DE PILLO: If I can comment on that, and I apologize, I don't have a microphone in front of me.

I actually agree with Mr. Hoatson. I think one of the answers is to continue to look to refine the RPM market. And the new entry pricing rule is certainly an area that we can look to to enhance things, as well as aligning the planning terms. I think there's a little bit of a disconnect right now between the RTEP and RPM and basically aligning them on a five-year horizon so you're trying to solve the same objective simultaneously would ultimately result in the best kinds of results.

And if there's one thing I've learned dealing with the committee process and the various ISOs, nothing is ever dead. Even though FERC may have ruled against it, it's not like it's really dead and can't be brought again and refiled in a different way. Nothing ever dies in committee.

The other thing I do want to add too because we talked about the out-of-market contracts, I offered you up our opinion and our experience with that. I'd

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encourage you not to just take my word for it. I would encourage you to talk to people in the State of Connecticut and find out what other merchant development has been going on since they engage in this kind of activity, if any.

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We have Mr. Kimball here from New York City, probably one of -- there's been significant contracting that's gone on for capacity in New York City. You have the highest energy market in the country and the highest capacity market in country and you have very, very limited new merchant development because of the threat of the next contract coming into that place. Long Island is another example.

So I'd encourage you to look into these things and not just deal with my opinion or the opinions of other panelist. Find these things for the truth and find all the facts. I think they are out there.

> COMMISSIONER RANDALL: Commissioner. COMMISSIONER FIORDALISO: Just to -- and I

20 agree with you I think on the RPM issue. This is something that either refined, corrected, or refine something else.

My question is not to get off of this topic, but it's also a reliability question. And that's really what we are talking about. Bottom line. Reliability,

Page 192 COMMISSIONER RANDALL: For the EDCs I guess. COMMISSIONER FIORDALISO: Yes. That's where it's geared.

MR. STATHIS: I guess I'll take the first crack at it.

COMMISSIONER FIORDALISO: Go for it. MR. STATHIS: You are absolutely right, internally. From a demographic level, our company we seem to have probably 59 -- not 59 but 49 to 50 years old on average. For FirstEnergy that's about 14,000 employees. That's a significant issue for us because we seem to have above 50 and over. We're trying to bring in a lot of young people.

But we have programs that are tailored to look at the schools and bring in line people. We have a program called Power Supply Institute to help bring in skill levels that are difficult to replace because even the line people are 50 and older. So we're trying new creative ideas. That's just an issue we can't solve immediately. We're just going to have to look at different programs to try and get younger, if you will, because it's a significant issue because you are absolutely right. I think in my department over 50 percent of the people can retire within next two years. And that is common in many departments of

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enough generation, enough supply, enough everything so when we walk into the room and turn the lights on, they go on.

I'm sorry to admit that I'm of the generation where people starting to think about retiring.

COMMISSIONER FOX: No.

COMMISSIONER FIORDALISO: As hard as that is to believe. And you know we're looking at massive numbers of people, early baby boomers, that will be retiring in the next few years 70, 80 million people. I don't even know what the numbers are, but they're staggering. The utility industry as regulatory bodies will see large reductions in workforces because of retirements and things of that sort.

My question I guess is geared toward the utilities mostly. Are you treating this threat to reliability as a priority? And if you are, what are you doing about it? What are your plans? What are you thinking of? Where are you going? What are you doing to minimize -- I'm not saying -- I'm going to say this humbly -- really a brain drain of massive numbers of people that have contributed to tremendously to your industries? What plans do you, if you have any, are in place?

FirstEnergy.

COMMISSIONER FIORDALISO: And that would have an devastating effect.

MR. STATHIS: Absolutely.

COMMISSIONER FIORDALISO: If you lose half of your workforce next year in that one department.

MR. STATHIS: Absolutely. And we're working to try and fix it. There's not a quick fix for it. We recognize it. We're working to fix it.

COMMISSIONER FIORDALISO: Right.

MR. LA ROSSA: For better or worse, most of our employees are actually in their 40s, 46 is I think our medium age right now.

COMMISSIONER FIORDALISO: Did you kill off my age?

MR. LA ROSSA: We have to get it somewhere, Commissioner. No.

I think we are looking at multiple things. First of all, you're obviously trying to attract folks and we've got our community college programs and so on. And I think FirstEnergy also has that out in the Ohio area. And we also have a phase retirement plan which will help us with the knowledge transfer. One our senior officers that are in the back of the room today is part of that plan to make sure, as I say, provide us

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with parental supervision.

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COMMISSIONER FIORDALISO: That's always a good thing.

MS. BRAND: For the record, it's happening in state government and we have no solutions.

COMMISSIONER FIORDALISO: Right. I did bring up the regulatory environment also because that is a major problem. When you have that institutional history and knowledge just suddenly go, that's a problem.

MS. KIMBALL: Yeah. We've heard that that might be a problem on the regulatory side of New York as well in terms of the package or something going on in terms of the regulatory side there.

I don't know the stats for Con Edison. I do know that with the economic problems in New York City there was a long period in the '70s where they did not hire a lot of people, but starting in the early '80s they did ramp back up with that. There is a gap between that 45 to 55 at this point in the company.

But, you know, a lot of the people that are already of retirement age have gone through some of that. There is some management side to that, but there is also a significant amount of people that do have. like myself, over 20 years with the company and have

That takes -- not everyone can do that. There is a fairly rigorous program to go do that. We've been working on this for some time. I won't say we're complete, but we're working on it and it's going to go on for quite some time.

COMMISSIONER FIORDALISO: Thank you. COMMISSIONER RANDALL: The average age of the commissioners is not public information.

9 COMMISSIONER FIORDALISO: It's 32. 10 COMMISSIONER RANDALL: Before I defer to 11 Commissioner Fox, I just want to revisit one question 12 because we had a lot of -- call it -- constructive 13 criticism of RPM and I'd thought I'd give a chance to you gentlemen from PJM to make a comment if you like. 14

MR. KORMOS: What if we don't like?

I think you've heard RPM is working well. RPM is not working at all. I would offer the truth is probably someplace in between those two.

We are committed to continue working on RPM. Ultimately, there may be a replacement. I don't know that answer whether we will get there or not. I would offer that RPM was never meant to be end-all and be-all for the capacity markets. We always envisioned to be a piece of it. We envisioned that there would be longer term contracts. There are ways to self supply. There

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some of that history that's there. And they have always -- when I started there was an intern program where you did rotating assignments for a number of years and moving within the company is also encouraged. So we feel like developing a knowledge across the company is something we have been very aggressive about.

MR. BARRAR: Commissioner, hopefully, you can hear me.

We recognized this problem for a number of vears and it's a difficult one to deal with. And the solution is going to take a while. I think an average age at PHI is 49 years old. We do have a number of intern programs with high school graduates, particularly engineering. One thing I would say that's interesting, during the part of the recession and during the high-tech years, the high-tech groups, it was very hard to attract young people because they didn't like to come to utility work because they can go get high-tech jobs with a high-tech firm.

But -- and, you know, the benefit of utility 21 which were stability is one of them wasn't really 22 valued. That is valued now. So now when we have an 23 opening, we get people to apply. Where we have a bit of problem is some of the skilled job, linemen and things 25 like this where you have to be able to climb a pole.

Page 197 are ways to literally pull yourself out of RPM. Those options were always, always built in there.

I won't take issue with the \$5 billion number that's been thrown out, only because if you assume capacity at zero across, the 5 billion is reasonable as a number. If you assume capacity as a cost that's reasonable and I think some of our other panelist would suggest it does, then I'm not sure whether 5 billion is too much or too little.

I think that is one of the issues. I think that lack of transparency is still one of things we still struggle with as to what is the appropriate market price long-term and RPM is short-term. I would argue on a short-term basis RPM has filled that need short-term. We have enough resources. We will be reliable.

I would also agree I don't know long-term. I'm not sure if the long-term signals are being set appropriately and there isn't things we can do better and I'm not sure it's right to do them in the RPM. There may be other ways to do those outside of RPM. We'll commit and I think most of people here in PJM, RPM will continue to be discussed and I agree with Ray, nothing is ever dead.

I would offer there's things like new entry pricing which we are willing to do. And we did support

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it. Just realize though it's us taking the risk for you then. It's no different. I'm not sure -- the way new pricing entry works is if a new unit bids in and the bid gets accepted, that we will honor that bid for the next three years, five years, seven years, ten years; such that if the price goes below that, we will make them whole. I guess that's out of the money.

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Obviously, PJM is a not-for-profit. We will get that money from somewhere. It will not come out of our pockets because we have nothing to give. There will be an uplift in those cases. Maybe it's a better method to do it regionally than locally and that maybe okay

Obviously, we've heard a lot. This is nothing new. I think I heard all of these opinions many times in many meetings at PJM. We understand what the positions are here. And we'll continue to try to drive consensus and continue to try to make the capacity markets hopefully as robust as they can be and as transparent as they can be.

I encourage -- I've been in the Maryland proceedings. I encourage you to look at your options. I don't think you can make a decision without going out and getting the information. I think things like this is great. It will give you the information. Ultimately

out of the questions, have you thought about that? 1 2 MR. KORMOS: It's been discussed. Whether 3 we could get our membership to support that, I don't 4 know.

COMMISSIONER FOX: Even if the states thought it would work.

MR. KORMOS: I think if states -- I will be honest with you -- if states support -- and particularly I agree with Bob -- if we get a number of our states to support a particular initiative, that has sway over our membership and that could become important. Also then if forced to go to FERC without member consent having the states support it versus not support it, I think if you don't support it, FERC looks at that strongly. And if you would support it, I think FERC would look at it strongly as well.

I'm one not to take any options off the table. I would agree with Bob. This is a very long and tedious process because of just the makeup of PJM and how we function and ultimately the due process this needs to go through, not only in our membership but then ultimately at FERC as well. So I think starting sooner than later is good.

MR. PERROTTI: To add to Commissioner Fox's question though, to do an RP wouldn't be just a decision

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you do -- any decision you make takes risk on for the consumers and effects them. And whether this is good decision or bad decision, I think ultimately you'll do what you need to determine. But I'm personally encouraged because again I don't think we ever envisioned states not looking at these kind of things.

These are the issues you absolutely should be looking at and make decisions. Our hope though is that market will work with whatever ultimately you decide.

> COMMISSIONER RANDALL: Thank you, Mike. Commissioner Fox.

COMMISSIONER FOX: Following up on that, Mike. And I'm not -- I'm sure that you two -- Bob has had discussions with PJM about what he thinks should work. I'm pretty sure about that. But not knowing exactly everything that Bob spelled out, but he said that in addition RPM is not working. He said there should be a staggered portfolio. PJM should procure regionally. And you just mentioned something about that, and then something about working with Delaware and Maryland. So I'm not sure what they're up to and doing on this.

Would PJM do this type of regional procurement of long-term contracts to take the states Page 201

to build or not to build. It would be envisioned that 1 2 PJM would take on whether transmission is the right 3 alternative, whether building is the right alternative 4 generation, whether it be demand response, or a mix of 5 all three.

MR. KORMOS: I get a little leery when it starts to sound like IRP. Obviously, there was a lot of issues there. How much risk do you want PJM to impose on your customers for you? If we start to make some of those decisions or if our processes by default are making those, we are accepting risks and whether they are -- and we have no better crystal ball. We may have 12 better information. We may have more regional information that can be helpful. Whether it's right for us to do it, whether it's right for a different body to do it, I think the information we can absolutely provide.

But again we're still just talking about accepting risk. And any of these are long-term. Transmission is a high-cost long-term asset. Generation is a high-cost long-term asset. I would offer so is demand response long-term.

23 Interrupting your load once or twice, one or 24 two summers out of ten is one thing; continuing to 25 interrupt your load over a decade is an entirely

different thing.

COMMISSIONER FOX: A little bit different. I have two more things -- areas or issues here. One of them we were talking about the possibility -- some people were supportive of I assume, if not PJM procured long-term contracts, which I think doing it regionally makes a lot more sense to me because risk will spread then -- having a utility go out and procure long-term contracts, it would be competitive I guess. That's what did in Connecticut. But why not then have the utility just build the darn thing itself, put it into rate base and do it the old-fashioned way.

Any thoughts on that by anybody?

MR. HOATSON: I think you lose the
competitive nature of a competitive procurement process.
You're not necessarily -- a utility isn't necessarily
building that at market because you don't know what the
market is.

All they would be subjected to is prudence at that point so I think a proposal such as ours where you're going out and it's like a virtual build by the utilities, but it's all driven by the competitive process that you're in. So that would be the competitive process would be the cost to build it, as well as the rate of return.

COMMISSIONER FOX: By the utility commission.

MR. DE PILLO: Yes.

COMMISSIONER FOX: Then on the issue of -getting back to where we started at the beginning -- so
you who weren't on the original panel, feel free -- if
you were -- the issue about demand response, the issue
about dealing with the peak and the cost of electricity
and how you deal with that with customers in rate base.

Any thoughts on that? Because I still think that's probably more important. I think I like what Mike said earlier this morning.

But anybody?

MR. KORMOS: I probably would want to clean-up maybe one thing I misstated or people didn't understand what we meant by saturation. We are not intending to say that saturation meant there was no more demand response out there. We actually don't believe that. We believe there is a lot more out there. And the more particularly states shift public policy towards that direction, the more we believe it is likely to be developed.

Our concern is that our current construct that contractually allows us to operate ten times per year -- or six hours worth of time ten times a year --

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You kind of digress, but you may be aware of Texas with the transmission system they're building to bring in the power from the west, they did that. They went out and they held a competitive process for private developers, such as ourselves, to compete. And you competed on the cost to build it, as well as the rate of return. That's probably the purest sense of ratemaking rate of return is on a competitive process. If you just let the utilities do it, you'll lose the whole competitive nature.

COMMISSIONER FOX: That's what basically happened in Connecticut?

 $\ensuremath{\mathsf{MR}}.$ HOATSON: Ray knows better. But I think it was a competitive process.

MR. DE PILLO: Connecticut went through a competitive process on the solicitation itself. Now the physical construction of some of the those assets, some of the procurement was done the way that Mr. Hoatson outlined where a rate was guaranteed and some constant revenue stream was guaranteed by the state.

In the subsequent proceedings, and one we were involved with, were basically committing to a fixed rate of return and are going to be pulled in for annual rate review under that process and reviewed for prudence.

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- that we're saturating of the effectiveness of that; that
 we will either have to expand those windows, make it
 more times per year or longer hours. That's the
 saturation. We were not suggesting that there's not
- 5 more out there. Actually, we believe there is more out there. We'd like to see it shift into other constructs

there. We'd like to see it shift into other constructs that would be more viable.

COMMISSIONER FOX: People will go with the other construct that would be more viable.

MR. KORMOS: Again, the price responsive demand is really where we believe ultimately having the consumers adopt that behavior where they are, in fact, responding to price and they are conserving, curtailing, not using, shifting.

I'm a big believer in technology and I believe we don't -- I always tell people how many people would have thought five years ago your phone company would be selling you cable and your cable company would be selling you phone. But it is.

And I think our industry is right for that kind of technology where there will be ways to conserve and control energy that we haven't thought of. And yes, probably, I won't be able to adapt to, but my 11-year-old will pick it up within the first 30 seconds that he looks at it.

So that's where I really believe that that kind of price responsive demand of where consumers are changing their behaviors based on the price of electricity is really where we want to shift the demand component of our markets.

COMMISSIONER FOX: Anybody else?
MR. BORDEN: I agree with that. I was probably the primary one who had a misconception about the saturation. So thanks for clearing that up. I appreciate it.

I see when these guys kick their programs off and put it into the '14/'15 program, you're going see prices coming down because of it if you make them do that which they may be inclined to do anyway.

And I also agree there will be a sort of natural migration towards once you figure out how to put it into the market,

There was a conference back in November, you had your, what, third annual symposium or something like that.

We don't really know how to get the demand -- price responsive demand response into the wholesale markets yet. But I trust there's enough smart people around here and other places that it will happen.

But the good news is that the same

Doesn't every customer in New Jersey have choice. I look across the country -- I don't know what the figures are for New Jersey, but I'll tell you what they are in Massachusetts and Connecticut over half the load in those states has migrated away from utilities and onto retail supply contracts in the 13, 14 years that those markets have been open. And it's accelerating, more customers are moving.

The thought that in ten years there will be any customers left on utility supply is hard to see at this point. And when you lock in a 15-year capacity commitment, who is going to pay for it.

You've undermined the ability of customers to take control of their energy costs and to make those kinds of energy decisions that have a meaningful impact. The more you load up the regulated side of the bill and the less you leave on the competitive side of the bill, the more difficult you make it for all of that to happen.

We look at the idea of maybe we can get a better contract if you went 15 years into the future. But better than what? What you're paying today? That's an apples-to-oranges comparison.

When we do a long-term, a 15-year contract, we call that a long-term spec trade. And that's what

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infrastructure you used to build the old-fashioned direct load control cycle air-conditioners sort of program, the switches and the smart thermostats that you put in place for that, you can use the same ones for price response.

It seems silly -- not silly -- but you put a switch out there with the web interface, you can have the consumer choose the amount by which they are going to be cycled based on price. So almost everything you build today is potentially usable for the future which is I think great news.

COMMISSIONER FOX: Go ahead.

MR. ALLEGRETTI: If you want demand response to really work, you have to empower customers. And speaking as a retailer and a demand response provider, it is tremendously important that customers be able to take control of both their supply and their consumption of electricity. For their decisions to have a meaningful impact, to be able, as Bob suggested for some industrial customers, they should be exempted from a 15-year contract if they're willing to interrupt. They don't impose a capacity cost. They supplied their own capacity. They've taken charge of their energy needs.

The question is not which customer should be exempt. The question is which customer shouldn't,

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you're doing. You're hoping that in hindsight it turns out to be lower rather than higher for consumers. There's no way to know as you sit here today. But it does undermine their ability to take control and charge of their energy costs. And for that reason, I think it's incompatible with restructuring in New Jersey and I think it's a bad idea.

COMMISSIONER RANDALL: We'll go to Dean and then Stefanie.

MR. STATHIS: Quickly, one thing that we haven't done and we can certainly do very quickly is doing to cross-check of our renewable program which is growing and also the customers are participating in the IDER. I think there's some hits there for the people that are in both programs.

And my point is I think we're creating a very energy aware consumer in New Jersey. And I think we have to take advantage of that.

And then quickly to the Commissioner's brain drain, I didn't know what a succession plan was until this year and I think that's the other tool the company is using to try and identify talent and make sure we have the right people in place.

MS. BRAND: Not every customer has choice and not every customer can control their usage to a

CERTIFICATE OF SERVICE

CERTIFICATE OF SERVICE

I hereby certify that I have this day caused the foregoing document to be served upon each person designated on the official service list compiled by the Secretary in this proceeding.

Dated on this 4th day of March, 2011.

/s/ Jeffrey A. Schwarz

Jeffrey A. Schwarz

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