

28-May-2015

Exelon Corp. (EXC)

Sanford C. Bernstein Strategic Decisions Conference

CORPORATE PARTICIPANTS

Christopher M. Crane

President, Chief Executive Officer & Director

OTHER PARTICIPANTS

Hugh D. Wynne

Sanford C. Bernstein & Co. LLC

MANAGEMENT DISCUSSION SECTION

Hugh D. Wynne

Sanford C. Bernstein & Co. LLC

Good afternoon. Thank you all for joining us today. It's my pleasure to introduce to you, Chris Crane, President and Chief Executive Officer of Exelon, positions that he's held since Exelon's merger with Constellation in 2012.

Previously, Mr. Crane was the President and Chief Operating Officer of Exelon Corporation. His background is on the power side of the business, having become President of Exelon Generation in 2008 and Exelon's Chief Nuclear Officer in 2004. Including his 15 years at Exelon, Mr. Crane has accumulated over his career more than 30 years of experience in nuclear generation, having worked at nuclear power plants across the country, including Browns Ferry, Comanche Peak and Palo Verde, the nation's largest. So, I'll turn it over to you.

Christopher M. Crane

President, Chief Executive Officer & Director

Thanks, Hugh. Pleasure to be here. Thank you for all coming. I'm going to start with a little bit of an overview of the company for those that you haven't seen it. We – let's get cautionary statement as required by the lawyers.

So we have two main businesses that we operate under our competitive business and our regulated business. Exelon Generation is comprised of multiple segments. The first being the power generation side, which is our fossil fleet, renewable, and then is the nuclear generation side, which out of the 33 gigawatts of power provides 19 gigawatts of our capacity. We're the largest nuclear operator in the country and the third largest in the world. We also have a substantial footprint in natural gas. Our renewable portfolio continues to grow under that segment and we will continue to find investments in that.

The other business segment that's in Exelon Generation is our Constellation business. This is our commercial arm. It's the leading competitive energy provider in the U.S. We service over 2.5 million customers there. We have a wholesale and retail customer base and manage our portfolio through the Constellation. We also have customer-facing businesses within the Constellation business that allows us to optimize our products that we bring to the market.

On the Exelon Utilities side, our utility is our regulated platform, which is composed of Commonwealth Edison in the Chicago area, PECO Philadelphia Electric in the Southeast Pennsylvania, and Baltimore Gas and Electric. We have made significant investment in infrastructure and we'll continue over the next five years with an investment of approximately \$16 billion into the wires business. It's upgrading the systems, putting in the smart grids and the new technology to drive not only higher levels of reliability but also customer satisfaction. And so together both of these segments, the Generation Company and the Utilities, make us the largest competitive integrated – one of the largest competitive integrated companies in the country.

I talked a little bit about our Chicago, Philly and Baltimore, but, as you can see, we do have a national footprint going across the country. We operate power plants in 24 states nationally. Our fossil plant spans from the South, Southeast, up into the Northeast in the New England area. And we are currently developing multiple power plants, highly efficiency gas, combined cycle gas turbines in Texas, where we also have existing assets. You'll notice that our renewables span in many territories, largely in the Midwest, West and the South, as you can see from the index.

These are – the renewable assets are largely contracted assets, and primarily wind and solar at this point. We're actively growing that portfolio over the last six years since we've gotten into the business and today, we have 1.6 gigawatts of renewables. We do operate across the seven major regional transmission operating areas through our – although our largest footprint remains in PJM, in ERCOT and also in New England. And our Constellation business via the wholesale and retail gas and electric operations actually does have a footprint in 48 states and in Canada, giving us a customer reach that is unrivaled.

Our strategy, let me give you a sense of how that comes together through the primary business. First, overall, the overarching strategy for all our business is operational excellence. The way we operate our plants, the service level we provide to our customers is the biggest driver of value and relevance that we can create in the marketplace. Primarily look at our Utilities to provide the stable earnings and the dividend support, while our competitive business remains exposed to the power market recoveries and also the capacity markets.

I'll talk about managing commodity risk through our Constellation business. We continue to do this while we're extending our market share through acquisitions. In that part of the business last year, we picked up two portfolios, ProLiance and Integrys, that give us even more scale and presence across the country.

Another way we manage our commodity risk besides the retail outlets is also targeting contracted revenues with our incremental investment there by reducing the volatility. We're additionally, we're very mindful of the evolving energy landscape. As many of you have seen, there's a lot of what is termed as disruptive technologies that potentially pose some kind of market entry and we're trying to look at those as enabling technologies. If it's renewables, distributed generation, it'll all play a role in the change in the customer behaviors. We'll call for our utilities to adjust the classical utility model and move more to a modern model that people wanted to have distributed generation we need to figure out how to service that.

The integrity of the grid will remain a challenge for us as going forward as policies evolve around things like distributed generation and adequate recovery mechanisms for investments. We have taken some specific actions at each one of our businesses to remain both innovative and respond to rapid changing world. Within our generation business, we're doing some partnering with other institutional and commercial industrial customers deploying fuel cells, looking at power – excuse me, solar panels, battery storage, and energy efficiency to meet the needs that the customers want. As we pursue a regulated growth at the utilities, we're seeking innovative solutions through policy advocacy in making sure that we capture what the value is to the customer that the grid really provides while preserving an ability to get a return on our investment. And so we think this does advantage us on the competitive integrated model.

One of the latest transactions that we have been working on is the acquisition of Pepco, its PHI Holdings. Many of you have been following the proceedings of our merger, we believe that we're coming near to the end of the process. We have received regulatory approvals in six of the seven jurisdictions and we're waiting for regulatory approval in Washington, D.C. over the next 60 to 90 days.

Our – the geography of the location of PHI utilities fits nicely within what we exist and have between Philadelphia and Baltimore. It essentially makes a contiguous system from D.C., all the way through Maryland, into Delaware, South Jersey, and Philadelphia. It allows us to create opportunities to improve customer reliability, storm response, and ultimately, driving cost savings. The acquisition itself will drive utility earnings to around – average around 65% of the overall earnings. And you can see that the 61% to 67% on the bottom right hand side.

Adding the PHI capital program alongside of the Exelon Utilities' capital program, as I said, will add an additional spend over the next five years of \$6 billion to \$7 billion, which by 2017, our rate base or total that we are allowed to get the regulatory recovery on, our earnings will be at over \$34 billion. So the change in the pro forma mix supports the incremental leverage that we're putting on at the holding company, while allowing us to main high quality credit metrics and giving us flexibility to continue to invest across all of our businesses.

At the end, it's a highly accretive transaction. We expect it to be within \$0.15 to \$0.20 accretion, probably on the \$0.15 side of that by 2017. And as we move through rate cases, we'll continue to drive that, and as we're driving efficiency to the \$0.20.

I talked about the regulatory approval process. You can see Virginia, FERC, New Jersey, Maryland are all done. Delaware has approved this settlement, but the order will not be issued till June 2. The Department of Justice has clocked out. We don't think we have any more work there on the Hart-Scott-Rodino. So we're down to the final, which is the District of Columbia, and we think we've made adequate progress there to expect a positive order. The Maryland order was very positive. So the closing will come in the third quarter we believe and hopefully on the earlier side of that.

So from a policy and business priorities, we have a number of objectives, which I've discussed some of them on the most recent earnings call, but our advocacy effort in Illinois has been focused on protecting the reliability and the environmental benefits of our 11 nuclear plants. We're currently competing against other subsidized generations. So the desire is to create a low carbon portfolio standard. There's a bill that's in the House and the Senate right now. Illinois has its own problems with its budget. So there's been some distraction for that, but we see that as a solution.

We also in Illinois have an Energy Plan for Illinois' Future, which promotes energy efficiency on the utilities side, drives innovation through pilot – a few pilot microgrids, testing out microgrid controllers. We received a grant from the DOE to develop the first controlling system for a microgrid, and we'll continue to make sure the utilities are treated in an equitable manner.

In PJM, right now, the capacity performance discussion remains in process. We believe that PJM's response to address FERC's questions that came up in the original filing should resolve those comments. And we're pleased by the active attempt by both FERC and PJM to make the necessary design changes in order to ensure reliability. We expect the decision from FERC in a few weeks and that will allow PJM to set up and by August have the auctions for the capacity performance in place.

We're also working to finalize a contract at one of our facilities in New York, the Ginna facility, which is under a reliability mandate to continue to operate for – till 2018 to ensure that the necessary system modifications can be made to ensure reliability as required right now to keep stability of the grid.

So we do believe that we're well positioned for a strong future on multiple fronts. Our integrated business model provides the ability not only to invest in both the regulated and competitive business, but also change the way that we serve our customers in the evolving energy market. We'll continue to diversify our business to capitalize on the changes within the industry, while optimizing our portfolio through the commodity cycles that we see. We have a very strong record – track record on operational excellence and we see that as how we continue to drive relevance and shareholder value.

Our financial strength gives us the access to the capital markets, maintaining an investment grade as a competitive power generator allows us greater flexibility in our transactions, counter-party transactions. And lastly, as I discussed, we continue to advocate for policies that both value the benefits of clean power generation and protect the integrity of the grid.

So with that, I'll jump with you.

QUESTION AND ANSWER SECTION

Hugh D. Wynne

Sanford C. Bernstein & Co. LLC

Q

Great. Thank you, [ph] Doug (15:02). Please use your index cards to write down any questions you have. We'll pick them up and put them to Chris. I was surprised in preparing for your presentation today...

Christopher M. Crane

President, Chief Executive Officer & Director

A

That's always a problem when you're surprised.

Hugh D. Wynne

Sanford C. Bernstein & Co. LLC

Q

Yeah. Well, I shouldn't have been surprised, perhaps, but I was. I was looking at the valuation of Exelon Corporation comparing it to the valuation of the regulated utilities, the valuation of the competitive and hybrid utilities. And what struck me is that on 2017 earnings, which would take you out to a timeframe when some significant portion of your hedges would have rolled off, the company seems to be trading at sort of a 10% discount to most of its competitive and hybrid peers, and it's also trading at a 10% discount relative to the regulated names. And on other metrics such as EBIT, EBITDA, price to book, price to cash flow, the discount is even larger. I'm sure that's an annoyance. I was wondering if I could get your view on what's driving that and what are you doing to try to rectify it?

Christopher M. Crane

President, Chief Executive Officer & Director

A

So we're the most levered to a commodity recovery, natural gas, heat rates, electric energy prices, and we're also the most levered to the PJM capacity market. We're the most levered to the 111(d), but we think that we have to show site to accomplishing that to get the full valuation. We – having the certainty of those cash flows coming in will actually de-risk us and create less variability on the commodity cycle. So we recognize that. We understand

that the regulateds are now being valued on the low interest rates and that too will change when we see as interest rates continue or will start to increase.

So we need to prove to the market that these leverage points that we have can actually create value. And as they come to fruition, we should start to see that first with the capacity market changes, then with the coal units coming off and the Eastern Interconnect as those prices respond, as we've talked about for the last couple of years. And as interest rates increase, we think we should at least hold our own, if not, improve.

The issue with our earnings on the utilities side, now, 50% of the earnings come from the ComEd business. ComEd is a recovery mechanism. Its return on equity is 580 basis points above the 30-year treasury. With the 30-year treasury down to 0.25% today, it's decreased the earnings power. As interest rates come up, actually, we become more profitable. And so, we need to make sure we're getting that story to the market.

The other aspect of interest rates rising is the liability and the expense that we have to take on our pensions. So we're uniquely positioned on an interest rate recovery for our regulated side to – that should offset the concern. And as I said, at least maintain if there's equilibrium in the multiples or improve our multiple on that side.

Hugh D. Wynne

Sanford C. Bernstein & Co. LLC

Q

It seems when you go through the list of levers to higher gas prices, higher capacity prices, obviously, terrific leverage to the clean power plan, and index to ROE in Illinois that, if anything, you should be looking at an in-line valuation as opposed to discounted one. Is the market telling us something about the hybrid structure? Is there a view that that's not the type of portfolio of businesses and risks that the market wants them?

Christopher M. Crane

President, Chief Executive Officer & Director

A

Well, even within some of the hybrids, we're trading at a discount. So I wouldn't take that as the message. That's something that we've had a couple of discussions. Today, we're meeting with our investors. How durable is this model? And you see others going away from the competitive integrated, but where we can truly differentiate ourselves. If you were one of the more recent ones that's spinning off, the quality of those assets, the commercial business that's doing wholesale and retail, is nowhere comparable to ours. So having the base load assets in nuclear, the cost advantages that we can have with those, having capability for the Mid Merit and the peaking, our hedging capabilities, we see that that business is a strong business.

And the other thing that's not recognized is that business is what is funding the utility growth, \$16 billion over five years without equity being issued. So it's a very good engine for growing. We have done – as you would expect, we on a regular basis on our strategy look at our structure. Is it the Holdco structure with the competitive integrated? What are we doing within the generating company as far as structures? How are we managing our assets? And the most recent study, which say, apples-to-apples, if we were to spread or break the businesses apart, not only would we not have the capability to fund that \$16 billion going into the wires companies, which is very good – will be good return on rate base, but also it would have about a \$3.5 billion destruction on total value. If you look at cost of capital, cost of equity, counter-party limitations on counter parties being below investment grade, you wouldn't split the companies and try to expect to maintain investment grade. The FFO to debt hurdles that would be put on by the rating agencies would make it very, very tough.

What we've seen from other separations, the requirements for capital to be posted for the nuclear assets, the most recent one was a couple hundred million for two units. We have 24 units hanging up that much cash on a balance sheet just as negative impact. So we think it's the right model. We think we differentiate ourselves from others. We

think we have to show that these catalysts that we have for change that are going to come to fruition and then, our valuation should improve.

Hugh D. Wynne

Sanford C. Bernstein & Co. LLC

Q

Is the market possibly expressing some concern about the durability of the cash flows from ExGen? I think the average term of your nuclear operating licenses on that fleet is about 15 years. Are you getting a discount for that?

Christopher M. Crane

President, Chief Executive Officer & Director

A

I'm not sure how many investors look out 15 years. It is where we haven't had any question on that. There's near-term value upside, but to address what does the company look in two decades, that's a lot of the work that we're doing on the diversification, how we look at the investments we're making, contracted assets, or durable assets. Our expansion in natural gas, right now we're the fifth largest in the marketplace on merchant natural gas storage.

Our transmission capacities that we contract for, where our gas portfolio management desk has grown considerably, we're doing well in gasses along with electricity. That drives us into optionality around projects like our LNG facility that we're permitting and that would be a fully contracted asset. Making investments like that will continue to provide avenues for future earnings. There is some inevitability in decades to come that there'll be less nuclear units, partially because of age and partially because of economics. As we look at those units today, the smaller single site, Ginna, Oyster Creek, they're not going to be able to compete. But we have a pilot project that we've started with the Nuclear Energy Institute, Department of Energy, and EPRI, or Electric Power Research Institute, to extend the life of the plants beyond 60 years to 80 years. The larger dual-unit sites would be great candidates for that.

People look at how can you have a nuclear plant run for 60 years. It's not the plant that was built 60 years ago. The concrete is the same. The reactive vessel is the same, but there's considerable investment. As you've seen and noted from our CapEx that we put in our turbines on our dual-unit sites. All our sites have new turbines, new generators, new transformers. We're constantly upgrading or changing pipe and pumps and valves.

So your active components have all been, continue to be upgraded and changed out. Our control systems are not the old control systems of the 1960s. We have state of the art digital controls on most of our reactor protection and turbine control systems. So it is a natural potential that we can do that. If the economics of the units are being compensated for their environmental benefits and their reliability benefits, we think there's an avenue to continue to drive those.

Hugh D. Wynne

Sanford C. Bernstein & Co. LLC

Q

Maybe you could comment a little bit about some of the efforts you've been making to improve the economics at Ginna, but also at Clinton and Quad Cities. Where have you gotten to in New York? What are you expecting the outcome to be in Illinois?

Christopher M. Crane

President, Chief Executive Officer & Director

A

So, in New York, we have a reliability negotiated deal that has been approved partially. We have to go back to RGE and we're negotiating one point – or two points that FERC wanted, but essentially we have a contract to run that at cost with a risk premium through 2018. Unless New York does something around 111(d), that unit will be

challenged to run after 2018. If it doesn't have a contract for reliability, it's losing money. So it only makes sense to take it off. We'll work with New York on that.

Clinton, we've done a lot around the costs on Clinton. Clinton used to load a reactor core for 24 months. And when energy prices were higher, the cost of a refueling outage was \$30 million to \$40 million. Because of fuel costs are down, energy costs are down, we actually are loading a core every year, so that saves some money. We've done some other things. But the reality for Clinton is, if there is not a low-carbon portfolio standard that comes out in Illinois, the MISO market is not designed to support a competitive generator like that and the capacity market just doesn't work. There was Zone 4 and MISO is where that plant is at. There was a significant jump in the capacity prices. There was next to nothing that was getting paid. It went to \$150 a megawatt day. I think that increased the profitability by \$10 million on an annual basis. It's just not significant.

Quad Cities, again, it's the low power – the low carbon portfolio standard that will be required to support that. We don't think the capacity performance plan on its own can do that. It might. And if it did through this next auction, that would be a great thing, because we're recovering our full costs and we're getting a risk premium on top of that. So it's a profitable unit.

The Illinois legislature, if it takes it up this session, that would be great, but we are on a clock to make an announcement or a decision in September and we will make that. If it doesn't clear, we don't have a bill. And if it doesn't clear, the capacity auction will have to take the next steps in announcing its early demise.

Hugh D. Wynne

Sanford C. Bernstein & Co. LLC

Q

Now, let's talk about the PJM capacity auction. Do you see the more stringent definition of availability that's implicit in the capacity performance product, as creating a sustainably higher capacity price, which at least in my mind would require some kind of ongoing recurring cost of providing capacity? Or do you think that there'll be sort of a one-off adjustment with a bunch of capital expenditures that will allow people to meet the new requirement? And then, once those capital expenditures are made, they'll be treated as a sunk cost and the capacity price will fall to a level that reflects sort of the ongoing variable cost of providing it?

Christopher M. Crane

President, Chief Executive Officer & Director

A

Many of the units that have cleared previously in the capacity auction have been run on very low O&M. And you saw their availability during the Polar Vortex, when they weren't able to come up. I think the requirement of maintaining a dual-fuel, the requirement and the penalties for the non-performance will drive expenditures in maintenance and maintenance practices that some of the gas units and the coal units have not seen before.

Hugh D. Wynne

Sanford C. Bernstein & Co. LLC

Q

And so what will be the sustainable implication of that do you think for capacity prices?

Christopher M. Crane

President, Chief Executive Officer & Director

A

I think if we have the interim auctions, we have a cap on that. I think it's 0.8. And so that will be the seed capital to get the units, the maintenance and the required capital to – if it's oil tanks or whatever. I think that there may be, in the future, a slightly – could be a potential slightly less, but it's going to be increased over the past benchmarks or averages for capacity clear, just because of the cost of maintenance.

And it's all about bidding behavior. We look at it as we're going to take a risk to bid in. So we're going to bid in a risk premium. Others, hopefully, we have seen some lack of discipline in the capacity market in the past. If people don't understand the risk of this commitment and they don't put a risk premium in, you could see a reduction there. But I think the additional maintenance and getting paid for the risk will keep it at an adequate level.

Hugh D. Wynne

Sanford C. Bernstein & Co. LLC

Q

Are we talking about something that's bigger than the bread box or -

Christopher M. Crane

President, Chief Executive Officer & Director

A

Well, it's -

Hugh D. Wynne

Sanford C. Bernstein & Co. LLC

Q

\$10, \$50 maybe?

Christopher M. Crane

President, Chief Executive Officer & Director

A

I think we see a long run that could go 160 to in the 200s, which would be greater than what we've seen. I think it was at 116 or 110, I forget what it cleared. 120 cleared. So there's some improvement.

Hugh D. Wynne

Sanford C. Bernstein & Co. LLC

Q

160 to 200s, okay. And if that expectation were fulfilled, what kind of EPS impact would you be expecting?

Christopher M. Crane

President, Chief Executive Officer & Director

A

So that \$10, [ph] Andy's (31:00) got this number up top there. What's the EPS number?

A

\$10 is \$0.05.

Christopher M. Crane

President, Chief Executive Officer & Director

A

Yeah, \$10 is \$0.05. So if you go up from 120 to 160, you get [ph] 20% of cash (31:12).

Hugh D. Wynne

Sanford C. Bernstein & Co. LLC

Q

Okay. The other short-term upside that you mentioned to earnings was the Pepco deal, \$0.15 to \$0.20, \$0.15 by 2017. I think \$0.20, you said if the cost efficiencies come through. Is that incremental to a 2014 base or are you measuring off of an earlier base?

Christopher M. Crane

President, Chief Executive Officer & Director

A

2014.

Hugh D. Wynne

Sanford C. Bernstein & Co. LLC

Q

2014. Okay. Had a couple of questions around that deal. I guess the first one was can you make any comments around the D.C. Public Service Commission approval for the Pepco transaction? What your expectations are?

Christopher M. Crane

President, Chief Executive Officer & Director

A

Well, the process as designed is very thorough. And I think that we met the test that that commission needs to ensure that this is in the best interest of the consumer, not only financially but reliability. And so, we feel comfortable that that's a good commission. They rule by the law. They've got a past precedent of following the law and we – you can always be surprised, but we feel like we've made the test and they'll process it properly. They could ask for more, they could ask for more spend, they could ask for more concessions, that's their option and we would have to weigh our ability to meet those requirements as we read them.

Hugh D. Wynne

Sanford C. Bernstein & Co. LLC

Q

A related question is what are the costs to consider in the – complying with the most favored nation provisions in other jurisdictions?

Christopher M. Crane

President, Chief Executive Officer & Director

A

So just the Maryland approval, we priced out where we thought New Jersey and Delaware would be. The Maryland approval across all jurisdictions increased by \$11 million, so it was not significant. We're still within a reasonable range. The incremental increase in that does not have a meaningful effect on earnings per share. It's more balance sheet space we use at the holding company, which could prevent us from doing other things, but it's still a very good and accretive deal.

Hugh D. Wynne

Sanford C. Bernstein & Co. LLC

Q

I wonder if we might get into some of the longer-term potential earnings upside, specifically, could you perhaps comment on some of the evolving changes in the eastern end of PJM? I'm thinking about what are your expectations for the gas price, particularly as you're looking at a gas price that's sort of anomalously low as production from the Marcellus has been bottlenecked into that region, and also the implications of a declining conventional fleet in response to MATS and potential of the clean power plan?

Christopher M. Crane

President, Chief Executive Officer & Director

A

So, on the gas, we went through last year a significant portion of it with a negative basis and we've seen that basis collapse more recently and is actually a premium to the hub. But we long run see gas \$4, \$4.50, and that's \$1 in gas improvement for us is about \$800 million in earnings. So we're significantly levered to recovery in gas. We look at the economics around gas, and the infrastructure investments that are being considered to alleviate that congestion in that area, we think that that is supportive of a higher gas price in the long run. The Governor in

Pennsylvania has just tasked a committee to look at how do we expedite that so it continues to have the economic development support that Pennsylvania has enjoyed over the last couple of years. A lot of rigs have laid down, a lot of things have slowed and the jobs have had an impact. So we feel good about the gas price and we'll continue to follow that.

So on the retirements, the early retirements, we'll continue to see I think heat rate expansions around that, and we believe that there is upside with that. Eventually, new units will come back in, but you'll have the cost of those new units where most of these are coming off are fully depreciated, minimal CapEx and OpEx going into them. So we think that that is an advantage on top of a more rigorous clean energy standard around carbon would be a positive thing for us.

Hugh D. Wynne

Sanford C. Bernstein & Co. LLC

Q

So let's talk a little bit about the dynamics of coal to gas switching and that'll give us kind of a segue into carbon. Do you think that \$1 move in the gas price in that part of the world, Eastern PJM, would be reflected in a sort of commensurate move in the power price? Or do you believe that power prices currently are being sustained by the operating costs of some of these Appalachian coal burning plants?

Christopher M. Crane

President, Chief Executive Officer & Director

A

Yeah, I think that's the case on the west hub. I think it's fairly priced based off of those units, as some more of them come off. I think there's 6 gigawatts to 9 gigawatts more to come off. That will be – that support will be less impactful. I think natural gas – so with the shrinking coal fleet, when is gas on the margin, when is coal on the margin? That's yet to be seen, but we do think that that is an upside.

Hugh D. Wynne

Sanford C. Bernstein & Co. LLC

Q

And then under the – well, let's talk a little bit about northern Illinois and then we'll move on to the clean power plan. How would you characterize the dynamics in northern Illinois? Do you see any potential changes in the shape of the curve, the hours that gas and coal run the margin, or is that fairly much a steady state market?

Christopher M. Crane

President, Chief Executive Officer & Director

A

So we've got a transition period here where some of the coal is going to gas. They'll have a – there'll be more of a capacity play for those that are doing it, but it will – we definitely think there is still that \$3 to \$5 upside as we transition through that switching. There is not a lot of installed gas capacity at this point in NI-Hub. If there were, there's not the demand to develop it at this point either. So we see lower costs, unscrubbed or uncleaned coal going over to natural gas, a conversion – an internal conversion that would drive them less energy efficient and, as I said, more of a capacity play within the area and prices should respond to that.

Hugh D. Wynne

Sanford C. Bernstein & Co. LLC

Q

Now, under the clean power plan, the objective of the EPA is in large part to reduce CO2 emissions of the existing fleet in the short-term by substituting gas-fired generation for coal. It's possible that in the revised plan that comes out in August, we'll see a longer compliance deadline, but that'll probably still be the backbone, I think, of the medium term CO2 reductions. Have you all had any insight into how the states in which you operate are likely

to implement the clean power plan? How that transition will be achieved? What the economic impact will be for you?

Christopher M. Crane

President, Chief Executive Officer & Director

A

Yeah. That is the low carbon portfolio standard approach that we're taking in Illinois. It is an interim bill until the final plan comes up, but we see the final plan being somewhat designed around what we're prototyping with this current bill. We're in early discussions in Pennsylvania with the administration there on how that could work. We have had conversations on how we could make that happen with organizations like the Environmental Defense Fund, EDF, and others that working at coalition that builds a market response design is critical. There's some potential problems with 111(d) that have to be fixed for us to get fully recognize the value of what we're providing and give the states the right guidance. Under the rate reduction, you can actually take a nuclear unit out and replace it with a gas unit and be within compliance.

So the mass methodology, the rate methodology has to be coached properly that you cannot have an increase, and the mass methodology is a much better methodology to ensure that. So we've been working with the EPA as a company, and along with the Nuclear Energy Institute, on making sure some of these unintended consequences are adequately addressed. We think there's more work that can be done around creating the regulation that recognizes the regional fixes. And so how do you enhance a RGGI and how do you develop a Regional Greenhouse Gas Initiative around multiple states? So we're working within the states, but we need the regulation to have a few flaws adjusted.

Hugh D. Wynne

Sanford C. Bernstein & Co. LLC

Q

Do you see the states moving in the direction of putting a price on carbon? I guess we're primarily concerned about Illinois and Pennsylvania, of course, but -

Christopher M. Crane

President, Chief Executive Officer & Director

A

There is a potential for that. That to us a mass base reduction program with the price on carbon is the easiest one to get your head wrapped around. And it, feel like it's the most transparent, but also putting a price on carbon in some states is heresy. So allowing the states that we operate in primarily we think that that would be an approach that'd be taken, with the exception of our development in our existing assets in Texas, which are all natural gas. We don't see Texas going that way any time soon. But the meaningful states with the nuclear assets, New York, Pennsylvania, New Jersey, Maryland, they're going to be all leaning towards the compliance and agree with the regulations.

Hugh D. Wynne

Sanford C. Bernstein & Co. LLC

Q

Do you think that there'll be a move to try to formulate a regional trading scheme for carbon emissions, or do you think that's impractical?

Christopher M. Crane

President, Chief Executive Officer & Director

A

I think it could be difficult if not endorsed properly within the regulation. There is, as you see in California and others attempted. It's a potential, but it will come with - it's more complex.

Hugh D. Wynne

Sanford C. Bernstein & Co. LLC

Q

And not that it's of equal importance to you, but in Texas do you see the state going in the direction of CO₂ permits that they issue or how are they going to avoid a price-based program?

Christopher M. Crane

President, Chief Executive Officer & Director

A

I don't know. Some states are talking about not even filing.

Hugh D. Wynne

Sanford C. Bernstein & Co. LLC

Q

Right. Yeah.

Christopher M. Crane

President, Chief Executive Officer & Director

A

So the EPA will give you the plan in that case.

Hugh D. Wynne

Sanford C. Bernstein & Co. LLC

Q

Okay. I'm trying to think if there's other important issues here that we want to – one of the things that we've been hearing a lot about at this conference is sort of the development of the power industry over maybe the coming decade. Ted Craver at Edison International sort of expressed the view that the pace of change in the power industry was accelerating and has been accelerated obviously by the declining cost of renewable, but also by the evolution of distributed generation and energy storage. He's gone so far as to kind of express doubts about the longevity of a central station system with a radio transmission infrastructure to complement it. Do you have a view as to where the business is heading in terms of its structure? Will there be new model utilities in the future that we haven't seen in the past?

Christopher M. Crane

President, Chief Executive Officer & Director

A

I think there is going to be a new model. I think the demise of central station generation is a little overstated. If you're in a state like California that doesn't have a sensitivity around prices, you can see more of that happening than not. But renewables, some renewable prices have come down, but they're still heavily subsidized. And the problem within some areas is they're not matching their renewable portfolio to their load profile. So yesterday, you had negative prices from 8:00 a.m. through 5:00 p.m. of \$62 – greater than \$62 in California. That really doesn't make a lot of sense. It may in California, but I don't think it's going to play in the Midwest and other industrial areas.

So I mean one of the things that we've seen with RGGI here in New York is, it's stalled a little bit because the reality of the costs of this new technology and whose going to pay for it is becoming clear. This cannot be – there has to be a social benefit to subsidizing or developing the microgrids of the distributed generation. It's a story of haves and have-nots. Now, the people that are getting the solar panel on their house have a credit rating greater than 750. They're selling it back on to the grid at net metering, which means they're deferring or removing their distribution charges, which is not equitable because that's following on the other customers.

So we have to get this right. We model – first of all, we model it as non-economic, that would say you're going to have rationality or people are going to be rational in the market. We don't see that happening. So we plugged in 10% renewable – or 10% distributed generation over 10 years. But even some of the best analysts around that that are driving the environmentalists will tell you, you can't do it without central station, without gas backup. Battery technology is advancing, but not economically and not large enough. If you want to start your air conditioner or your heat pump at your house, you need a surge capacity of 28, 29 kilowatts just to be able to turn that motor the first time and get it up and running. A 7-kilowatt battery pack on your wall is not going to support you coming off. There is two, you can put them in parallel, but its still – and how many cycles can it handle?

So we have a technology organization. We have a ventures organization. We're investing in battery technology to stay close to it. We have people scouring the national labs all the time. That will be the game changer. Is it as big as shale? I read an article today that said solar's as big as shale. Well, maybe if it's over-subsidized and overdeveloped, it will have the negative pricing effects that are the suppression of prices, but it's difficult to see the economics improve enough that you will never have, the freedom that you can go away from that.

Hugh D. Wynne

Sanford C. Bernstein & Co. LLC

Q

So you're not typically concerned about a structural change to the utility model. I guess, in the short - to medium-term, you probably are much more concerned about negative prices, low off-peak prices, the kind of persistent flattening of peaks that you're seeing. Or am I putting words in your mouth?

Christopher M. Crane

President, Chief Executive Officer & Director

A

No, I think you're right. But that said, what I talk to all the utility CEOs about is, this model of you talking about your rate payers, they're your customers. Your customers want certain services. They want reliability. They – in some places, they're going to want peak demands or dynamic pricing. They're going to want to manage their energy needs themselves. This is generations coming in that are much more astute to technology. And although disposable income on electricity and natural gas is greatly reduced over the last couple of decades, it's something that everybody targets and focuses on.

So as a utility, maintain relevance and look at where you want, what your customers want, and make those investments. The smart grid and the communications backbone to the smart grids start that. How do we can help control the street lights across the cities. There's controllers on that. You can bring them up. You can bring them down. There's energy efficiency moves on that. There's communications with customers. If people want and there's a societal benefit of a microgrid because of highly reliability needs, we're working on a pilot right now that has a hospital, but also a critical facility for the Chicago Police and it's tied in with the Illinois Institute of Technology. You can get to the point you say that power can never go off. And so how do you put a microgrid that's tied to the grid with a grid controller.

You've got to advance technology. And Ted is right. We have not seen – I have not seen technology change in my 30-some odd years as fast as it is now. And a lot of these guys that are older than me say this is incredible. Its technology is going to change our world. We can stay relevant if we serve the customer. The thought that New York was having that you would take and have somebody separate, be the distribution system operator, like the transmission system operator, that's a threat. And if you're the person saying no, no, no, instead of saying, okay, here's the facts, here's the economics, but if you want it, here's the price and we'll help you get there. That's the difference.

Hugh D. Wynne

Sanford C. Bernstein & Co. LLC

Q

So do you see the roll out of these technologies on the distribution grid as having a material impact on your investment opportunities, or do you think it's going to be a little bit like what you were describing on the generation side, a very long term expensive change that probably doesn't materially affect you so much?

Christopher M. Crane

President, Chief Executive Officer & Director

A

So what we're investing in now, the \$16 billion is mostly technology going in to harden the system, fault detectors, fault re-closers, isolators, smart meters, communication protocol. It is driving reliability and customer satisfaction. Now, that's where we have to go. That's where we have to get the technology in and make the customer experience much better. The storm fronts that come through, getting the technology that actually predicts based off of the direction of the storm, the speed, the velocity that which it's travelling, we can now start to zero in on, where the trucks go, how many poles we think we need, big data analytics, things like that are how you get out in front of it. Some of the other stuff that you hear on the distributed generation side, the economics aren't going to be there, but people may want.

Hugh D. Wynne

Sanford C. Bernstein & Co. LLC

Great. I think we ran out of time, but I appreciate the time you spent with us.

Christopher M. Crane

President, Chief Executive Officer & Director

Okay. Thanks. Appreciate it.

Disclaimer

The information herein is based on sources we believe to be reliable but is not guaranteed by us and does not purport to be a complete or error-free statement or summary of the available data. As such, we do not warrant, endorse or guarantee the completeness, accuracy, integrity, or timeliness of the information. You must evaluate, and bear all risks associated with, the use of any information provided hereunder, including any reliance on the accuracy, completeness, safety or usefulness of such information. This information is not intended to be used as the primary basis of investment decisions. It should not be construed as advice designed to meet the particular investment needs of any investor. This report is published solely for information purposes, and is not to be construed as financial or other advice or as an offer to sell or the solicitation of an offer to buy any security in any state where such an offer or solicitation would be illegal. Any information expressed herein on this date is subject to change without notice. Any opinions or assertions contained in this information do not represent the opinions or beliefs of FactSet CallStreet, LLC. FactSet CallStreet, LLC, or one or more of its employees, including the writer of this report, may have a position in any of the securities discussed herein.

THE INFORMATION PROVIDED TO YOU HEREUNDER IS PROVIDED "AS IS," AND TO THE MAXIMUM EXTENT PERMITTED BY APPLICABLE LAW, FactSet CallStreet, LLC AND ITS LICENSORS, BUSINESS ASSOCIATES AND SUPPLIERS DISCLAIM ALL WARRANTIES WITH RESPECT TO THE SAME, EXPRESS, IMPLIED AND STATUTORY, INCLUDING WITHOUT LIMITATION ANY IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, ACCURACY, COMPLETENESS, AND NON-INFRINGEMENT. TO THE MAXIMUM EXTENT PERMITTED BY APPLICABLE LAW, NEITHER FACTSET CALLSTREET, LLC NOR ITS OFFICERS, MEMBERS, DIRECTORS, PARTNERS, AFFILIATES, BUSINESS ASSOCIATES, LICENSORS OR SUPPLIERS WILL BE LIABLE FOR ANY INDIRECT, INCIDENTAL, SPECIAL, CONSEQUENTIAL OR PUNITIVE DAMAGES, INCLUDING WITHOUT LIMITATION DAMAGES FOR LOST PROFITS OR REVENUES, GOODWILL, WORK STOPPAGE, SECURITY BREACHES, VIRUSES, COMPUTER FAILURE OR MALFUNCTION, USE, DATA OR OTHER INTANGIBLE LOSSES OR COMMERCIAL DAMAGES, EVEN IF ANY OF SUCH PARTIES IS ADVISED OF THE POSSIBILITY OF SUCH LOSSES, ARISING UNDER OR IN CONNECTION WITH THE INFORMATION PROVIDED HEREIN OR ANY OTHER SUBJECT MATTER HEREOF.

The contents and appearance of this report are Copyrighted FactSet CallStreet, LLC 2015 CallStreet and FactSet CallStreet, LLC are trademarks and service marks of FactSet CallStreet, LLC. All other trademarks mentioned are trademarks of their respective companies. All rights reserved.