

Committee Meeting

of

SENATE BUDGET AND APPROPRIATIONS COMMITTEE

"The Committee will receive testimony from invited utility industry executives. Witnesses will report to the Committee on the response to Hurricane Sandy, on proposed measures to address utility infrastructure vulnerabilities, and on other related issues in the aftermath of Hurricane Sandy"

LOCATION: Committee Room 4
State House Annex
Trenton, New Jersey

DATE: December 5, 2012
10:00 a.m.

MEMBERS OF COMMITTEE PRESENT:

Senator Paul A. Sarlo, Chair
Senator Sandra B. Cunningham
Senator Linda R. Greenstein
Senator M. Teresa Ruiz
Senator Stephen M. Sweeney
Senator Loretta Weinberg
Senator Jennifer Beck
Senator Anthony R. Bucco
Senator Steven V. Oroho
Senator Kevin J. O'Toole
Senator Samuel D. Thompson



ALSO PRESENT:

Catherine Z. Brennan
Office of Legislative Services
Committee Aide

George J. LeBlanc
Senate Majority
Committee Aide

Christopher Emigholz
Senate Republican
Committee Aide

Meeting Recorded and Transcribed by
The Office of Legislative Services, Public Information Office,
Hearing Unit, State House Annex, PO 068, Trenton, New Jersey

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Chairman

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Vice-Chairman

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COMMITTEE NOTICE

TO: MEMBERS OF THE SENATE BUDGET AND APPROPRIATIONS COMMITTEE

FROM: SENATOR PAUL A. SARLO, CHAIRMAN

SUBJECT: **COMMITTEE MEETING - DECEMBER 5, 2012**

The public may address comments and questions to Catherine Z. Brennan, Howard K. Rotblat, Committee Aides, or make bill status and scheduling inquiries to Amanda Hecht, Secretary, at (609)847-3835, fax (609)943-5995, or e-mail: OLSAideSBA@njleg.org. Written and electronic comments, questions and testimony submitted to the committee by the public, as well as recordings and transcripts, if any, of oral testimony, are government records and will be available to the public upon request.

The Senate Budget and Appropriations Committee will meet on Wednesday, December 5, 2012 at 10:00 AM in Committee Room 4, 1st Floor, State House Annex, Trenton, New Jersey.

The committee will receive testimony from invited utility industry executives. Witnesses will report to the committee on the response to Hurricane Sandy, on proposed measures to address utility infrastructure vulnerabilities, and on other related issues in the aftermath of Hurricane Sandy.

Issued 12/3/12

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SENATOR PAUL A. SARLO (Chair): Good morning, everybody. Welcome to the Senate Budget and Appropriations Committee hearing of December 5, 2012.

May I have a roll call, please?

MS. BRENNAN (Committee Aide): Senator Beck. (no response)

SENATOR SARLO: She will be here.

MS. BRENNAN: Senator Thompson.

SENATOR THOMPSON: Here.

MS. BRENNAN: Senator Oroho.

SENATOR OROHO: Here.

MS. BRENNAN: Senator O'Toole.

SENATOR BUCCO: He's on his way.

MS. BRENNAN: Senator Bucco.

SENATOR BUCCO: Here.

MS. BRENNAN: Senator Sarlo.

SENATOR SARLO: Here.

MS. BRENNAN: Senator Sweeney.

SENATE PRESIDENT SWEENEY: Here.

MS. BRENNAN: Senator Weinberg.

SENATOR WEINBERG: Here.

MS. BRENNAN: Senator Greenstein.

SENATOR GREENSTEIN: Here.

MS. BRENNAN: Senator Cunningham. (no response)

Senator Ruiz. (no response)

Senator Van Drew. (no response)

And Senator Pou is not here today.

SENATOR SARLO: Thank you.

Let me just take care of some housekeeping items first.

Again, I want to thank all of the members of this Committee. And our staff, on a very short notice, have put together-- This is our third hearing that we've conducted. And I am very proud of this Committee and how we've accomplished a lot in such a short time and in a very bipartisan manner. Again, I want to compliment, as I've done at every hearing, our Senate President, Stephen Sweeney; our Minority Leader, Tom Kean; and the Governor's Office for cooperating with us in providing the high-level cabinet members to work with us.

The focus of these hearings, through this Budget Committee, has been to provide us with a snapshot both before, during, and in the aftermath. And now, as we've heard from folks who have been on the ground in the aftermath, we are beginning to proceed as to how do we rebuild and how do we do it smart -- smarter and better -- in a very economic way? And we realize the dollars that are going to be associated with this effort and that's why we're doing it through the Budget Committee.

Just for the Committee's sake, we are scheduled to meet on Tuesday in Highlands at Henry Hudson Regional High School at 3:00. There will be a walking tour before that. More details will be forthcoming. That will be a public hearing for members of the entire State of New Jersey, but I'm assuming we'll hear a lot of folks from the coastline. As more details of the (indiscernible) schedules, we will get it out to you.

Today we have a long list of folks who we're going to be hearing from. For those who I call upon to testify, I'm going to ask you to keep your remarks concise, brief, and to the point. This way we can have some questions and answers. We're going to be hearing from the electric utility executives initially; then we're going to hear from the Board of Public Utilities; we're going to hear from Passaic Valley Sewerage. We're going to hear, on a limited basis, from the Jersey Natural Gas and the Jersey American Water Company with the impact of -- turning back service to the barrier island, especially the northern barrier island, and the impact on that system and when we're going to see service there. And we're also, through this process, we're going to hear from the cable and wireless folks and the impacts on their system -- both from Verizon as well as Cablevision.

Let me begin. Our first witness I am going to call is-- And before I do that, I just want to thank all those who have changed their schedules. I know you all have very busy schedules, like all of us, and you're also involved in the aftermath of this storm. I appreciate you all changing your schedules on a very short notice to be here today to work with this Committee. So I appreciate that. And I mean that sincerely; many of you had 48 hours notice to change your schedules, and you accomplished it. So that just shows you a commitment to our state.

Senator Bucco, would you like to provide, on behalf of the Minority party, any remarks?

SENATOR BUCCO: Thank you, Mr. Chairman.

Yes, I'd like to thank you for scheduling all of these meetings, being this is our third. Our Monday meeting, I think, was very informative with Teterboro and Moonachie, and the devastation that was brought to

them with this storm. And thanking all of the CEOs again for coming to our meetings so that we can get a better understanding of what we went through, what you went through, what your companies went through, and see how we can, in the future, correct some of the issues that arose through this storm. So I think it is important that we continue these meetings, hearing from everyone who is involved, and even hearing from citizens in the future of some of the complaints that were there. And again, I thank you for that, and we look forward to hearing what our CEOs have to say today.

Thank you.

SENATOR SARLO: I now call up Ralph LaRossa, President and CEO of Public Service Electric and Gas.

R A L P H A. L a R O S S A: Thank you, Mr. Chairman, thank you, Senators, for having me here today. I look forward to the opportunity to just give you a brief update on a little bit about the storm from our perspective.

But first I wanted to take this opportunity to thank all of you for the support that you gave us throughout the storm. I know that the pressures that were on you from your constituents were tremendous, and the conversations that we had were very helpful. I want to thank the Administration for the support that they gave us throughout the storm, and specifically the Board of Public Utilities. Their ongoing efforts to eliminate barriers and challenges that were put in front of us were very helpful. And, for what it's worth, I also know that we got quite a bit of support from the Federal Government and their efforts.

But none of this would have been possible without the employees of all the utilities -- not just PSE&G employees, but as I go through this presentation I ask you to think about the 4,000 folks who came here to help us. And specifically one individual who passed away at the age of 52, from Henkels and McCoy; he was a contractor who came to assist us and passed away from a massive heart attack in the middle of the storm. Folks gave everything they had to try to get the customers back in the State of New Jersey, and that just exemplifies some of the work that these individuals put in.

So I'll just talk about three things that I think are really important to the Committee: One, I'll talk a little bit about the preparations that we had done as a company; I'll talk a little bit about what happened during the storm; and then I'll talk about what I think is most important, and that's what we can all work on to continue to improve the restoration efforts here in the State of New Jersey. Because although I'm not a climatologist and I won't get involved in the debate on climate change, I will tell you that storms, as I was growing up here in New Jersey, did not make a left-hand turn into the state in the past; they used to make a left-hand turn into North Carolina. And I heard the Chairman of Con Edison give some facts out that I thought were very important at a meeting last week. There was one tornado in the State of New York in the 1960s; one in the 1970s; one in the 1980s; one in the 1990s; three that took place from 2000 to 2010. And since 2010, there has been eight tornadoes in the State of New York. So I'll just leave that as some backdrop. We all have to rethink the way we do things, and certainly some of the challenges that we faced here will give us some opportunities.

I'll just give you a little bit about our preparation work. We had known the storm was coming for quite some time -- for about a week in advance. The first thing that we did was call a mutual aid conference with the other utilities in the Northeast. And through that process we were able to bring in 1,000 additional line personnel. Our normal workforce is about 700; so we had brought 1,000 in, in advance, based upon the forecast that we had seen. And a number of tree trimming contractors as well; I think about another 700 or so that came in to help us in advance of the storm.

So we were prepared for what we expected to be a very big wind event; and it turned out that we did have a wind event, but it was even greater than we had expected.

We also, during that time, prepared ourselves by doing all of our checklists that we have in place -- things such as making sure that all our generators were working; that was very important at our call centers, which were out of power for several days as a result of the storms, so we had our backup generators running. We had gone in and done a lot of work with our-- Conversations, again, with the State to look at some of the flooding challenges that we had seen up in the northern part of the state before. Great work by the DEP, looking at those reservoirs in advance this year and lowering some of those so we didn't have the challenges that we had in Milford in the past. So a lot of positives that we did from a preparation standpoint -- but the most important one being to get the additional personnel here to help us throughout the storm.

Once the storm hit, it hit us in a way that we just did not expect -- just to be blunt about that. I looked at the weather forecast that we received on the 29th of October and, to be very specific about that, the

weather forecast was correct on one thing: the amount of rain that we were going to get. A quarter inch to three-quarters of an inch -- that was right on. The wind speeds that were expected were between 30 and 45 miles an hour with gusts of 40 to 65. What actually took place was 40 to 65 mile an hour constant wind with gusts of 90 miles per hour. On the top of our building in Newark, the very top of our building, we measured the gauges at 100 miles an hour during the peak of the storm. Not anything that we had expected, nor we had ever seen before in that area.

The storm surge was projected, back on the 29th, to be 3 to 6 feet of storm surge. We actually saw 11 to 14 feet of storm surge as the storm approached.

So we wound up with two different storms in the PSE&G territory. One was a storm surge that impacted the Newark Bay area; and I'll talk to you a little bit about that and the flooding -- what took place there. And then we also had the high wind speeds that we had throughout the entire service territory.

So we'll start with the storm surge. As I said, about 14 feet came into the area. That impacted a number of our switching stations. And I just want to pause here just to explain our system, and I think it's important. You all know we have generating plants that generate the power, put it on a transmission line. The transmission lines then bring the power to our switching stations. Switching stations then provide power out to substations, and substations then deliver power out to the streets -- that you see power lines in the streets. Why is that so important to understand? What was impacted for us around Newark Bay were 11 separate switching stations. Those switching stations then fed substations. So when I was

having conversations about Newark and bringing back the power into Newark, it was important for us to make the repairs in those switching stations before we could start to energize the substations. Once we energize the substations then we start to work on the streets.

So we went through that process. The flooding was so dramatic and so quick that we had several personnel within PSE&G who were not even able to escape those switching stations that they were manning so that they could take proactive action. We had eight individuals who were in a construction trailer, floating around in our Essex switching station for over eight hours before they were rescued. I know County Executive Diffrancesco came in himself to try to help when we were bringing in Humvees and other things to try to get in there to get some of those folks out. It was a complete -- from our standpoint -- a complete disaster waiting to happen. They were saved, they were taken care of. Everything was copacetic at the end of the day from their standpoint, but it just gives you an idea of the magnitude of the flooding -- how quickly it came in and how difficult it was for us to take action.

We had sandbagged and put up barriers around 11 different locations that we had expected flooding to come into based upon the types of storm and the forecast we had. So 11 stations we took proactive action at; those were not the right 11, because we did not expect what happened in Newark Bay. I don't think any of us did. And that's what wound up taking the longest amount of time.

So overall, 1.7 million customers were impacted; about 1 million of them were impacted associated with that flooding area, and the rest were associated with the high winds that we had.

So just talking about the high winds for a second and the impacts there, and then I'll bring it to what our suggestions are.

The high winds-- You saw the damage. I can show you thousands of pictures about what was out in the streets. The only way you make those repairs -- and you'll hear this, I think, from the folks at FirstEnergy -- is to have additional resources here to help us. We were all asking for every resource that we could get from the time that we started to have these mutual aid calls. We were continuing to ask for additional personnel. You saw an increase in the response rate here in New Jersey and additional restoration taking place about halfway through the storm as crews were released from the Delmarva Peninsula -- as that workload started to be reduced. You also saw a big push at the end of the storm when the folks up in the Cape Cod region released their crews so they could come down after the nor'easter passed by their service territory.

So we were all working together to bring these resources, but the fact that this storm hit such a massive area required us to bring crews in from as far away as California. There were folks who were flown in; they wound up helping out on (indiscernible) and Con Ed, but they were flown in from California on transport trucks to try to get here to help us in the restoration process.

It's hand-to-hand combat out there; again, I think the crews did a fantastic job in the work that they did. The number one reason -- and the number one thing that, as I'll get into the recommendations -- that caused all that damage were the trees. We all love our trees, but it's time for us to take a step back, and I'll talk about that a little bit in our recommendations, and see what we want to do about dealing with the tree trimming activities.

So at high level, two storms: one storm surge that came up through Newark Bay, the second one was the overhead damage that we had from the windstorm.

So let me move to what I think is most important, which is where we go, going forward.

There were-- The storm surge is something we certainly need to think about. And whether we talk about raising stations or lowering stations, or moving them sideways or upside down, none of that really matters. What's important to us to build in additional redundancy in the system. If we solve for a storm surge, we didn't solve for an earthquake. If we solve for an earthquake, we didn't solve for an airplane crash, God forbid. If we solve for something else-- We need to build additional redundancy in the grid, and you see us starting to do that. I know at PSE&G we've gone from a capital program of about \$300 million to \$1.9 billion this year. That's all building in additional transmission and additional redundancy into the grid. We need to continue to do that. So you're going to hear us talk more and more about redundancy. I absolutely agree -- we'll raise the stations, but I don't want anybody to have a false sense of security.

We had done a tabletop exercise which identified the exact problem that we had in Newark and in Essex County. And we had done that two years ago. When we did it, the tabletop exercise was about an airliner that was diverted and crashed on entrance into Newark. That was our tabletop exercise. And we identified that there was a single point of failure. So what we did was we went to PJM; we asked PJM, the planner for

the transmission system, to give us additional redundancy in that grid. They approved that project. We went ahead and we were assigned that just within the last nine months. And about a month before the storm hit we actually purchased the land on Littleton Avenue in Newark to make that investment. So we're looking at that and you're to continue to see us looking at it. That redundancy is what's extremely important. So that's one piece of the puzzle for us.

The second piece of the puzzle for us is the tree trimming. I just ask you to go back and think about 2003. FERC got it right: Whatever they did at the Federal Energy Regulatory Commission was right. They put very stringent rules in place about tree trimming. This isn't the Board of Public Utilities' fault, this isn't your fault, this isn't-- This is the process that's been in place, and we have an opportunity to fix this. Each individual town has their individual shade tree commissions, and there is one that I've had personal conversations with that will tell you, "We're not going to trim anything that's bigger than this." And they hold up their index finger. We're not going to have good reliability when those are the types of things that we're doing. We need to go in and spend the effort on it. And I said "spend the effort" because I don't want to say spend the money. The amount of money is really not going to change much. All of you who are in the construction industry -- you know. It's the windshield time, it's the time for the truck to get there, it's the time for the individual to get there. Once they're up in the air, if we trim 6 feet or we trim 8 feet isn't a real big difference. And when we have to go 8 feet and we're going to impair the tree, what we need to think about is how do we lower it, maybe replace that tree with something that's not going to grow up as high

in the future. So the tree trimming is the next area that I would suggest that we really have to focus on.

And then the last thing that I would say, if you took a look at three big things, is we have to talk about the communications protocols. And I'll just talk for our company: There are 236 mayors in our service territory. I could spend the entire day personally talking to all 236 and I wouldn't get through it. We went out and I think we spoke, personally, over the length of the storm, with 100 of them, face-to-face. But to have 236 conversations, day in and day out, it's not going to work. We need to use technology in the best way we can to get our information out.

We're going to implement whatever policy comes out of this conversation. You could do it multiple ways. I don't think we'll ever solve the Blackberry era, the iPhone era, until we have communication at the customer's home. I'm not going to advocate for AMI, I'm not going to advocate for the-- We need two-way communication. The utilities have come and talked about this for the last seven or eight years; Atlantic City Electric did it as recently as this week. We did it back in-- And prior to that, as well, we've done it back in 2007, where we completed pilot programs in the state and showed that those opportunities exist. It's expensive -- it's expensive. But there are ways that we can do it. Maybe we can find different types of mechanisms, work with different vendors. We should consider that as a policy going forward, because I think the consumers are demanding it and it's something that we should consider implementing going forward.

I don't know what the right answer is; I'm not looking to create some big programs so we can make a lot of additional rate-based

investments. What we're trying to do is figure out the best way to communicate with the customers.

Thank you.

SENATOR SARLO: Thank you, Ralph.

Let me try to take a couple of -- two or three things right off the table here, and I think big picture items. And I was on a phone call with the Colonel of the State Police, the Governor, and others on the morning of the 29th when the meteorologists said the storm surge-- That we were going to see an unprecedented surge, especially along the barrier island. I guess what took PSE&G by surprise and others was that the surge would extend, not just along the barrier island, but it would come up into the Newark Bay, Hackensack River. Is that what you meant-- Was the surge in Newark Bay and Hackensack, is that what took your utility by surprise?

MR. LaROSSA: Yes, I think that that conversation got a lot more heated as we got closer to the storm. And if you think about our switching stations, there's no way to build barriers around those switching stations. It's physically impossible to do that within two days at the heights that would have been required. So when we were looking at the storm surge we were not expecting it to come into the Newark Bay area at that speed, to that height.

SENATOR SARLO: I know the answer to this question; I think it's just important to hear it from you and to put it out there. Many of these substations are located in very low-lying areas along river banks, in flood plains, essentially because mayors like me and others don't approve them in viable lands. We approve them for areas -- low-lying areas -- along

the river banks. And I'm correct in saying that? Is that why many of these are constructed in those areas?

MR. LaROSSA: No. I would think that that's part of it, but to be fair to everyone as well, let's think about where they were constructed. These stations were built 100 years ago, in many cases. And they were built where the industrial load was. You don't want to have drops in voltage, so back then they built them as close to the low pockets as they could possibly build them. And so the ports were where the industry was. So they built them around the ports areas of 100 years ago. Times have changed. We need to think about whether or not, based upon conductors and other things, we can move them back a little bit. But again, that's just solving one of the issues. We need to build redundancy into the system.

SENATOR SARLO: You talked a lot about the redundancy. And it's one of your first recommendations. We all know what happens during the storm and the aftermath, and I complimented you personally and all your crews for the effort that they did in working hard to restore power.

But let's just talk about the next step. I read an article in the paper today -- I wish it was released here at our Committee hearing, but -- it says, "Utility says it lost at least \$250 million so far and its customers may end up paying much of that." That was in an article in the *Bergen Record* this morning. What is the dollars, the real dollars that you're looking at for an infrastructure to create this redundant system? And where's that coming from? Is it going to come-- Where do you think it should be coming from? Should it be coming from the Federal government? Should it be coming from us -- our State coffers? What is PSE&G going to put into this?

MR. LaROSSA: So let's start with the press release that we gave yesterday, which is between \$250 million and \$300 million; that's our estimated cost right now for the, I'll say the band-aids to put the system back together again. That's to restore the power, not to rebuild it. So there's a very, very -- I think it's very important to understand that the numbers that we talked about are the restoration, not the rebuild.

To rebuild a substation, on average, it will cost you around \$2 million. We can make a decision-- I can't answer your question now about how many. To rebuild a switching station is over \$100 million. And, again, I can't answer your question now about how many. The reason for that is we need to decide what are we building to. Are we going to build to a category 2, 3? Category 4? What do we want to build to? What additional redundancy do we want build into the system? If you look at the maps, we should not have had, with the type of storm we had, the level of storm surge if you look at what we expected. It just wasn't there.

So we need to answer the question first: What do we want to build to? And then I can give you the answer about what the long-term cost could be.

SENATOR SARLO: Will PSE&G be looking for us here, the State legislators, this Budget Committee, for capital investment -- for dollars for capital investment? Do you believe PSE&G will be looking to us?

MR. LaROSSA: No. I think-- Look, the utilities function is to bring investors to the solution. We can access the capital markets. What we need to do is have the clear policy. Again, I'll point back to FERC. FERC has created a mechanism in place that allowed clear signals to the investment community that the regulations were in place and the support

was there for the investment. FERC didn't just-- You know, we all deal with our kids, and you can deal with a carrot or you can have a stick. FERC has carrots to induce investment; we can then get investors to bring their dollars to the table. We don't have to ask the State for it. We can make that because of the returns that are allowed. And the stick that FERC put in place is some additional penalties. And this Administration and the committees have started to have those conversations already. So a combination of those two things has served FERC well; and I would support both of those.

SENATOR SARLO: One of your recommendations-- We're going to-- As we go through this process, you -- working with your engineers and your planners -- are going to come up with recommendations on the redundancy; how to retrofit the substations and the switching stations. On the communication end, I think one frustrating thing we all were frustrated with -- and I know you said that to a bunch of mayors in a meeting that I attended right after the storm -- I think many people don't realize that a power company does not know when I'm sitting in my home and I don't have power. I think many people-- Most folks think when they go out of power, you know automatically. There is a switch in your control room that says, "Mrs. Jones, 140 8th Street, is out of power." I think that caught a lot of people by surprise that the power companies don't know that.

MR. LaROSSA: Right.

SENATOR SARLO: And we all know what the solution is there. Can you give us a roundabout -- if you were to put a

communications *smart meters* -- I guess that's the term -- what it could cost? What would be the infrastructure cost?

MR. LaROSSA: Just a rough estimate, a smart meter installation would cost you between \$500 million and \$700 million, depending upon what solution you chose to put in place there. That's an investment that you can make and, again, we can go ahead and do that if the policy supported it.

So I don't know if you need that or if there is something less than that that we can do. But I think we need to start the conversation about the two-way communications.

SENATOR SARLO: And that would be just for PS territory -- Public Service--

MR. LaROSSA: That's correct.

SENATOR SARLO: --is \$500 million to \$700 million.

MR. LaROSSA: That's for 2.2 million electric meters and 1.6 million gas. So you could just extrapolate that out for the rest of the state.

SENATOR SARLO: So as you were turning on large segments, I guess the frustrating part was the folks -- the smaller, local people who were out of power -- the only way you knew about it was through the county OEMs and the local OEM coordinators calling--

MR. LaROSSA: Or if the customer called back. So we look silly; we really look silly as an industry. Not as a company -- as an industry. This is across the board. In the entire country, there are 43 million of these smart meters that will be out there by the end of this year. So think about that for all of the customers who are in-- We look antiquated.

So we've turned on a switching station in Newark; we think we've got a whole bunch of Newark back. Now we have to turn on a substation. But every time I do that we're telling the customer, "We think you're back. Are you back?" Then we turn on the feeder to their location. "Are you back? We're still not sure you're back." Then we get down to the individual street. "Are you back?" Then we get down to the cul-de-sac. "Are we back?" And then into the actual service into a home.

SENATOR SARLO: There lies the frustration in the communication.

MR. LaROSSA: Extremely frustrating for the consumer.

SENATOR SARLO: That, I believe, is one of the things we need to work in concert with the utilities, BPU, and the industry on -- how to solve that communication problem for future storms. Because I think that was the biggest frustration that I heard.

I'm going to turn it over to the Senate President. I just have a final thought and one final comment.

We all know the failures of the LIPA power supply company from news reports in the New York market. There has been discussions that Public Service Electric and Gas will be managing or taking over LIPA. What kind of resources are you going to need here in New Jersey-- What kind of resources are we going to be pulling from Jersey for your company to go manage LIPA, and should we be concerned as legislators?

MR. LaROSSA: We were awarded, and we take it as an honor, that we were picked over all the other utilities in the country to manage the system. LIPA put out a bid to be their manager of the grid. National Grid is currently providing that service. We take over on January 1, 2014, to do

that -- provide that service. We are providing, at the top level, about 12 folks who are going to be providing different support management services to LIPA. That is out of our 6,500 employees -- is not something I think this Committee or the State of New Jersey should have the least bit of concern about. We think-- So we've been giving some promotion opportunities to people as we go through this. And we're looking at some of the folks who are over there, because there are some very good, talented people there as well. What we really think we're going to be bringing to the table is our processes. There are things that we do differently than National Grid does. And I think if we implement some of those processes there the consumers on Long Island are going to see some benefit.

SENATOR SARLO: Make sure we get smart meters before they do, and LIPA. (laughter) We're going to hold you to that.

MR. LaROSSA: Okay.

SENATOR SARLO: I'm going to turn it over to Senate President. I just want to caution the members: we do have the executives from JCP&L here, as well as BPU. So just keep that in mind as you ask questions, because I don't want redundant questions.

SENATE PRESIDENT SWEENEY: Thank you, Chairman.

I just, honestly, have one question, Ralph. When we talked about your substations flooding and how we couldn't plan -- they've been there a really long time. Is there any history where they flooded before?

MR. LaROSSA: Not those substations, to the best of our knowledge. Our records only go back a certain amount. And Senator, I also would tell you that a lot of people said, "They're so old. Why aren't you replacing them, taking them out?" I just remind everybody: Some of

the old homes that we live in, the 2-by-4s are real; the ones we buy now may not be actually -- if you measured them -- 2-by-4. So we need to put the technology on top of some of those old locations, and we'll see some improvements there. And that's what we've been trying to work on.

SENATE PRESIDENT SWEENEY: That's kind of what I was trying to figure out. You know, no one wants to talk about the climate change, but these switch yards are actually, even though they were close to flood plain areas, whatever you want to say -- they never flooded. So, I mean, again my big thing out of these hearings -- and the Chairman's done a great job with this -- is we really need to know from you, and the other companies, how we fix this or how do we go about going forward.

So I was just-- I wanted to hear from you: have they flooded before? Because, you know, we hear about the 100-year storm that used to come every 100 years. Now it's coming every year. So I appreciate the fact that they haven't flooded in the past.

SENATOR SARLO: Senator Bucco.

SENATOR BUCCO: Thank you, Mr. Chairman.

Good morning, Ralph. Thank you for being here this morning and changing your schedule so that we can hear from you exactly what some of the problems were with your utility and all.

One thing that you had said, and I want to get it clarified: tree trimming. You said now with shade tree commissions in individual towns, are telling you they only trim--

MR. LaROSSA: Certain towns are more aggressive in that aspect than others.

SENATOR BUCCO: But don't you have the ability to override that and trim?

MR. LaROSSA: To the best of my knowledge, unless we're missing something, that's a local decision that's made in each one of the towns.

SENATOR BUCCO: Well, because being a former Mayor I know shade tree commissions are usually volunteers from the town and don't know exactly what the problems are with your utilities, with branches in there. Everybody knows, yes, if a branch comes down and knocks out a wire. But I think you're more in tune and apt to know what to do, and where to trim and how to trim, rather than just a shade tree commission. And if they're stopping you, I think there's something wrong with that also, because we have seen what happened with this storm with a lot of the trees and branches coming down and knocking out additional homes.

MR. LaROSSA: Yes. And Senator, I think, again, it's not just the shade trees; sometimes we run into a consumer who is really, really passionate about certain things. We lost a tree in front of the house where I grew up. I went to see my parents and I can't hit a Wiffle ball over it anymore, like when I did when I was growing up. So you have to be empathetic to all of that; I understand. But at some point I agree with you. We need to do what's right to ensure the integrity of the system.

SENATOR BUCCO: Well, you know, it reminds me of an incident that our Chairman told us about in his town -- where they wanted to trim a tree and the man is hugging the tree. After the storm the tree was in his house. Thank you.

SENATOR SARLO: Just on the shade tree commission -- everybody understands shade tree commissions. They are, in most of their municipal forms, charters. Shade tree commissions are appointed by the mayor with no consent of the local governing body. They have a lot of power once they sit and are appointed. Trust me -- I've done battle with some of them in different capacities.

But those towns that are proactive had less trees come down because they were proactive -- taking down dead trees and trees that were trimmed ahead of time. There's no doubt about it: Proactive public works, proactive shade tree commissions fared much better.

MR. LaROSSA: Mayor Huttle did a fantastic job for us up in that area. We had some challenges there last year. We had conversations about it. He had us come in; he provided us with some of the air cover to make those changes. And we saw a better performance.

SENATOR SARLO: Senator Weinberg, followed by Senator O'Toole, followed by Senator Ruiz.

SENATOR WEINBERG: Good morning, Mr. LaRossa; thank you for being here. And thank you for putting yourself forth. I've attended several meetings: one right after Hurricane Irene, where we convened OEM managers and mayors from the communities I represent, and you and Chairman Hanna were both there to try to talk about what we should be doing in the next storm -- not knowing it was going to come as quickly as it did.

And then one after Hurricane Sandy that I did with our good colleague Senator O'Toole.

First of all, I have a question. And I hope it doesn't sound stupid, but it came up right last night at a local council meeting. A resident got up and said, "PSE&G is stupid. Somebody was out in front of my house from PSE&G putting new gas lines in." I am quoting the resident, more or less. "So I went out and spoke to that person and said, well, while you're doing that, why don't put underground wires in and take the overhead wires out," And the answer was, "The gas division of PSE&G doesn't talk to the electric aspect of PSE&G." So is that an appropriate question, and is there some kind of coordination when that takes place?

MR. LaROSSA: There is not coordination between those two entities. There are separate skill sets involved with the installation of the gas installation and the electric. But that consumer can certainly ask for and pay for that service to be put underground if they wanted it to. The reason I say pay for -- each one of the-- Again, the way the rules are right now are, there are designated underground service areas. And the purpose for that is so that the consumers in the other areas are not picking up the tab for the underground to one individual home. So the option exists for anyone to ask us to do that. It's a cost that would be incurred by that customer at this point based upon the rules of replace.

SENATOR WEINBERG: Okay. But the basic answer is it's different skill sets.

MR. LaROSSA: Different skill sets.

SENATOR WEINBERG: So therefore when a street is open--

MR. LaROSSA: It's the same reason that there are folks standing by live wires who can't repair them. Those are usually gas folks who we have assisting us during the storm. They are there to provide safety

for the public. And people ask the question, "Why aren't you doing any work?" They are just there to protect the safety of the public.

SENATOR WEINBERG: Okay, thank you for that.

And my second question -- you've talked about it quite a bit, and I know it will be a topic of conversation here, and that's communication. I don't think-- Well, I do know, and I suppose we all know, that most people do not realize: You don't know that my home is out of power. And if you fix it, you don't even know whether you fixed that pump. Can you do some kind of-- When you send out your bills -- and I get mine every month -- some kind of an explanation to people about the next time this happens, and what kind of conditions you work under that could be understood by the normal ratepayer?

MR. LaROSSA: That's a very good suggestion. It's something we have to look at. Because what we live in every day, we assume everybody else understands it. It's just not accurate. So we need to get that information out.

SENATOR WEINBERG: And I would assume you have your list of priorities -- hospitals, nursing homes, municipal infrastructure, whatever -- so that you know how to deal with the grids that feed those kinds of places?

MR. LaROSSA: We try our best. We start with the hospitals first -- that was our primary concern. We also had additional issues during this storm that we hadn't seen before, so we had a big focus on getting the refineries back up and running -- which is not normally in the process. And those types of requests come from the OEM offices. So we have a set list that we've worked on, and it starts with the critical infrastructure the

Department of Homeland Security has identified. And then we work our way down that list to where we actually listen to the county OEMs; and after the county OEMs, the municipal OEMs.

SENATOR WEINBERG: So if we know about buildings that cater to senior citizens, etc., in our own communities--

MR. LaROSSA: Well, we should. Sometimes we can't get to them; sometimes we can. We had a conversation during the storm about one specific one. It was an easy repair; it was not on our radar screen for whatever reason. Those are the types of things we need to close down on, on the communications front.

SENATOR WEINBERG: Okay. Well, I agree with our Senate President and our Committee Chair. A lot of it had to do with communications. I dealt with another one in one of the communities I represent, where we got information you were going to be at a certain switching station, I think, in Teaneck. Knowing the Teaneck folks, somebody went down there to see, and you weren't there. I don't mean you personally; but your crew wasn't there. They were taken off someplace else. So that created a big, "Oh, we can't trust what they say to us." So I think people just-- The exigencies of the particular situation are not well understood, even by our local elected officials. So I think you have to help with an educational program.

MR. LaROSSA: And the challenge there that exists is, again, there is a lot of change-out. Many of the local officials, even within the councils that rotate the mayor position-- And just to keeping all those (indiscernible) -- it's not an excuse, it's just a fact. We have to figure out a way to get around it.

SENATOR WEINBERG: Okay, thank you.

SENATOR SARLO: Senator O'Toole, followed by Senator Ruiz. We're going to just-- For the Senators, let's just focus on the PSE&G service area.

SENATOR O'TOOLE: Well, thank you, Chair.

I just want to follow up on a couple of important points. And as Senator Weinberg stated, we are grateful, Ralph, that when we called you, you came and did that face-to-face meeting on day 7 or 8 with our 15 or 20 mayors. And the reason we had to do that is because there was such a disconnect at the local level. There was such a-- Information was being chopped and miscommunicated. And it was extraordinarily helpful when you took the time -- you were worn down, you were beaten down. You came to Bergen County and we had what I believe was a pretty productive roundtable. And it was at that time a lot of our towns -- Loretta's and mine -- we had a very direct conversation. And you saw soon thereafter a more responsive, more targeted, more focused response team by PS, as opposed to another utility in the state that after day eight in Franklin Lakes we couldn't get a return phone call or a single truck. Day eight, I made a phone call to a regional call center for Orange and Rockland and asked why we didn't have one single truck. And then I talked to a senior VP who then talks to a VP of operations, who then calls the Mayor of Franklin Lakes and says, "Oh, you get the politicians involved; we'll see how long it takes before you get your trucks there." And that's no way for a utility to operate. And I want to thank PSE&G for taking a much more professional and diplomatic approach to handling some of these issues.

The issue about LIPA came up -- about the cannibalization of worrying about the good management at PSE&G. And you didn't do everything right, but you did a lot right, Ralph. And I understand we're going to learn from this process. My concern, globally, is that if you have out-of-state utilities and you have this spreading of your talent that goes to other states, we're concerned. We want to get it right here in New Jersey. We're really selfish about that. Like Long Island, New York, other places -- I don't really care. I care about making sure that we function -- it's structurally sound here in New Jersey before we push this utility into other areas. So I'm concerned about that.

MR. LaROSSA: Well--

SENATOR SARLO: And that goes back to my original question.

MR. LaROSSA: Yes, look. We know the only way we grow as an entity and we gain the trust of others is to keep our home base solid. And that's why we're here today. That's why we're having this conversation and you get to see that. Again, I think the processes that we have put in place, we've done pretty well. We've been recognized by industry experts for some of the work that we've done. We put some of those processes in place, we believe we're going to be able to make an improvement. But I don't necessarily think we have to cannibalize the workforce to make that happen. Those are good people over there in Long Island; they work hard. I think you saw that. You just have to clean up some of the processes.

SENATOR O'TOOLE: Through the Chair, the Chair brought up the smart meters -- whether it's going to cost \$500 million to \$700 million for 2.2 million units; whether a smart grid is a larger task down the

road. Do all these larger, big-ticket items-- And at some point we should just sit back as opposed to reacting the day after or the week after. I think we just need to have a real significant conversation about what we're going to do to prepare New Jersey for the next 10, 20, and 30 years. I don't think we've done that.

My question to you is that after Irene, lessons were learned. Did any of those lessons that were learned -- were they implemented so we could prevent some of the mishap in Sandy? Or was it just a different operation, or a different circumstance?

MR. LaROSSA: So some of those were implemented. Unfortunately, again, we sandbagged the wrong switching stations. We listened to what we had learned from Irene and we tried to react to that. We did have more communications than ever. We had those meetings, as you mentioned, with the mayors face-to-face. We also had daily phone calls with mayors. We also had daily phone calls with the media to provide access. I took part in those every single day personally. So we were trying to be more upfront from the communications standpoint; not enough. In this day and age, Twitter is what we need to get down to that individual level -- by individual customer. We have 50,000 Twitter followers now as a result of the storm. We just have to rethink the way we are communicating to folks. We understand that. I don't have the right answers -- I'm an engineer. We'll figure that out. So we'll do that. So we did some of it, but not everything was implemented that I was hoping to do; and that last piece was that communication piece. We were trying to get that done; we just haven't had those system upgrades made into our IT system yet. But a lot of the base plans were -- the communications were improved to some

degree. The storm hardening was done. And where we worked well with municipalities we got additional tree trimming done.

SENATOR O'TOOLE: Well, to that end, you talk about communication. We had constant communication. I mean, I dealt with Essex, Passaic, Bergen, Morris -- we had some of the folks who were calling their local folks, and their e-mails were forwarded. They weren't responding, and your phones were jammed up. And I get it. But you have to train your folks, Ralph, that at the end of the day or during the day, dump your phone messages, and go on and go and go on. You have to have this-- And we were trying to scope and trying to serve as a local hub for our 15 towns -- some of it worked well and some of it didn't. But you have to, I think, have a better line of communication from the top down -- what's out, what's not. And you have to have a better call back, I think, with some of your folks.

MR. LaROSSA: I totally agree with you, Senator.

SENATOR O'TOOLE: With regard to the 700 workers, who made that determination those 700 workers on a normal day is enough of a workforce? Maybe it's 800, maybe it's 900?

MR. LaROSSA: Yes, I mean, at the end of the day, I'm accountable for that. So we made that determination based upon a peak of thunderstorm activity that would come through, and so on. Again, I would look at our workforce, over time. We've actually increased the number of line personnel based upon some of the work that we've done at our utility. We work closely with our IBW to identify a normal workforce, year in and year out. So we look at that based upon that workload that we have.

Sometimes you'll have peaks and valleys, and that's when we bring in some of these foreign crews.

SENATOR O'TOOLE: Ralph, through the Chair -- I mean, the Senate President brought it up. He said the storms -- the 100-year storms we shouldn't be getting, we're getting ever few years. So maybe that 700-person model was set for a time where we wouldn't have these eight or nine colossal storms that we've seen in the last three or four years. I really think you have to revisit that.

My question is-- And you made a determination that you need 1,000 other workers from out-of-state. I think you made a determination on a certain day, and JCP&L may have come a day or two later. When did you make the determination that we had to have an extra 1,000 line workers' boots on the ground in New Jersey? And was it done quickly enough?

MR. LaROSSA: Yes, well it was done quickly enough because we actually had the people in the hotels bedded down in advance of the storm. So we did get them here in advance. I want to say it was the Tuesday or Wednesday before the storm hit that we made that determination. And, again, it was based upon the forecast that we had at that time.

SENATOR O'TOOLE: Chair, I'll leave, but I have a bunch of other questions. At a future date I'm going to have a sit-down; I just had a conversation with Andrew Henry. With some of the utilities -- larger, big policy issues I want to have a face-to-face. I don't want to just take up the time of the Budget Committee right now, okay?

SENATOR SARLO: Thank you.

Let me just-- I did not request Orange and Rockland to be here. I will make a request for them. We're trying to make sure we cover all bases here, so I will make a request for them to appear before us, at one of the future hearings that we have, separately.

Senator Ruiz, and then question to Senator Cunningham, and then Senator Greenstein. And then we're going to move on to JCP&L. I would just ask everybody to try to cover new territory here, please.

SENATOR RUIZ: Thank you, Chairman.

Thank you, Ralph. I just want to echo the sentiment of my colleagues. It was a difficult time; thanks to you, Josie (phonetic spelling) and Raph (phonetic spelling), whose cell phone I had blowing up during the entire process, but were very responsive.

One conversation that you haven't asked this delegation, that hasn't come up today, was about the difference between Irene and this storm -- fresh water versus salt water and the impact, short term. And what PSE&G is potentially doing right now, because we could see some subsidiary kind of reaction to the corrosion.

MR. LaROSSA: Right. Senator, two things: Last night, as an example, we had around 9,000 customers out of power as a result of that small rainstorm and windstorm that came through. All were restored quickly, but that's not normal for us. We would normally have 2,000 to 3,000 out in an event like that. The system is weakened -- so the overhead system is weakened. We're going to be doing patrols and infrareds that we do on a regular basis, but we're going to increase that as we go into the summer months. My biggest concerns right now are those switching stations and substations that were impacted with the saltwater. Not only

did we have saltwater impact that, but we all forget about the 350,000-gallon diesel spill that took place. So we have all of those contaminants that entered into the system -- the saltwater, the oil. We've gone out and cleaned them up as best we can, but they are in a weakened state. The analogy I use -- and I used it even before the meeting -- it's like dropping a transistor radio, when we were growing up, in a puddle at the beach. You wipe it off, it works for a little while; but at some point it's going to fail on you as it corrodes. We have to go back and make those final and permanent repairs, and we're assessing each one of those pieces of equipment as we speak.

SENATOR RUIZ: And when you're looking at the long-term investment in the approach of how we're going to change infrastructure, are you looking at whether it makes sense to go underground in certain areas of the state? And I bring that up just because oftentimes we get caught up in the sense this aesthetic approach -- where our wires are going to go -- and I know that that creates severe problems in certain towns. People want wires in the backyard. After the substation is up and the transformers up, then you have to get into folks' backyards to deal with the tree issue for the wires.

MR. LaROSSA: Right. So two things: One is, first of all, for those towns that have them in the backyards, we made the commitment and we continue to make the commitment, I'll move them out front tomorrow. They would have better restoration times. It would be much better if we did that. We'd move them tomorrow. So that offer stands -- we'd start that process. I know it's very challenging because of the optics

for individual homeowners. But that's the right thing from a restoration standpoint.

As far as underground goes, we continue to look at that. But I would just tell you it's not the end-all. We saw what happened in lower Manhattan, and we saw what happened in our own Jersey City waterfront along Liberty State Park. Those areas were flooded -- they were underground. And they were some of the last to get power. I know around Liberty State Park and that whole area was ravaged. So we need to look at a balance of those two -- the right solution, we continue to say, is to build that redundancy up.

SENATOR RUIZ: And my last question, through the Chair: The Majority Leader asked about PSE&G having the recognition of where places of high priority are. Do you have a map that lists this? You know, one of the last few areas that came up with power was a corner that had seven gas stations. Are we looking at that long-term? Should we get electricity up in areas that can provide gas to kind of avoid what ended up happening? And then I had a nursing home and a few senior houses within one area that were impacted. And I only say this because, if you don't have this available, how is it that we can get to a place where we generate a map through the State OEM and all of the power and utilities so that there is some understanding of nursing homes, private senior buildings -- generator operated, not generated operated -- to help you in the process of restoration?

MR. LaROSSA: Right. That's one of the things, I think, we have to look at going forward and working with the Board of Public Utilities: How do we get that information and keep it up-to-date. I think

we can work together to come up with a solution there. But that's going-- It has to be an ongoing process, not something that we can do once and leave stagnant.

I'm not sure-- I know there's a lot of conversations about making maps available. I don't necessarily think that's the right thing to do, from a security standpoint.

SENATOR RUIZ: No, that conversation came up at our last hearing. And I was at OEM for several days and I understand that you don't want to give that out; it's potentially-- But I'm talking about a map that you create for internal purposes. I was toying with the concept to have some of these sites kind of file their address location with the office of OEM and with their utility provider. It could be on an annual, biannual basis, to ensure that you have, kind of, an indicator map where these high priority sites would be.

MR. LaROSSA: I think it's going to be a combination of us updating the maps, keeping that information; as well as some personal accountability for those building owners on what they need to do, based upon the customers who they are serving.

SENATOR RUIZ: Thank you.

SENATOR SARLO: Senator Cunningham, followed by Senator Greenstein.

SENATOR CUNNINGHAM: Thank you. Good morning.

MR. LaROSSA: Good morning, Senator.

SENATOR CUNNINGHAM: Since the Chairperson has asked that we talk about topics that have not already been discussed, I'll start

with one: Are you going to prorate PSE&G bills so that people are not paying for service that they did not get?

MR. LaROSSA: So what we did-- As you can imagine, we did-- About a third of our customers did not have a meter reading done during that month. So what we informed customers -- there were some press releases; I know Senator Lautenberg put one out, some others -- that we said prorate on estimated bills. On your regular bill, it's automatically taken care of because it's a pay-for-use. So if you didn't use the product you wouldn't get it. But for those that we estimated the bills for, we certainly said you should make an estimate on that. It'll get trued up next month when we make the actual meter reading. But for this month we told folks that they should make an estimate. Again, it's about a third of our customers.

SENATOR CUNNINGHAM: Okay, great.

The other thing I wanted to ask you: I'm glad that you mentioned Liberty State Park. Most of Jersey City is refilled land except for maybe a small part of downtown. And I was going to ask you if you were going to do some sort of study and to determine beforehand how certain parts of the state need to be handled in case this happens again.

MR. LaROSSA: Yes, again, like I said before, we just have to rethink everything. And so we'll look at that. Some of those areas were designated underground and they are underground now. Maybe they need some backup that's overhead. It might sound crazy, but having that redundancy in the system might be the right answer. We'll look at each one of those sections.

SENATOR CUNNINGHAM: It probably does. Downtown Jersey City is where most of our businesses are -- corporations are -- and them being out of service for quite a while is very difficult. But it's also a problem for the future where we have developmental plans to do more building in that area.

MR. LaROSSA: No, specifically the Heights and Journal Square needs to have-- We need to relook at that network.

SENATOR CUNNINGHAM: And where I live, because I live on the water in Society Hill. (indiscernible) (laughter)

And the last thing I wanted to ask you -- and we have been beating the horse about communication -- but I have to say if you were to ask the average citizen of Jersey City or Bayonne right now what was the most difficult part about this experience, other than the loss or inconvenience of power, they would have to say it's the communication. People called PSE&G to get information. They were told one thing. Even middle management people, when we reached out to them, said one thing; and if you went up a little higher they were told something else. I was one of the people who walked -- ran around, and each and every day going to senior citizens' sites or community sites, talking to people. And the question is: When is this going to come back on? When is this going to be over? I pick up the phone and call PSE&G and I'm told two days, four days, an hour, two hours, later tonight. And as you go around the city or the district and you're telling people this, over and over and over again, it just makes a bad situation much more frustrating.

MR. LaROSSA: I totally agree with you. Everybody has different information along that hierarchy that you mentioned. And it's

more up-to-date depending upon where you are in that hierarchy. The more we have the information and technology for this, that I spoke about earlier, the better. None of the utilities want to provide bad information. We all want to communicate as quickly as possible. We need that information from the customer base.

SENATOR CUNNINGHAM: Thank you.

SENATOR SARLO: Okay, Ralph, thank you. I've jotted down, and we've recorded up here, the three big recommendations: redundancy, build additional redundancy into system. I'm not sure what those dollars will be, but we'll make sure -- we need to do it smart and wise. We know it's going to be real dollars. Tree trimming -- working with local municipalities on the tree trimming; and I think everybody, one way or another, it was about communication. How do we improve communication? It seems like that's one of our biggest failures here, both as government and as an industry. So I think that's something-- I think we're going to hear that with JCP&L as well.

MR. LaROSSA: Well, again, I want to thank everyone for having us. And I can't thank everybody enough. I was very proud to be from this state.

SENATOR SARLO: Thank you.

Now we'll call up Donald Lynch, President of Jersey Central Power and Light. I'm going to ask Mr. Lynch to keep his remarks also brief.

He will be followed by Robert Hanna, President of BPU.

If you could keep your remarks to the point, and then we will go into questions. I have one question after he opens, and then I'm going to turn it over to Senator Greenstein.

DONALD M. LYNCH: Thank you, Chairman Sarlo, and thank you to all the members of the Committee. I appreciate the opportunity to be here today to talk about Jersey Central's response to Hurricane Sandy and some of the things we have going forward.

I do have a few pictures that I would like to just go through. I'll go through them rapidly. I think sometimes a picture is worth a thousand words. And maybe with the way I talk here it might be worth more than that. So hopefully it helps to illustrate some of the things that we have here.

In terms of a background: Jersey Central serves 1.1 million customers, and we really serve in two separate regions throughout the State of New Jersey. We serve 13 of New Jersey's counties and 236 municipalities.

Sandy, I think, just to talk a little about the size of storm that hit us here: It really was unprecedented with winds of 75 to 90 miles an hour. It was nearly 1,000 miles across. And when you look at that compared to the size of Katrina, for instance, it was more than twice the size of Katrina in terms of the width of the storm.

The destructive force, some of the reports I've seen, is equivalent to about five Hiroshima bombs -- is what the force of this particular hurricane hit us with -- nearly 200 deaths across the U.S. and the Caribbean.

SENATOR SARLO: Mr. Lynch, I'm not cutting you off.

I understand the magnitude-- We all know how intense the storm was. I don't want to be educated on the storm. I know how big the storm was. I want to know what JCP&L did and what are we currently

doing to rebuild the-- I appreciate the slides and I appreciate the impact of the storm. We get that; we all get that.

MR. LYNCH: Okay, all right. Thank you.

Well, what-- You know, Jersey Central's response to this really resulted in the largest restoration in our history. We had over 13,000 people here on the ground responding to this storm -- boots on the ground. We had an additional almost 1,000 people helping us remotely to support this. Over 8,500 line workers were here supporting the storm. The statistics are, really, staggering: 1.3 million customer outages is what we experienced. Many experienced outages twice because the nor'easter hit in the middle of this particular storm. We had people-- Again, mutual assistance. We had our meteorological calls before; we were tracking the storm. We saw what the path of the storm was going to be. Unlike Irene, which changed paths many times, this storm was predicted to hit New Jersey and it really came right on track.

So therefore we staged lots of line workers and support here. We had 4,500 people here in New Jersey by October 29 when the storm hit, ready to go to work. We had over 1,700 tree cutters here, ready to go to work; we had 1,400 line workers here, ready to go to work, while we continued to ask for additional folks to come.

What we did in the storm was we cut 65,000 trees that we had to go through, and 34,000 hazard trouble locations out there. And if you look at it, most of those were really trees and wires down. That really equates to over 140 wires down in every municipality that we serve. So we had a lot of people here supporting the storm.

In terms of staging, we had nine staging sites here to address the storm -- more than we've ever had. We had seven in New Jersey and two just on the border of Pennsylvania up in North Jersey to support all of the workers that we had here to support the storm -- again, the largest ever in the history of the state.

In terms of communications, I held daily calls with the mayors to give the update and the progress, and really a process of the storm. We are also involved with social media. We had Facebook out there where we had pictures and probably about 20,000 Facebook followers. We had Twitter; we were tweeting out various updates and responses to all of that. We increased a lot of that during the storm.

The process which -- if you would just bear with me, because it speaks to a lot of the communication issues that I think come up -- is our process is one that is very similar to all the other utilities. We really deal with restoring the high voltage transmissions lines first. This is the backbone of our network and this is the power coming from the power plants, as Ralph had said. And Jersey Central doesn't have any power plants. It really, since deregulation, takes power from whoever supplies that, whether it's plants in New Jersey or plants outside of New Jersey, they come through our transmission lines. So that's the first part that we have to get up and working. And that's where our crews were really working in the first several days of the storm -- is to rebuild those transmission lines.

Then we also work to restore the distribution and feeder lines. Jersey Central has 1,200 feeder lines; 1,100 of those sustained some sort of damage. So that's where our crews go next is to repair those distribution and feeder lines. And then they work themselves into the neighborhoods

to get all the little laterals that feed down the streets and neighborhoods to restore, again, the last customers, which are the services to the particular houses.

Our priority system is the same -- we give hospitals-- We work with the Office of Emergency Management, both the State ROIC and the county OEMs, as was mentioned before, to prioritize those water and sewer plants, hospitals -- get them all up. And in this storm, it was gas stations and schools, additional things which, I think, was a learning also in the storm -- that we were really hustling to get those lists together of all the schools, of all the gas stations that we had. And I think that was a good learning in the storm -- that we have to figure out how to put those all together.

We provided free water and ice; we expanded that program to over 22 locations in 13 counties.

And I do want to say, to just take the time to thank, really-- We couldn't have done what we did in terms of restoration without the support of the Governor and his cabinet, particularly President Hanna at the BPU. We were in constant communication with him and his staff to help work as a partner, really, in this restoration effort.

The Commissioners-- Bob Martin at the DEP helped us get permits that we needed, helped us to prioritize these water and sewer plants. Commissioner Simpson helped us with prioritizing the roads that had to be cleared -- the State roads, the county roads. And we worked together with him. Commissioner Velez of the Human Services helped us set up two staging sites to help all these out-of-state workers who came with us as well.

Additionally, State ROC, Mike Schulz (phonetic spelling), was a big help to us. We couldn't have done this without the help of all of the State agencies, and FEMA, the Army Corps of Engineers and all of that.

And lastly, just a thanks, really, to the IBW. Our workers are great and our union is great. And working together with them, partnering with them, we accomplished what I believe is a tremendous restoration in 13 days, without any serious injuries as well. So we're very proud of that as well.

Things we're working on: I would agree with some of the comments that were made. Our territory, if you look at it, we serve some of the most heavily treed portions of the State of New Jersey. So a lot of the outages were caused by the high winds from the storm where trees toppled our infrastructure. Again, 65,000 trees we cut. So we do trim to certain right-of-ways that are granted by the Board of Public Utilities and we are held to. And so expanding those right-of-ways into areas where there are customer-owned trees-- If I had my druthers, what I would ask for help for is we need to trim trees that cause these outages, but they are outside of our right-of-ways. And that's an issue that we need to address.

Communications -- I think you heard about that. We worked with the BPU after the last two storms last fall--

SENATOR SARLO: Not to interrupt you, but do you have a dollar amount for what it would cost to do smart meters on all of your systems, roughly?

MR. LYNCH: Smart meters would cost us over \$400 million.

SENATOR SARLO: Okay.

MR. LYNCH: I might add that in terms of smart meters, with an infrastructure that is so damaged, the communication network would be down. So smart meters wouldn't help us as much during a major storm of this event. So I think-- I'm a big believer in technology; we have to look at this smartly to see if investing \$400 million in an economy where we are -- is that the best dollar spent? We also have-- You know, you would put out of work about 150 meter readers for us who would no longer be needed. And we read a meter for 85 cents a month; these IBW meter readers read a meter for 85 cents a month and do it without any injuries. I'm very proud of them. So I think we have to be careful about how we implement that as well.

Communications -- that's one of the things we need to work on. So after the last two storms, we made some improvements. We worked with the Board of Public Utilities staff, we developed some reports. Understand how that created more confusion. I think many folks here on the Committee talked about it already -- it's difficult to get down to that individual customer level. And you know, you're in the middle of an emergency and it's just not a planned type of outage event; it's one where you're dealing with emergencies on a daily basis. We do have some additional thoughts and ideas. We're going to work with President Hanna on some of those ideas of how we can improve communications.

So that's really my presentation. Thank you, Chairman.

SENATOR SARLO: Thank you, Mr. President.

Question -- just two quick questions. Barrier island -- I understand the supply line has been restored to the barrier island. But how many homes in Monmouth and Ocean counties still are without power?

MR. LYNCH: There is-- On the barrier island itself there are probably about 15,000 residences, homes -- meters, let's say -- that are just currently being restored. We've started working with the State DCA Commissioner Constable as well has been helping us with the inspection process. And we're starting to energize some of those homes on the barrier island as they make the repairs that are needed. So I'd say we have about 15,000, 12,000 out. We also have flooded areas along the shore areas that were flooded out -- towns like Belmar, Manasquan, Sandy Hook areas. And we're working with those local municipal officials as they get their inspections and we're able to hook them in. And I'd say we probably have maybe another 5,000 customers that we're working with to get those restored.

SENATOR SARLO: So it's about 20,000 customers. The supply line is there but now it's getting the local inspections and making sure the houses or the commercial buildings are able to accept the power. Is that--

MR. LYNCH: That's correct. All the substations are energized, the supply line to the substations are energized, and the feeder lines are energized; now it's that individual service line going to homes and businesses.

SENATOR SARLO: I'll turn it over to Senator Greenstein.

One final question: We all recently read that as a result of Hurricane Irene that JCP&L was requesting a rate increase. And I'm not questioning; I'll leave that to the Board of Public Utilities and others. Do you think the timing wasn't the best timing to announce a rate increase in

light of what's going on? We still have 20,000-- I think the timing was a little bad. Do you agree with me?

MR. LYNCH: I agree, the timing is very unfortunate, but I would just state to the Committee that we were asked to come in for a rate case. Jersey Central was not asking or seeking it at that time. And the Board of Public Utilities asked us to come in--

SENATOR SARLO: Oh, okay. That's interesting.

MR. LYNCH: --actually file by November 1. We were granted an extension -- one month extension to December 1. And that's why we filed.

SENATOR SARLO: Thank you.

Senator Greenstein, Senator Bucco.

SENATOR GREENSTEIN: Good morning. I'm over here. How are you doing?

On this issue of communication, obviously all of us have spoken to it in one way or another. I think that there might not have been a realization that we legislators are pretty much as much on the frontlines as mayors. It was more of an emphasis on making sure the mayors had communication points. But I can tell you I was out there. I was out there on food trucks. I know many of us were and we were getting lots of questions, and we had very little information to work with.

I know, just as one example, just one little data point: At one point I was able-- My district has both utility companies. I was able to get from PSE&G specific streets in my largest town and where they were working. And I was never able to get that, to that level, with your

company. It seemed like they wanted to get it for me, but somehow were not able to.

Now, I know there are security issues, but can we get information -- is there a way to get us some type of information on the switching stations and the substations so we would have some idea which are affecting our areas? Just as an example, I was at one of the senior communities in Monroe, and there were all sorts of rumors going around: Well, maybe it's the switching station in Perth Amboy; and maybe it's the one right here in one of the developments. Nobody knew anything, and they were all looking to me and I didn't know anything either. It was embarrassing and it was difficult to try to help. I had no information on even which switching and substations affected that particular development. And that whole issue of order of restoration -- I felt like what I had to do -- what I did do -- was advocate for people. And when I made a phone call and they got their power back, they attributed it to me. I'm not sure if that was the case; I hope it was the case, but we just didn't know. We tried our very best to advocate; you know, if someone is in a dangerous situation on Avenue A, we called it in, then something was done. Hopefully, it was because we called. But it would have been so much better if we had a real idea of the order -- I know you may be changing this every day -- but the order in which you were working. You know, we're going to be in this town on this group of streets. If you could get it down to that level and really fill us in so we could give people the information. And we were really operating in the dark trying to get people that kind of information.

MR. LYNCH: No, I would agree with you. And that is, sort of, our next thing that we need to work on. I mean, for years and years and

years -- and all utility systems are designed to effect the best and quickest restoration. I never really thought about, over the years, that people wanted to know that information. It's sort of like how the sausage is made. You really weren't interested. But, yes, people today are interested in that. And so certainly we can share the infrastructure. You're fed from this substation, that substation, there is this transmission lines, and we're working on that transmission line which eventually feeds your town. We can share that information. And then it's a matter of, during a major storm, is we have to assess all the damage and figure out what needs to be done and how eventually we're going to get to your particular town -- given the priorities of hospitals and emergency services. So it's a challenge to do that in a middle of an emergency, but certainly something Jersey Central is committed to. And I've spoken already to President Hanna and we want to sit down and have some ideas.

SENATOR GREENSTEIN: Well, the good thing would be for us to do it now and not wait for the emergency on so many of these things that we found. It seems like it could be done now and that would really be very helpful to us.

One other thing on these policy issues, building redundancy into the grids, all of the others that we talked about -- what level are we building to? For example, are these internal discussions that you have or is this something that you think might be useful to have with the Legislature?

MR. LYNCH: We're happy to have those with folks. Again, we take the guidance from what do we want to build to -- again, I think it was mentioned before -- level 1, level 2, level 3? We've already started developing some plans and some cost estimates about what it is you want to

do: raise substations, harden the system, you want to put concrete poles in as opposed to wood poles. We have all those costs.

SENATOR GREENSTEIN: Okay, thank you.

SENATE PRESIDENT SWEENEY: Senator Bucco.

SENATOR BUCCO: Thank you, Senate President; and good morning, Mr. Lynch, and thank you for coming this morning.

There are several things that I have to say. First of all, I know each and every day that you had the conference calls with the residents and -- the elected officials, rather, of the district that I represent. And JCP&L services all of my towns. And I thought that was a good thing, but also being on many of those calls, I heard some of our mayors saying where they had problems within their individual towns. And the answer came back, "Yes, but it's on the list. We're going to take care of that right away." One in particular is where a development was cut off -- couldn't get emergency vehicles in there because of downed trees. They wanted to have the utility at least clear the wires or declare the wires non-active or dead so that their crews could go in and take out the trees and get emergency vehicles in there if necessary. And three days later the same complaint came in and, again, they said, "Yes, that's at the top of our list and we're doing it right away." And it seems that it took quite a few days before that really happened. And I was a little disappointed in hearing that.

Another complaint that I got -- because we got many complaints within our office and my home; I got calls even on my cell phone from constituents. And one, in the neighboring town, saw a crew working a block away from her home. And she walked over there. It was a mutual aid crew; it wasn't a JCP&L crew, it was a mutual aid crew. And she

said, "Is it possible that we're going to get electricity back around the corner?" And he says, "Miss," he says, "The grid maps are not up to date." He says, "We're finding all kinds of problems." My question to you is: Are those grid maps of JCP&L, FirstEnergy, up-to-date? And if not, why not?

MR. LYNCH: Yes, our grid maps are up-to-date, and we actually have them all computerized. And we, over the years, had them up-to-date and our dispatch office deals with those. So it's hard to deal with an anecdotal type story, but the only thing that's dynamic about a particular electrical system is as, say, things happen on a normal basis -- let's say you get a car pole accident on one side, we'll switch those out of normal configuration to feed those customers from, perhaps, a different circuit. So if you're on circuit 123, and there's a problem on that circuit and your home, I'll switch you onto circuit 567. And so now if you go out under a paper map, it might look like, "Oh, this is not correct." But in the office, in the computer system, it is correct. And, in fact, Jersey Central's moving towards-- We're in the middle of putting mobile data terminals in our trucks. We'll have them all in our trucks by next year, and all those will be computerized. And so a paper map is only as good as it was the time you printed it; and things change.

SENATOR BUCCO: Yes, but then that crew working on 123 is not aware that it's being serviced by 345. Is that correct?

MR. LYNCH: Well, that's why all crew have to work back to our dispatch office. And many times you also hear that a crew was sitting around or waiting. What they're waiting for is that kind of stuff. We don't want them to act on a paper map, many times, unless it's dead. What we want them to do is, before you-- If something's different, you need to call

the dispatch office and they will give you the up-to-date configurations so that it's safe for them to work on that particular area.

SENATOR BUCCO: Okay. And putting the computerized in your vehicles -- but that does not help the mutual aid vehicles that come in.

MR. LYNCH: That's correct, Senator. That is an issue when you have 8,500 line workers who don't have the system you have. That is an issue.

SENATOR BUCCO: Okay. And one thing that personally happened with me: I called in after about three days of being out of power and a young lady answered the phone. I gave her my address and I said, "My wife has Parkinson's and the cold is starting to affect her. Can you give me some idea of when we will get power back? Her answer was, "Call 9-1-1." I said "Thank you," and I hung up.

MR. LYNCH: Yes, we handled over -- almost 900,000 calls from our call center. We train those folks how to be customer service--

SENATOR BUCCO: You didn't do a good job in training her.

MR. LYNCH: Right. So we review, after the storm-- Senator, we review all this information and we go back and we'll provide training. And we just re-remind folks what we expect out of them, and that is the best customer service possible. And where there are instances, whether it's a call center rep or some of our employees, we'll train them, coach them, and expect them to handle it in the proper way. Most of our folks I believe do; but occasionally I think you'll get something like that. And I apologize for that.

SENATOR BUCCO: Well, it's not a problem. We went out and rented a generator. Thank you.

Thank you, Mr. Chairman.

SENATOR SARLO: Senator O'Toole, followed by Senator Oroho, followed by Senator Beck.

SENATOR O'TOOLE: Thank you, Chair.

The issue about the-- I was a little confused about -- you were testifying about the 185 meter readers that you were concerned about, if they were laid off, I think, if you had smart meters in place.

MR. LYNCH: That's correct.

SENATOR O'TOOLE: I was just-- I was struck by the oddity of that comment. The reason we're keeping these folks-- If the smart meters are better, they are a better product and a better service and a better response time, is it the balance of keeping those 185 jobs in place -- is that your concern?

MR. LYNCH: Yes, I think it is the balance. It's 150 people, but it is the balance-- If you look at an automated meter, there's-- And I love technology and it gives you many things. But you would no longer need the meter readers who go around and take meter readings because it becomes electronic. And actually those meter readers are a big part of the storm process. They actually are the folks who go out and we call them *public protectors*. They protect downed wires. But you are right; that is the balance.

SENATOR O'TOOLE: Through the Chair, a lot of common issues about communication. I appreciate the one conversation I had with you after I, out of frustration, called the BPU President to say we have such a disconnect. Your local folks were nowhere to be found. You really had-- It was like we were living in the Stone Age. And I don't say that to be

sarcastic or hurtful; it was really hard to talk to the Mayor of Riverdale for 10 or 12 days with no service. And they had folks who were trying to pick up a live wire just to get it out of the street and they could try to resume some normal process in the town -- that we couldn't get a truck from JCP&L in Riverdale. This is really hard to understand.

And I heard that one of the folks questioned you about the appropriate timing of this rate increase. And you said that BPU was asking for it some time during the summer; obviously it wasn't with an eye towards when Sandy landed. And you asked for a 30 day-- My guess is BPU would have put forward an adjournment, or adjourned this through December or January or February had you asked. It's a real stick in the eye, Mr. President, to have to sit here and try to field calls from my constituents that your folks are asking for a \$31 million increase when some of us are barely getting our lights on right now. It's hard to understand that. And it's insulting in many ways, and it's coarse in many ways. And I think that you have to have -- be a better business partner in this state.

And this concern that I have that the out-of-state utilities are sticking the profits in suitcases and shipping them out-of-state, whether-- The reports we read in the *Star-Ledger* about FirstEnergy having \$149 million of net profit in 2012 . Well, maybe some of those profits have to be kept here in New Jersey where they are generated. Maybe you need more line workers; maybe you need more infrastructure; maybe you need a better inventory, an investment in you communication's bank. Because a lot of things went wrong, and a lot of it JCP&L went wrong. Orange and Rockland -- disaster. JCP&L -- some was okay, some was a disaster. And you have to bear some responsibility. And I know we said we learn we learn

we learn. I think the people are tired of hearing they're learning. Like this learning curve has got to stop. After Irene, did we learn something? Did we retain something? After Sandy, do we have to revisit these same problems again? It gets really hard to deal with these folks who are desperate. And to hear Tony Bucco talk about your customer service -- your 9,000 (*sic*) -- I don't care if you get 8 million calls. One person who says "call 9-1-1" because his wife has a serious condition? You've got to deal with the structure -- the internal structure -- in the communication. It's a disaster.

SENATOR SARLO: Senator O'Toole, I know you're upset and I know you're anxious. If we could just stay on questions; I'd appreciate questions.

SENATOR O'TOOLE: Sure. What are you going to do coming out of here?

SENATOR SARLO: Keep it to questions.

SENATOR O'TOOLE: Well, first of all-- Question: You take direction from home office as to how many people should be working for JCP&L during a given day or given night or given storm. Where do you get your marching orders from?

MR. LYNCH: My responsibility is to run and operate Jersey Central Power and Light. Yes, it is within the FirstEnergy system; but we work with the Board of Public Utilities on all the issues that you talked about: the investment, the reliability that we must provide, the staffing, and all of that. And our books are open and we discuss all of that. And quite frankly, we have the resources, we have the people to be able to accomplish what we need to accomplish.

SENATOR O'TOOLE: You think you have the resources, after what we just experienced with Sandy? You think you dedicated -- JCP&L dedicated enough resources to combat the problems we saw, whether they were foreseen or unforeseen? We all dealt with it. You're telling me, with hindsight 20/20, that JCP&L dedicated enough time and money and resources to deal with the storm?

MR. LYNCH: Well, what I am saying is we can always be better, but I am proud of the effort that during a storm of this magnitude, with 1.3 million outages -- restored in, really, 13 days after the storm passed. There was AP articles -- not my articles -- that talked about the comparison of all New Jersey utilities and the fact that all utilities restored customers of this magnitude quicker or at least at the same time as Katrina and Hurricane Rita.

SENATOR O'TOOLE: Well, I have to tell you that you saw, we all have seen, our hard-charging Governor out there front and center. He was demanding accountability every day, having conferences with you folks to make sure you had accountabilities and you had run rates every day to justify who was in and who was out. I would venture to say if we didn't have that hard-charging, take-charge Governor, we'd still be out of power in some of the areas. And I'm not being sarcastic about it. And it's the first time, in literally 18 years that I've been here, you've seen such a proactive Governor working with the utilities. And I think we need to see more of that.

Thank you, Chair.

SENATOR SARLO: Folks, I'm going to remind everybody: Questions for the utility execs-- If you want to have dialogue off-line, please

do so. This Committee is for questions pointed to the members. I want to make sure we stay on that. In all fairness to the CEO and others who have made time to be here, I want to stay on questions. This is a learning process, as we go forward. I know there is a lot of frustration but, again, let's please keep it to questions.

Senator Beck, and then Senator Oroho; and then we're going to move on to the BPU.

SENATOR BECK: First, I wanted to note that I think Julie Strout and I probably talked more than I talked to my own family for those couple of weeks, and that she certainly did a good job, the best she could, with what information she had. And I don't have to tell you what a great professional she is.

We have a couple of things that I want to raise, and that is that at the local level we have methods of communication out to the residents that are already in place that can be and should be utilized. And many of our towns are using reverse 9-1-1. Many of our towns have the ability to text message residents, in addition to the Facebook and Twitter. And so my question is, is there the possibility that a local level -- because I know one of the requests that I've made and our mayors have made is that JCP&L has a local representative -- well, maybe not in each town, but, say, three or four towns -- that local representatives will work with the OEM to identify our key assets, so senior centers, etc., obviously hospitals-- Once you get beyond hospitals then there is a whole other subset that we need to make sure that you know. And we have the ability to give that-- But I would like to think that we could also then work with you on the communications piece, because frankly, in the Borough of Red Bank, our fire and police went

out and handed out paper fliers to every single resident to-- And there's no reason why we couldn't have worked with you to say, "Layton Avenue and West Sunset are going to be out for another five days," and handed out that piece of paper, right? So I want to ask you if you'd be willing to work with some of our folks on better defining that. Because I don't know enough about the smart-whatever -- the technology that you talked about implementing at the household -- but I know that we have methods in place right now to communicate with individual residents. So it may not require you to do that, but we do need you as a partner with our mayors. And I just wanted to ask if that's possible, if you think we could have a local representative assigned, broken down regionally, that we can work with and bring our OEM folks and work with JCP&L.

MR. LYNCH: Yes, Senator, I think that's part of the great conversation we want to have, and possibly can do.

I do see the towns have these great systems; more and more towns are putting in these systems to communicate with residents. I live in one with one of the best communicators, I think; the Mayor does a great job with that. So it's a matter of getting the information that you need to put in those systems. And I think we can work together on that and certainly utilize the towns' information system to pass that information on. And it's a matter of getting to that detail level that is of value. We were trying, on the calls that I had, to get to that street level and we just didn't publish it because I felt it just wasn't good enough. I didn't want to publish something that was not good. And, again, our outage management systems are designed for circuits to restore as quickly as possible. And if you look at the restoration curve, I'm pretty proud of what was done there: 100,000

customers a day for five straight days. But getting down to that street level, I think what you talked about -- a little bit later, maybe there's an opportunity to do that. So I would welcome working with you on that.

SENATOR BECK: That would be great. And if I could say I think-- Look, the folks I dealt with at the grassroots level that were either here by mutual aid or employed by JCP&L were professional and committed, and doing their best. But I will say that one of the things that became evident, and maybe you can talk to how this works, but there was a lack of organization. In other words, crews were confused about their priority; they were confused about what order in which they were supposed to be doing things. The tree guys weren't sure if the line guy was showing up, and the line guy wasn't sure where the-- And so could you talk to me a little-- I mean, I assume when all of a sudden now you have thousands of new employees and you are now managing them, that it's not that easy. But can you talk about what you do? Because that has to get better. I think you could have probably had record-breaking time restoring power if the organization of your labor resource was better defined.

MR. LYNCH: Yes, I think there's always an opportunity-- I think you hit it well. When you go from a couple of thousand people to 13,000 people-- We had an army of people that we're managing. And to any large increase in folks like that there is, I'm sure, some degree of disorganization that occurs at various times.

We have a good storm process. We talked about the tree cutters versus the line-- We clear the trees first and then the line. And just as we talked about information to the public and to yourself, all these out-of-state line workers -- they need that information as well, right? And we

don't have it at that level. I mean, they have an order and they know that's what they're supposed to do. And relative to everything else, they don't. So again, I think there is some opportunity there, for an all-out major storm like this, if we get again to figure out how to better organize that.

SENATOR BECK: We have to. We have to think through it. And I'm just going to bring up two quick examples, which are Colt's Neck, which as you know runs on well water. So no one in that municipality could flush a toilet for 12 to 14 days. So we don't even want to talk about the implications of what that is. But they became so desperate that they went and cleared all the trees themselves and then called your folks to say, "The trees are all done, we just need linemen." And I'm not sure that was-- Look, they were desperate; and we had senior citizens and people who couldn't flush a toilet for 14 days. So they did what they had to do, but somehow it felt like the information wasn't getting to the right people; that that fix, which seemingly wasn't too tough, could've been dealt with quickly and gotten it off your plate. And we've got to figure out the organization piece of this because my impression wasn't a lack of people -- at least in Monmouth County. I didn't see a lack of manpower; I think I saw a lack of organization, and we just have to make sure that the next time around we do it better. And I think you can rely on municipalities for some of the communication piece -- no question about it.

MR. LYNCH: I agree.

SENATOR BECK: And if you don't want to tell us, give us grid maps. If you can say, "This substation serves 14 streets on the west side of Red Bank," and narrow it down-- And, by the way, all those streets should have power right now. Our OEM guys, and our fire and our police

are out on every corner of that municipality every day, and they can say, "Hey, let them know that these two streets didn't get it yet," and really be a team. And I think we-- And that was some of it -- people felt there wasn't the connection being made. So that's for you as an executive to figure out with your team, and then us to step up to the plate and make sure we get you the information and that we do work together on it.

MR. LYNCH: I would just comment. I would agree that you hit right on the kernel of what we're already starting to work on: those kind of grids of restoration and figure out how we can connect those to towns. We connected to our circuits and substations, but how we can connect it to the individual towns. So we're working on that currently. No other utility that I know has solved it, or otherwise I would take it and do it -- but I think that's exactly right. And I would welcome working with the mayors and the elected officials on that because I agree they are, for the most part, our advocates on doing that.

SENATOR BECK: Yes. And I think one of the interesting -- well, one of the troubling things: We did have some local JCP&L people on the ground, but their information wasn't good; it was inaccurate. So that-- So internally you guys have to figure that out, too, because they were telling us stuff that was wrong. And then, of course, the whole system erodes. Because now I trusted you to tell me about what was going on, and your information wasn't correct, and so now people don't believe what you're saying. So that has to be worked through.

One of the questions that came to me in the course of the storm was cross-training of linemen and tree cutters, and is that realistic? Is that possible? Because there really did seem to be an additional burden on

JCP&L and on everybody trying to coordinate those two teams of people. And the question was asked of me multiple times, "Well, is it that hard to cross-train folks so that regardless of where they show up they can do both?"

MR. LYNCH: All utilities, really, contract out tree cutters to do that kind of work; and they are very highly skilled, trained individuals that can deal with cutting trees with wires around. So now to translate and add that skill of putting wires up -- that's a pretty extensive training that we go through.

SENATOR BECK: So it's not realistic.

MR. LYNCH: It's probably years--

SENATOR BECK: It's not a realistic--

MR. LYNCH: Yes.

SENATOR BECK: Okay. So then it's really simply that we have to coordinate these two teams better so that they're focusing on the same things in tandem.

MR. LYNCH: And that is our process. Our process is to send the tree cutters out first and clear all the trees and the wires and all that, and to follow up with linemen. Because if you send a line crew to a spot where there's a tree on the wire, you've wasted that resource, right? They can't work. So we organize such that we send the tree cutters first to clear the tree and the linemen are doing something else over here. And then they go to that spot. That's how it's designed to work.

SENATOR BECK: Well, I think-- And I think you hit it on the-- That's how it's designed to work, and I'm sure that as an executive that's your intent how it should. But on the ground, with the chaos that

was going on in Monmouth County and at the shore, it wasn't. So you did have-- Like I said, you had the labor resource there waiting and the tree folks weren't there. And the tree folks would come and the line guys would have gone and weren't coming back for-- So we have a real communication issue that we have to nail down that's not simply-- It is, in large part, we need it with the residents and local officials and towns. But it also -- internally those folks seem to not have had conversation that was allowing them to be as efficient as possible. And--

SENATOR SARLO: Senator Beck, if I could just have you wrap up here so I could--

SENATOR BECK: Sure. Just my one last is--

SENATOR SARLO: We need to move on.

SENATOR BECK: --that in terms of your priority list, that I would like to suggest that that maybe is a little more public. Because I do think there's empathy when you start saying publicly that our-- And I don't know if you've got reasons why you don't do this; so that's really my question: Why don't you do it? But I think you get more empathy from residents when you say, "I know every single human being wants their power back on, but our priority right now is we have some very vulnerable seniors, or we have some children, or we have--" So is there a reason why you don't express to the public the priority in which you're seeking to restore? Or, I mean--

MR. LYNCH: Yes, I don't think there's anything hidden there. We try to get it out in press releases, Twitter, Facebook. Perhaps we can do a better job of getting that information out. It's nothing that's secret.

SENATOR BECK: Right.

MR. LYNCH: Okay.

SENATOR BECK: Okay, thank you. I appreciate your time and we look forward to making it better.

MR. LYNCH: Likewise; thank you.

SENATOR SARLO: Senator Kean, I'm going to Senator Oroho; but Senator Kean, I see you motioning. Do you have--

SENATOR KEAN: If I may, thank you, Mr. Chairman. Through you, I have one quick adjunct to Senator Beck's question in terms of prioritization. Is it feasible, as you're looking at restoration efforts-- I think one of the frustrating things for people in a variety of parts of the state was that they understood that they would be going home to a dark home for a certain period of time. But the fact that sometimes it was taking them an extra hour to get home because, for example, some of the county roads and thoroughfares weren't cleared -- because the lines that were down on those thoroughfares would maybe impact a couple of dozen homes instead, and so they were very far down the list. But nobody would clear anything to get those roads clear, which would have eased up a lot of the frustration. So as you're looking in working with local OEMs, if I may, does it make sense to include freedom of movement within your restoration efforts as well?

Thank you, Mr. Chairman.

MR. LYNCH: Yes, Senator, I think that would. We worked with DOT on clearing those state and county roads. And then we really depend on the county OEMs for that information. So I think it's a good point. And so if we can-- Is this road better to clear than that road? I think we need more of a regional or a county look at that, and then we can,

yes, put that on our list to do that. And then, obviously, tell people what we're doing. So I think that's a good point.

SENATOR KEAN: So that counties and municipalities would know very clearly that if in Bernards, for example, you know that Findley, South Maple, and everything else-- That ease of access would just help people tremendously throughout the (indiscernible).

MR. LYNCH: That would help us tremendously because every town, it's their priority. So on a regional basis that would really help us.

SENATOR KEAN: Thank you. Thank you, Mr. Chairman, for--

SENATOR SARLO: Senator Oroho, followed by a question from Senator Thompson, and then we're going to move to BPU.

SENATOR OROHO: Thank you, Mr. Chairman. Don, thank you for being here.

And let me just start real quick by saying that, honestly, a lot of the questions I was going to have, have been-- And I'm obviously not going to repeat. But I want to thank Julie Holman -- texting, calling, whatnot. She was very responsive as I was trying -- as every Senator was trying to advocate for their areas.

Hurricane Irene, Tropical Storm Lee, the Halloween snow storm, obviously Sandy -- in my-- I was going to call it my neck of the woods, it really is in the northwest area of the state, we were very heavily-- It was tree damage; the road closings and whatnot. And you mentioned that you have 236 municipalities. Maybe we can't go through it here today, but I think one of the major things is, does that mean you have to deal with 236 different standards of tree trimming or clearing or--?

MR. LYNCH: Not necessarily. Some towns pass ordinances that might limit the tree trimming that you can do. But thank goodness not all of them do. And so then we can trim to the standards that we file with the Board of Public Utilities.

SENATOR OROHO: Okay, all right, very good.

Let me ask you: With respect to the road openings, was there something-- I think you had something that was put in place called *cut and run*. Can you-- With respect to-- A lot of times we were waiting for roads to become passable. Is that something that those cut and run crews-- Is that something that you instituted for this storm? Is that after Irene? Because one of the things is when they worked, they did work well. Is there some way that we can broaden the use of those cut and run teams or have more of those cut and run teams, or use the local DPW? I know electricity is extremely, extremely dangerous; you touch one of those wires, you're dead. Is there something we can do to try and speed up those kind of quick action teams?

MR. LYNCH: Yes, we've been having these conversations since last year's storms. I'd love to be able to use the DPW resources in some way to help us with that, but it is dangerous. And you're using a term, cut and run, which is part of our restoration process. What that is, is they talked about -- without getting too technical, but I am an engineer -- you know they have the feeders going down the road and you have all this damage on this lateral circuit. So they cut all this damage away and then they go to the next one and cut that one. And then we bring up that entire feeder which might bring up 10,000, 5,000 customers at a time. And we've

left all this damage over here -- instead of fixing all the damage. So that's what cut and run is.

The foresters -- the tree trimmers are the ones who go out and they're clearing all the orders with trees. And part of the challenge is, again, trying to figure this out. But we could clear the wire and even cut it, say, on the pole, and there's still wire wrapped around it or there's another wire coming in from another source. And we're dead -- we're good. But with the advent of generators, solar panels, and all of that, I don't know if that's not energized or not.

SENATOR OROHO: Is that backfed through?

MR. LYNCH: Backfed through. And so, see the tree trimmers are trained for that. So whether there is opportunity there or not, I don't know. But they're trained to have a handle on a wire that could be live -- how to clear that tree. I think that's what you're talking about from a DPW group.

SENATOR OROHO: With respect to the maps -- and I was using the map on your website to look at all the districts and municipalities. I have 36 municipalities in our district. Can you tell me: Were those maps -- you said they were updated every 15 minutes -- are they updated automatically from your operating system?

MR. LYNCH: Yes, that was one of the changes we made after--

SENATOR OROHO: Irene?

MR. LYNCH: --after Irene -- is our old maps were by zip codes; and one county had five different codes. It was confusing, so we went into individual towns. So now folks can see individual towns. One of the challenges this year, even though it was better, was the way we operated.

We had so much damage -- over 90 percent of our system was damaged -- we employed a process called *quarantine circuits*. In order to enable out-of-state crews to work quicker and faster and not have to do all the switching to make it safe, what we would do is we would de-energize a circuit at the substation and the whole thing is dead. And then we just put all those, say, 100 crews, 200 crews, working down the line. And they didn't have to worry about putting-- At the end of the day you stand all those crews down to make sure everybody's clear, and then you energize that circuit. And so it's not until the end of the day that all those customers come in and the website is updated.

SENATOR OROHO: Let me ask you -- just one other question, if you would. With respect to the infrastructure itself, you mentioned concrete poles versus wooden poles, or whatnot, and the number of poles that were affected. Can you comment on the maintenance of those kind of-- Were those poles maintained? Would it have mattered if-- I know a lot of poles were replaced after Irene, after the snowstorm, and whatnot. But can you comment on the age or the maintenance of that infrastructure?

MR. LYNCH: Yes, thank you, Senator.

We have a program, like all utilities -- we're registered with the BPU, who we report to that all poles are maintained -- it's really on a 10-year basis. We inspect it and we either replace it or we restore it when we go inspect it. And the percentage of poles we find that are really damaged is a very low percentage -- less than I think, half a percent. But we do have a program where we maintain and check them all the time.

And to answer your second question: If it was a brand new pole and that 100-foot tree came down, it's going to come down. Really, it's part of the advent of-- In areas like you talk about, one of the parts of the infrastructure is called *spacer cable* or *tree cable*. It's the three cables that are bundled together instead of separated. That's designed so that if a tree limb falls on it, it kind of bounces off and nobody loses power; as opposed to three lines like this -- if a branch lands on it, it actually shorts out and now you're out of power, and now we have to go out and do whatever. So it's designed to bounce off. The bad part of that is that spacer cable is strung by what we call a *messenger cable*, which is a steel cable. And if a tree falls on that, it's attached to those poles and will pull those poles down. So it's good on one side and bad on the other.

SENATOR OROHO: Not a question, just one last comment. It was mentioned throughout the whole thing here.

I know after Irene, and the snowstorms, and whatnot there was the idea of setting the expectations as to how long-- And I know the issue of 7 to 10 days -- or 7 to 11 days was said to be expected and whatnot. One of the mayors -- and let's face it, the mayors and OEMs, they are the ones who are really right on the front line, dealing with the constituents and whatnot -- one of the mayors that was significantly affected in our area had mentioned, he said, "Listen. We saw that we were hit heavily. But the expectation, and then the idea of getting the information out there -- where sometimes the misinformation -- right? -- and the desire to try and set that right -- expectation. Sometimes -- and we all have to be careful of this -- the idea to get the information out there-- Misinformation can be worse than no information, unfortunately. And it's that communication, and hopefully

continuing to drill down on that map that was there so that we can have that street-level data so the mayors-- Boom -- somewhere you can see it. Either on a smartphone, or if you have electricity on your computer, to be able to tell where it is that somebody's out.

MR. LYNCH: I would agree with you.

SENATOR OROHO: Thank you.

MR. LYNCH: And we're going to work on that.

SENATOR OROHO: Thank you, Chairman.

SENATOR SARLO: Senator Thompson, you have one question? Go ahead.

SENATOR THOMPSON: Thank you. Thank you, Mr. Chairman.

My comments apply not only to JCP&L, but to PSE&G and the others. Most of the comments and remarks here have been related to, again, communication problems that existed. That was the greatest source of frustration out there. And 90-something percent of the questions were always, "When is my power going to be restored?"

I think it would behoove you to do a better job of communicating what your limitations and capabilities are. People don't understand the task you're faced with there. I mean, if one home lost their power and called in and wanted it restored, you can probably tell them very shortly we'll be there, when; or if one section of 100 homes. But when you have a catastrophe of 2.7 million homes out there, there's no way that you or anybody else or JCP&L can tell any homeowner, "Yes, we'll be there the day after tomorrow or the next day." We spoke of smart metering. Even if you had smart metering I don't know if that would necessarily do it. Smart

metering would simply tell you this home is out or this area is out, but it would not tell you whether it's due to the transmission line, the substation, the switching station, a line down there, a tree down or anything else.

SENATOR SARLO: Very good point.

SENATOR THOMPSON: You know there's outage, but you don't know why. So trying to project when you'll be able to go there even when you know all the areas are out -- you don't know what the damage is. So if you put this into it and gave people realistic estimates, when we can give you an estimate-- But don't give misinformation, as they say.

SENATOR SARLO: Good point, Senator.

SENATOR THOMPSON: Just give them some estimate when you can give them an estimate. "We can't give you one today -- we don't know."

SENATOR SARLO: Don't raise one's expectations. That's a very good point.

MR. LYNCH: Senator, I appreciate those comments. And I'm an engineer by trade, and engineers solve problems. And last year I would have said that's impossible; but I'm excited by the thinking about how we could possibly do that, and as always New Jersey will lead the way in figuring out how utilities can provide that information.

SENATOR SARLO: Okay. Mr. Lynch, I'm an engineer by trade also, and we're going to be looking to you and the other executives to come back to the BPU and to this Legislature with a plan of how do we build a more reliable, redundant system. How do we better improve our system? If we're going to put real dollars, if we're going to go to the

ratepayers and ask them for more money, let's make sure we're spending it wisely.

And for JCP&L's sake -- and this is not a criticism -- you always have to be more careful because you have to make sure that money is staying here in New Jersey. We want to make sure that ratepayers' money is being spent here in New Jersey and not being taken outside of New Jersey.

MR. LYNCH: That's my job.

SENATOR SARLO: It's very critical. Thank you.

MR. LYNCH: Thank you.

SENATOR SARLO: I'll now call up Robert Hanna, President, Board of Public Utilities. Stefanie Brand is also with us, the ratepayer advocate. If she's here, she can come up if there are any questions for her at the same time.

I will -- just for a point of personal privilege, I just want to acknowledge Dr. Frank Felder who is with us today from the Bloustein School at Rutgers Center for Energy, Economic and Environmental Policy. His group is working closely with the BPU. And for full disclosure, I'm actually a student in Dr. Feldman's class -- I'm taking an energy policy class, trying to get smart on energy policy at the Bloustein School. So for full public disclosure on that--

SENATOR O'TOOLE: Is this extra credit, Paul? (laughter)

SENATOR SARLO: This is not extra credit for me, no.

SENATOR O'TOOLE: Okay.

SENATOR SARLO: But by acknowledging him, I'm hoping I get a better grade. No, I'm only kidding. (laughter)

SENATOR O'TOOLE: It's not pass/fail?

SENATOR SARLO: Not pass/fail.

Okay, Mr. Hanna, we'll let you have brief remarks, and then I think-- Perhaps you could kind of wrap up what you've heard this morning in the questions and, from a regulatory agency, try to put a perspective on what's happened and where we are going to go from here. What's the role of the BPU to make sure that some of this happens the correct way?

R O B E R T M. H A N N A, E S Q.: Good afternoon, Chairman; good afternoon, Senator Sweeney, Senator Kean, members of the Committee.

As you know, the Board of Public Utilities regulates all public utilities; that includes the four electric companies in the state, the natural gas companies -- there are four of those as well in the state -- and water companies. And our job is to make sure there is safe, reliable power at affordable rates.

What the storm has shown us is just how central all of these utilities are to our lives. I'm not going to go through the widespread destruction that occurred; I mean, the statistics are very alarming. But I do want to make the point at the start that extreme weather events are going to continue to occur. We don't know when they're going to occur, we don't know where they're going to occur, we don't know how frequently they're going to occur, nor how severe they'll be when they do happen. But I think it's incumbent upon the Board of Public Utilities, working with the Legislature, to plan and prepare for the absolute worst.

I'm going to very much truncate my remarks. I do want to start with one point of clarification, since it was raised during Don Lynch's statement. Jersey Central Power and Light was ordered this summer in July

to file a base rate case. The reason-- There were multiple reasons why Jersey Central was ordered to file a rate case. The first one, I suppose, was that Stefanie Brand, Rate Counsel, filed a petition alleging that Jersey Central Power and Light was overearning on its rates. And that goes to the point that there is a concern -- again, raised by Rate Counsel -- that Jersey Central is essentially taking money from New Jersey and sending it to its parent in Akron, Ohio -- FirstEnergy; in essence that Jersey Central is being used as a cash cow for even more troubled operations of FirstEnergy. Again, the Board of Public Utilities will sit as the judge in that case. I certainly have not prejudged any of that, and I'm going to look forward to hearing all of the facts and circumstances. Obviously, if those allegations are true, that's extremely alarming and it means that proper investments are not being made in New Jersey.

Another reason for ordering JCP&L in for a rate case was their absolute woeful performance during Hurricane Irene and that October snowstorm. I'm not sure you could do worse.

Another, again, reason was that there was an incident -- there have been multiple incidents, actually -- in Morristown, New Jersey, with the underground network there. It got so bad that a manhole exploded, a flash of steam came out, and a woman who was driving with her two kids in the back of her car was severely burned. The Board of Public Utilities retained a special reliability master to look into it. And the special reliability master found an absolutely alarming lack of basic preventive maintenance on that underground system.

So those are the reasons. JCP&L was not asked, as Mr. Lynch said, to file a base rate case; they were ordered to file a base rate case. And

that rate increase request is just that -- it's a request. When you see that as a request, don't think that the Board of Public Utilities or Rate Counsel is simply going to say, "Hey, that's fine." That's not what we do, okay? So I just want to be very clear on that.

SENATOR SARLO: Thank you for clearing that up.

MR. HANNA: All right. If I can, maybe, cut to the chase--

SENATOR SARLO: You have a question on that matter, Senator Beck?

SENATOR BECK: Yes. Just as a point of clarification.

SENATOR SARLO: Go ahead.

SENATOR BECK: So you called them into a base rate case. Did JCP&L have to ask for an increase, or could they-- You're suggesting that one of the reasons for the case is that you think there may be -- according to the ratepayer advocate -- reason to believe that they're taking money out of New Jersey and sending it to Akron, Ohio. So could they have just come in to defend that premise without asking for additional dollars? They didn't have to ask for a rate increase as part of this case?

MR. HANNA: Right. It's up to the utility when they file a base rate case to choose what they're going to ask for or not ask for. And again, it will go through the crucible of discovery -- Rate Counsel and Board staff will be looking at all of the paperwork, all the financials, to see exactly what happened; what expenses were prudently incurred, for instance. I mean, you made a great point, Senator, about we have to look at the efficiency with which the utilities dispatch their crews. It's one thing-- One of the keys to storm response is you have to have the number of utility workers there. And actually I think the utilities did a good job getting the

out-of-state workers here. I want to talk, hopefully, about using DPW workers to supplement that. But we had the numbers. The other question is: Okay, you have the numbers; are you efficiently dispatching them? Is there too much downtime? So those are the kinds of things that, certainly with respect to the Irene filing, Rate Counsel and the Board staff will be taking a look at.

SENATOR BECK: Great. I guess it just is odd; it doesn't comport with me that they're saying they're making too much money here and sending it out to Akron, but then you'd raise your rates as part of the case when the allegation is you're making too much money.

MR. HANNA: That does not compute.

SENATOR BECK: I find it confusing and a little confounding; but thank you.

SENATOR SARLO: Continue, Mr. Hanna.

MR. HANNA: All right. Let me, really, just start with the communications piece. What people want to know is exactly what Senator Bucco and his wife want to know: When is my power going to be restored? And, obviously, the answer that was given to Senator Bucco and his wife is absolutely unacceptable, and I was glad to hear Don Lynch apologize on behalf of JCP&L.

And I'm going to respectfully disagree with Ralph LaRossa. Ralph indicated that it's a matter of trying to get better ways to communicate the information to the public. We have plenty of ways to communicate the information to the public in this day and age, certainly: we have Facebook, Twitter, the Internet, we have Mixel, we have reverse 9-1-1. That is not the problem. We can get the information. The problem is

the utilities are not generating the information in a way that is going to be useful to the public. The Hurricane Irene report identified this as a weakness and the utilities -- I think it's fair to say they did a somewhat better job here. They assigned liaisons to each town. They do a better job on their websites. They held daily calls with elected officials. All that is good, but the problem is they're not generating the useful information. So what I've ordered at the BPU is, we formed a task force at the BPU to take a deep dive into the systems at the utilities. Because the utilities are just not doing this on their own. And we're going to figure out at each stage of the restoration process what information are you generating or are you capable of generating -- maybe they're not actually generating it, but they can -- and turning that into an automated process so that reports can be generated in real time and immediately go to public officials and to the public, generally.

What I heard over and over and over again from some of the members of this Committee was that the assigned liaison -- the area representative, the area manager, whatever it's called at the utilities -- simply didn't have any information about the estimated time of restoration or, worse yet, and unbelievably, provided incorrect information -- said, for instance, that crews would be there tomorrow morning; tomorrow morning comes and goes -- they're not there. That can't happen. We have to dive into what the automated capabilities are and turn that into reports that are, again, real time and available to the public. And to the extent that the utilities' automated systems are not generating that report, they're going to have to get new and better systems.

So I think we can do that; it may require investments. It probably will require investment in software. But I think it's money well spent. Everybody wants to know when their power is going to go back on. My power was only out for six-plus days; it was no fun. But the most frustrating part was that I was constantly getting the same Mixel alert saying that, "Your power will be restored in 3 to 5 days." It was a rolling 3 to 5 days -- it just kept going on and on. So again, we have to do better, we will do better. The grade on communications is still an *F* and we will do better.

And also, Senator Weinberg, I think you made a great point. I do think the utilities have to do a much better job just generally disclosing more about the restoration process: What the restoration priorities are. I think--

SENATOR SARLO: Senator Thompson also made that point, too.

MR. HANNA: Yes, yes.

SENATOR SARLO: What the expectations are.

MR. HANNA: Yes. And, obviously-- Look, hospitals are going to come first; nursing homes, some of the critical infrastructure. We saw here we had lots of problems with refineries and pipelines which led to gasoline shortages up north. Bob Martin and I-- I was working very closely with Bob Martin on all of the outages at water facilities and wastewater facilities; that was a major problem. So we do have to do a good job. Also just explaining-- Again, and Don Lynch was explaining some of this, what it means when you *quarantine a circuit* or you *cut and run*. People don't want to hear these things -- that it's going to take a while to get their power back.

But they are resilient. And if you do give them the information at least they can plan. They can decide, "Am I going to stay in my cold, dark home?" My wife and my daughter left and stayed with friends; I just couldn't emotionally leave my house so I stayed there. Some people feel that way, some people don't. But at least if you have the information, you know-- So we will improve that.

Now, again, let me also say-- All right, let's be realistic about what communication means. Even a perfect communications system only tells you, in this case, that for the last people restored that your power is going to be restored in 13 days. What we really have to work on is getting the power restored faster. And so I'm not-- Please don't misunderstand me; I think it's incredibly important that we improve the failures in the current communication systems by automating it, but we also have to work on restoring power faster. And there are some things we can do.

Again, let me try to cut to the chase on some of these issues. It is-- When you have about 3 million outages -- and that's what we really had; we had 2.7 million outages -- and, again, just for clarification: When we say "a customer is out," and it's 2.7 million customers, that's not people; that's a meter. A customer for these utilities is a meter. So the usual multiplier for figuring out how many people that means is you multiply the customer number by 2.5 to 3 times. So we're talking millions and millions of people. And when you have that many outages, you have to do two things well: You have to get the crews on the scene throughout the entire state, and they have to be trained workers to fix it. And I do think that the utilities did a good job, particularly JCP&L, of getting the out-of-state crews here. And that--

SENATOR SARLO: I'd like to just comment. The Governor was very complimentary, publicly, to JCP&L on their coordination of out-of-state crews. In all fairness, the Governor personally and publicly complimented them on that. So it's a good point there, Mr. President.

MR. HANNA: Right. I mean, one of the advantages-- I think it's very important the Governor take charge; the Governor and the entire cabinet was convened at the ROIC -- the Regional Operations and Intelligence Center -- run by the State Police. It was a huge advantage to have all of us there. I could speak directly to Commissioner O'Dowd about the problems we were having at hospitals and nursing homes. I could speak to Bob Martin about the water and wastewater problems; with Jim Simpson, the Commissioner of Transportation, about some of the transportation-related challenges and expediting permits for some of the things that JCP&L wanted. It was nice to be able to just look across the table at General Cunniff and say, "Look, can you let us use your Black Hawk helicopters for flyovers of power lines to see how they are?" General Cunniff said, "Yes; can do." It was done immediately. Those sorts of things went very well and I think, Senator Sarlo, as you said, the Governor-- Immediately you know you've got to get a lot of out-of-state crews here. He was on the phone within a half an hour calling his fellow governors, asking them to put pressure on their utilities to send crews here. And that worked very well.

Now, again, to Senator Beck's point, though, it's not enough to just have the numbers; you have to dispatch them efficiently and effectively. And I cannot grade the utilities on that yet because that's a much more detailed look-see to see how they did. But again, it is a central point,

because when you have that many outages, you've got hundreds of thousands of trees down, 10,000 poles down. I think Ralph LaRossa used the phrase -- and I certainly agree with this -- it's really hand-to-hand combat and you need to get the numbers there.

I do think we did a good job.

Now, I do think we need to take a much closer look at whether we can supplement that army -- and it is a small army, really, of out-of-state workers -- with our DPW workers. Those folks are here. It's actually much cheaper to use them if we can. They are going to sleep in their own house, they don't have to be put up at a hotel or some of these temporary camps that we set up. They are right there. They also know their towns the best. They know what the important roads are. I was kind of amazed when I was driving home from the ROIC how difficult it was to get to my house -- some major roads were out after a week. Woodland Road in Morris Township -- it was pretty amazing. That should have been cleared much sooner. It's an important road in Morris County.

Now, having said that, I want to find a way to use the DPW workers. Every mayor who I talked to has expressed interest in it. Here's the big issue -- and there are also some other issues I want to talk about -- and Don Lynch said this: It's all about safety, right? We can't have anybody electrocuted. DPW workers -- their safety, if we're going to use them, we have to make sure that they're properly trained. Now, could we set up a training program run by the electric utilities and get them a certification? Yes, we could. Could they be limited to certain tasks only? Once a wire or a system is determined to be down and de-energized do we then send them in there to clear those roads? They are very good with

chainsaws and that sort of thing. Again, they're already here; they don't have to come from California on a C-130 military transport. We want to use them.

SENATOR SARLO: Let me just interject there for a minute, because I understand what you're saying, but I sort of respectfully disagree on a little bit of the public use of DPW workers. Because over the past few years we put a lot of caps on municipal services -- 2 percent cap. Municipal services have decreased; the amount of employees in our public works departments has decreased dramatically. Most towns outsource their garbage and recycling collections. So that is a smaller group of workers. Most of the small water systems have been outsourced. In many towns in my region -- South Bergen -- we have six to seven DPW workers. Many of them double as volunteer firemen. So in towns like Moonachie, Little Ferry, Wood-Ridge -- towns that were really hard hit -- those guys were clearing trees from the streets, answering fire calls. So it's kind of very difficult-- I'm not saying the larger cities, but in a lot of suburbs -- Morris, Bergen, Passaic -- it's very hard for those guys. Those guys are working 16 hours answering fire calls and at the same time removing trees off the streets -- those that are tangled, of course, in electrical wires.

MR. HANNA: Senator, I couldn't agree more that there are a lot of issues. Let me identify a couple more, because I think it might require legislation if we're going to go down this path. You have liability issues for both the town and the utility if something goes wrong. That would have to be sorted out. As you said, you have a tax cap issue. Now, there is an exception for emergency situations on the cap. Now, another way to handle the cost, Senator, would be those salaries and the cost could

be borne by the utility, and that could be passed through to rates. But, again, those sorts of things we would have to work through that.

You also have an unfunded mandate issue. If the mandate is coming from the State, you have to deal with that. It could be an opt-in program. There may be some towns, as you pointed out, where the time of these DPW workers is too scarce; they have other things to do.

SENATOR SARLO: They're so small, the departments.

MR. HANNA: Yes, exactly. So it may work for some towns, and not others. So you could have-- And it would get around the mandate problem if you had an opt-in program rather than a mandatory program.

So I don't want to minimize the issues, legal and otherwise -- and safety -- about this, but it is something we need to think about because everybody wants their power restored more quickly. And that is one technique or one method that may help.

I do think that Ralph LaRossa did make a very good point that we do need to build our grid in a redundant fashion. And let me point out that transmission-- I don't want to get into too big a discussion, but in the energy world generation is deregulated; it's not regulated by the State -- generation of power, power plants. That's at the FERC level, the Federal level. Transmission, for the most part, is also at the Federal level. The FERC has approved about \$3 billion worth of transmission upgrades in the State of New Jersey just for Public Service alone and others -- for JCP&L; I mean, the one that gets the most attention is the Susquehanna Roseland transmission upgrade. So we are doing that, and some of that, anyhow, is spread throughout the entire-- The cost of it is spread throughout the

entire footprint of the regional grid that we're part of, called PJM. So these things are occurring.

And I think we do need to take a look, particularly on the barrier islands and in the bay shore areas, at adding additional transmission upgrades and redundancies to make sure that we can get power even in extreme weather.

Let me go back to the point about tree trimming. There's been a lot of discussion on this. And we have to be clear here. And I think it's helpful to understand who has control over the trees that can fall on utility wires. Within the utility right-of-way -- and I think if you want to visualize that, that is the vertical space below and above the utility wires -- the utility company has the authority to trim those trees. That's why you sometimes see what is sometimes referred to as a *box cut*, where they just swipe a portion of a tree and it looks kind of ugly. They'll just take a chunk going vertically up over their wires. But if the roots of that tree are not in the right-of-way, they don't have authority to take the tree down. And that tree, obviously, is going to be very close to the wires and if it topples over from the roots up -- as many trees did during Sandy -- those wires and possibly those poles are going to come down. Move in a little bit from the right-of-way. In my town -- I live in Madison -- I forget what the exact distance is, but I think it's 12 feet, something like that -- 12 feet from the curb those are essentially the town's trees. And we have a very vigorous shade tree commission in town that protects those trees. I have not heard much political will among the mayors I've talked to for aggressively either pruning those trees in that area that the town controls or chopping them down. I just have not heard that. Most people recognize that if you turn

Shady Lane into Sunshine Drive we would have less outages -- if you took those trees down. They wouldn't fall on the wires. But they don't want to do it, and I'm not sure that the State Legislature should be making that call. That might be something that is more appropriate for locals to decide. But it does have implications for storms involving high wind.

Another step back, right, away from the street and the wires, is anything beyond the towns' trees are the homeowners' trees. And again, the utility has no authority to cut down the homeowners' trees. You get into all kinds of issues about just compensation for taking those trees down and people become very attached. So it is a very difficult problem. But it is certainly true that in these extreme weather events there are really two causal events for the outages: one is wind knocking down trees, and the other is water. With Irene it was the water from rain essentially flowing downstream through the river; Senator Weinberg saw that with the substation flooding there. Here the water was coming from the ocean and the bays up the Hudson River, up the Passaic River basin, up the Raritan Bay, over the barrier islands. So it was a different sort of water problem.

Again, with Hurricane Irene a total of 14 substations flooded; only 3 of those same stations flooded again with Sandy. But an additional-- I believe about 60-- I take that back. These numbers have changed. I think it was 49 substations in total flooded during Sandy. So it was a much more widespread flooding problem. And Ralph LaRossa did a good job of explaining why those substations are where they are.

Obviously we have to consider building walls around them to waterproof them; moving them; or elevating them. And we are working with -- your professor, actually, Senator Sarlo -- Frank Felder of Rutgers on

the issue of the cost-benefit analysis on what to do to protect substations and switching stations. We're also going to work with Frank and his team on smart grid applications. I won't talk about that too much; I do think smart grid does have benefits for outage management, but they are limited. When you have 90 percent, as JCP&L did, outages, you kind of know you have widespread problems. So it's not-- It's more useful pinpointing the smaller outages and also telling you when the power was restored.

Another infrastructure item that I think hasn't gotten much -- or hasn't been discussed now, but we should consider, I think, is more what are called *combined heat and power facilities* throughout New Jersey. Many of our universities have it; Rowan has it, Stockton has it, Princeton has it. It's essentially a small power plant that can power either one building or multiple buildings. And they're fired by natural gas, so it's not dependent on the electric grid. For example, if you had a combined heat and power setup for municipal buildings or county buildings, then you would know that the county offices would be up; the town office would be up and running; the police stations; the fire stations. You might be able to have a warming station so people could get warm in town, charge their cell phones -- that sort of thing. And it would also help us with some other energy master plan goals.

Senator, I know you're pressed for time. There are many issues that we need to work on. I have truncated my remarks. I know Stefanie Brand is here, obviously, and again has opposed in the past, I'll say, the expense of the smart grid. What I'm looking forward to working on with Rutgers and Frank Felder is doing the cost-benefit analysis necessary for all

of these major expenditures. Again, undergrounding of wires would provide benefits; it would also be incredibly expensive.

SENATOR SARLO: Oh, absolutely.

MR. HANNA: Think about it: Every street in New Jersey would have to be dug up; every front lawn in New Jersey-- Because that overhead wire is overhead and then it goes to your house overhead. You'd have to dig it up.

SENATOR SARLO: But where-- Let me-- And I agree with you. It's too costly to take the existing infrastructure and bring it below grade, whether it's for electric, Verizon, Cablevision. However, where we do make the mistake -- and this is the DOT -- and this is my industry where I come from -- is when the DOT goes down a highway and does a project, they spend more time taking the poles and moving them two feet out of the way. When the whole entire road is ripped up you can do a mile of roadway, have a whole interchange, and the job gets bogged down because they are taking the utility poles-- First you have to let the power people go, then the communications go, then Verizon is pointing at PSE&G or likewise. In those sections of roadway, while the road is-- All the utilities in those sections-- And in many of those sections where there are highways, there are transmissions lines. They should be put below grade.

MR. HANNA: I couldn't agree with you more. We require under--

SENATOR SARLO: They don't do that, though.

MR. HANNA: Well, no, we do-- Well, right, for transportation. But we do require undergrounding for new development. So it does make sense. So in other words if you are building the

infrastructure for a new development from scratch -- sewers, water, gas, everything -- it makes sense to underground. So I agree with you, though, that-- And that's what Frank is going to study. I think we have to be smart about the undergrounding so that when we are digging up roadways anyhow, maybe that is the time to underground sections of New Jersey. And also to protect, for example, substations. When a feeder cable goes down, you can have tens of thousands of people go out. Maybe we should be undergrounding those wires to prevent trees from falling on them -- or taking a much more aggressive tree trimming policy when it comes to those major cables.

So I do agree with you that we have to be wise, but to underground the entire system would be billions and billions of dollars, and just the obvious problem of just having to dig up all the streets.

SENATOR SARLO: Mr. President, I just have one question, and then we'll see if anybody has any and then we have to move on here.

You talked a lot about this cost-benefit analysis that you're going to undertake. So the question I have is for the Committee's sake: Are you going to wait for the utility companies to come forward with their proposals and then you're going to do the cost-benefit analysis? Or are you going to be proactive and do the cost-benefit analysis ahead of time and then share your results with the utility companies? Or are you going to allow them to come back to you with their proposals and then, from a regulatory perspective, are you going to analyze them? What step goes first here?

MR. HANNA: Well, we've already started, quite frankly, on the cost-benefit analysis. For example, we had a discussion yesterday and

we've had prior discussions with Professor Felder. We should be able to learn from what other states have done. Down on the Gulf Coast they get hurricanes much more frequently than we do. What have they done to protect their substations? Have they decided to go with the walls? Have they elevated them? Have they moved them? We have gotten preliminary estimates from the electric utilities already. I can tell you right now, it's much cheaper to build a wall around a switching station or a substation, certainly, than it is to move it or even to elevate it. So we've already started the cost-benefit analysis. And let me also say, for example, on undergrounding -- many other states have already looked at undergrounding. I've read carefully the study that the District of Columbia did on undergrounding. And, quite frankly, the expense that they came up with shocked me -- it's incredibly expensive. What we haven't done, though, and what we need to work with the electric utilities on is, okay, if we're going to selectively underground to protect more critical infrastructure, how much would that cost? And then, again-- So we have already begun the process. Now, I'm not going to sit here and wait; we know what the problems are, we're already on it.

SENATOR SARLO: Great.

Any wrap-up questions here, from anybody on the Committee?

SENATOR O'TOOLE: Just one comment.

SENATOR SARLO: Senator O'Toole.

SENATOR O'TOOLE: One quick comment; thank you, Chair.

First of all, President, thank you very much for your accessibility; and you and the Governor's Office stayed on top of these folks which made it easier for us to try to understand what the markers would be.

When you talk about the lines of communication, the improvements, and some of the ideas that we've talked about, I think it's going to go a long way to, I think, improve the delivery service. And I just want to say thank you. For those who don't know, when I had trouble reaching some of these folks at the utilities, I literally called Bob, and Bob said, "You'll get a phone call back." When I had mayors screaming and hollering, literally, early in the morning and late at night, Bob or his staff said, "Let me see if I can get a line back." And that was really-- It's unnecessary, but you did it, Bob, and I appreciate it.

And another thing, Chair, what I did when I had-- This President came and sat with all of our mayors and talked to them, one-on-one, about what their real-time intelligence was; to talk to the President-- So he heard their story, as well as hear from the utilities. So I want to thank you for that.

MR. HANNA: Thank you, Senator.

SENATOR SARLO: Bob, Bob, would you be willing, down the road, in a couple of months, to come back here, or BPU to come back and share some of your preliminary results and some of these analyses that you are going to be doing -- some of the more finite recommendations of this cost-benefit analysis? Would BPU be willing to do that for this Committee?

MR. HANNA: Absolutely.

SENATOR SARLO: Okay.

MR. HANNA: And if I can, I just wanted to say that I received many, many calls from elected officials, State and local, and you could hear the strain that they were under; obviously their constituents wanted

information and they weren't getting it. It put them in a very, very tough spot. Some of them were actually quite desperate. Not a single one of them -- okay? -- not a single one of them asked me to bump their town or their district up the priority list. They were extremely professional and cordial. They simply wanted information so that they could get good information out to the public. And I thought that was a tribute to them. And I think despite the incredible stress they were under they acted very, very well on behalf of their citizens. I just wanted to add that observation.

SENATOR SARLO: Thank you, Mr. President. Thank you, Stefanie, for being here.

S T E F A N I E A. B R A N D, E S Q.: May I testify a little bit, at least?

SENATOR SARLO: Questions, and then-- Stefanie, okay. You want-- Question from Senator Weinberg first.

MS. BRAND: Okay.

SENATOR WEINBERG: I'm not sure I understood you correctly in the more formal part of your testimony. You said something in terms of the communications, that it would be a simple software issue. Did I hear that right?

MR. HANNA: Well, no, I think I said it may require software upgrades. What I'm interested in doing, Senator, is at each step of the restoration process, the utilities are generating information for internal use-- For example, the initial step in the restoration process is the damage assessment. They need to send folks out there to say which poles are down, which wires are down, which substation is flooded. What we need to do is turn that information into something that the public can use. So for

example, the electric system is based on circuits, so we need to tell-- If Teaneck, for instance, is on four or five circuits, we need to turn that circuit information -- which is not going to be meaningful unless it's changed into street information, sections of town -- into "this is the problem in Teaneck." And, again, throughout all the steps, where are those crews? How are they being dispatched? When are they going to be there?

I want to turn the automated information systems that the utilities have into real-time, detailed reports useful to elected officials, emergency management folks, and the public. And again, it may require them to get better automated systems. So that was my point.

SENATOR WEINBERG: Okay, thank you.

SENATOR SARLO: Thank you, Mr. President. We are completed with you.

What I am going to do here, we'll give the ratepayer advocate just a few moments here to share some of her thoughts. What I'm going to do next, if the Committee doesn't mind, real quick we'll bring up-- Since typically after the power comes back on, cable and phone come back on soon thereafter. So we'll just bring up quickly Verizon and Cablevision for a few moments right after this; I have two or three quick questions for them. Hopefully it will address all of our concerns, and then we'll move on with the afternoon.

MS. BRAND: I promise to be very brief. But there are some issues that I'd like to add to the testimony you've already heard.

As you know, our office represents the ratepayers -- the people who pay the bills. And I think it's very important, and it sounds like what has happened here is that we're giving a good look at this in order to

determine, really, what we should be doing. I think the worst thing we can do -- and we've talked a little bit about expectations today -- I think the worst thing we could do is go on a spending spree and buy this and buy that, and then have another storm come and have people out for another two weeks. So we need to be very, very careful to look at where we're really getting a cost-effective solution and where we're getting a bang for the buck.

What I think we need to look at first, though, is the money we are already spending on reliability and storm response. The ratepayers are already paying the utilities, included in their rates, for a certain level of storm response. In a rate case you generally-- It varies from company to company, but generally you look at, basically, a three to five year average. And that level of storm restoration cost is included in rates. If there's a year where there is no storm, the company gets to keep that money. So we are spending money already on storm restoration. We need to make sure that that money is being spent appropriately.

We're also spending already a lot of money on infrastructure. Over the last three years, since 2009, the companies, on top of their base rates, have been receiving approval for accelerated infrastructure programs. The electric utilities have been awarded approximately \$600 million for that; the gas companies, over \$700 million. So that money is already out there and we need to see how it has been spent and whether or not we are spending it in the right place.

Now, I will tell you -- and there's been some talk about how much money is staying in state to work on utility issues and how much is going out of state. In a recent rate case we found that one company -- one of the electric companies -- for every \$1.32 that they earned, \$1.08 was

being sent out of state to their parent corporation, who is their sole shareholder. The rest of it was what was being kept in state to run their utility operations. So we need to look at whether they're sending too much out in dividends and whether they need to spend more on operations.

We also need to look at whether we can enhance the regulations that already exist on reliability and on vegetation management -- enhance the enforcement of those regulations before we start trying to reinvent the wheel. There are reliability regulations on the books; they were amended in 2008 to provide for a standard that says that you look at a five-year average of reliability for each company to determine what they have to meet. Well, if a company's reliability performance has been bad over those five years, it has the affect of reducing the standard that they have to meet. We might want to look at that, and whether or not we should be enhancing those standards and holding them to a higher standard than what they are already held to.

I also think that on vegetation management, we're very, very dependent on self-reporting by the utilities. The BPU-- I know there's already legislation that has introduced the penalties for failure to comply with the regulations. We should also be providing the BPU with the resources it needs to enforce these, to go out and check and make sure that the vegetation management regulations are being complied with.

It's only after we've looked at, "What are we already spending and is it being spent in the right way?" and, "Are there ways to enhance what we have on the books already? That we should start looking at all the new things that everyone wants to spend money on. And then I think we do have to look at cost effectiveness. I can't help-- Just to correct President

Hanna a little bit: Our office doesn't oppose smart grid measures; we actually support them on the utility side of the meter. It's these smart meters that really kind of stick in our craw. We heard testimony this morning that suggests that \$1 billion just for JCP&L and PSE&G could be spent on smart meters. Now, that's just the cost of the meters. It doesn't include the profit that the utility would earn on them, and it doesn't include the stranded cost for throwing out the meters that we're using now that are still working.

So for \$1 billion, what do we get? We get a meter that will, as it goes out, tell the utility that it's going out. And then, when it comes back on, it will tell the utility that it's coming back on. To me, if we have \$1 billion to spend, I'm not sure that's the best way to spend it. I would rather see it spent on redundancy, on securing substations, and things like that.

So it really is a choice. I think the worst thing we could possibly do is victimize the ratepayers twice by doubling their rates and then having a system that will still go out if we have another storm like Sandy.

SENATOR SARLO: Senator Bucco -- question?

MR. HANNA: Senator, could I just--

SENATOR BUCCO: Yes, thank you, Mr. Chairman.

Just to the Commissioner first, Commissioner Hanna. I want to echo what Senator O'Toole had said. When my frustration hit its peak, I had to reach out for you, and you were very responsive and we appreciate that -- getting back to us.

MR. HANNA: Thank you.

SENATOR BUCCO: For our ratepayers: You say when utilities come in and you give them an increase, and part of that is for infrastructure -- and you mentioned how many millions of dollars that was -- do you have them back in to show where they used that money? Was it used properly?

MS. BRAND: Well, they're required to come back in after a year and show that they spent the money and that they spent it on what they said they were going to spend it on.

SENATOR BUCCO: In New Jersey?

MS. BRAND: Yes.

SENATOR BUCCO: Okay.

MS. BRAND: And it's the BPU that approved it, but they've been spending money on-- All I'm saying is that they've been spending money -- additional money -- on top of their base rates, on infrastructure. So maybe what we want to say is let's take some of that, spend it on these redundancies, and use it for that instead of the other projects that they've already been approved for.

SENATOR BUCCO: Can you dictate that then?

MS. BRAND: Well, the Board of Public Utilities can.

SENATOR BUCCO: The utilities then decide how they want to spend it.

MS. BRAND: The utilities come in and ask to spend it in a particular way.

SENATOR BUCCO: Right.

MS. BRAND: My office will look at that; we'll formulate a position one way or another. We're the adversaries to the utilities in that

circumstance. And then the Board of Public Utilities will decide which way to go.

SENATOR BUCCO: But once you give them that money, you monitor where they're spending it. But you're saying use some of that for redundancy.

MS. BRAND: Correct.

SENATOR BUCCO: Can you dictate that, that some of that be used for redundancy? That's my question.

MS. BRAND: Yes. The Board--

SENATOR BUCCO: You can?

MS. BRAND: The Board can. My office can't, but the Board can

SENATOR BUCCO: But the Board can -- okay. The BPU can do that then.

MS. BRAND: Yes.

MR. HANNA: That's right, Senator.

SENATOR BUCCO: All right, good. Thank you very much.

SENATOR SARLO: Senator Oroho, for one final question.

SENATOR OROHO: Just real quick -- Stefanie, thank you very much for being here.

Now, did you say \$1.32? And of that \$1.08 is going-- Were those the numbers?

MS. BRAND: For that utility, for every \$1.32 they earned, \$1.08 was paid out in dividends to their sole shareholder, which was their outside parent corporation -- outside of the state.

SENATOR OROHO: Now, what about the issue of the cost of power? Because we're a (indiscernible) state--

MS. BRAND: No--

SENATOR OROHO: --is that exclusive of cost of power?

MS. BRAND: That doesn't include that, correct. Power generation is deregulated; this is just the utilities' cost -- yes.

SENATOR OROHO: Completely separate. Thank you.

SENATOR SARLO: Thank you. Thank you to the both of you.

MR. HANNA: Thank you.

SENATOR SARLO: And we will be calling BPU back; we thank you for the opportunity to come back sometime in the future to talk about some of the preliminary results on the analysis.

PRESIDENT HANNA: Thank you. I appreciate the opportunity to speak today and I'm glad to work with you in the future.

MS. BRAND: Thank you.

SENATOR SARLO: Okay. To everybody who is still waiting, I know we tried to schedule you and ask you to come at different times. Just please be patient; we're moving through this.

Jim Gerace, Regional VP for Verizon; Paul Sullivan, President of the New Jersey Verizon; and Adam Falk, Vice President, Government and Regulatory Affairs, Cablevision -- are they still here? Okay.

Well, we'll start with--

J A M E S G E R A C E: I'm Jim Gerace from Verizon.

Thank you, Mr. Chairman, Senators. I want to thank you on behalf of the 15,000 Verizon New Jersey workers in the state for this

opportunity to share with you some of our experiences from Hurricane Sandy.

I'll try not to be redundant with what's been said already today, but the effects of Sandy were substantial, both to our infrastructure and to the many Verizon employees and customers who lived in its path.

Now, withstanding storms and other disasters, and responding to their aftermath is nothing new to Verizon. We, of course, provide services across the globe, and I cannot remember a year in my 26 with the company that we did not have a disaster to respond to. We've learned a lot in the process. The fact that there is always something new to learn -- and Sandy was no exception to that. I'll touch on that some more in a minute.

In spite of the many challenges presented by the storm's devastation, I'm happy to say Verizon has made great progress in restoring customers to full service and rebuilding our damaged facilities. This work, of course, began long before the storm hit. We mobilized our internal emergency response teams a full week ahead of Sandy's landfall and began communicating with customers on October 26. We posted-- Some of the things we did were to post consumer tips on our website, and used social media to prep customers for the oncoming storm. We also issued numerous news releases to media outlets in the threatened region, and we sent e-mails and tweets to customers with key links for troubleshooting and reporting service problems should they occur after the storm hit.

The Verizon crisis management teams, as I said, were mobilized and responsible for a lot of critical preparation, which included confirming our fuel supply for backup generators, adding critical inventory to meet customer demand, moving vehicles and other portable equipment from low-

lying areas and away from the coast, and sticking critical supplies in centralized locations for rapid deployment close to the hard hit areas.

We also started moving key assets from around the country towards the northeast before the storm hit.

SENATOR SARLO: Did you also-- I'm going to interrupt you for a minute. You talked about moving key assets here. Did you also move key assets out of low-lying areas where you were able to move equipment, trucks, supplies?

MR. GERACE: Yes. We moved everything that had wheels and anything that we could put on wheels.

SENATOR SARLO: Anything you were able to put on wheels you took out of low lying areas and moved them?

MR. GERACE: Yes. And, by the way, even if they were not in low-lying areas but they were near the coast -- because we expected surge -- we moved them away from the coast as well.

So we maintained a big disaster recovery fleet of emergency vehicles, including a mobile command center, mobile emergency calling centers, satellite trailers -- many of these ended up being used by local emergency management responders and came from as far away as Dallas, Texas. We put our environmental HAZMAT response team and our emergency response incident team on standby and ready to deploy immediately.

So the destruction that Sandy wrought is well documented; I don't need to go into that. But needless to say, where there were homes, businesses, and boats that were destroyed, there was likely Verizon network damage. Over 1,000 IBW and CWA employees were brought in from

Virginia, Maryland, Delaware, Pennsylvania, and Washington, D.C., to assist our New Jersey team with repair and restoration efforts throughout the state, and most of them are still here. These crews have repaired and replaced over 4,000 utility poles and 6,000 cable transmission lines, and also repaired switches and other electronics damaged by floodwaters.

We deployed 85 project managers to the hardest hit areas to work directly with local officials and State Emergency Management, and we maintained presence and constant contact with the ROIC.

I don't have to tell you that the first week of the storm, fuel availability was a major challenge despite our planning. This was learning number one for us. We couldn't rely on just our private suppliers; we needed to work with the government officials to secure fuel essential to keep generators and our service vehicles running. We received permission from the Department of Transportation and the National Guard to fuel our trucks at their depots. And I just have to take a minute to thank the Governor's staff and the BPU for helping us to secure the fuel -- some 100,000 gallons every day -- to keep our networks running.

So Hurricane Sandy offered valuable insight about the reliability of our various networks -- copper, fiber optic, and wireless. The extreme flooding caused by Sandy was particularly devastating to our traditional copper network. Copper networks are prone to failure in wet conditions and difficult to repair once they've become wet. The cost -- moisture compromises the conductivity into the future, and the problem is made even worse when corrosive saltwater is involved.

Where our fiber optic network is deployed, it proved much more resilient and held up against the flood damage. This was the second key learning and truly a silver lining of Superstorm Sandy.

The wireless network remained strong during the storm, and as we've seen before during storms like Katrina, and as of November 4, less than a week after Sandy, the wireless network was basically back to normal.

While restoring service is our number one priority, I'd be remiss if I didn't at least mention our outreach to the community during the event. Our chain of Verizon Wireless stores in the state provided device charging and free calls for all local resident, regardless of the carrier or even if they weren't a wireless customer at all.

Where we didn't have stores, we moved in mobile stores-on-wheels -- particularly in Sea Girt and Howell; and then Wireless Emergency Communication Centers at Monmouth University and two locations in Toms Rivers. And these centers provided free calling for anyone in the community to reconnect with families and friends.

Now, for our Verizon landline customers who were without service during the hurricane, we are providing credits; and for wireless customers, we are crediting them for any voice and text overage during the event. And finally, my company partnered with the Red Cross just the day after the storm hit for a text-to-donate program that has, thus far, raised over \$3 million for the Red Cross.

So thanks for your time. I'll take questions.

SENATOR SARLO: Thank you.

I'd like to just have Adam Falk, Cablevision -- if you could just come up here, in case we have any questions here we could ask both of you -- the utility companies. Adam, thank you for being here.

The question I have -- and it goes to both of you: We heard a lot about communication this morning. And one of the complaints I received from folks was that they would call Cablevision or Verizon and say, "When can I get my service back?" And the response would be, "We're waiting for your power to be restored." Well, my power came on two days ago. Now, that may not be Cablevision's fault, or Verizon's fault; can we do better communicating between the telecommunication companies and the power companies? Is that something we should be doing better? There was a lot of that going on, I believe.

MR. GERACE: I'll take it first, I guess.

First of all, you could always do better communicating. There can never be enough communications between all the parties involved. I think we fine-tuned some of those communications processes between the various utilities during the storm. So some of what you heard may have been early feedback; I'm sure we were much better later in the month on things like that. But next time around -- yes, absolutely.

SENATOR SARLO: In reality, you need power restored back to the house for, essentially, TV, of course, and cable television and the phone to come back online -- and internet service.

MR. GERACE: Yes, but that's not the main driver of that. The main driver of that is safety. Until we know that the electric company has done the work to make either the resident or the business safe for our guys to work, we don't go in there.

SENATOR SARLO: Adam, just follow-up on that.

A D A M E. F A L K: Yes, sure.

Thank you, Mr. Chairman.

SENATOR SARLO: Just hit the button there.

MR. FALK: Thank you. And yes, thank you for the opportunity to be here.

To your specific question: One of the issues is that cable network doesn't line up exactly with the electric grid. So often you have power restored to the home or the residence, but the electronics that are in the network may be located at a different place that could be several hundred feet or a quarter of a mile away from the location of the home. And so if the power is not restored completely in the entire area, then you may have a situation where power has been restored to the home but not necessarily the electronics in the network that power the signal. So that frequently is the cause of the situation where you have power back at your house, but you don't have your cable services up and running yet. We deployed hundreds of generators in the field to address those situations and to get power to the electronics in the network. But I think to your question -- yes. Better coordination between power companies and cable companies would help, not just with that situation but with the overall ability of us to restore services more quickly to our customers.

You know, we have to come behind the electric companies because of the safety issues and because of their need to de-energize the plant before we can come and work in a particular neighborhood. And so having a situation where we get access to their plans and know where they

are prioritizing would help us greatly in better planning ourselves in terms of how we're going to attack the restoration efforts.

SENATOR SARLO: Just a follow-up on that: One of the things, the perception problems that you guys have these days -- both of you have triple-type triple packages where you have your landline, your cable television, and your internet service. And I think some folks who have made that commitment to either company -- or all three -- they lose the whole package to their home. They're even more frustrated -- now they lost the entire package. In some people's mind it's like, "Well, if I had separate companies--" They're not recognizing-- Is that a perception problem that you have to deal with now? They might say, "Well, in the old days I had cable TV, and I had Bell Atlantic, I had my Internet -- well, they didn't have Internet service, but -- you follow what I'm saying? The perception is, have you lost everything at one shot here? Is that a perception problem you guys have to deal with?

MR. FALK: I think it's an advantage for us, and it's an advantage for our customers. I mean, clearly, now that we're providing three services to customers it's even more imperative that we speak to our customers clearly. Now that there's more competition in the industry we all have to make sure we're doing a better job to service our customers so that they don't leave and go to our competitors. So I think in a way it's an advantage for customers because, quite frankly, I think they're getting better and more focused customer service and better service from our companies.

But clearly we're an important part of our customers' lives. I mean, it's not just television, it's their Internet connectivity and it's their

communication services. And so we have to recognize that and continue to do a good job to serve them.

SENATOR SARLO: And I appreciate-- It's a good picture. I appreciate the both of you sitting together because yes, you're in competition with one another, but you both recognize that the customer is very important to both of you, and it's important to our constituents as well.

So I really appreciate the both of you sitting here and putting the competition among the two companies aside, and refocusing on the needs of the people out there who are paying the bills.

I think Senator Greenstein has a question for Verizon.

SENATOR GREENSTEIN: Well, for either one of you.

Good afternoon. You've somewhat touched on this, but I just wanted to make sure I understand it. It used to be said that if you had a landline that was not through the Internet system, or whatever, that it wouldn't go out in a storm. I know my line did. Supposedly there's a battery backup or some backup at the original site that goes out-- How does that work? What would make a landline go out during a storm?

MR. GERACE: Senator, I think I'll take that.

First, it would be a tree coming down over a wire. That could make both your electricity and your telephone service go out. I think what you're referring to is the traditional copper network provided its own electricity out to the customer.

SENATOR GREENSTEIN: Does that exist anymore?

MR. GERACE: It does. It's a relatively antiquated technology that's not as reliable as fiber. Fiber does provide a more resilient network; it

basically is resistant to any water damage. And it also has backup battery power in the customer's residence or business. But battery power is limited by time; whereas if you had a continual electric current coming through the copper, it wouldn't be -- presumably. But as we've seen during the recent storms, 100-foot oak trees do not differentiate between wires. So it is likely that many customers would be out anyway.

SENATOR GREENSTEIN: So what you're saying is that even if you had this antiquated system, it could still go out because of trees falling on the wires.

MR. GERACE: Absolutely. And when it does, the customer always calls us to tell us about it via a wireless phone -- a cellular phone.

SENATOR GREENSTEIN: Okay, thank you.

SENATOR SARLO: Anybody else? (no response)

Anybody else-- You guys have anything else you would like to offer or anything else-- If not, you've been a--

MR. GERACE: Just thank you for the opportunity, senator.

SENATOR SARLO: Adam, I know you came in a little bit late. We appreciate you being here. We were actually going to call you-- We called you guys earlier than we had originally scheduled. But Adam, I just want to give you a chance -- is there anything else you wanted to offer?

MR. FALK: Sure, and I'll be very brief.

And I thank you for the opportunity to be here, and I thank you for all your efforts during the storm and the aftermath to address the needs of people in New Jersey.

Just three things that I would want to leave you with as thoughts coming out of this event. The first is that from our perspective,

better communication and coordination is needed with the electric utilities to address the issues that I talked about earlier. Specifically, in the state of Connecticut, after Hurricane Irene and the October winter storm there, they put in place a process by which cable companies are granted and telecommunication companies are granted access to the command centers of the electric utilities -- which, from our perspective, resulted in better and more efficient coordination and communication between our companies and theirs so that we could get our customers up and restored more quickly. So that's one thing that I think that the Committee should look at in the future.

The second is the cut-and-clear policies that some of the electric companies engage in, in their efforts to restore service. We had many fiber breaks during the storm that were caused by downed wires, and downed trees, and poles falling, etc. But post-storm, during the restoration, particularly electric restoration, there were a number of additional fiber cuts that occurred as a result of the policies of the electric utilities. And it wasn't nefarious in any way; it was just that they were attempting to clear the lines and de-energize them. And often many of our main fiber trunks were affected during the restoration process. So again, more coordination with them would help to avoid sort of unintended consequences during the restoration efforts.

And then third, I would say access to fuel and fuel supplies was a big issue for us during the storm. I know that the Committee and the Legislature is looking at ways in which they can ensure better access to gasoline during these events. But cable companies are not always looked at as providing essential communications. And as you said, many people do

rely on us for voice services now, emergency communications.. And getting us better access to fuel supplies, both to help our trucks in their restoration efforts and our generators in the field that are powering these electronics, is something that I think the Committee could continue to look at.

I appreciate the opportunity to be here today.

SENATOR SARLO: Thank you to the both of you. We appreciate your being here and we'll continue to work with both of you. If we have any questions we'll follow up back with you.

MR. FALK: Thank you.

SENATOR SARLO: I am going to briefly bring up Kathleen Ellis, Executive VP (*sic*) of New Jersey Natural Gas, along with David Baker, Senior Vice President (*sic*), Northeast Division, of New Jersey American Water. And what I would like to hear from them-- I'm going to pose them two or three questions really dealing with the barrier island. That's where their biggest emphasis is, and I think this Committee should--

The question I have, on behalf of the Committee, is to-- What is the status of getting service back to the barrier island -- the northern barrier island from, say, Point Pleasant down to Seaside Heights or Island Beach State Park, both water and gas? And the follow-up question I have to New Jersey Natural Gas is, we know the decision was made to terminate gas service to the island because, I guess, that was in conjunction with the Governor because of the fires that were beginning to erupt. Was there ever any thought to shutting down the gas system prior to the storm hitting?

KATHLEEN T. ELLIS: There was not. The reason for that, Senator, is that once you curtail service to a main, it literally, as the

Governor said, could take months -- 6 to 8 months -- if there's water infiltration into that main, to restore service to those customers.

The fact of the matter is that our gas system is high pressure; so it's gas tight and also water tight as long as that gas is flowing. So the integrity of the system is maintained by keeping the service on.

Now, let me just quickly tell you that the decision was made -- when it was made -- because-- Which was actually on November 1, because it took until November 1 for us to get feet on the ground. I'm talking now about the barrier island specifically. But the same goes, in the most part, for Long Beach Island. So access to the barrier island was denied us for good reason. And we finally got there, believe it or not, by boat. Nine of our men took their tools and carried them by hand to get access to those fires at Curtis Point in Brick Township. And two other of our employees followed a front loader up the island once they got across the bridge. That's the only way we gained access on November 1.

Once we got on the ground, it was clear we couldn't fight this thing safely, leak-by-leak. And the determination really was made, as soon as we had experienced people on the ground, that there was no other way to guarantee the safety of our customers, of our employees, and of the communities we serve other than to curtail that service.

Now, having said that -- and I'm trying to be as brief as I possibly can be--

SENATOR SARLO: No, this is very helpful -- very helpful.

MS. ELLIS: First of all, let me tell you that Long Beach Island, too, was curtailed, and Long Beach Island has had service to every single property for about -- how many days now, Craig?

UNIDENTIFIED MEMBER OF AUDIENCE: Since the 26th.

MS. ELLIS: Since the 26th of November. And we worked in sections to restore that gas in the main, and then to rebuild the meter sets at every single premise. Because, remember, gas is completely different from electric, and that we can't flip a switch at a substation and bring on multiple customers. To bring on a customer, you go premise to premise.

And, again, I want to make the point that our infrastructure is, in the main, probably 95 to 98 percent underground. And it is only the force of Superstorm Sandy that caused the problems that we had with our mains. Literally we had to replace a mile of 12-inch main on the barrier island where the breach occurred. That main was buried 4 to 6 feet below the sand. And the force of the breach and the water and the debris, frankly -- houses being knocked off their foundations -- caused the severe damage to our underground infrastructure, which was really the huge problem for New Jersey Natural Gas.

So on the barrier islands, once we got access-- As you know, Ortley Beach has been described as the epicenter of Superstorm Sandy. And if you've been there, you know that it's true.

SENATOR SARLO: I actually was there a few days after the storm as well, and I've been there a couple of times since then. It's getting better, but clearly it's something that I've never seen before.

MS. ELLIS: Absolutely true.

So once we got done with Long Beach Island, we sectionalized the barrier island, from Mantoloking to Seaside, and we have seven sections there. And we started actually working last Monday, reintroducing gas at the northern end. We've gotten through two sections and are now up to

the Toms Rivers section. Toms River is not ready for us yet; they need to clear some debris, and they also needed to tell their residents they couldn't be on the island. They had guaranteed their residents access to their homes through the 7th of this month, and they did not want to inconvenience them. They have FEMA appointments, insurance appointments, etc., etc.

Cut to the chase: Next Monday we'll start in Toms River, which is section three, and by December 15 we will have introduced gas all the way down to Seaside. So following that, we will rebuild the meters and everyone -- every premises -- that can safely accept gas on the barrier island will have gas, certainly by the end of the year, and hopefully before.

SENATOR SARLO: That is an incredible timetable from what was originally a 6-to-8-month time period.

MS. ELLIS: Yes, sir. We're very proud of the work our men have done.

SENATOR SARLO: So essentially gas will be extending down the northern barrier island by December 15, and by the end of the month, as long as each homeowner gets his local plumber in-- Well, they have to get electric first before you can turn the gas on, I believe.

MS. ELLIS: They do have to have electric first.

SENATOR SARLO: They have to get their local electrician in first, and their local plumber in to check everything. You get a cut-in-card. Literally, by January 1, many of those homeowners, who are out there listening to this, will have gas service back to their homes.

MS. ELLIS: Absolutely. And I know we're in a hurry, but could I just say one thing about communication?

Starting on November 1, we updated -- with one single update -- the same update for all our stakeholders. That includes our customers, first and foremost; our municipal officials; our legislators; the BPU; Rate Counsel; Governor's Office; Policy -- every single one of those entities got the exact same update of what we had done the day before, what we had accomplished the day before, who had service, and what we were planning for the next day -- every single one. We did social media, Twitter, Facebook. We did, obviously, a very extensive press list. We had people on the ground meeting with the mayors in whose towns we were working those days. I got a couple of good ideas from Senator Beck today about the reverse 9-1-1 and the e-mail capabilities in the municipalities. But I'm really, really proud of the communication work we did because it was consistent, it was reliable, and it came every single day.

SENATOR SARLO: Kathy, what does it cost to New Jersey Natural Gas to rebuild the system? What does it cost? What's the estimated cost?

MS. ELLIS: Our estimates right now run between \$50 million and \$80 million. And that includes both capital and O&M.

SENATOR SARLO: Senator Beck.

SENATOR BECK: Kathy, if I could just give you, New Jersey Natural Gas, a compliment, which is that you're absolutely right: that we all got updates on a regular basis; that my local officials felt very connected to the gas utility; that they knew what was going on in their towns; they knew when crews were around. And they felt that you were very accessible. And so I didn't get a single, solitary complaint from anyone -- even though we had some places that were deeply affected. And, secondarily, I know your

hometown of Belmar has taken it on the chin and I just wanted to express sadness at that. But I'm sure with the good leadership you have in town there that we'll rebuild.

MS. ELLIS: I appreciate that very much.

SENATOR SARLO: New Jersey American Water -- could you just share with us the status of the barrier island?

D A V I D K. B A K E R: Absolutely. And I just want to give you a little bit of perspective, first.

First, thanks for the opportunity to be here to talk to you about this. The water business is a very different business because we are 100 percent reliant upon power. So when you think about that, we serve about 2.5 million people in New Jersey and 100 percent of our production, distribution and treatment facilities were on backup power. So good planning that's in place for many years, but also heightened by Irene for preparation there.

By contrast, none of those customers were out of service. We had, virtually, occasional ebbs and flows in pressures and things as generators were moved and things came up. But the island is clearly a contrast. We have about 10,000 customers on the island; only 10 percent of those customers have water service as of this time. There are 86 miles of main on the island itself, and so it's a very tedious process and a very highly coordinated process with the other utilities, DOT, DEP, and so forth.

At this juncture, by the end of December, 100 percent of all of the assets will be inspected. But what that translates to is that within about 60 days -- not by the end of December -- but within about 60 days the water service will be available. But there's a complicating factor that

everyone needs to remember about the water service, and that is that we must coordinate with all of the wastewater service providers. Because if customers come back in and there's no wastewater services, they're still-- there's not going to be any water on, right? We are working very closely with the municipalities and the MUAs that have the wastewater services so that is very coordinated. And we're offering assistance wherever we can.

Also, kudos to our employees because they worked tirelessly. Many of these people had moderate, and some very severe, damage or total destruction at their homes because they live in these and other communities across the state that were highly impacted.

Challenges -- very much a challenge in the coordination process. I don't think any of us or any of our government officials were prepared for anything of this magnitude, but literally set up camp quickly on the island and were able to coordinate on-site. We have 50 employees who are on-site, on the island, to make sure that the restoration process goes as quickly as possible.

SENATOR SARLO: So you're talking about 60 days, takes you to the end of January, when you think reliable water service will be available to the residents of the barrier island?

MR. BAKER: Sixty days where the reliable water service may be available, but before the wastewater and all of the moving pieces together would be. So it's going to take just a little bit longer than, perhaps, the other utilities because we have the other piece. But we're confident in that.

SENATOR SARLO: Okay. We've been to the barrier island; we've had testimony in Toms River. We are potentially going to go back in that area. As we know, nobody can live on the entire barrier island right

now because they don't have public utilities. So really the pressure-- As much as the pressure may be off the electric companies now, the pressure is on the Jersey Natural Gas, Ocean County Utilities Authority, the water company, and the like. What kind of dollars is New Jersey American Water looking at?

MR. BAKER: We estimate -- and this is early, right? Because as we go block by block, literally, we still have to determine what's happening -- but about \$20 million in infrastructure. In the presentation that I left behind for you, take a look at some of the pictures -- you'll see fire hydrants sticking up 10 feet where before there was a street. So it's a very, very complex repair process and very expensive. But that \$20 million does not include O&M; we're still estimating that.

SENATOR SARLO: Any questions from the Committee? (no response)

Okay, well, I want to thank you for being here. I think it was important that we got this out today. I will say this: I have been very involved in what's been happening on the barrier island, and I've developed relationships over the years with folks down there. And the communication, the letters you sent to the various folks-- I thought the communication from the Natural Gas and New Jersey American Water has been very good. I want to compliment both of you for that. I know you're spending a lot of money here. We'd like to hear down the road what your total dollar cost has been because of the storm -- both the response, the maintenance, and, of course, the capital upgrade -- at one point in time.

MR. BAKER: Thank you.

SENATOR SARLO: At this point in time I'd like to bring up Passaic Valley Sewerage Commission -- Michael DeFrancisci; Gregory Tramontozzi, General Counsel; Bridget McKenna, Chief Operating Officer; and John Rotolo, Chief Engineer.

I think we all know by now-- I never thought Passaic Valley, one of the largest wastewater treatment plants in the entire country, would submerge in water. So we need to hear from them, the impacts on that facility. And there are some political impacts as well that the Senate is going to need to deal with at one point in time.

While they're getting ready, I'll just share this with you. Its commissioners -- and we'll hear from the Executive Director -- until we have a full complement of commissioners there, they are very limited in what they can do in capital improvements.

SENATOR O'TOOLE: Do you want to explain that point? I agree with you 100 percent. You need to absolutely explain that.

SENATOR SARLO: And I'll let the Executive Director--

SENATOR BUCCO: Explain that.

SENATOR WEINBERG: At least a comment while they're not--- Not for Passaic Valley, but just generally while they're getting ready.

You know, I think this has been a very meaningful experience for all of us who lived through it, and now we're hearing about other people and how they've gotten through this. I think we need to devote a little time to, at some point in the future, to issues surrounding insurance companies. Because I'm getting a lot of complaints -- hearing about a lot of complaints with reference to that.

SENATOR SARLO: Very good point.

SENATOR WEINBERG: Thanks.

SENATOR O'TOOLE: If I could just explain it real quickly -- about the commissioners.

SENATOR SARLO: Sure.

SENATOR O'TOOLE: There's one commissioner who is still a commissioner; the rest have resigned, retired, or did whatever. I think the Attorney General opinion said you need -- I think the number is five; there are some who would argue it could be three commissioners. But I think the lawyers' opinion is that you need five commissioners to bond. So between three and five, you have to have that many commissioners seated before you can actually bond. I think they're aware of it; I think the Governor has nominated X amount of commissioners; I don't know if it's three or four or five -- whatever it is -- but I think the Chairman's point is a real one. We have to get commissioners seated so that if there is a bonding necessary for infrastructure or repairs, we only have one commissioner there right now.

SENATOR SARLO: Well, quite frankly, and no disrespect-- And this is not targeted to the Executive Director, because he has an operation to run, but there are many decisions that he is making right now, quite frankly, that should be sanctioned by the Board of Commissioners. That's how that agency was set up, legislatively. Many decisions are being made, that he's making as the chief manager -- day-to-day operations manager. It's not his fault that he doesn't have commissioners. I'm sure he would want commissioners to give him the cover. (laughter) It's always good to have cover.

SENATOR WEINBERG: Are there holdovers there, or what?

SENATOR SARLO: There are no holdovers. These are-- Nobody is seated. There is only one member who is currently seated.

SENATOR O'TOOLE: Yes, but I think, Senator Weinberg, I think there are three or four folks who have been nominated. I think two or three from Essex; I think there are one or two from Passaic; and maybe one or two from Bergen.

SENATOR SARLO: No, there is no one from Bergen.

SENATOR O'TOOLE: There are none from Bergen?

SENATOR SARLO: None from Bergen.

SENATOR O'TOOLE: No? Then they are from Essex and Passaic. There are, I think, three or four at least that have been nominated for about a year and a half.

SENATOR SARLO: So that is something-- Because they're going to tell us what kind of capital dollars they're looking at, going forward. And we're going to need to put people there to approve the bond.

SENATOR O'TOOLE: I'm with you.

M I C H A E L D e F R A N C I S C I: Thank you, Senator. And I thank you for inviting us here today.

I'd just like to introduce the folks who are with me. John Rotolo is our Chief Engineer, on my right; to my left is Bridget McKenna -- she's our Chief Operating Officer; and my General Counsel is Greg Tramontozzi. Again, thank you for inviting us to talk about what I'm sure everybody is a little tired of hearing about -- this hurricane and the impact -- but it certainly had some devastating consequences to our facility.

As you are aware, PVSC was created by an act of the Legislature in 1902. In furtherance of its mission of protecting and

preserving local streams and river, PVSC owns and operates the fifth largest publicly owned wastewater treatment facility in the United States, located in Newark. The PVSC Treatment Works manages and regulates the collection and treatment of wastewater generated in our five-county district located along the Passaic River basin.

PVSC services 48 municipalities in portions of Bergen, Essex, Hudson, Passaic, and Union, with a population of approximately 1.4 million people. The PVSC Treatment Works has designated influent flow of 330 million gallons per day and treats approximately 25 percent of the total wastewater generated throughout New Jersey.

When planning for and responding to emergencies, PVSC is guided by its emergency response plan, which was created in 1997 and updated in April of 2012. It's a comprehensive manual designed to ensure that PVSC's management makes appropriate decisions when confronted with assorted contingencies during emergencies.

Just as a side note, any issues relating to flooding at PVSC have always been a matter of egress and access. It's always been "how do you get in and how do you get out," because the surrounding areas traditionally flooded, but never the property or the PVSC compound as it did during this last storm.

On Monday, October 22, Director Christopher O'Shea, a retired member of the New Jersey State Police, a Major in Troop D (*sic*), and as our Security Director, called a meeting of our emergency preparedness group to discuss the upcoming storm. The EPG was created around the time of Hurricane Irene. On October 22, the EPG discussed the then-anticipated potential of the storm with respect to, among other things,

its path and its intensity. Additional meetings of the group took place throughout the week of the 22nd, addressing concerns such as staffing, communications, logistics, and continuity of operations.

As you can see from the chart that we handed out, our engineers prepared this. And it gives a little bit of a timeline starting on the east side -- Newark Bay to your left -- and talks about the tidal surge and how it impacted the facility. We strategically closed down the facility as much as we could between 6:30 and 8:30 when we lost power. As you're looking at the chart from the left to the right you can see the arrows that identify the way that the storm surge impacted the facility. It literally surrounded PVSC -- it's a 140-acre complex -- and, for all intents and purposes, swallowed it up.

As the storm intensified during the late afternoon of the 29th, all non-essential personnel were sent home. The tidal surge, which ultimately enveloped the property, breeched our bulkhead adjacent to Newark Bay at approximately 6:30.

We assigned 51 people to work that evening -- typically there are about 20 who work overnight at that facility at any given time -- to man the pump stations and other PVSC assets as the storm was approaching. As the tidal surge made further inroads across our plant, we began to strategically de-energize certain facilities. At 8:39 we experienced total loss of power from Public Service Electric and Gas, and as a result we lost the ability to control our processes.

We immediately contacted the DEP hotline and let them know that we were pretty much out of commission. At that point we turned our

focus on employee safety as the rising waters throughout the PVSC impacted all of our more than 50 buildings.

By the morning of Tuesday, October 30, waters had receded. As the first floors of our administration and security buildings had been inundated with as much as 4 feet of a combination of bay water and wastewater, a command center was established in our safety building. We began to evaluate the damage in our processes in order to reestablish our normal operations.

Although we had made necessary preparations for the hurricane, the impact of the storm was certainly unprecedented. PVSC, on the surface, is an extremely complex system of wastewater treatment equipment spread out over the campus. However, much of what you don't see is underground -- approximately 5,000 square feet of subsurface utility tunnels that house thousands of pieces of sophisticated equipment that are literally the heart of the facility. PVSC's tunnels were flooded with several hundred million gallons of bay water and wastewater. In order to reestablish normal operations, we needed to dewater the tunnels so that equipment could be dried, evaluated, and, where possible, re-energized.

In many cases, we ultimately learned that that equipment had been damaged or destroyed and needed to be replaced.

The task of dewatering PVSC's massive tunnels could not have been accomplished without the extraordinary assistance of the Army Corps of Engineers which were dispatched to PVSC. Representatives of the Corps, several of whom were involved in the dewatering operations in New Orleans and Hurricane Katrina, and briefly in lower Manhattan, literally were the lifeline that we were able to get up and to start running. Through

their efforts we were able to secure massive pumping equipment, generators, and sufficient fuel -- while that commodity was in very high demand -- so that we were able to dewater our tunnels even ahead of the aggressive schedule that we had designed.

In order to put it in perspective, we were told by them that just underground alone, we held about 200 million gallons of water -- the equivalent would be the perimeter of a football field 600 feet deep. It's a lot of water. It was very different to even try to understand how much that was until we started to pump it out.

In restoring our processes we received extraordinary assistance from the DEP. Commissioner Martin was a great asset to us and I thank him.

The EPA, who maintained a daily presence there, and the Army Corps -- all these people who I've mentioned have been great partners with us and really helped us get to where we are today, in literally within close to a 30-day timeline.

It's important to note that contrary to certain misinformation that circulated after the hurricane, since Saturday, November 3, all wastewater is flowing through PVSC treatment works with disinfection, to kill pathogens prior to being discharged through our outfall tunnel into New York Harbor. DEP, EPA, and PVSC have been monitoring the ambient waters of the Passaic River, the Hackensack River, Newark Bay, Arthur Kill, and the Hudson River for pathogens since November 5, and the pathogen levels have met, in all instances, the applicable water quality standards.

I'm extremely proud to say that through the tireless efforts of our operations, our engineering, and maintenance departments, PVSC's treated effluent has been meeting full secondary treatment standards since Friday, November 23.

In planning for the future, PVSC is certainly committed to ensuring that our agency never again experiences the kind of catastrophic incursion we experienced during Hurricane Sandy. In that regard, I created a target hardening committee on Friday, November 16. The purpose of the committee is simply to identify possible ways and means by which PVSC can protect its infrastructure from future water incursions, especially to our subsurface tunnels.

We have been told that PVSC is one of the state's largest consumers of energy and, indeed, approximately 19 megawatts of power is needed on a daily basis to conduct our processes. Prior energy reviews conducted by the Department of Homeland Security, the U.S. Army Corps of Engineers, and the Office of Emergency Management have concluded that supplemental generators sufficient in size to provide the required energy to run the plant are just not feasible because of the massive amounts of energy that we need to run the place.

As part as the committee's tasks, moving forward, we'll be looking for possible systems that would not only harden the facility itself, but look for ways to possibly take us off the grid -- to not be contingent on, relying on one source of power.

Meanwhile, the target hardening committee is focused on what measures can be taken to protect certain baseline process elements,

including our influent pumping station, our effluent pumping station, and our electrical substation, as well as our below-ground infrastructure.

Thank you for allowing us to be here today to address any of your concerns, and I'd open it up to any questions. Thank you.

SENATOR SARLO: I'll pose the question to you, and you can defer it to whomever you would like on your staff to answer.

I know you said that there is a hardening committee in place. Well, first, before I get to that, what is the estimated gallons of sewage that was dumped into Passaic Valley -- into Newark Bay? Do we know, roughly, how many gallons of sewage went in?

B R I D G E T M c K E N N A: I did a rough estimate, and I think it's about three-quarters of a billion; so about 775 million gallons of raw sewage went into the rivers -- the Passaic River, mainly, and Newark Bay.

SENATOR SARLO: That included particle matter and debris as well, too, right? There was no-- It didn't even go through any--

MS. McKENNA: Yes, that was during the timeframe that we had no power and we couldn't pump it through our treatment plant at all. So that was from--

SENATOR SARLO: No screening-- There was no screening of particles or anything like that?

MS. McKENNA: The CSOs would have nettings at the end of the -- netting facilities at the CSO discharges, which was mainly where the flows would have had to leave the system.

SENATOR SARLO: Okay. And I know we talked about (indiscernible). The question I have is: I know there is this hardening committee that's in place and it's going to-- There is a significant amount

of capital dollars that are going to be needed. But there is really no way you can protect this plant from another surge though.

MR. DeFRANCISCI: Hard to say, Senator. At this point, what the committee is looking at is trying to lock down, and what abilities we would have to lock down the underground facilities so that they wouldn't be susceptible to the water if it was to breach that bay front -- somewhat like an underwater door or watertight door. We're going to be looking at things like that to try to figure out if we can at least-- Even if we, during the storm, had held the water above ground, we would have been much further ahead than we are, or what we found when we came back.

SENATOR SARLO: If you did not lose power and you had the surge, would that have been helpful to -- for some of your pumping facilities to pump out? It still would have inundated the entire plant though, correct?

MR. DeFRANCISCI: Because of where we sit on the bay, we have sump pumps that run all the time -- because we are so close to the water. Whether or not we would have been able to maintain those sump pumps running, had we -- did maintain power, I don't really know at this point. John, you might be able to weigh in on this. It's hard to say because there were just such massive amounts of water.

Some of the things that we've already done is we've-- Those control panels for the sump pumps were located down where the sump pumps were. So if the water rose high enough it would knock out the control panels. We're moving all of those to higher ground. The same as we're moving our communications and our telephone appearances (*sic*) and our T1 line, because we had no communications. So all of those

infrastructures are being moved higher so that if we were ever to witness another flood, we would at least have it higher so it wouldn't impact those important parts.

SENATOR SARLO: How was Passaic Valley paid for -- the dollars? I mean, what has it cost to date, so far, on the repairs, overtime, maintenance, parts? What does it cost to date, and what do you think the total bill is going to be at the end of the day?

MR. DeFRANCISCI: I just read a report yesterday that said that we incurred about \$14 million in costs just in purchase orders and things like that for equipment that was lost. We estimated upwards of \$200 million is what this storm is going to cost us. And that may not include the hardening efforts. We're so close to it it's very difficult; we're still uncovering pieces of the plants, especially underground, that we're trying to identify the amount of damage.

SENATOR SARLO: And I'm not questioning the \$200 million; you do serve pretty much 25 percent of New Jersey. You are the sewage treatment plant for about 25 percent of the population. The question: Where does that money come from, though? The ratepayers are not going to be able just to shoulder--

MR. DeFRANCISCI: Well, depending-- I think depending on what the Federal resources are going to be available through FEMA, and we've had FEMA there since day one. We have a dedicated FEMA specialist who has been working with us now to put together our reports. If it's 25/75 or 90/10 or 100 percent, we're going to have to come up with that money. You're aware-- You stated about our inability to bond for some of those issues and that's very, very important to us. It was very

important before the storm. The facility is an over-30-year facility that was designed to have a 30-year lifespan -- and we're well over that 30 years. So keeping a facility together that was designed to have a lifespan that is almost a decade past that is challenging enough. Now with the infrastructure repairs that need to be made and the inability to float our capital projects because we cannot bond -- really puts us in a predicament.

SENATOR SARLO: Questions?

Senator O'Toole.

SENATOR O'TOOLE: Thank you, Chair.

To the Executive Director, Michael, I'm pretty well familiar with what you've done. You did an extraordinary job. You and I have had many conversations with you, the county executive, those who were involved with the extraordinary effort. Given your experience, Michael -- I know you were in the DEA for 20 years; you've been through a lot, you've done a lot of risk management, crisis management -- is this the most extraordinary circumstance you've ever had to handle?

MR. DeFRANCISCI: Absolutely. And Senator, I know that you're familiar with some of the flood work that I was involved with, whether it was as a member of the Governor's Flood Advisory Commission, the Passaic River Basin; the devastation that we suffered is similar to the devastation that the entire east coast suffered -- and certainly New Jersey and New York. So in terms of its impacts, never have we been faced with such a critical issue, especially right now.

SENATOR O'TOOLE: The issue-- Is this done in-house?

MR. DeFRANCISCI: Yes.

SENATOR O'TOOLE: All right. Just so I'm clear -- it starts here?

MR. DeFRANCISCI: Correct.

SENATOR O'TOOLE: And at the end of the day, after the storm was over, how much-- By the time you had water 4,500 feet--

MR. DeFRANCISCI: It's almost a mile.

SENATOR O'TOOLE: --bay line--

MR. DeFRANCISCI: It's almost a mile.

SENATOR O'TOOLE: It's almost a mile.

MR. DeFRANCISCI: Correct.

SENATOR O'TOOLE: --from the bay line. How high was the water at its highest peak at the eastern portion?

MR. DeFRANCISCI: At the eastern portion the water, I believe, sits about 8 feet below the bulkhead. And we believe it came up about 4 feet -- so about 12 feet from the base of the river.

SENATOR O'TOOLE: It had reached 12 feet?

MR. DeFRANCISCI: Yes.

SENATOR O'TOOLE: It was good to hear you had the coordination of EPA and the Army Corps about how to get some of the machinery from New Orleans and whatnot. It was an extraordinary effort, an extraordinary time. We're looking to work with you. Any ideas you have that we could help in terms of coordination, trying to get money from FEMA -- any ideas in terms of helping this hardening committee, let us know.

MR. DeFRANCISCI: We did find out that there are some programs that FEMA sponsors that are specifically related to either an

emergency that previously occurred in terms of hardening your facility or in terms of being proactive so that it doesn't happen again. And we're actively looking at those programs, because you prepare for the storm that you're familiar with -- so the last, worst storm is Hurricane Irene. That's what, I think, everyone prepared for. Well, we set a bell weather; and not just me personally, but I think all of us have a new barometer to look at now in terms of where we need to be. Years from now if we weren't to do anything and that reoccurred, I think that we would have all failed. But now we have to try to figure out how to be smart about it, to spend those dollars as smartly as possible to make sure that those types of incidents don't reoccur.

And they say we've never had hurricanes; we've had two in two years. So we have to certainly prepare for them.

SENATOR O'TOOLE: Thank you. Thank you, Chair.

SENATOR SARLO: Senator Bucco.

SENATOR BUCCO: Thank you, and good afternoon, Executive Director. Although I live outside of your sewer service area, my factory in Paterson is in your service area. How long were you actually down with this storm?

MR. DeFRANCISCI: We were down in stages, Senator. We were down for three days for primary treatment; and then approximately-- Bridget, how many--?

MS. McKENNA: The flow was bypassing the plant for about three days to four-and-a-half days. We brought flow in, in stages. We were doing basically primary treatment from that point on the 3rd, when all the flows came into the plant, until the 23rd. At the 23rd we started meeting our secondary treatment compliance standards.

SENATOR BUCCO: Very good. Are you fully operational now, or still partial?

MS. McKENNA: No, we're meeting full secondary treatment on our effluent right now. We have lots of work to do though on our equipment as we go forward in replacement and repairs as well.

MR. DeFRANCISCI: We're meeting our pre-storm requirements established for our effluent. So what is discharged prior to the storm, we're meeting those standards, but there is a lot of infrastructure repairs that need to be made.

SENATOR BUCCO: Okay. The reason I'm asking, I know right after the storm DEP came into my office and told us that we should not be discharging any wastewater, and I had to be trucking it out. And now we just found out -- my plant manager told me yesterday -- that we were told by your agency that we could discharge some of it, not the full amount all at once -- letting it out slowly.

MR. DeFRANCISCI: And I believe initially it was an attempt to try to lessen the flow into the pipeline. It's a 22-mile pipeline that runs from Paterson to Newark directly, with branch interceptor lines off the sides of it. And we were trying to prevent that from backing up into homes and businesses.

SENATOR BUCCO: Right. Well, we're complying and trying to help also. Just looking forward to having you open and start your facility up 100 percent again.

MR. DeFRANCISCI: Thank you, Senator. We are too, Senator. Thank you.

SENATOR BUCCO: Whatever we can do to help.

MR. DeFRANCISCI: Thank you.

SENATOR BUCCO: Thank you. Thank you, Mr. Chairman.

SENATOR SARLO: Senator Beck.

SENATOR BECK: Just one question, which is that until this storm had arrived, had you had situations where you couldn't treat or had overflow situations, etc? Or is this really your first instance of having this kind of challenge?

MR. DeFRANCISCI: Senator, I took over in July and had been there since the beginning of the year. I'm going to ask my professionals to answer that.

MS. McKENNA: We do have combined sewers in our district. When it rains there are bypasses. But I've been there 17-and-a-half years and to my knowledge we've never had this situation before.

SENATOR SARLO: But there have been power outages over the years, correct?

MS. McKENNA: The only instance of a power outage was the brownout in -- was that 2004 -- where the entire Northeast went out and we lost power for only a few hours. That was the only power outage, to my knowledge, that has been in the history.

SENATOR SARLO: Senator Oroho.

SENATOR OROHO: Just one.

SENATOR SARLO: Sure.

SENATOR OROHO: One quick question, and thank you very much for your testimony.

Just to make sure I understand: So right now, the effluent that is going through is not being treated as you would normally treat it; your

equipment is still down, there's a big part of your plant that's not functioning. But the disinfectant that's being added is bringing it to the standard. Is that--

MS. McKENNA: No. The plant is functioning -- fully functional. We have some sludge dewatering processes that are not fully functional. We brought in some temporary equipment. We're working on that. The repairs that have been made, though, some of which are only temporary repairs, some of-- We're operating mostly in manual control rather than in automatic control. But we are fully functional and fully treating the effluent to the standards that we were prior to the storm.

SENATOR OROHO: Well, obviously, from the devastation that you had on the day of the hurricane to get to that point -- for the effort that -- the Herculean effort that you went through -- thank you very much.

MR. DeFRANCISCI: Thank you.

SENATOR SARLO: Any other questions on this side? (no response)

Okay, well listen. I want to thank all of you for being here. We're going to look forward to -- well, we don't look forward to it but, unfortunately we have to -- getting what that bottom-line dollar will be at the end of the day; what it's going to cost this treatment plant to get up and running so we don't have any further (indiscernible). Hopefully improve the infrastructure so we minimize disruptions in the future; minimize bypasses of raw sewage into the Newark Bay.

So we appreciate your patience today and we're going to ask you that you continue to stay in communication with this Committee in moving forward.

Senator Weinberg -- question. I'm sorry.

SENATOR WEINBERG: Not a question for--

SENATOR SARLO: Oh, okay. You guys are done. Thank you.

SENATOR WEINBERG: You know--

SENATOR SARLO: Senator Weinberg, question?

SENATOR WEINBERG: Yes, I think some of the more meaningful testimony, going forward -- at least for me -- came from our ratepayer advocate, from Stefanie Brand. And I'm just going back over her written testimony; she talks in here about the rate increases that have already been granted to utility companies to upgrade their infrastructure, to make them safe in storms, and so on. Not that it would have anticipated anything the size of Sandy. But I think that we should have more information on what those rate increases were and how the utility companies are actually spending them before we move ahead and before we're embroiled in, "Oh, we need this rate increase because--" So I think she gave some very telling testimony here, but I would like some more background information on these rate increases and how they've been spent when they were earmarked--

SENATOR SARLO: One telling--

SENATOR WEINBERG: --specifically--

SENATOR SARLO: One telling thing I learned today -- I kept a little tally here -- \$1.2 billion--

SENATOR WEINBERG: Just from today's testimony?

SENATOR SARLO: Just from today's testimony, in public infrastructure. Let's not kid ourselves -- FEMA's not writing a check for \$1.2 billion.

SENATOR BUCCO: That's a lot of money.

SENATOR WEINBERG: So can we, through this Committee, Mr. Chairman, can we ask her to fill in some--

SENATOR SARLO: Yes, we could spend some -- have the ratepayer advocate come back and talk a little bit more in depth.

SENATOR O'TOOLE: Well, this goes to Senator Weinberg's point about the insurance carriers as well. There is a role for them as well around this table.

SENATOR OROHO: To understand where all the resources could come-- Mr. Chairman, thank you. With respect to those reserves, or possibly those reserves that are in there for storm-related kind of work or infrastructure-related work that ratepayers had been paying for; right to what President Hanna was talking about -- for us to understand in whole where those resources might be available. I think it is important for us to understand.

SENATOR SARLO: There is one other person who the Senate President asked me to listen to and take testimony from briefly, and that is the final-- Bill Huber, President, IBW 827. I believe they handle New Jersey Natural-- JCP&L; I believe they are the union for JCP&L and Verizon.

WILLIAM HUBER: (off mike) Verizon; just Verizon.

SENATOR SARLO: And Verizon; okay.

MR. HUBER: Good afternoon. And I just-- To my right, to your left, is my counsel, Bob O'Brien, from Belland, O'Brien and Bushinsky here in New Jersey.

Chairman Sarlo, members of the Senate Budget and Appropriations Committee, thanks for this opportunity to offer comments and testimony on the impact of Hurricane Sandy, as well as the ongoing efforts in restoring service and rebuilding New Jersey's vital telecommunication infrastructure.

My name is Bill Huber; I am currently the President and Business Manager of the International Brotherhood of Electrical Workers Local 827. And I might add, I have-- This is my 43rd year in the industry working for Verizon and also employed by the telephone union.

Our 5,500 local union members work in the telecommunication field and form the bulk of our outside technical workforce for Verizon in New Jersey. Some of our members also work for the division of Comcast Communications, and a small group works for AT&T and Avaya.

I'm here today to try to answer any questions you might have about how IBW Local 827 members are progressing in working with Verizon in restoring, reconnecting, and rebuilding the telecommunication infrastructure of the state, as well as bringing your attention to some problems that our union believes need to be addressed in order to both complete the job at hand, as well as prepare for the next inevitable natural or manmade disaster we may face.

I am also here to discuss what we believe may be a unique opportunity, created by the circumstances we face, to help our telecommunication industries use new sources of revenues to live up to their

commitment to New Jersey consumers to build a state-of-the-art telecommunication grid that will be able to withstand any future natural disasters.

There is no doubt that Hurricane Sandy had a terrific effect on countless New Jersey/New York residents and businesses. However, the most alarming impacts of this recent natural disaster is that it is only a category 1 event, and one of the weakest levels of hurricane, and yet had caused so much damage -- especially to the utilities infrastructure that enables us to function and communicate as a society.

The devastation caused by the storm was, in the opinion of our union, greatly aggravated by the historic and continued actions by the power and communication utilities to ignore the importance of building smart, and then properly maintaining the power and communication grid of the region.

Advances in communication technologies have transformed companies like Verizon into wealthy producers for stockholders and investors at the expense of consumers. The emphasis on reducing the workforce, outsourcing services wherever possible, and moving customers from a copper wire base to a totally wireless source of their communication needs have resulted in the abandonment of what is Verizon's primary mission -- standing as the last provider of communication service here in New Jersey for the consumers.

The cumulative results of this change in business philosophy was revealed in the aftermath of Hurricane Sandy by the long time periods involved in restoring service, due to the lack of adequate manpower resulting from constant downsizing, causing the need to import service

technicians from other states -- and as you can hear, almost over 1,000 came from other states, from other Verizon locations. An example of this short-term focus and lack of planning happened in March of this year when in the middle of our negotiations with this company they decided to lay off 336 outside technicians -- the very people needed to maintain the system and respond to emergencies. Just before the hurricane hit, we had concluded negotiations with our latest contract, and it was ratified by our membership. During these negotiations the company decided to inform the union that it intended to lay off another 500 people. Under our collective bargaining agreement, that number has been reduced through buyouts to 220 outside technicians.

Since December 2011, Verizon moved over 100 facility technicians that primarily do construction work into a program called *FiOS Migration*. This effort moves consumers from a copper facility to fiber. The criteria used by Verizon: If a customer has two trouble requests within a year, and a fiber runs down the street, they will be moved. These reports could be someone reporting something as simple as address changes, or changes to their accounts and, in some cases, the consumer has no choice.

This approach ignores the need of consumers for reliable dial tone service, because it has no built-in backup system beyond the six-to-eight hour backup battery for maintaining dial tone, even though this technology exists today.

Verizon is more interested in using this catastrophe to slam customers and avoid the added expense of building a backup to wireless services. We believe that problem needs to be thoroughly investigated, by both the State legislature and the Board of Public Utilities, because it will

leave the most vulnerable consumers -- mostly senior citizens -- with no reliable service when it comes to the next natural disaster.

We believe that Verizon needs to focus and live up to its obligation as the last provider of dial tone service to spend what is necessary to buy alternatives for senior citizens who do not want to migrate to fiber, or to provide them a reliable backup power source that will keep their dial tone working in power failures.

Some senior citizens today use a product called *Lifeline*. Today's copper network provides 48-volts DC from the central office. In a power failure, that landline still works. Verizon has technology available that will allow them to take care of senior citizens and rural customers and provide 48-volt service from a central office, similar to the copper-based services they use and provide and maintain. This technology allows Verizon to get power to a terminal or near to a customer's home on a pole, near enough that they could seamlessly convert that dial tone from copper to fiber for an emergency.

They haven't built out this valuable technology backup system simply because they don't want to absorb the cost and because they don't have enough trained outside technicians to do the work in a timely fashion.

Another example of Verizon's penny wise, but pound foolish business practices related to their desire to become an all-wireless service provider, was revealed during the aftermath of the hurricane when the towers that provide wireless signals went out because the electric power outages in the region shut down, and the fuel grids prevented the company's ability to get fuel to the backup generators they need to keep the signals operational.

This interruption of wireless service was not unique to Verizon. It also occurred when other wireless service providers in the region -- and pointed to the need of better advanced planning of kinds of disasters like Hurricane Sandy by all power and backup utilities. Not all cell towers here in New Jersey have backup generators.

This is one of the problems that we believe that the Legislature and the BPU need to examine in more depth.

I would be happy to give more examples of the way Verizon -- and I am sure other utilities are short-changing consumers in post-Hurricane Sandy recovery periods. I do not believe it's too late for the Legislature to take action in addressing these problems, because the reconstruction and the repair of our utility grids is far from over and will be taking a long period of time to complete.

That being said, I don't want to believe that -- the impression that IBW Local 827 merely is criticizing Verizon. To the contrary, we believe that there are many people in Verizon management who will be gladly working with our union to build a better, more efficient and effective telecommunication system, with sufficient backups and redundancy built in -- that they were directed to do by upper management. That is why I'd like to point out that the recovery of Hurricane Sandy presents a unique and special opportunity for companies like Verizon and unions like IBW Local 827 to work together with our State and Federal elected officials to direct some of these billions of dollars of Federal and State disaster relief funds that are starting to flow into New Jersey -- along with the billions in private insurance relief funding coming to local communities -- in a coordinated effort to cooperate to rebuild smartly, and reconnect their utility providers

with the consumers in a way to plan for future needs, as well addressing current efforts.

At our conclusion of a recent negotiation -- which, by the way, gave the company the flexibility it needed to expand the workforce to meet with the current and future challenges -- I received handwritten notes from CEO Lowell McAdam and Verizon in which he thanked me for engaging in a very successful negotiation bargaining process that resulted in a fair collective bargaining settlement. He expressed his desire to work cooperatively with the future of both the company and union -- to work together and build this company.

The circumstances and the funding necessary to achieve this goal did not exist before Hurricane Sandy, but today we would all be remiss if we don't seize this unique opportunity.

I want to thank you for the opportunity to present some of our union thoughts and opinions on the situation, and would be happy to answer any of your questions. Thank you.

SENATOR SARLO: Thank you. I know it was important for Senate President Sweeney to hear from you today.

Listen, you're a union; your technicians are going to have a very important role as many of these infrastructures are being rebuilt. I just have one question for you before we end. Verizon had testified that there were a thousand technicians, electricians and managers that were brought in from Virginia, Maryland, Delaware and Pennsylvania to assist in the aftermath or during the storm -- restoration of power. Those men and women from New Jersey who were inactivated -- were they called up first?

MR. HUBER: No, no.

SENATOR SARLO: So those who were unemployed, they were not called up first?

MR. HUBER: No.

SENATOR SARLO: Any reason why they weren't reactivated?

MR. HUBER: Well, they're laid off. They got laid off and that's one of the approaches -- just before the storm, these 336 who were laid off in May.

SENATOR SARLO: So there is no temporary provision where they can come back on a temporary-- I mean, I'm not justifying their layoffs, but there was no provision-- Because they are trained; they are trained technicians as well, right? The ones who were laid off?

MR. HUBER: Correct. There are no temporary provisions in our collective bargaining agreement, but we gave the employer the option: If you bring them back, we would negotiate real quickly to get these people back on the payroll to help out in restoring service. And they still went out of state. The people they used from out of state were Verizon employees -- these are all communication employees from CWA and IBW from the surrounding states.

SENATOR SARLO: Okay. They were Verizon from surrounding states.

MR. HUBER: Correct.

SENATOR SARLO: Senator Weinberg.

SENATOR WEINBERG: Another question; maybe I should have addressed it to the gentleman who was here from Verizon, but I stepped out for a few moments.

Though I had power and my computer was working and my whatever was working, my landline went out. And the landline was out for probably a week. Do you have any idea why that happened?

MR. HUBER: Well, if you had copper facility landline, that could have been any one of a number of situations: A tree could have fallen down and could have broken the cable; your service wire could have broken the cable. The difference between a copper landline and a fiber optic landline is power. The copper landline-- The power source comes from the central office, and when there is a power failure there are generators that run and that 48 volts is constantly maintained.

When you have fiber in your home, that power source comes from your home. And your dial tone comes from the box that gets mounted on your house; it's tied in with your internet, it's tied in with your video. When that battery backup stops -- when the battery goes dead -- your landline goes dead with it because it's tied into the fiber.

So what they need to do -- and they have -- the technology is there -- is to provide, at least for dial tone -- a 48-volt DC to operate your telephone. Most people today want their TV before their phone.

The concerns that we had with the senior citizens in New Jersey -- and there are a lot of them -- is the Lifeline that they wear around their neck. The Lifeline does work on a fiber optic technology; unfortunately, when the power goes off, Lifeline does not work and, in most cases, the senior citizens don't know that.

SENATOR WEINBERG: Well, that's something that should be addressed so at least people are aware of it, because they're obviously wearing those for emergency reasons.

And one other-- I'm glad you kind of touched on it in your testimony, and I'm starting to hear some rumbles about this idea of people will not be able to keep their landlines -- the copper, whatever -- under some new technology that Verizon's talking about. So that in a storm, when you are-- Your portable phone goes out because of lack of power, if you have an old phone, an old landline, it usually works.

MR. HUBER: Yes. What's happening today, and depending on what part of New Jersey was -- the infrastructure was damaged -- but if today there is-- In some parts of the state you have parallel infrastructure. You have a copper and a fiber technology running parallel down the street. You could have the same thing on your street. What is happening is, because over the years -- I have over 40 years in the business -- because they don't maintain the copper facility anymore, it's old technology. And they are not investing in the money; they're not going to spend to repair that copper cable. So what they do is they will go to the consumer and say, "Listen. We're going to move you over to the fiber network; it's more reliable and we're going to take you off the copper." Eventually they will want to get everybody off the copper. That's fine. The problem they need to do is provide a backup battery service bigger than four to six hours for that dial tone -- especially to senior citizens. That's where the concerns -- where we came in, because most senior citizens today don't order FiOS. They're not interested in the Triple Play; they're not interested in the Internet. Some of them don't even have the Internet. They just want that old black rotary phone that used to work all the time. And that's what they tell us when we go out there and try to fix it. "Why can't I keep my copper landline?"

SENATOR WEINBERG: Well, again I'm glad that you mentioned that. I think it's something that we have to kind of be aware of. But I heard more people bragging during this storm, "Well, but my old-fashioned telephone that I can plug into the wall was working."

MR. HUBER: Yes.

SENATOR WEINBERG: So people relied on that, whether seniors or not.

MR. HUBER: It's over 100 years old. It might be antiquated, but it still works.

SENATOR WEINBERG: Well, it works under these conditions -- even more important.

MR. HUBER: Yes; absolutely right, ma'am.

SENATOR WEINBERG: Thanks.

SENATOR GREENSTEIN: Hi, how are you?

MR. HUBER: Good, how are you?

SENATOR GREENSTEIN: When you use the term *telecommunications grid*, what exactly does that mean? Because I want to ask a question about that.

MR. HUBER: Well, the telecommunications grid is the infrastructure of your telephone line -- copper telephone line -- your fiber optics -- which is currently FiOS -- and your communication in the cable industry, which is their grid or their coax wire that runs down-- In some cases, it's also fiber optics.

SENATOR GREENSTEIN: It's really the entire infrastructure of a system, in a sense?

MR. HUBER: Yes.

SENATOR GREENSTEIN: Okay, so how far would you say we are at the moment from having a really good, effective telecommunications grid? And if you say we're far, what are some suggestions for getting there?

MR. HUBER: Well, for New Jersey-- For me, again, the best piece of technology today is a piece of fiber optic. A piece of fiber optic is not new; it's just a wire. It's what can get put on in that piece of glass that's fiber optics. You're very limited on the communication end when you're in a copper wire. You still can have dial tone, you can still provide an Internet connection on that. And, in some parts of the country, you can put a video connection. But the copper wire, the term we use, it has to be real *clean* -- means that there can't be any breaks anywhere between point *A* and point *B*. But your best technology is wiring up the state with fiber optics. Your wireless-- And, to me, it's a handoff; because consumers, if not all consumers today, they go home and they want to take whatever they have in their house and put it in their pocket and take it with them. A lot of people today think wireless is wireless. To get a wireless signal to work you still need a wire. There is still a fiber optic wire or a hard wire that goes to those towers to make them work. If you break that, the tower goes out.

SENATOR GREENSTEIN: Now, you're saying the fiber optic system is the best, but based on this emergency there needs to be that battery backup for it?

MR. HUBER: They need to have-- And I know that there is-- To deal with a senior citizen issue, you can convert somebody from copper onto fiber. There is a terminal that they can put on a pole and the power source can come from one of a few places. The power source can either

come from the pole itself -- but then what do you do in a power failure? The power source -- like a backup battery -- can come from a solar panel that can charge batteries that are on a pole. Or the power source can come from a central office -- where it currently comes today -- that in the emergency of a power failure and there is no power into your home, that 48 volts still gets into the home where that dial tone is working -- even if it's on fiber. It wouldn't make a difference as long as you can get 48 volts to power that dial tone.

SENATOR GREENSTEIN: And I guess my last question would be, how far are we from being hooked up and having a complete fiber optic system throughout the state? How far are we from that?

MR. HUBER: Real far. You know, Jersey is probably one of the only states that has the most, in my knowledge, fiber. But we're far from-- Opportunity in New Jersey is something that I've been pushing for, that the whole state should be wired up with fiber optics. And you could give everybody -- including into the rural states (*sic*); that's really where there is a problem. Verizon wants to push a wireless product. There's nothing wrong with a wireless product, but you're limited on what you can offer the consumer on something that's wireless.

SENATOR GREENSTEIN: Thank you.

SENATOR SARLO: All right, folks. That will conclude our hearing today.

Thank you, sir, for your patience.

MR. HUBER: Thank you very much for hearing us.

SENATOR SARLO: Thank you for your time.

We will reconvene on Tuesday.

SENATOR BUCCO: 3 o'clock.

SENATOR SARLO: 3 o'clock. There will be information forthcoming.

MS. BRENNAN: The tour is first.

SENATOR SARLO: There will be information forthcoming about a tour of Union Beach at 1:30, but we'll get that information to everybody's office.

We are adjourned.

(MEETING CONCLUDED)