STATE OF NEW YORK
PUBLIC SERVICE COMMISSION

Case 06-M-1078 - Proceeding on Motion of the Commission to Audit the Performance of Consolidated Edison Company of New York, Inc. In Response to Outage Emergencies.

Case 06-E-1158 - In the Matter of Staff's Investigation of Consolidated Edison Company of New York, Inc.'s Performance During and Following the July and September Electric Utility Outages.

Technical Conference
90 Church Street
New York, New York

October 27, 2006
9:30 a.m.

PRESIDING:

ELEANOR STEIN,
Administrative Law Judge

ORIGINAL

APPEARANCES:

For NYS Department of Public Service:
Kimberly A. Harriman, Assistant Counsel
New York State Department of Public Service
Three Empire State Plaza
Albany, New York 12223

For Consolidated Edison Company of New York, Inc.:

Mary Krayeske
Chanoch Lubling
Marc Richter
David Warner
Martin Heslin
4 Irving Place
New York, New York

For NYS Attorney General's Office:
Charlie Donaldson, Esq.
NYS Attorney General's Office
Environmental Protection Bureau
120 Broadway
New York, New York 10271

Mary Ellen Burns, Special Counsel
NYS Attorney General's Office
Public Advocacy Division
120 Broadway
New York, New York 10271

For NYS Consumer Protection Board:
John M. Walters, Esq.
NYS Consumer Protection Board
Five Empire State Plaza Suite 2101
Albany, New York 12223

For the City of New York:
Michael Delaney, Esq.
NYC Economic Development Corp.
110 William Street, 4th Floor
New York, New York 10038

Robert M. Loughney, Esq.
Moshe Bonder, Esq.
Couch White L.L.P.
540 Broadway, PO Box 22222
Albany, New York 12201-2222

For Public Utility Law Project:
Gerald Norlander, Esq.
Public Utility Law Project
90 State Street, Suite 601
Albany, New York 12207-1715

For NYSEG and RG&E:

LeBoeuf, Lamb, Greene and MacRae
One Commerce Plaza
Albany, New York
By: Brian Fitzgerald, Esq.

For Western Queens Power for the People Campaign:

Alyssa Bonilla

JUDGE STEIN: 9:45 on October 27th, starting the second day of the technical conference in case 06-E-0894, staff investigation of the Con Edison outages.

I will begin by swearing in an additional subject matter expert from Con Edison. Would you state your name for the record, please.

MR. GREENWOOD: George Greenwood.

(Mr. Greenwood duly sworn or affirmed.)

JUDGE STEIN: We are going to return to the line of discussion that took up really almost all of our day yesterday concerning the broad subject matter areas that are characterized in our agenda as the sequence of events, the decision to maintain the network, restoration, recovery, and related action plan.

And parties have some additional questions, and I think we will begin with Mr. Greenwood and some follow up on questions yesterday related to his particular area of expertise.

EXAMINATION BY MS. BURNS:

Q. Thanks for coming. Thank you for making yourself available today.

Yesterday we talked a little bit about the issue of the communications with or discussions with--between Con Ed officials and the MTA, whether it be the New York City Transit Authority or the Long Island Railroad, I guess those two particular parts of the MTA, during the time of this event from, say, July 17th on.

And the concern or the question really goes to: What were the nature of those communications? When did they occur? And was there any pleading with or effort on the part of the MTA to express to Con Ed its needs for power to, for example, keep the subways running or the trains running, or anything of that sort, and what was Con Ed's response to that or knowledge about that situation?

Sort of a broad questions, but if you could maybe elucidate some of that.

A. (Greenwood) I think--let me start backwards. There was no request at all forwarded to us or in our conversation with the MTA about not shutting down. The dialogue that I had with a number of representatives from the MTA really dealt with them trying to support our efforts to reduce load in the particular area of Long Island City.

And we have had a couple conversations about what

they could do to effectuate that reduction of load, and we talked a little bit about what the impact would be, but I mean our desire to keep the system up was not necessarily influenced by anything they said.

We felt that we needed to do that and they were helping us in terms of taking some stations off, reducing number of trains, and the like.

Q. Do you remember when that effort began? I know from the Con Ed October 12th report it seems like the first time where there is at least in the report a discussion about or information about communications with the MTA, it appears that they were on just after midnight on Tuesday, July 18th.

A. (Greenwood) That was probably one of the first conversations. I did not have that one I don't believe, but I believe on Tuesday afternoon I spoke with Larry Reuter, I don't remember, the president of the MTA, and again very amenable conversation.

He was looking to help us in any way they could. I think he also had conversations prior to my discussion with the office of emergency management, so it was really an effort on behalf of the city and the MTA and the company to help the situation.

Q. How did the MTA help the situation? Can you be

more specific?

A. (Greenwood) They were able to--actually I don't have the exact details, but my understanding and recollection was that they reduced actual numbers of trains on certain lines, they actually added some generation power for some of their takeoff points where we supplied them for their signal power, and they ran trains a little slower which, again, would reduce consumption. So those were the means and the mechanisms that I am aware of that they did to support the reduction of power.

Q. Did they--but at no time did they ask you, gee, don't shut this network down or we are going to be in trouble?

A. (Greenwood) No, they did not.

Q. Can you say anything about how much reduction in actual load over time resulted from the MTA's response to the situation?

A. (Greenwood) I don't know the number. I don't know if John knows.

(Mucci) I think we tried to estimate it and I can find out. We have an expert in the audience. I guess we could ask him.

Q. We don't need to take up time here with that.

Maybe if you could make that information available.

A. (Mucci) We will find out at a break or answer the question in discovery.

MR. MURPHY: I believe in the report that was submitted we had estimated the load reduction to be approximately ten megawatt.

JUDGE STEIN: That's the reduction from the MTA? MTA related reduction?

MS. BURNS: What day would that be?

JUDGE STEIN: Was that an MTA related reduction?

MR. MURPHY: I believe it was in the report and I can check it and give you the date.

MS. BURNS: The question would be, not being an engineer, I am trying to clarify what the question might be because is it ten megawatts over time or some particular point?

JUDGE STEIN: That's a different question. My question is: Are you saying it was a ten-megawatt reduction exclusively from the MTA? I would like clarification for the record and then break it down.

MR. MURPHY: In the report on page 454 we indicated that it was our understanding we got about ten megawatts of load reduction from the MTA.

JUDGE STEIN: Thank you.

MR. HESLIN: The New York City Transit Authority.

JUDGE STEIN: What was the page, for the record?

MS. KRAYESKE: 4-54 and it actually lists the days.

JUDGE STEIN: I just wanted to clarify his statement for the record.

BY MS. BURNS:

Q. Record should reflect that it looks like ten megawatts on Wednesday, the 19th, and not any sooner time, even though conversations were started at least as early as after midnight the morning of July 18th.

So, would that accurately reflect that there were no reductions by the MTA before Wednesday, the 19th?

A. (Greenwood) I know we had conversation. My presumption was they reacted to that conversation and attempted to do something. I don't know the--I don't know the numbers that were reduced on any given day.

(Mucci) I am not sure we can tell that at that point, but when we looked at they had reduced the number of trains and the speed at which the trains travel during the rush hour on Wednesday, and at that point we had a full--we stipulated it was ten megawatts. We had ten megawatts of reduction load. So, it's probably true that there was some reduction before that that we didn't

measure.

Q. Again, I am not an engineer so please forgive if my question is inartfully or erroneously phrased. Would there be a way to discern whether the reduction in load that you report in your report was due to an actual intentional reduction by the MTA in demand, or rather that it would have to do with Con Ed's imposed voltage reduction?

A. (Mucci) We had imposed the voltage reduction on Monday and we measured how much reduction we received, which was a little over five percent overall, everything. This was in addition to that reduction. So, with the MTA that was in addition.

MS. BURNS: I have nothing further. Thank you.

JUDGE STEIN: Staff, did you want to follow up with Mr. Greenwood?

MR. WORDEN: Sure.

EXAMINATION BY MR. WORDEN:

Q. If we can, I have a few clarifications from yesterday, and I would like to keep them very brief because we only have 40 minutes left and we have about 60 minutes worth of discussion yet.

You mentioned there were four events in four years where you had over I don't know whether it was

1000 customers out or something like that.

During the Washington Heights incident in 1999, I don't believe that was on your list, were there not somewheres between 10,000 and 15,000 customers out a fair amount of time before the network was shut down?

A. (Miksad) I don't know the number. I think you are referring to the separation of the Inwood section of the network. I am not sure how many customers.

Q. But it was on the order of 10,000, something like that, might be 15, but it was certainly above that threshold that you were referring to yesterday?

A. (Miksad) Yes.

Q. On La Guardia, La Guardia service, just to clarify, is not designed to be served from either the Long Island City or Jamaica, it's really served--part of the La Guardia is served from one part, some of the other. The changeover they made took a fair amount of work internally to make that happen. That was just something that was done by them, I believe with your assistance, during the event, right?

A. (Miksad) That is correct. And it's Jackson Heights, not Jamaica.

Q. Correct, Jackson Heights. When you have partial power to a customer, say, with one leg of the service

out, that is considered an outage, correct?

A. (Miksad) That is correct.

Q. Low voltage is not?

A. (Miksad) That is correct.

Q. You have a procedure EO4031. It's called the network shut down procedure. That's a valid procedure?

A. (Mucci) 4095 are you referring to?

Q. EO4031, network shut down procedure.

JUDGE STEIN: Could you clarify what you mean by "valid"?

MS. KRAYESKE: Do you have the procedure? Perhaps you could show it to these guys so they could take a look at it and see if they recognize it.

Q. Counsel says is it operative.

MS. KRAYESKE: Could you show them?

Q. It's listed in your list of procedures. I wanted to clarify whether it's an operative procedure.

MS. KRAYESKE: Please note for the record that I am bringing it up here.

A. (Miksad) From what I see here I can't really tell. I see it was last revised in 1987, which makes it suspect, but I really can't tell whether it's active, but it does show to be a system operations procedure that's entitled network shut down procedure.

JUDGE STEIN: Could you just say again the number of that procedure.

MR. MIKSAD: It's EO4031.

JUDGE STEIN: Thank you.

A. (Miksad) I guess the short answer is, Mike, I am not sure. I would have to check if it is still the valid procedure and the latest revision.

JUDGE STEIN: Just to be clear, if you want to follow that up you will follow up with information request.

MR. WORDEN: Correct. That's what we will do.

Q. The shut down indicators that you listed when you went through both of the tents and you listed points that you were looking at, are you reassessing what those indicators--what indicators you should use during a future shut down event?

A. (Miksad) We are. Yes, we are.

Q. When do you expect to have those revised?

A. (Miksad) I would say--I would say safely by the end of the year.

Q. The ISO EDRP program was implemented during the event in Zone J, I believe the first time at your request and maybe--I am not sure whose request at some of the other times.

Zone J obviously is implemented for the entire New York City I believe Con Ed operating region, and it can't be implemented just by network.

Have you done anything to reassess or try to work with the ISO to modify that program so that you could do it for network by network basis going forward?

A. (Mucci) We brought that up at the management committee and brought that up with the head of the New York ISO through our emergency management group. And I don't know the outcome because I think there was still ongoing discussions because there was some issues around that, I don't remember the issues, but I know there was ongoing discussions on that.

We do have identified customers who were on those programs in individual networks calling them and notifying them and enacting that program is the issue and how can they do that I am not sure.

(Miksad) Another short way to answer that is, yes, we have initiated discussions with the ISO so we can implement those programs for local transmission or distribution events.

Q. That's your desire?

A. (Miksad) That's our desire.

Q. You expect or you hope to have resolved before

next summer?

A. (Miksad) That would be our hope.

(Mucci) Yes. One way or the other we will resolve it before next summer.

Q. Regarding the--yesterday we had a lot of discussion about OEM and number of customers out and those kinds of things, who was kind of doing what. So when you showed up today that was great. We can follow that up.

Were you--you were the primary liaison with OEM during this event?

A. (Greenwood) Yes, myself and my group.

Q. Did you have any discussions with them regarding the number of customers out in the Long Island City network area specifically on Wednesday and Thursday?

A. (Greenwood) We had constant dialogue, I guess you would say, with the office of emergency management and our group throughout the entire event. The relationship that we have with the city is such that we endeavor to keep them abreast of everything we know as we know it.

So, we made efforts to communicate to them routinely during and through the event on the number of customers that we were aware of at the time being out. And we kept them updated on that number as we knew it.

And as we ultimately knew it we kept them apprised of how many customers we got back.

So, I don't know if that answers your question. The answer is, yes, we constantly kept them abreast of the number of customers out.

Q. Did OEM raise a concern to you on Thursday in the early afternoon hours, thereabouts, plus or minus, the fact that they suspected that there were a significantly larger number of customers out of service than what you were reporting?

A. (Greenwood) I wasn't here for yesterday's testimony, but I guess as relates to the number of customers out, clearly there was some confusion. And I think there was indications from the city and they were informing us of various areas being out.

We presumed we already knew that, but the city I don't think had any more knowledge than what we were telling them basically in terms of numbers of customers being out.

Q. Did they indicate that they thought that the number of customers out you were telling them was in error, in essence?

A. (Greenwood) No. I think the city felt comfortable with the fact that we were informing them of

what we knew at that time, which we were, so the number of customers we kept telling them were out, that's what they accepted.

They were getting information back from various constituencies within the city, but never came back to us that they felt what we were telling them was not the right number.

Q. Are you aware of a survey that the city conducted on Thursday afternoon where they sent out people, police officers, fire department, and various other agencies, to basically kind of walk the streets and see what conditions were going on out there?

A. (Greenwood) I knew they had a number of surveys. They asked police departments to do some work at looking at what areas were out. I didn't necessarily get a number back in regards to that, but I think it was in and around the same time, if my memory serves me correctly, that we had also decided to do a survey that evening.

That was the first survey I believe Thursday evening we did. In our conversations, I don't necessarily remember the exact words, but we talked about the fact we were going to be doing something along the same lines.

Q. What was the basis of the survey that you guys decided to conduct based on what you were doing?

A. (Greenwood) I guess the sense was we were getting different reports and felt that one way to get our arms around it was to actually go out and do a survey.

(Miksad) I mentioned yesterday, Mike, that when we opened up CERC on Thursday, that first conference call that we had when Tom Newell had made his way from Flatbush Avenue over to Astoria where that was going to be the hub of the restoration effort.

He had driven through the affected area and said to me on the conference call, John, we have--it looks to me like we have more customers out than we are calling it. He also mentioned that he had instructed Matt Ketschke on his way over to do the same to confirm his belief.

So, it was that piece of information that came into CERC that then resulted in the Thursday night survey.

Q. That was like approximately the noon, 1:00 conference call after CERC became operational?

A. (Miksad) Yes.

Q. You guys had, I believe, someone from OEM in your office in the distribution and command post starting on

Tuesday or maybe even Monday, right?

A. (Greenwood) The first OEM responder I guess went to Brooklyn-Queens control room late Monday night. And then early Tuesday morning they sent a responder over to the distribution command post and OEM basically stayed with us through the event even as we moved to CERC.

Q. Did they keep somebody over at Brooklyn-Queens throughout the event?

A. (Greenwood) No, they did not. I don't even think she was there for the full shift.

Q. Obviously if you guys get into a network shut down situation you got to communicate with a lot of people, we understand, so probably one of the key groups would be OEM?

A. (Greenwood) Correct, absolutely.

Q. Because they do things for the city?

A. (Greenwood) Yes.

Q. So, during this tenth contingency, after you got to the fifth through when you got the feeders back, how did that communication work in terms of the real time communication in making sure that to the extent there had to be direct communication with the city, how did that process work?

A. (Greenwood) I guess we were calling probably

every two to two and a half hours, three hours, something along those lines, and giving the city an update. Those calls were, for the most part, with myself and my staff, many cases the Commissioner of OEM and all his staff.

And the city was trying to assist us in any way they could. The Commissioner and his staff explored various ways by which they could help us reduce load, and actually acted on some of those in terms of hitting the sewage treatment plans off and going on to generation.

They assisted us, as I said before, with the MTA and TA. They assisted us in numerous ways in trying to look for ways to help this particular case that we had going on in Long Island City.

So, it was very mutual understanding that we had a severe situation, and whatever the city could do to help us they were willing to do that. So, we would keep them abreast of calls every two or three hours, give them an update. So, it was very amenable to have a good discussion with them. It was very helpful to us.

Q. There was apparently a meeting at the mayor's office Wednesday morning discussing this situation. You were there?

A. (Greenwood) Yes.

Q. Do you recall who else was there for Con Ed?

A. (Greenwood) Kevin Burke, our Chairman, Lou Rana, our president, and myself.

Q. Did the city make any specific requests regarding shut down of the network?

A. (Greenwood) No, they did not. I guess the first meeting we had was basically to report to the mayor the situation at hand, and he was interested in the actions that we and the city were taking to remedy the problem.

Q. Did they--I guess more specifically--have any request regarding if you decided that you had to shut the network down what--whether they needed lead time so they could keep people out of subways and stuff? Did they give you any feedback of that nature?

A. (Greenwood) It was not discussed at that meeting, but I believe on Tuesday, Tuesday afternoon, there was some discussion, both with OEM and the police department, about if we found ourselves going down that path I think the police department was looking for at least 20 minutes to half hour of notification so they could make necessary preparations.

Q. OEM was as well, or not?

A. (Greenwood) OEM, I don't recall having a

discussion with them in terms of any lead time, but clearly if that decision was going to be made we would have communicated it immediately to the city and both facets, OEM, the police department, fire department.

Q. Would you have likely had that much time? I guess that's more a question for John Miksad or John Mucci.

A. (Miksad) I mentioned yesterday, Mike, when we talked at the tenth contingency about the prospect of shutting down the network at the 11th contingency, I said that it would not have been an immediate push of the button to shut down the network on that next event, but rather an evaluation of all of those vital signs of the network that we talked about yesterday.

So, we would have some time in order to do that assessment and we would have provided that notification at the time.

Q. Once you make the decision how much time would you allow the system to run like that before you actually shut it down?

A. (Miksad) What we would have done if we went into the 11th, we would have notified immediately. And then and police in all likelihood would have rolled and started implementing their prep, but we would be doing

the evaluation simultaneously and then making that call. So, I think 20 minutes is not unreasonable.

Q. The follow up in the action plan that you have in your report talks about the customer outage assessment. You mentioned the computer-aided pool that you developed to analyze data from existing network monitoring systems. Wondering if you could elaborate just briefly which things you are going to be monitoring specifically. Section 12A.

A. (Miksad) I am not looking at it, but I think I know what you are talking about. John has it. Right. This is a short term action item. There is a couple of parts to it which I guess tie into 12B and then ultimately perhaps even 12C.

So, 12A is referring to the network trouble indicator, we call it NTI, that is using customer count, in other words, customer calls of outages. It's using transformer outages, either open protector or blown fuses. It is using reports of manhole events. And I think that's all.

So, those are the three indicators that are being put into an algorithm that I mentioned yesterday will not provide an estimate for customer count but it will always--it's in place now so we have actually been

testing it. It will always give us a high side trigger.

In other words, it will be a flag for the operator to say something is going on in this network, and in particular in this area of the network, because it actually does this on an M&F plate level so it's looking at each individual M&F plate, a small grid within the network, to say what's happening in this grid, what's happening in the next grid.

As I said, provide early warning signs to the operators that something is up. At that point we would then, as I mentioned yesterday, obviously send folks to the area, and then just to check deeper into the systems to find out what exactly is happening, but it would be an early warning trigger that customers are affected.

Q. On 12B, to follow up that one, talks about displaying the status of secondary network components. That's not real time, correct?

A. (Miksad) That is correct. All 12B does is take that information that I talked about in 12A and bring it on a graphic--on a map based system so that the operators can see the maps. Similar to what we presented yesterday in the presentation portion of the discussion.

Q. Action 16A you are talking about looking at

advancing the in service date of the new area station by summer 2007. I guess I am curious what would take that long to complete that study?

A. (Miksad) Well, we say by, so we expect that it will be before June 1st. I think the--as I said, it's a first time review that we are doing to build an area substation for non-load relief reasons, which was our sole criteria up to this point.

So what we are--the things we will be looking at are what the new substation and the subsequent two smaller networks will do to enhance the reliability of the area and compare that against other alternatives, both for Long Island City and in the overall capital project scheme, if it's the most benefit for our customer dollars.

Q. So, but there's no specific reason why it's going to take that long? Just because the overall capital program and analysis?

A. (Mucci) It's not a simple analysis only because you have to consider that we have to look at every other project that we are doing in order to determine is this the best value in the way of reliability.

And to do that we have to do perhaps probability studies. Certainly look at other networks. And we

haven't done this before. I would say it's not unreasonable to have it done before summer 2007, but it's certainly something that takes a little more than the regular reinforcement review we do.

Q. You guys have a team, I think you referred to them as 3G, third generation, looking at how you modify your networks going forward to better service going forward.

Have you given any consideration to having that team look at the Long Island City network, possibly have an additional substation, and how that whole effort might be used to address the needs for Long Island City?

A. (Miksad) They actually are looking at it.

Q. In terms of what are they doing?

A. (Miksad) They are looking if they can apply the concepts they have generated so far in their studies and bench marking efforts to Long Island City. In addition, they are looking at it for other areas, but Long Island City is one of the areas they are evaluating.

We are in the process now, I think you probably know this from your last discussion with them, we are in the process of modelling that entire system from the transmission system, through the substation, through the primary distribution system, to the secondary

distribution system, where really for the first time going to have a--really from one end to the other of our system a full blown model we could actually run simulations of the system and run various options in that. So, they are involved with that whole effort.

That's really what has to happen first. The model comes first and then that allows us to do the analysis.

Q. I guess just to clarify from my perspective, from the meeting we had with those guys, and I wanted to get your perspective, we really weren't under the impression they were taking Long Island City into account to any great degree.

And I think, given what happened in Long Island City and those events, that would make sense to do that, so going forward we think that makes sense.

A. (Miksad) As I said, I know they are involved. As you said, to a great degree, I am not sure what that means, but I know we have been talking with the substation folks and distribution engineers.

MR. WORDEN: We are all set.

JUDGE STEIN: Thank you very much. Should we move on to the city?

MR. MAURO: Good morning, Your Honor, gentlemen.

EXAMINATION BY MR. MAURO:

Q. I would like to follow up first on a question that was done by Consumer Protection Board yesterday regarding RMS reporting rate.

There was a discussion of what the overall reporting rate and you said it was about 80 percent systemwide and indeed it was about that rate in Long Island City. The answer that I recall seemed to imply that 80 percent was okay in that eight out of ten transformers are seen. Is 80 percent reporting rate from your RMS system okay?

A. (Miksad) Just one clarification, Ralph. I don't think we said the reporting rate was 80 percent systemwide. I think we said it was 80 percent for Long Island City. I am not sure if anyone talked about systemwide.

Q. I remember systemwide but, okay, 80 percent for Long Island City. It seems to imply that 80 percent is okay. Is 80 percent okay anywhere?

A. (Miksad) Right. I think what you heard Matt--Matt answered that question yesterday. I think what he was saying was can we operate with 80 percent and I think he said, yes, from an operation point of view we can.

Real time we are seeing eight out of ten statuses and loads for transformers as opposed to perhaps 90 percent or some other target. And I think his point was we have this good telemetering on eight out of ten devices and we have the ability to estimate others, so real time does provide the operators with status in order to react and respond to the system.

I think where we might be going though is that these systems also feed some of the load flow programs that we use, and they need to be fed with a high level of information to predict subsequent status when it runs those--the next case scenarios.

And if you do fall at some point, and it's probably not at 80 percent, but at some point, to too low a level, those systems to do those protections will not function as well.

Q. That's where I was going. What is your desired reporting rate?

A. (Miksad) The spec, if I am not mistaken, is called the desired performance rate of 95. The manufacturer, as I understand, again, going back to Hazeltine, you may have more knowledge about this than I, but my understanding of when we first worked to develop that system with Hazeltine they would only

guarantee a maximum of 95. At least that is my understanding.

So, they were aware of many of the communication issues with trying to communicate with an underground system back to a central location. I think that's when the system was actually brand new and their initial guarantee of a max of 95.

Q. I guess, John, where I am having a little bit of trouble here is your desired rate is 95 because the system can only guarantee 95, but 80 percent the operators can live with. Why then isn't the desired rate 90 or 85 if 80 percent the operator can live with?

A. (Miksad) I think this is a case where the engineers shot high and they are looking for something close to perfection. We talk about some of the maintainability with the system, the harsh environment with regard to heat and moisture in particular, plus a bunch of other things that are in these underground structures that made it a challenge to maintain that level.

The whole patent issue that we talked about yesterday that we are released from now, that will allow us to get into the guts of these transmitters and receivers, which we have already started, that will help

us drive these reporting rates up to a higher level.

But it is and will always be a challenge to communicate with 25,000 unique telemeter points. I don't know of anyone else who does it.

Q. Of course at an 80 percent systemwide rate, that would mean 5,000 instruments aren't reporting.

A. (Miksad) 5,000 is a big number, yes.

Q. You did indicate that it is an input used into WOLF which is a tool for the operator. Has anything, any number or any study been done to indicate at what point WOLF might fail to operate because of a poor reporting rate?

A. (Miksad) Not to my knowledge, but that doesn't mean it wasn't done.

Q. Is it something that will be looked into or should be looked into, from your perspective?

A. (Miksad) Yes.

Q. You also mentioned something called RMSX. Can you explain again what additional features that might have.

A. (Miksad) The existing system essentially reports on network protective status and transformer loading. What we foresee is getting additional points, like temperature of the transformer, liquid level of the

transformer, and pressure in the transformer tank.

That would--it could also tell us about things that are happening within the network protector relay, for example, whether power is forward or reverse flowing.

Q. Did you mention that's currently an R&D project?

A. (Miksad) Yes.

Q. Thank you. Going on to another question, follow up on questioning from TransGas yesterday where they were talking about load and current and voltage reduction. They were coming from a transmission perspective, but my question is down at the other end in the secondary.

Is it conceivable that when you go to voltage reduction, and certainly when you have the system condition to produce severe low voltage, is it conceivable that the current and the secondary might go up?

A. (Miksad) It is conceivable. Our experience--and we have done actual modelling and testing of these things, and our experience has been that is not the case, that there is still enough resistive load that the current is actually going down. The net effect of current is going down.

Q. If I remember some of the responses, those studies were done down to an eight percent voltage reduction level. In the case of Long Island City in particular you had much lower than eight percent voltage reduction in the secondary system.

Have any studies been done to see what would happen to things like air conditioner motors or refrigeration motors down at the lower voltages where they would stall and they would open because of thermal overload and others would stall, so in the aggregate might there not be more current?

A. (Miksad) I don't know if any studies were done to determine that. After Washington Heights, we did a number of low voltage studies with equipment that you mentioned, in addition to technical paper research on the subject.

And that was really along the lines to determine what would happen, what would happen to the devices. Would they be damaged or would they be able to, as I say, self protect.

And that was really the line of the studies that we had done at that time. I don't know if we went so far as to explore the area you are talking about.

Q. The reason why I asked the question is in the

October 12th report there is a discussion about PVL and load modelling and in particular constant kva load modelling. And it was stated that after N minus two implied that strange things were happening. And one of the strange things was that the current in the secondary was going up considerably and with a constant kva it would seem when the voltage goes down that's what should happen.

So, I am just concerned about what models you might be using at this time and are they really telling you what they need to tell you going on.

JUDGE STEIN: Was that a question?

MR. LUBLING: It was a statement.

Q. Let me ask a question. Will you be looking at the various load models and what they do under severe low voltage condition?

A. (Mucci) Yes. We are looking at all our models. We have learned quite a bit in this event, and all the things you talked about were unusual things that are not exactly modeled in our PVL, and none of our work with PVL before and WOLF, and we see a need to continue that work and we are revising some of the models.

Q. One last question on here with the voltage reduction. I was trying to ask yesterday, I'm still not

sure why it took two hours to get eight percent voltage reduction.

It is my understanding that it took up to two hours to get voltage reduction in north Queens because the operator had to manually achieve voltage reduction. That would imply that there was a problem with the automatic circuitry; is that correct?

A. (Miksad) It would imply that.

Q. Are all of the other stations being looked at to be sure that there is no problems with their automatic voltage reduction circuitry?

A. (Miksad) I don't know for a fact, but we can definitely check that.

Q. Thank you.

JUDGE STEIN: Before you go ahead, you have four more minutes.

MR. TAYLOR: I am going to submit another question through interrogatories in the interest of time, but did have a question for Mr. Greenwood in terms of MTA.

EXAMINATION BY MR. TAYLOR:

Q. I think it was stated that the load reduction was estimated to be ten megawatts from MTA. Do you happen to know the total load that MTA might carry on, say, a

peak hour basis?

A. (Greenwood) I do not know.

(Mucci) I don't think we know right now, but we could answer that if you submit it in discovery.

Q. In terms of the supply into MTA, are you aware if MTA has conducted any recent studies, or has Con Ed conducted any recent studies which would look at increasing the diversity of supply into MTA?

A. (Greenwood) I am not aware of any studies that's going on like that. Maybe John.

(Miksad) No, I am not either.

Q. What I mean by increase in the diversity of supply would mean bringing in another supply other than from the Long Island City network. I just wanted to clarify that.

In your perspective, would you think that might be impractical to do for MTA, to bring in a supply from another network, another source, or perhaps even back up generation that could serve as an alternate supply for MTA to each of their converter stations?

A. (Greenwood) I will answer to the extent that I know and then I'll pass it to John.

There is a couple different supplies. There is track voltage supply points all along the various subway

lines, and then there are signal supplies that are taken from the secondary system of our system at various points along the MTA's line.

On the track voltage side, as you can imagine, the subways go through one network into another network. And so essentially even if we lost track voltage in one network they could still run their trains because their power is all going into their tracks and be dispersed through their system.

The real issue becomes for the Transit Authority, as I have learned, is that on the secondary side they cannot run their trains without signal power. If we lose secondary supply to their signals, regardless of whether they have track supply, they can't run their trains.

(Mucci) I should correct. There's also a number of rectifier stations in Long Island City. There is an issue with traction. These trains, if run at all, would run extremely slow, so the voltage would be lower, but there is not enough rectifier stations in the area to supply. There is an additional issue, but the signal issue is significant also.

Q. I would think that the power required to run the signal system would be significantly less than the power

to run the tracks. Would that be your understanding as well?

A. (Greenwood) That is correct.

(Mucci) It's true they do use generators at some points to get people out of the tunnels, and things like that. That's been done in the past years ago. I recall that.

(Greenwood) As I testified to before, one of the cooperative efforts that they did was to bring in some of their small portable generators and sporadically place them throughout Long Island City in the event they would need them if we did lose signal power or secondary supply.

MR. TAYLOR: Thank you. That's all I have.

JUDGE STEIN: Wonderful. I think we have concluded the questioning on the issues related to yesterday's panel on the event and the response. We are now going to hear the panel on communications and customer effects.

MS. BONILLA: I had one last question.

JUDGE STEIN: Yes.

EXAMINATION BY MS. BONILLA:

Q. I am Alyssa Bonilla from Sunnyside, Queens and I represent Western Queens Power for the People Campaign.

Good morning, your Honor, and Jeanne, and gentlemen.

Yesterday I asked about the 25,000 customers and I was told that--being out of power--and I was told that did not include people who were in brown out conditions.

In my building we have about 500 people. We had no hall lights, no elevators, no air conditioners, no refrigerators. Apartments had just brown light bulbs in one room of their apartments.

So, my neighbors were really concerned that we were not counted as being affected or impacted. We perceived a very slow response in Sunnyside for getting aid of any kind from either Con Edison or the city.

So, my question today is: Do you have any figures at this point of how many people were experiencing brown out conditions in the Long Island City network?

A. (Mucci) Let me just clarify one thing, and I didn't realize that yesterday when you asked the question. If you have certain lights in the building that were out, you could have had a situation we term a side off or phase out.

That's partial power. Partial power is counted. You may or may not have been counted, but it sounds like you were probably counted.

JUDGE STEIN: When you say counted you mean counted as an outage condition?

A. (Miksad) Right. In the 25,000.

Q. That seems different than the answer I got yesterday, so I am going to ask for really specific clarification. I need to respond in very clear easy terms to people who ask me questions. None of us are engineers.

In your report it says 25,000 customers without power. Does that include customers--in my building there is dozens of customers. We have individual accounts. Were we counted?

A. (Miksad) What we learned just from your previous question was that you said the hall lights were out and elevators were out and you mentioned some other things. And what John attempted to say is if those things were out it's possible that you had what we refer to as partial power, meaning that some parts of the building had power, other parts did not.

And we talked just earlier with Mike. He asked the same question. And if that was the case, if you had some part of the building out and other parts of the building in lights, albeit with low voltage, we would count that as an outage. If there are--I think you said

400 people in your apartment?

Q. I am guessing there are about 500 people, 110 or 115 units.

A. (Miksad) In our counting method, you said there are individual accounts. We would count that as 110 customers out.

MR. WORDEN: What if she were to give you the location, could you verify whether or not that was counted as an outage?

MR. MIKSAD: Sure.

MR. WORDEN: If you could you do that and somehow follow that up I think that would help her answer the question she is trying to ask.

MR. LUBLING: Your Honor, can we go off the record for a second?

JUDGE STEIN: Yes.

(Discussion held off the record.)

JUDGE STEIN: Back on the record.

MS. BONILLA: Just so you understand, the nature of my question is that we are concerned that the count be accurate so we can get an appropriate response from the city in terms of relief efforts.

Can I repeat a question I asked yesterday? Because I was given an answer aside.

JUDGE STEIN: Off the record.

(Discussion held off the record.)

BY MS. BONILLA:

Q. We would like to know the age of the cable that short circuited in Astoria that caused the fire in the first incident.

A. (Mucci) It was an 11-year-old cable.

Q. At the public comment hearing we were told that something called an autopsy was being done on that cable. Is that finished?

A. (Mucci) Not on that particular cable because it was consumed in the fire, but we did autopsies on many, many cables at my--we have a cable lab in the Bronx where we do studies and autopsies and that's in our report.

MS. BONILLA: These are the only follow ups I have on this technical part.

JUDGE STEIN: We are now--

MR. NORLANDER: Could I ask one question?

JUDGE STEIN: Is this a follow up?

MR. NORLANDER: Yes.

EXAMINATION BY MR. NORLANDER:

Q. I don't think I got a full answer yesterday about my question about communications with the ISO about load

shedding and load reduction. I will pursue that in written discovery. I wanted to follow on Mr. Mauro's question.

Does the RMS system today provide telemetry on reactive power loading? You mentioned that it gives you network protection, status and loading. Does that include reactive power loading?

A. (Miksad) No, it does not.

Q. Does the proposed system, the RMSX or the one in development, would that provide such information?

A. (Miksad) I am not sure. I will have to check on that.

JUDGE STEIN: So, if you want to follow up you have to submit an information request. The burden is on the questioner to follow up.

Q. If I could finally conclude. A week ago the Federal Energy Regulatory Commission made a proposed rule that load serving entities, such as Con Edison, are users of the bulk power system and must acquire reactive power, monitor in real time, and manage the reactive power load within their distribution system.

Is Con Ed able to do that?

A. (Miksad) Yes.

Q. Today?

A. (Miksad) Yes.

MR. NORLANDER: Thank you.

JUDGE STEIN: That concludes our follow up on issues that we discussed yesterday. Now we are going to have the Con Edison third panel. Why don't we take a break while people get organized and reconvene in six minutes.

(Recess taken.)

MS. MCCARTNEY: Good morning. At Con Edison we have a series of procedures that guide us in obtaining large amounts of complex data and translating it into information that is meaningful.

My name is Mary McCartney, I'm director of corporate communications at Con Edison. Also with me is Joe Murphy from energy services at Con Edison, and Rich McKnight from customer operations.

So, as I was saying, it's of no surprise to anyone who sat through our presentation yesterday we deal with very complex information that then we want to translate into something that's meaningful and useful to our customers.

At all times we try--our goal is to be accurate and timely, and there are times that we ask customers to actually take action, for instance, to lessen their use

of electricity to help us manage the load, but in all cases we want to let them know what conditions are on our various energy systems and to let them know what we are doing to resolve any problems that we are having.

After the Long Island City power outage, we took a long, hard look at these processes and we examined our communication infrastructure, so to speak. Things like our procedures, our interaction with the control centers and command posts we talked about yesterday, and our ability to obtain information and transmit those messages to all of our customers.

We looked at the results of our communication, did the media carry the conservation message. Were our customers able to reduce load in some circumstances. Were we able to keep the appropriate agencies abreast of our activities and decisions as the week unfolded.

And lastly, we looked at the content of our communications. As was discussed yesterday and earlier this morning, we acknowledged that we missed the mark on estimating the number of people who were affected by this outage. And John Miksad earlier and yesterday described the steps that we are taking to improve our work in this area.

During that week, in fact even starting before

that week, which we will go through in a second, we had dozen of briefings, hundreds of phone calls, responded to thousands of press inquiries, and communicated constantly.

I would like to just quickly go through the description, as I said, sort of our communications infrastructure. When I'm talking about customers it's a broad range. It's not just people who are affected right by that outage. It's the public at large.

Our customers are also the media. As you know, in New York City this is the world's busiest, loudest media marketplace. Our large customers--Joe Murphy spoke to you yesterday a bit about our interactions with the Port Authority and La Guardia airport.

Elected officials, particularly, we take particular care with the elected officials who represent the people in the area that is being affected, our regulators, and of course the emergency services, city, state.

Before the heatwave, and in New York City weather is always a big topic, heatwave is a big topic, a blizzard is a big topic. The press talks about it before, during and afterwards. We do too.

Our distribution engineering group on the Friday

before had a conference call and we knew there was severe weather coming, that this was going to be a serious heatwave, and we anticipated hitting a new peak.

In the 125 years the highest peak of electricity delivered to our customers in New York, which we did and broke it the next day. So, on the Friday before, distribution engineering had a conference call with all the local control centers and they established their command post on the following Sunday, Sunday the 16th. 12-hour work shifts were established at that point.

In the control centers, the incident command structure you heard about yesterday was set up at each location and an information officer, who communicated with central command post, with OEM, energy services, public affairs--public affairs also set up our command post--customer operation and our life sustaining equipment customers.

This gives you a little sense of the flow of information. Here are the regional control centers that I just mentioned, Brooklyn, Queens, Manhattan, Staten Island, Bronx, Westchester, so they had an incident command structure set up at those locations.

They feed information from the field, and their own information into our central command post.

Originally it was until Thursday the 20th there was distribution engineering command post. Subsequently it was CERC, our corporate emergency response center.

Up here you have OEM and NYPD. OEM had representatives at both sites. And when OEM opened their command center Con Edison sends people to work out of that location as well. That's as a matter of course.

Okay, so, we have got this information coming in to our central command center. We have an information liaison officer there. That's where the information flows out of that, through the different organizations in the company, and then we are responsible for getting it out to our particular customers, many of whom we share.

Customer operations management, the call center and customer outreach for people in the field, public affairs dealing with the media and elected officials, public, through them as well, the Public Service Commission.

The Public Service Commission had representatives in CERC and then energy services to deal with large and critical customers. I want to give you a brief idea of what the incident command system looked like in the Brooklyn-Queens control center. It's basically the same

anywhere.

You can see the information officer is a member of senior staff, an important position in this effort. During the outage--actually at the start of the heatwave, even that Monday before things--the outages began earlier in the morning, we started by doing regular press about the heatwave in anticipation of the week unfolding with heat and with the potential heat.

We made conservation appeals which radio and T.V. picked up immediately on Monday. We did a general one and then very quickly started to focus on the neighborhoods in Long Island City.

We are talking to the press. If somebody asked we said, yeah, please ask customers to call us. We gave outage locations to the best of our knowledge, and then subsequently distribution locations, locations where ice, wet ice and dry ice, were being distributed in the neighborhood.

At the same time, our corporate home page on Thursday when CERC was instituted, we set up a separate site on the home page that had all the press releases and information on ice distribution and so forth, and we updated that regularly.

With our regulators, the Public Service

Commission, once the distribution engineering command post was established I believe then started regular two-hour updates to the PSC, and that was at a minimum. There were many, many more conversations and contacts throughout the week.

With elected officials, as I said, starting on Tuesday, we began reaching out to elected officials in Queens in the areas that were--particularly the areas that were--neighborhoods that were affected, and our elected officials were helpful to us in giving us locations where they recommended that ice go. And further down the road for claims distribution, things like that.

City and state agencies, George Greenwood I think spoke this morning and gave you a good sense of our relationship with OEM and the PD, the frequent updates that went on throughout the week with those agencies.

I am going to ask Joe Murphy now to speak briefly about large customers.

MR. MURPHY: I'm Joe Murphy. When we get involved in an activity like this we reach out to our large customers and also to what we deem our sensitive and critical customers. Our large customers, generally represented by large commercial and/or industrial

customers, where we have the opportunity to reduce loads. Our critical customers generally are hospitals, health care facilities, and institutions associated with life and safety issues, water pollution control plants. In this instance, it also included Rikers Island, Department of Corrections, as a result of it also being supplied by the Long Island City network.

The nature and type of calls that we made to these customers involved requests for load reduction. It also asked for their--gave them information with regard to feeder status.

Eventually, as the week unfolded, there also was an effort to call and confirm what their service status was, but we were in constant contact with them. There were a number of customers that as a result of our outreach to them, the hospital, the water pollution control plant, we became aware of needs they had specifically on site and as a result of that we were able to respond with generators to various locations early on to those critical customers.

With respect to--at the point where we understood that the scope and seriousness of the outage was really beyond what we understood initially, our efforts in energy services somewhat shifted because those large and

critical customers had really been stabilized with the feeder situation being stabilized.

So, our efforts then shifted to working with our electric operations personnel in the installation of localized generators and either support of specific customer needs, whether they were residential, or specific needs to isolate certain portions of our distribution system and supply them those also by generator.

So, that was basically some of our activity during this week. At this point Rich McKnight will speak a little bit about our customer service efforts.

MR. MCKNIGHT: I am Rich McKnight, I'm the general manager of customer assistance. We try to assist customers, not to analyze them.

During this event during the week we became the face of the company to a lot of our customers because we established a field presence relatively early in the process. And we have a mobile van that goes out to support customers' questions, any questions they might have, and we began with a centralized location and then as the week evolved we established a total of five locations that people could come to us and ask us any questions, including customer service issues, claims

issues as the week evolved also, and also became a focal point for ice distribution.

We established many more locations for ice distribution as the need arose. In total, there was at least ten different distribution points to places like senior centers. Based upon requests we made special drops, for lack of a better description, but we also had predetermined locations which we communicated to all our representatives and they could advise the customers of these particular locations.

The life sustaining and medical hardship customers--Just to clarify, LSE, from our point of view, is life sustaining equipment customers. They predetermine themselves to us, they notify us that they are using life sustaining equipment, as well as the medical hardship customers who might have a medical issue, but don't have equipment they are on.

Prior to an event we reach out to them. In this case, on the 17th, we reached out to the entire population throughout the service territories of all these customers, and really the intent of the call is to plan, is to help them plan, let them know the weather is going to be severe, to let them know if something does happen and they need to have an emergency, they should

reach out to 911 or get to a hospital.

From an equipment point of view, most particularly we wanted to give them a reminder that battery back up is a good idea, and some equipment backup is good for those situations.

We also provide them with a special number which they are able to call, priority number, that only these group of customers have to be able to reach a representative as the highest priority that we have during any kind of an outage event.

The third group--the call center, Con Ed runs a 24 by seven call center. We handle all types of customer inquiries. During an outage situation we convert our call center from routine, where emergency calls are given priority to begin with, to basically an all emergency call center.

We shift gears. Everyone that we have in the call center can handle any emergency type call. So, it becomes entirely emergency call center if the need arises. We provide them with as much information as we can on what's going on in the event.

We let them know, for example, in this case, the voltage reduction. If they press they had an emergency we advised them that we--we let them know about the

voltage reduction just as a conservation issue, but if they still have a problem they should be speaking to us.

John mentioned yesterday we looked at our message very closely during the event as well as after and tried to reinforce the message that even though you might hear something you think we know about it now, we still want you to speak to somebody. We have changed that messaging at that point and that continued in that regard.

Another process we get involved with, and they are an assist for the law departments, a claims group, our claims process I remember mentioned a lot of locations we were involved with handing out claims forms.

During this event that we get involved with, and we are an assist for the claims group, is in our claims process--I mentioned a lot of locations that we were involved with that we are handing out better forms. During this event we provided a change and the requirements for filing claims changed and evolved throughout the event. The documentation requirements were reduced so a customer merely needed to send us a letter to file a claim.

We provided the forms themselves in many

languages. We added for this particular event Italian and Greek. We already had Spanish, Chinese, Russian.

One of the stories that I heard about from the hearing, and I think it was a positive effort that the law department undertook, was getting out very quickly to the businesses also, and on the spot going door to door in the area to try and resolve claims. And we got a lot of claims. I think it was 500 visits starting actually on the 24th, so, early in the process.

Mary mentioned the web. The web is another access point also for the claim forms I mentioned. All the claims forms are available on all of those languages on the web.

I think that's all we have for this part of the presentation.

JUDGE STEIN: Thank you very much. I am sure there will be questions.

Questions for this panel?

EXAMINATION BY MS. BONILLA:

Q. My name is Alyssa Bonilla from Western Queens Power for the People Campaign. This presentation was the most difficult to listen to because communications was one of the more upsetting aspects of our experience with the outage.

Regarding community presence, I would say community presence of Con Edison was not felt in my area until the latest stages of the outage.

MR. LUBLING: Your Honor, is this a public statement hearing or is this a question? If you have a question, address it to the panel.

JUDGE STEIN: I assume you are going to end up your statement with a question. Let me suggest that you explain the reasons behind your question, but if you could put a question to the experts here that would be consistent with how the hearing is set up.

Q. Communication was difficult. If you had a phone working and if you called Con Edison, the frustrating part was getting through and not getting helpful information. So, many of our customers said they were told their power would be back on tomorrow on multiple occasions.

So, my question is: What kind of information do you give your call centers to release to the public and how often is that information updated? Because it was not clear to us that we needed to contact you to tell you that our power was out.

Some of us had no TVs, some of us had no phones or radios, so, other than numbers of call lines, if

getting through didn't help getting more lines to get through wouldn't help. What are you doing to improve information that we get?

A. (Miksad) I guess there is a couple of things. And I think your first point is right on in that we believe that many customers, in particular in the network supplied areas, really aren't aware of what to do, what exactly to do in an outage, I think because it happens rarely, and I also think that generally if there is an outage power comes back on in a couple of hours. I think as a result, many folks have come to just not either understand what to do or not call.

So, I guess in the front end of that, what we are doing is two things. One is in the bill inserts in the mailing to customers we are encouraging customers to call if there is any problems whatsoever in order to sort of inform them that there is still today a necessary part of our outage management system.

Now, we talked about the "smart" meters that would eliminate the need essentially for customers to call us. That would be intelligence directly from the meter.

The other thing that Rich touched on is that when the customers do call in, I don't know if you

experienced it or not, there is an initial broadcast message that says--it could say any number of things, like press for English or Spanish, it could say we have outages in certain areas or towns. It could say, and I believe it did say that week, we talked about voltage reduction was in place.

We believe, listening to that in hindsight, that that message could lead a caller to believe that we had our arms around the problem, we know it, you don't need to proceed in this process.

What we have done is modify the message so it's very clear that we want you to proceed with this outage call. So, I guess those are the two front end things that have changed to address your issue.

Now, there are additional changes through the process. We talked about some of them yesterday and this morning, but those are the two front end things that we are doing to make sure that that customer is encouraged to proceed with reporting their issue, which was the specific thing you just brought up.

JUDGE STEIN: Before you go on, I think you also-- I think you also asked: What is the source of the information the reps of the call center provide to the public, and how often is it updated?

MS. BONILLA: I asked what kind of information they are allowed to share with the public and how often it's updated.

JUDGE STEIN: I would like to go back and get an answer to that on the record as well.

A. (Miksad) Sure. That information--I showed that call process where call comes in, customer has the option to go self service through the automated system or talk to a rep, and then either of those can generate an outage ticket or an emergency ticket.

That information, once that ticket is generated, is automatically updated on a computer system that is intranet based and available to everyone in Con Ed, the operators as well as the media folk and public relations folks, so there is not necessarily an interval of update as opposed to as things change that the status is updated on that system.

Q. Regarding claims, residential customers received a $3 rebate on our bills. How did you derive this $3 rebate? What is it for?

A. (McKnight) I will try and answer. Essentially it was based upon a monthly charge. It was a portion of the monthly charge of the bill. A fixed portion of the bill that was reduced.

Q. What portion?

A. (McKnight) There is two different portions of the bill. There is a fixed portion of the bill and then there is a portion depending on how much energy you use each month.

The fixed portion was the part that was adjusted downward. The amount that was used was not adjusted downward because you have a fixed piece of it, the monthly customer charge.

Q. Are there plans by Con Ed to diversify what qualifies for a reimbursement of outage related losses to include such real losses as we experienced, such as emergency room visits and medical expenses, lost business revenues, lost wages, perishable food losses to small businesses above the $7,000 limit, and non-perishable food losses sustained by residents and businesses, such as air conditioners, refrigerators, computers, commercial compressors, and damaged other electrical equipment?

Do you have plans to diversify your reimbursement policies to include these kind of economic losses we sustained?

A. (Miksad) I guess the simple answer is not currently. To our knowledge, we are the only--we know

we are the only utility in New York State that provides any compensation for losses.

To our knowledge, we are the only utility that provides compensation for losses in the United States. And we did increase those levels that you alluded to for residential and commercial customers after the 1999 Washington Heights event, but they have stayed at that level since that time.

Q. Are there any plans by Con Edison to perform a study to assess the amount of this kind of damage that we sustained?

A. (Miksad) Not to my knowledge.

MS. BONILLA: That's all I have.

JUDGE STEIN: Thank you. Staff.

EXAMINATION BY MR. WORDEN:

Q. Just to quickly follow up on the claims since we are talking about that. Has the company reimbursed any customers for spoiled medicine?

A. (McKnight) My understanding is that is correct, food spoilage and medicine.

Q. Do you have plans to reevaluate your entire tariff on this issue?

A. (McKnight) I thought John answered that.

Q. He answered it on specific elements. I guess my

question is in a broader sense. Do you plan on looking at the tariff in its entirety to see, to modify, to raise the dollar levels or other modifications to it?

A. (Miksad) Not to my knowledge.

Q. The company did not give a restoration estimate until some time during the day on Tuesday. Do you think that's a reasonable thing for customers that are out of service for the periods of time here for them not to know until that late in restoration when their service is going to be restored?

A. (Miksad) No.

Q. I don't recall seeing anywhere in your report addressing the issue of trying to provide restoration estimates. Is there a reason why that wasn't addressed?

A. (Miksad) I can't speak to the report, but our intention is to develop a better system for ETRs, which is in particular difficult with an underground system, and the assessment that needs to happen between the time we realized the extent of the damage and the time we were able to get our arms around it.

So, the short answer is, yes, we need to do a better job. I can't speak to why it didn't appear in that report.

Q. As long as you are looking at it that's really

what I want to get down. We are kind of short on time, so there's no need to clarify.

Kind of a follow up from the financial guys who aren't here today, but I guess I think you guys can address it. I just want to clarify: You are not seeking specific recovery for claims; is that correct?

A. (Miksad) That's what I heard yesterday, that is correct.

Q. That's what I thought I heard too. And I assume that would apply for the spoiled medicine as well as whatever perishable items you have.

A. (Miksad) I agree.

Q. You talked about the tools you are developing to get better information. And I think one of the things we heard you mention, John Miksad, was that you recognized the number of outages or there may be more damage or something of that nature from feedback from two of your employees, Tom Newell and Matt Ketschke, that was here yesterday.

Do you have plans or during--well, during this event did you take advantage of other employees that live in this network to try to get feedback as far as what was going on out there? And is part of that also from other employees? I assume you had a large number

of employees out in the network besides these two managers.

A. (Miksad) The question was from employees that live in the affected area?

Q. Two part. That's first.

A. (Miksad) And other employees that were out in the area.

Q. Correct.

A. (Miksad) To my knowledge, we did not survey or solicit information from our employees who were also affected in the Long Island City network.

I know they were talking to colleagues and sales associates. I do know that there were a number of employees that were also impacted by the outage, but I don't know during the event of any attempt to get information from them as to what their status was.

And on the second part with our employees, no, I don't--what I thought I heard from Matt yesterday was that there was--through Thursday there was a very strong focus on feeder restoration to stabilize the network.

And I categorize it as folks were looking down since this was an underground system, and not looking up, not really focused on doing a count, which I guess from where we sit now it seems straightforward, but we

are talking about a pretty dispersed area and actually doing the count required--I don't know if we had 80 or 100 people driving around neighborhoods in a coordinated fashion to do this total count.

I don't think anyone pieced it altogether to say this is definitely more than 1600 or 2000. Whether--I think we talked already about when this network, the algorithm that we talked about to give us the early warning indicator, alerted operators. One of the things that it would trigger would be for us to get out there and take a look.

Q. If you look at page 397 in the company's report. And this would be really John and John, not so much the customer panel, or comes back to the customer panel.

That's showing the second tenth contingency and the feeders that are out in the black. Would it not be fairly reasonable to assume that the area up there in the upper right-hand corner, just before Rikers Island, where all the feeders are out, that customers in those areas were receiving extremely low voltage, if they were not out of service?

A. (Mucci) Yeah, that's reasonable.

Q. I think you could make that same analogy to a couple of other areas where there were a lot of feeders

out because the secondary had the supply?

A. (Mucci) That is correct.

Q. Did you--did the company make an effort specifically to identify the number of customers that were receiving low voltage, not just were out of power. I know your estimate was 25,000 out of power. Did you try to estimate how many customers had extremely low voltage?

A. (Mucci) Other than the tickets we generated from the calls, no.

Q. You didn't try to do an assessment of how low the low voltages were, to my knowledge, did you?

A. (Mucci) The analysis to investigate the backfeed situation, we did look at RMS readings. Some of the RMS transmitters are of the type that have voltage readings on them.

Q. Would it be reasonable to expect that in that one area or couple of those areas that the customers, that their air conditioners wouldn't work at the volts they were receiving?

A. (Mucci) Yes, it would be.

Q. Did you receive--keep an inventory how many claims you received for damage to equipment?

A. (Miksad) It sounds like we did, yes.

Q. We will follow that up. I assume you did receive those claims.

A. (McKnight) Yes.

Q. Regarding your general appeals to reduce load or shed load or get off the system that were made through like the media and other sources like that, not your big customers, how do you measure the success of those appeals?

A. (McCartney) We monitor--once we send it out either through press release or talking to the reporters we monitor T.V. and radio broadcasts to see if we are getting it or getting a crawl across the bottom of the screen or something like that. So we know the appeal is being carried by the press.

In terms of evaluating from the general public how much load we are getting, I don't recall that we have numbers for that.

(Mucci) No, we don't. We have anecdotal evidence based on history, but very few actual facts.

(Miksad) Just one other point. It's a moving target. So, we do a forecast that is based on temperature. Very often the temperature forecast changes. We get updates throughout the day. So, as that forecast changes obviously the load would change.

So, that's sort of a moving target.

You have got all of the other demand reduction efforts going on. We talked about the ISO demand reduction program, our major customer appeals, customers going on generation, so you have got a number of things happening simultaneously. It makes it a difficult thing to pull out.

Q. But those general appeals are for the most part targeted more towards residential customers or small commercials?

A. (McCartney) Yes, as Joe Murphy discussed before.

Q. That's fine. We're short on time.

How does Con Ed communicate with residents of master metered and submetered buildings? An LSE customer who is not a customer, maybe in the Power for the People building, for example?

A. (McKnight) If someone identifies themselves, whether in a master meter building or not, we treat them the same as far as outbound calling process. We will call them and let them know there's a storm coming or severe weather and that area is in jeopardy of losing power.

Q. An individual living in the building, life support customer, but they are not a Con Edison

customer.

A. (McKnight) If they identify themselves to us we record them as one of our life sustaining equipment customers. It's on a master account. We identify the account as there.

Q. How would an individual like that know to contact you?

A. (McKnight) I am not sure what outreach efforts have taken place over the years. One of the things we do, and have been participating in for a couple of years now, is sending a letter to manufacturers of this equipment to have them alert the purchaser of the equipment to reach out to the utility, specifically to us, to let us know that they should be part of the process. We have a program. They should be included in the process.

Q. Do you put in things to the account where you have these master meter situations to ask them to specifically communicate that information?

A. (McKnight) I didn't hear the question.

Q. If you have a master meter account, do you communicate with that individual and ask them to communicate the--spread the information about these programs?

A. (McKnight) I am not sure that we have communicated to all the master metered building owners, if that's the question. I can check that.

MR. WORDEN: I mean obviously you have some buildings not just in this network areas, but a lot of areas, where there are a lot of people in there.

We will follow that up. I think I am out of time.

JUDGE STEIN: Thank you. Attorney General.

EXAMINATION BY MR. DONALDSON:

Q. What I ask will not reflect what you are going to see later in the IRs.

I know you make the phone calls at the beginning for life support and medical emergency customers. First thing, if I understand correctly, there's a recorded message, there may be some trouble, get ready.

In this particular outage when did you first start actually making contact to the customers to ascertain whether they had really gotten the message?

A. (McKnight) The first one started on the 17th, the general one communicated to the entire area. We followed it up on the evening of the 17th with Long Island City network, with the outbound campaign just to Long Island City customers advising them of the voltage

reduction.

And as I mentioned, one of the things we provide them with on this message is a number to call if they had any specific--a separate number than we give the general public.

JUDGE STEIN: Can I just clarify for the record. Are you talking about a notice that goes to all customers or to the LSE customers?

A. (McKnight) I was talking about the life sustaining equipment customers.

The first call that was referenced we make to all of the outbound--all of the life sustaining equipment customers in our entire service territory. The second call the evening of the 17th we made it to the customers in the Long Island City network.

Q. But that was a message saying if you have a problem get back to us. It wasn't an affirmative contact with the customer to ascertain that you actually made contact.

A. (McKnight) We followed up every day after that with manual phone calls to the customers, speaking to all of the population of these customers. And if they had any issues we reported to electric operations through the trouble ticket that John mentioned.

Q. There were manual phone calls?

A. (McKnight) Yes. Many, many manual phone calls. They got tired of hearing from us, as a matter of fact.

Q. In the report, the Appendix A, there is a reference that on the 22nd of July at 19:00 hours the company put together a list of what appears to be buildings with elevators, six or more floors. Is that the first time the elevator buildings figured in the process?

A. (McKnight) I am not sure who was involved in that process. I was not.

(Murphy) I can recall two additional listings that were developed. One listing it was my understanding that we received through the OEM, which was a listing of buildings with elevators. There was also a second list developed by Con Edison personnel, buildings with high occupancy rates for residential customers.

Q. This all occurred after the 17th?

A. (Murphy) That is correct, yes.

Q. One final question which really has kind of two parts. Any effort to do a follow up on either the life support or medical emergency customers or people like the police department, OEM, lessons learned from the

outage to better serve this particular population?

A. (McKnight) I am not aware of specific interaction with the OEM. We have undertaken a review of the process to make sure it's as efficient as we think it should be and we've made some minor changes.

We do notify the office of emergency management in New York City if we have trouble getting in contact with a customer. And that's if we had--there is a potential they have no service, and we did that in this process.

But I'm not aware--I see George standing up. I'm sure he's aware of something.

MR. GREENWOOD: We did a lessons learned with the office of emergency management approximately two or three weeks after the event and a number of things were discussed. LSEs were not one of them, but we did do lessons learned with them.

If we find we cannot contact an LSE it's immediately followed up to the office of emergency management. Then in turn notify the police department, who would actually make a visit to the premises.

MR. DONALDSON: Yes, I am sure that's part of your standard emergency plan, but my question is: After the event do you go back to the folks affected to find

out how to do a better job?

MR. GREENWOOD: Back to the LSE customers themselves?

MR. MCKNIGHT: I misunderstood. We did not do that.

MR. MURPHY: May I make just one additional comment. With regard to the two lists you just mentioned, I think it's appropriate to note in both of those lists we stayed in contact with the individuals listed.

We actually sent people into the field who were on the phone with them to track very closely their restoration and provided that information to our electric operations personnel. They were certainly given a priority.

EXAMINATION BY MR. NORLANDER:

Q. At page 4-71 you list organizations and agencies which Con Edison communicated during the outage, and at the end of that first paragraph, after listing some of those you say "and other agencies and organizations". Was one of those organizations the New York ISO?

A. (Miksad) I know there were communications with the ISO. It's not required by procedure or--either ISO procedure or Con Edison procedure--to talk about local

distribution outages to the ISO, but with regard to the point that you made earlier about implementation of the ISO demand reduction programs, that was the nature of the conversations.

Q. And would the other agencies include the Federal Energy Regulatory Commission, FERC?

A. (Miksad) No. They are there also. Generally not involved in local distribution outages.

Q. Now, when you say local distribution outage, that's because of the demarcation that transformers between federal jurisdiction over transmission high voltage and distribution classification of the feeders?

A. (Miksad) I imagine that's a way of saying it, but the Public Service Commission regulates the utilities. The distribution system, that's our--

Q. The 28 or the 27 kv feeders essentially function as transmission lines within the distribution system, correct?

A. (Miksad) They function as distribution lines by all definitions I know of in the industry.

Q. Do customers take service at 27 kv?

A. (Miksad) Some do.

Q. In the Long Island City network?

A. (Miksad) Yes.

Q. Now, just one follow up on the life support customers. I think it would be fair, I will try to characterize it, that customers who are in submetered buildings under Commission regulations in general are supposed to be no worse off, that is they can't be charged more than Con Ed charges, supposed to get the HEPFA rights and so forth.

But because these customers do not have accounts with Con Edison, is there, either by policy or practice or just sheer capability limitations, a difference in the level of service that they receive or responsibilities that Con Ed perceives because of their status as submetered customer, not a direct customer, as to the LSE customers?

A. (Miksad) I don't know if we know what the service that exists between the building owner and the tenants, so I don't know if we can make a fair comparison.

(McKnight) Since it's a self reporting process, obviously we need to hear from them. I think what we have heard is that somehow engaging the master account, lack of better description, makes sense. I am not sure that has not been done.

My response is I am not aware of it. That doesn't mean it didn't happen. That's pretty much the

way we can try and help them. And we tried, as I mentioned, externally with other parties to get involved in the process who deal with these customers to let us know who they are. And we can always look for new ways to do that.

Q. Do you think it would be fruitful to reexamine the submetering orders and standard submetering orders and perhaps the submetering customer tariffs to allocate the responsibilities perhaps of the submeterer to identify the LSE tenants within the building that are going to suffer from--

JUDGE STEIN: What orders are you referring to? It's a very general question.

MR. NORLANDER: That's my last question. I thought it was easier.

(Discussion held off the record.)

JUDGE STEIN: So, we will conclude with five minutes for the city.

EXAMINATION BY MR. TAYLOR:

Q. The findings of the report list some enhancements to the customer outreach programs. Will those enhancements be systemwide to Con Edison?

A. (McKnight) I guess I am--which reference are you making?

Q. Action 15A in the comprehensive report describing the enhancements to the customer outreach program.

A. (McKnight) Yes, they are systemwide.

Q. Do you have any indication yet of approximately how much the customer outreach budget may increase next year due to these enhancements?

A. (McKnight) I have not--no personal knowledge exactly what the price would be.

Q. Any inclination if the customer outreach budget may actually go up next year or still too early to tell?

A. (McKnight) I would say it's too early to tell. I have not been personally involved in that discussion. I didn't mention--or we will be purchasing two additional vans, because by nature of this event and others that went on simultaneously we see the need to have additional presence out there. So, that certainly would be an additional expense and that would be partly this year and partly next year.

Q. Any indication of how your customer outreach budget compares to other utilities in New York State say on a per customer basis?

A. (McKnight) I have no knowledge of the specific customer outreach budget and any comparisons.

Q. My last question. In the media there have been

some people that have reacted to some of your reports, including specifically the October 12th comprehensive report, that it's filled with technical jargon and that it's difficult to obtain what really happened.

Any recommendations on improvements that could be made to get that message to the people a little clearer?

A. (Mucci) I think we tried to develop what we termed as a comprehensive report, and we also tried to make it clear in the executive summary in layman's terms.

However, in this particular incident, the issues were far reaching and extremely complex and extremely difficult for us to translate--as you witnessed yesterday, a lot of the acronyms and jargon--into what was needed in the public, because there was such a difference in requirement from some of the engineers and people like--experts like yourself, and in the requirements of the questions from the public in the area, and the press, that we tried to address in totality.

In ways that was more difficult than if we had aimed our target at one level or another level. I think that may be the reason that people feel that way. We feel we covered substantially the incident and our

presentations try to simplify that. Presentations to the press conference and the executive summaries try to simplify.

I think our engineers--I support what they did. I think they did a very good job with many, many hours to put these reports, not just this report but several other reports at issue, together to make sure all the facts are out there and all the investigation was comprehensive and completed with leaving as few open questions as we could possibly give. That was our intent.

MR. TAYLOR: Thank you.

EXAMINATION BY MR. MAURO:

Q. I have just one question on customer calls. Is it true that the emergency call number is for more than just electrical customers?

A. (McKnight) The number that we published for all our customers to use, 1-800-75CONED, is used for all customers as a general number.

Q. Even with the additional 250 lines, how do you handle something like a gas emergency with all the busy signals coming in?

A. (McKnight) We're not going to have busy signals in the future because we have got that self service

functionality John mentioned. It's gone from three minutes to 90 seconds.

The challenge, when you have large scale outages, is to get the customer's information quickly and then move on to the next one, because during that process the lines are tied up.

The increasing lines coupled with the improvements in the self service functionality were intending to meet that need. We analyzed this event and others that we have had since then and we sized it to avoid any busy signals in the future. That's the intent.

Q. It's your belief even with hundreds of backed up calls a gas emergency will still get through?

A. (McKnight) A gas emergency call, yes, they will get through and they are given the first priority.

MR. MAURO: Thank you.

JUDGE STEIN: Concluded, all right. Let's go off the record for a second.

(Discussion held off the record.)

JUDGE STEIN: There being no further questions, I would like to thank the participants of this technical conference. I would like to thank all of the subject matter experts who worked so hard to give us a full

picture of their area of expertise. I would like to thank the participants and parties for their patience and their discipline.

With that, at 12:05 on October 27th, I will adjourn this technical conference.

(Technical conference concluded.)

F

M

N

Q

R

S