CITY COUNCIL
CITY OF NEW YORK

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TRANSCRIPT OF THE MINUTES

Of the

COMMITTEE ON CONSUMER AFFAIRS AND
BUSINESS LICENSING
JOINTLY WITH
COMMITTEE ON RESILIENCY AND
WATERFRONTS AND
COMMITTEE ON ENVIRONMENTAL
PROTECTION

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September 4, 2019
Start: 10:17 a.m.
Recess: 2:23 p.m.

HELD AT: Council Chamber - City Hall

B E F O R E: RAFAEL L. ESPINAL JR.
Chairperson

COSTA CONSTANTINIDES
Chairperson

JUSTIN BRANNAN
Chairperson

COUNCIL MEMBERS:
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Stephen T. Levin
Carlos Menchaca
Kalman Yeger
Antonio Reynoso
Farrah Lewis
Donovan Richards

A P P E A R A N C E S (CONTINUED)

David Desanti, Vice President of Brooklyn-Queens Electric Operations
Con Edison

Kyle Kimball, Vice President of Government, Regional, and Community Affairs
Con Edison

Steven Parisi, Vice President

Yuri Dvorkin, Professor
New York University

Richard Berkley, Executive Director
Public Utility Law Project

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New York City Environmental Justice Alliance

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Sane Energy Project

Gustavo Gordillo
Democratic Socialists of America

Lisa Harrison, Volunteer
Sane Energy Project

Greg Waltman
G1 Quantum

[Background comments]

SERGEANT-AT-ARMS: This is a test. This is a test. Today's date is September 4th of 2019 on the environmental protection, resiliency, and consumer affairs hearing in the Council chambers recorded by Stephen Sudowski [sp?].

[Background comments]

[gavel]

CHAIRPERSON ESPINAL: Good morning. My name is Rafael Espinal. I am the chair of the Committee on Consumer Affairs and Business Licensing. Thank you for attending today's hearing on Con Edison's outages that affected the city this summer. I'd like to acknowledge my colleagues: City Council Speaker Corey Johnson, Chair of the Environmental Protection Committee, Council member Constantinides, and Chair of the Waterfront and Resiliency Committee, Councilmember Brannan. We are also joined by my colleagues from the consumer affairs committee. We have Council member Koo, we have Council member Chin, Council member Lander. With that said, today, our three committees will be hearing directly from Con Edison on why the city faced so many outages. To

begin our hearing, I'd like to hand it over to Speaker Johnson to give the opening remarks.

SPEAKER JOHNSON: Thank you, Chair Espinal. Thank you to chairs Brannan and Constantinides and all the members that are here today and thank you, Con Edison, for joining us. Electricity is a daily necessity that we use to power our transportation, businesses, schools, medical facilities, and nearly every facet of daily life for New York City's 8.6 million people. When the power goes out in New York City, it not only causes severe economic hardship and tens of millions of dollars in losses, it can, literally, costs lives. And, yet, New York City is regularly plagued by power outages, including several that occurred this summer, one of which coincided with a deadly heat wave. A power outage in this city translates to complete and utter chaos. It is unacceptable. It is unacceptable for adults and children, like, to be trapped underground and subway cars or elevators in complete darkness. It is unacceptable for the cities multibillion-dollar economy-- one of the largest economies in the world-- took ground to a halt because of entirely preventable equipment failures. It is unacceptable for civilians

to have to direct traffic because all the lights are out. It is unacceptable for residents and restaurants all like to throw thousands and thousands of dollars' worth of food. And it is completely unacceptable for the vulnerable among us to have their lives put at risk because they cannot turn on their air-conditioning unit or leave their apartment. And, yet, that is exactly what happened this summer. First, on July 13th, a massive power outage plunged Manhattan's West side into darkness stretching all the way from 72nd Street to the West 40s and from Fifth Avenue to the Hudson River. Subway service was impacted as multiple lines simply stopped running and people were stuck in subway cars and elevators. On Broadway, shows were cancelled, as were performances at Madison Square Garden and Lincoln Center. Restaurants were forced to close on their busiest day of the week because they simply couldn't serve their customers. This outage was followed by another that left thousands of customers in Staten Island without power, in some cases for as long as 12 hours. During that same week, intense rain and sweltering heat led to underground wires overheating, causing several manhole fires across Queens and Brooklyn. The fires

led to the loss of power and the evacuation of several buildings due to high carbon monoxide readings. Similarly, a failed feeder cable caused a power failure in the Bronx. Then came the heat wave over the July 20th weekend. The weather service issued heat advisories for numerous regions and, in New York City, the heat index was expected to reach up to 115 degrees. In the early evening of Sunday, July 21st, 2019, as temperatures rose to 102 degrees Fahrenheit, parts of New York City began losing power. The worst hit boroughs were Queens and Brooklyn, although outages were also reported in Manhattan, the Bronx, and on Staten Island. Yet, prior to the heat wave, the president of Con Edison, Tim Cawley, reassured-- I don't know where he is today-- reassured New Yorkers that Con Ed was, quote, ready for what the heat would bring. Ready for what the he will bring, he said. According to Mr. Cawley, Con Ed have learned from previous peak demand events and they were fully prepared, he said. During his press conference, Mr. Cawley stated that Con Ed, quote, basically, spends a full year preparing for the high demand that summer brings, end quote. And over the past year, they invested 1.5

billion dollars in their energy delivery systems. Unfortunately for us, for many New Yorkers, for the city, Mr. Cawley grossly overestimated Con Ed's capabilities. Con Ed intentionally cut power to several Brooklyn neighborhoods and reduced the power output and others. On the hottest day of the year, Con Ed cut power to 30,000 customers in Canarsie, Mill basin, and Flatbush and reduced voltage in Prospect Lefferts Gardens, Prospect Heights, Flatlands, Bergen Beach, and Georgetown. Of these neighborhoods, Canarsie and Flatlands rank four out of five on the cities heat vulnerability index, making these neighborhoods especially at risk during and after extreme heat events. Canarsie and Flatlands are majority black and immigrant neighborhoods and, although African Americans make up less than a quarter of New York City's population as a whole, they accounted for almost half of the hundred or more heat fatalities each year in the city between 2000 and 2012. Indeed, those affected by the recent outages in Brooklyn, 63 percent were black. New Yorkers pay some of the highest prices for electricity. 43 percent more than the national average, to be exact. And these rates are only

expected to go up as Con Ed is currently seeking a rate increase of 8.6 percent and 14.5 percent for electricity and gas respectively. These are shocking numbers. And, yet, somehow Con Ed have been able to pay out increased dividends to shareholders for 45 consecutive years. It is the only utility on the S&P 500 dividend aristocrats index that is been able to do that. I think New Yorkers are getting a raw deal. We pay more for an electrical power system that is poorly maintained and fails frequently. With the realities of climate change upon us, New Yorkers need a public utility that not only can meet our current needs, that can withstand the future that will likely be fraught with more frequent storms, heat waves, and other extreme weather events. We are here today to hear directly from Con Ed. We want to know why they're confident predictions about the grid's ability to meet demand were completely erroneous. We also want to know what the company is doing to address systemic infrastructure problems in our electrical power system. We need to hear today what steps con Ed is taking to invest in research and design solutions that will ensure our power system is reliable, affordable, resilient to climate change,

and accommodating to new renewable energy sources. I look forward to receiving a comprehensive and thorough response from con Ed this morning. I want to thank you, UH, for all the members that are here today. Again, to the chairs. And I now pass it back over to the Chair of our Consumer and Business Licensing Committee, Council member and Chair, Rafael Espinal.

CHAIRPERSON ESPINAL: Thank you, Mr. Speaker. As highlighted by the Speaker, despite all of the technological advancements in recent years, particularly in the renewable energy sector, power outages still seem to be common occurrences in major urban cities. It is confounding to me back, in 2019, New York City, with its multibillion-dollar economy is still being grounded to a halt by what appears to be entirely avoidable equipment failures. More concerning is that these outages repeatedly occur during extreme weather events, particularly during heat waves. Losing power during hot spells poses a serious threat to people's lives. Across the country, more people died from heat waves each year than from all other extreme weather events combined. With an average temperature increasing each year,

reliable access to cooling devices is essential. Across the five boroughs, the neighborhoods particularly vulnerable to heat stress our home to black and brown communities. I am particularly concerned about the end tension all outages that occurred in Southeast Brooklyn, which covers areas and or near my district. The experts we consulted have told us that it is extremely rare for five cables to fail out once, as they did in Brooklyn on July 21st and that the industry standard is to test cables on an annual basis. Such tests should reveal whether such cables are failing. Clearly, someone at Con Ed was not doing their job, thereby, endangering the lives of some of the most heat vulnerable communities in New York City. I am most concerned that, as an elected official, there was no communication from Con Ed to our offices in order to assist us with finding to constituent inquiries. The lack of communication and accountability on behalf of Con Ed is unacceptable. The city deserves better and we need concrete answers from Con Ed on how it plans to properly serve and prioritize New York City residents, not its shareholders. Con Ed needs to regain the trust of New Yorkers by providing thorough

responses explaining the causes of the outages and how Con Ed plans to not only to prevent future outages, but how it is prepared for the realities of climate change. New Yorkers must have confidence in their public utility as we face the realities and challenges of global warming. I look forward to hearing from Con Ed. Before I handed over to my co-chairs, I want to thank the Consumer Affairs Committee staff for putting together this hearing. Senior counsel Valkees Mahereig [sp?], policy analyst Leah Skiperik [sp?], and my office staff legislative director Caitlin Calmar [sp?], as well as staff on the Environmental Protection Committee and the Resiliency and Waterfronts Committee. I would like now to invite my fellow committee chairs to make a statement. Chair Constantinides?

CHAIRPERSON CONSTANTINIDES: Good morning. Thank you, Chair Espinal. Thank you, Speaker Johnson, and my colleague, Chair Brannan, as well. My name is Costa Constantinides. I am chair of the Environmental Protection Committee and I'm glad to be joining this hearing on the service outages this summer. Despite the remarkable profits noted by our Speaker this morning, Con Edison explicitly mentions

the desire for an even higher rate of return on equity as part of the reason they are requesting additional rate increases beyond what are some of the most highest in the nation. And then charges rate payers for membership and trade associations. Trade associations are directly fund the American Legislative Exchange Council, or ALEC, anti-climate science lobbying efforts across the nation and, all the while, our city's electrical grid continues to rot. The Speaker talked about the outages and Manhattan and Brooklyn and Queens. I know in my particular district, I take umbrage with con Edison calling me this past week asking to follow up about this hearing and, yet, could not get me-- I could not get anyone from Con Edison consistently on the phone during the outages in my community. In real time I would have to get phone calls from constituents letting me know that they were out and then I would get a phone call from Con Edison saying, well, they will be back on by end of day. End of day is not a good estimate. And of day does not help those business owners. End of day doesn't help those constituents who need to have relief. In view of the recent blackouts and impacts of climate change,

reliability of our electricity system is a key concern for New Yorkers. However, the models currently used to predict future electricity do not meet the demand and do not understand what's really going on. The New York's ISO does not consider social justice concerns including the continued use of fossil fuels and the results of poor air quality. The fossil fuels plants that the ISO runs for 15 percent of the time, and do not address New York City's need for clean energy mandates. Batteries storage could be cleaner and more effective than the new gas peaker plants. There are plenty of things that we need to do better and moved to renewable energy future. New York City, as the largest city in the United States, can act as act as a global leader by both converting to an ecologically, socially, and economically regenerative economy expeditiously and by leaving a transition to renewable energy generation and batteries storage. But we cannot rely on this old business model. While scientists expect the earth to be warmer 100 years from now than it is today and every year it's been warmer in my last year it rained more than we have seen in decades. There is a wide range and how much warming the earth will

experience. The choices we make now matter. We made the transition to renewable energy and we need to have a power supplier that is worried less about profits and more about the people that they serve and, frankly, I joined with many of my colleagues who say that if Con Edison is not up for the job, then we need to find someone else. So, I want to thank our committee's staff. Samara Swanson, our counsel, policy analyst Nadia Johnson and Ricky Trova [sp?], financial analyst Jonathan Seltzer, my legislative director and counsel Nicholas Wazowski [sp?], along with the staff of the Consumer Affairs and Resiliency Committees before their hard work. Thank you.

CHAIRPERSON ESPINAL: Thank you, Constantinides. Next I want to call Chairman Justin Brannan.

CHAIRPERSON BRANNAN: Thank you, Chair Espinal. I joined Speaker Johnson and welcoming you to this joint oversight hearing to discuss Con Ed's summer 2019 power outages. My name is Justin Brannan and I have the privilege of chairing the Committee on Resiliency and Waterfronts. I want to, again, extend my thanks to the Speaker, Council member Espinal, who chairs the Committee on Consumer Affairs and Council

member Constantinides, who chairs the Committee on Environmental Protection. July 2019 was the hottest month ever recorded in human history. Because of climate change, temperatures have been rising more rapidly over the past century in New York City is expected to experience more frequent and longer lasting heat waves. By 2050, the frequency of heat waves is expected to triple. Because of the urban heat island effect which makes urban areas much hotter than surrounding non-urban areas, average city temperatures can be 1.8 to 5.4 degrees hotter during the day and 22 degrees hotter at night. New Yorkers depend on a reliable source of electricity. When the electrical system fails, that puts everyone in the city at significant risk of heat related illnesses including dehydration, heat exhaustion, and heatstroke. Coastal flooding exacerbated by climate change will also put significant pressure on the grid. We saw this during super storm Sandy. Five major electrical transmission substations in the city were flooded during Sandy and shut down and one third of the cities electric generating capacity was temporarily lost. By the 2050s, 97 percent of the city's current power generation will be located

within the 100 year floodplain, making more of the city's power susceptible to severe flooding and outages. But, with everything we know, we still do not know how Con Ed will mitigate the risks of climate change and ensure that its equipment and systems are resilient to the impacts of storm surge, coastal flooding, and heat waves, among others. As part of its 2014 settlement with the public service commission, Con Ed agreed to produce the climate change vulnerability study which would assess how more frequent and intense heat waves, wind, and other extreme weather will affect the city's electrical grid and con Ed's operations in the long-term. In 2015, Con Ed promised the public service commission it would publish the entire report by 2018. That did not happen. Con Ed now indicates that will be published sometime this year. We do know that Con Ed has identified heat waves as a main area of concern for the networks system and that, by 2050, because of climate change, system peak loads will be 13 to 24 percent higher and underground electric power equipment will have higher failure rates during heat waves. Although Con Ed has raised its substations and generating facilities to the FEMA flood level

plus three feet, to be more resilient to coastal surge and flooding, it is not clear what adaptation measures Con Ed plans to implement to address the future effects of heat or whether FEMA plus three is sufficient. I look forward to hearing Con Ed's testimony in answering our questions about current and plan efforts to make the city's electrical infrastructure more resilient to the effects of climate change. You aides, before we began, I want to thank my committee staff, committee counsel Jessica Steinberg Albin [sp?], policy analyst Patrick Mobil, financial analyst Johnathan Seltzer, and my senior advisor Johnathan Yeddin [sp?] and council staff from the Consumer Affair's and Environment Protection Committees for all their hard work in putting today's important hearing together. Chair Espinal, thank you.

CHAIRPERSON ESPINAL: Thank you, Chairman Brannan. We are also joined by the Public Advocates who would like to say a few words.

PUBLIC ADVOCATE: Thank you, Chair Espinal. I want to thank Chairs Brannan and Constantinides, as well as the Speaker, for holding this. I'm just as concerned as the 8.5 million

people here in New York City about the blackout and Con Edison's issues around definitely transparency and infrastructure, but also communication. As was mentioned on July 21, there was the blackout in Brooklyn. The first press release put out by Con Edison announced that the company was responding to multiple outages. Two and a half hours later at 11 p.m., the second press release put out, the company stated that the blackout was an intentional, preemptive move to protect valuable equipment. I am thankful that Con Ed allowed me to visit their Brooklyn command center a few days later. When we asked about the conflicting nature of these statements, Con Edison seemed to be completely unaware of the conflict. There billion dollars of profit. We are still asking where 695 million dollars of infrastructure spending went to. In the hours leading to the outage, my office also found out that one of the feeders was also off-line for regular maintenance. As the temperature remained high and demand on the grid began to rise, voltage in the area was reduced to mitigate the impact of this increased demand. Soon, one of the feeder cables malfunctioned, shifting the burden to the remaining

feeders and, subsequently, leading to a chain of failures. After the fourth failure, the Corporate Emergency Response Center, which includes Con Edison leadership, Public Service Commission, PSC, representation and the New York City emergency management office was put on direct notice as the potential for the blackout. Shortly after, fifth and final feeder failed. My office was informed that, after this moment, Con Edison leadership had approximately five minutes to make the call to de-pile the grid to prevent a power catastrophic outage. After that call was made, there was approximately, according to Con Edison staff, between 20 minutes and an hour and a half between when the call to de-energize the network was made and the blackout, itself. These vital minutes could have been used to warn the public about what was going on, what was happening, especially vulnerable citizens like my aunt and uncle who spent the night-- might want to spend the night putting ice packages on my uncle who was bed ridden. Vulnerable citizens, such as those that depend on electrical and medical equipment or people with low mobility who may need to seek a cooling center. When my office asked Con Edison

about outreach policy for blackouts, the company admitted it currently has no policy, quote unquote, to communicate with customers. How can it be that customers are not notified ahead of time? And how can it be that, with the clear [inaudible 00:22:11] failures and with Con Edison leadership, the PSC, and NYCEM in the room, there was conflicting public statements released to the public during the blackout? Who is directly responsible? We did reach out-- We did do some research on others in the country. LA, by the way, which has a public system, doesn't seem to have the same kind of feeder failures that I was told was quite regular. And I'm concerned as to whether this is regular or not. Having no policy is simply unacceptable. The fact that no outreach was made to even the most vulnerable members of the community, such as seniors and people with disabilities, is unconscionable and it is a miracle that nobody was harmed, but I'm thankful they were not. To date, my office sent two letters to Con Edison and made two visits to the Con Edison in Brooklyn command center. While I appreciate Con Edison's response explaining its process of restoring power outages, I have yet to get assurance that these

catastrophic communication failures was a fluke. Moreover, I'm still unclear of its future communications plan is a similar incident were to happen again in New York City. I sincerely hope this hearing will help quell these concerns, as well as the concerns about what happened in New York City, particularly when there was money sent there to fix the issues that happened in the city blackout. In the coming days, I'll be working on legislation to improve communication, transparency during the blackout, and hold the company accountable. Again, I think the Council committees for hosting these hearings today. If Con Edison is unable to answer these questions, at some point, we too have to figure if weather Con Edison is the one that should be running this. I know that there is a discussion around whether it should be public. I know that takes a lot of time, so my hope is that the state just begins the process in case that's the direction we need to go in. Thank you so much for the time and thank you for the hearing.

CHAIRPERSON ESPINAL: Thank you, Mr. Public Advocate. Before I move forward, I just want to do some housekeeping. We also have been joined by

Kalman Yeger from Brooklyn, Steve Levin from Brooklyn, Karen Koslowitz from Queens, Debbie Rose from Staten Island, Antonio Reynoso from Brooklyn. We have Keith Powers from Manhattan. We have Farah Lewis from Brooklyn and Donovan Richards from Queens, as well. With that said, the first panel that is up we have Cal Kimball from Con Edison, Stephen Parisi from Con Edison David DeSanti from Con Edison. Will you all please raise your right hand to take an oath?

LEGAL COUNSEL: Do you swear to tell the truth, the whole truth, and nothing but the truth before these committees and to answer council member questions honestly?

ALL: I do.

LEGAL COUNSEL: Thank you.

CHAIRPERSON ESPINAL: With that said, we're going to hand it over to Speaker Johnson.

SPEAKER JOHNSON: You're more than welcome to begin your testimony. Thank you.

DAVID DESANTI: Thank you. Good morning. Thank you, Mr. Speaker, Chairman Constantinides, Brannan, Espinal, and members of the City Council for the opportunity to discuss the customer outages associated with the July heat wave

and the West 65th Street substation. My name is David DeSanti. I am con Edison's Vice President of Brooklyn Queens electric operations. I am joined by Stephen Parisi, Vice President of Central Engineering and Kyle Kimball, the Vice President of Government, Regional, and Community Affairs. Our comments will focus on what caused these two events, response, and the actions we are taking to further enhance the reliability of our electric grid. Before I begin my remarks on the events themselves, I would like to say that we understand the frustration that customers have expressed and fully realize that being without power causes distress. I assure you that all of our 14,000 women and men take pride in providing reliable service. I worked for the company for 32 years and I am more than-- other than safety, nothing is a higher priority for me than reliable service. Following the outages in southeast Brooklyn, we sent notes of apology to customers because we know they deserve better. We also extended the deadline for customers to submit claims for losses they incurred due to those outages. I want to make it clear that the outages from the heat wave and those on the west side of Manhattan were not the result of neglected

equipment or lack of investment in maintenance. We have an intensive capital planning process and invest heavily in our systems to maintain high levels of reliability. We use the targeted investment strategy that considers the performance history of equipment, as well as the forecasted demand on each component. Con Edison's electric delivery system is one of the most technologically advanced and complex in the world and contains redundancies to keep service reliable. Let me provide some details on the outages that affected the customers in southeast Brooklyn during the July 19th to 22nd heat wave. I will start with the evening of Sunday, July 21st, when circumstances demanded that we preemptively interrupt the service. That decision was driven strictly by fast changing system conditions made with input from highly trained engineers and operators and implemented to prevent broader, more prolonged outages. To better understand our decision, it helps to first understand a little bit about our system. This area of southeast Brooklyn has 19 feeder cables that serve 132,000 customers. An underground network system provides power to about 99,000 of these customers. The remaining 33,000 or are served by a

separate overhead 4KV grid. We designed our system with redundancies so when one feeder fails, customers do not lose service. That's because the power that failed feeder was carrying is redistributed down to the feeders that remain in service. This shift places a greater burden on the in-service feeders and, when multiple feeder failures occur, this additional burden exponentially increases the likelihood of more failures. In our industry, this rapid sequence of feeder failures is referred to as cascading. This is what we sought to prevent by proactively shutting down the 4KV grid. Our preparations for the heat began days in advance. On Friday morning, July 19th, we activated our Corporate Emergency Response Centers, or CERC. Our CERC serves as our command post and brings together people and resources from across the company with the single objective of providing safe, reliable service during severe weather and other emergencies. In addition, we mobilized 4000 employees, procured mutual assistance, pre-positioned emergency generators, and ensured that we had dry eyes to distribute. Our system performed well on Friday and Saturday and into the early afternoon on Sunday. Sunday was the third

straight day of temperatures above 90 degrees and the sustained he resulted in high demand for power. In fact, demand in New York City and Westchester County reached 12,063 megawatts, an all-time high for the weekend. Because the heat wave spanned the weekend, the demand was particularly heavy in residential areas such as southeast Brooklyn. After several of the 19 feeder cables serving southeast Brooklyn failed, by early Sunday evening, we followed well-established protocols by making customer appeals and reduced the voltage by five percent, then by eight percent to reduce strain on the system. Despite these measures, additional feeder cables serving the southeast Brooklyn grid began to fail in relatively rapid succession and, ultimately, six of the 19 feeders failed. The network normally served by 19 feeders was now being served by 13, each of which was heavily loaded due to the high demand and inherently associated with the heat wave and the demand that shifted from the failed feeders. It was clear that allowing the grid to run with the six feeders out of service would result in cascading failures, extensive equipment damage, and broader, prolonged outages. As a result, at 7:32 p.m., we preemptively interrupted

service to 30,000 customers in the 4KV grid affecting people in the neighborhoods of Canarsie, Flatlands, Mill Basin, Old Mill Basin, Bergen Beach, Georgetown, and Marine Park. Because conditions were dynamic and events were moving so quickly, there was not time for us to alert customers before the shutdown of the equipment. The decision in the actual shutdown took place within minutes of each other. We made the decision in the presence of representatives of New York City Emergency Management, who are embedded in our CERC, giving them a real-time flow of information as to what was taking place and how we were responding. We understand the importance of communicating with customers and are working with agencies including NYC Emergency Management on ways to improve our communication during outages. Our decision to preemptively enter up customers was correct for several reasons. The analysis by our engineers and operators made it clear that, if we took no action, additional equipment was going to fail. It would’ve taken longer to repair and resulted in more extensive damage, meaning customers would have been without power for longer. Our action also prevent and more widespread impact as service

interruptions that would have reached an additional 99,000 customers in Crown Heights, Prospect Heights, Prospect Lefferts Gardens, Prospect Park South, in Flatbush. It is important to know that the customers who service was affected were going to lose power regardless. Our decision to de-energize our equipment did not cause more customers to be without power. I assure you that we fully appreciate the impact of shutting off power to customers. We did not take this decision lightly and we appreciate that the action had a real and significant impact on people, particularly those who are elderly or on life-sustaining equipment. We always regret having customers out of service. When customers are out of service, our crews work around the clock to make restoration. As is often the case, the heat wave was broken by severe storms which arrived late Monday afternoon causing additional outages. By midnight Sunday, we had restore 55 percent of those affected by the preemptive interruption and, within 24 hours, had restore service to nearly 95 percent of those in southeast Brooklyn affected by the Sunday outage. The customer's had several ways to stay informed of the status of outages, text or phone call, or by

visiting our website and outage map. We also notified elected officials send them apprised throughout the event and were in regular touch with the media. Our outreach included deployment of customer service vans and personnel at Jacob Joffe Fields in Flatlands and near CV Park in Canarsie. We distributed dry ice at both locations and on customer assistance personnel available to provide information on outage status, give claim forms to customers, and answer questions. In meetings with elected officials since this event, we've gotten feedback that these were not optimal locations. We will work with stakeholders to identify better sites. The events in southeast Brooklyn occurred despite our investment of more than 200 million dollars in the grade during the past decade. System wide, we have invested more than 1 billion dollars a year in our system since 2005 and, at least 1.5 billion each year since 2015. While no utilities electric delivery system is immune from outages, Con Edison does strive to be as reliable as possible. And the number of metrics show that we are the most reliable electric delivery company in the United States. In terms of outage frequency, we are about eight times more reliable

than the average electric utility, both in New York State and nationally. Additionally, over the last five years, heat related outages to customers served by overhead lines have declined. We see continuous improvement. We learn from every incident and every success. New York is the greatest city in the world and our customers deserve the most reliable electric service. We take that charge seriously. We have completed repairs to the 4KV grid and, in addition, we are finalizing plans for significant upgrades in southeast Brooklyn. These improvements will include replacing 70 sections of underground cable serving the network and 25 sections of overhead cable within the 4KV grid itself. Installation of the new switches on the overhead and underground systems to automatically isolate faults and reduce outages and allow for faster restoration when outages do occur and we intend to complete the deployment of smart meters in this area by year end. I'll now turn it over to my colleague, Steve, who will talk about the outages on the west side of Manhattan.

STEVEN PARISI: Thank you, Dave. And thank you to the Council for the opportunity to speak. The outage on the evening of July 13th was

due to the incorrect operation of protective relays on transformers at a substation on West 65th Street following a fault on a 13KV cable. Relays are the brains of our systems. They make decisions in milliseconds to protect the grid when faults occur. Our first priority was to safely and quickly restore customers, so we immediately mobilized our Corporate Emergency Response Center and communicated that we would restore all customers by midnight. We met that target and restored our customers and an average of three hours and 10 minutes. We were with New York City emergency management on-site to keep the public up to date and on our response. Following restoration, our planners and operators began analyzing data and equipment performance. We also conducted diagnostic testing to identify the specific cause of this event. Within 48 hours, we announced preliminary findings and, on July 29, we announced our preliminary findings. We announced the root cause was an improper connection between some of the sensors and the protective relays that the West 65th Street substation. This connection caused the protective relays to improperly shut down transmission feeders supplied from the West 49th

Street station to West 65th and several other sensations that also serve the area. Since this event, we have taken preventative measures by isolating similar relay equipment at other substations and we are analyzing and testing before they are placed back into service. Although we are confident that we have identified the root cause of the Westside outage and taken actions to prevent reoccurrence, we continue to conduct in in-depth review of the event. In addition to this ongoing review, there is an event analysis process underway with the New York Independent system operator, the Northeast power coordinating Council, and the North American electrical liability corporation. Also, we are providing information to the New York State Public Service Commission in its investigation of this outage. In closing, I would like to, again, emphasize our commitment to safety and reliability. We back that commitment with strategic capital planning and robust investment in our energy systems. They had been set in southeast Brooklyn and on the west side of Manhattan happened because, despite our strategic targeted investments, our system is not perfect. It did not occur because of neglected

infrastructure or lack of maintenance or investment. Our decision to enter up service in the southeast Brooklyn on the evening of July 21st, while understandably frustrating for customers and puzzling this Psalm, was due to the system conditions and not any other factor. We remain convinced that it helped avoid a large scale outage that would have stretched on for several days. That concludes our prepared remarks and we will be happy to answer any questions you may have.

SPEAKER JOHNSON: Thank you all for being here. I'm going to start with some questions. In the lead up to the heat wave weekend that, as I mentioned in my opening statement, your president, Tim Cawley, assured reporters that Con Ed was, quote, ready for what the heat will bring. In retrospect, this was clearly a mischaracterization of the situation. Can you explain why he mischaracterized the situation?

DAVID DESANTI: Yes. I wouldn't say he mischaracterized the situation.

SPEAKER JOHNSON: You think you were ready?

DAVID DESANTI: We were. Yes.

SPEAKER JOHNSON: So that's what ready looks like?

DAVID DESANTI: The outcomes are the outcomes, sir. We do everything we can to get ready. I would refer you-- You talk about our reliability. I would refer you to the chart on the last page of the handout and it discusses our reliability with regard to our peer group. If you look at the chart, it references outages across the nation in different service territories. So, nationally, and in New York State-- in New York State, for instance, the outage rate, and it's per thousand. It's about 1000 customers per thousand would expect to be out of service in a given year, meaning all customers will experience at least one outage. If you move over to Con Edison's overhead system, we expect about 398 customers per thousand to be out of service. Town in our network system, the experiences down to about 20 per thousand. In our blended rate, our system is about 75 percent underground, 25 percent overhead, it's about 120 per thousand.

SPEAKER JOHNSON: So, next time Tim Cawley tells the public that we are ready for what the heat

will bring, the outcomes are the outcomes? That's what you just said.

DAVID DESANTI: No, sir. We mobilized 4000 people. We get ready. Of--

SPEAKER JOHNSON: But so you--

DAVID DESANTI: all major cities--

SPEAKER JOHNSON: What happened, that-- He characterized it as Con Ed is ready and that-- I did sound exactly what happened after he said that. Day by day, hour by hour, neighborhood by neighborhood, borough by borough. So it--

DAVID DESANTI: No--

SPEAKER JOHNSON: Do you think that the public should feel assured that when your president stands up in front of reporters and says we are ready for this weekend and then that's what happens, that the public should feel safe and assured by the top official from Con Edison giving them that assurance ahead of time?

KYLE KIMBALL: I think if you look at the reliability statistics, the idea-- So, we do two things. One, every year we do an extensive capital planning process to get ready for the summer, so you take the lessons learned from the previous summer,

you make investments in the system to deal with whatever issues arose. If you have areas with multiple outages, you go in and figure out what you need to do differently in those different neighborhoods. And so, when someone says that we are ready, that's based on, one, everything we identified in the previous year that needed to be done in the capital project process and that we completed all those repairs, made any resiliency investments we needed to make based on our capital plan. And then, of course, if you look at the reliability statistics, you know, if you are in the network system, the chances of you being interrupted are very, very low and they are higher in the overhead system, but still relatively low compared to the state and the national average. So, the idea that when someone says that we are prepared, it means that the best we can see, based on the information that we have, we have done and what we needed to do to get ready for the system. It doesn't mean the system is foolproof.

SPEAKER JOHNSON: Did he say that? The way you just explained it, did he say that to the public ahead of time? Did he explain it that way?

KYLE KIMBALL: I'm sorry. I'm just taking the words that you are quoting.

SPEAKER JOHNSON: No. No. I'm--

KYLE KIMBALL: I'm just trying--

SPEAKER JOHNSON: The way you just--

KYLE KIMBALL: to explain it.

SPEAKER JOHNSON: explained it, giving that context to the public and putting on some conditions, I don't think Cawley explained it that way.

KYLE KIMBALL: Okay.

SPEAKER JOHNSON: He explained it-- The quote that I read is what he said to the public.

DAVID DESANTI: Sir, I think what he meant was we are as ready as we could possibly be in terms of summer, getting ready with load relief programs, maintenance programs, inspection programs, and having our workforce on 12 hour shifts ready to go to respond to emergencies.

SPEAKER JOHNSON: Well, Con Ed claims--

DAVID DESANTI: Emergencies are going to happen on electrical systems when they run at peak. It happens in New York City and in every other major city.

SPEAKER JOHNSON: Con Ed claims that it recently spent 1.5 billion dollars to upgrade the electric grid. Is that correct?

DAVID DESANTI: Yes.

SPEAKER JOHNSON: Okay. But experts claim that these investments were largely spent on routine maintenance that are needed to simply keep the grid working. Can you please tell us some more about your preventative maintenance program?

DAVID DESANTI: Yes. So, we have an inspection process. We work it out with the Public Service Commission where we routinely inspect our service boxes and equipment across the five year cycle. We also have an investment program. We, essentially, look at-- We forecast new business coming on to the system, new buildings. We put that into our forecast for a one year, five year, and 20-- and five-year programs. We also look at-- As soon as the summer is over, we look at the experience from the prior summer. We look at how the load developed and we, basically, put together a load relief plan to invest prior to next summer. Prior to the summer, We make any necessary repairs we can to get banks

back online, repair open mains, and get ready for the coming load.

SPEAKER JOHNSON: Con Ed claimed that the large blackout on the west side of Manhattan was caused by a failed protection system or relay. You just talked about that in your testimony. Industry standards dictate that protection systems are tested when they are commissioned and are regularly tested thereafter as part of a preventative maintenance program. When was the protection system or relay that failed in Manhattan last tested before the failure?

STEVEN PARISI: So, the system that operated was installed in 2008. Those relay systems are tested every five years. I don't have the exact date, but all of our--

SPEAKER JOHNSON: You should have the exact date. That is a very key question that the public should know the answer to. When was the last test? What you mean? You are in charge of this. You're here to speak on it and you can't tell me the last time that system was tested? You don't have a date?

STEVEN PARISI: I do not. Not in front of--

SPEAKER JOHNSON: You guys haven't--

STEVEN PARISI: me at the moment.

SPEAKER JOHNSON: Did you look into that as part of the--

STEVEN PARISI: Yes.

SPEAKER JOHNSON: Okay. So you looked into it. How come you don't have the information? You came here today without an answer to when the last time that was tested? That's unacceptable. We are also told by experts that there are always redundant protections installed, so if one really fails, another should kick and. Are there redundant protections for Con Ed feeders?

STEVEN PARISI: Yes. There are.

SPEAKER JOHNSON: Why did they fail, then?

STEVEN PARISI: So, they didn't-- The relay that operated was on a transformer that operated incorrectly for distribution feet or fault. The relay that operates for the transformers supply is intended to look only at the transformer. Because of problems with the wiring connection from the current transformers and the sensors within the

transformer, it is operated and saw the distribution feeder fault which it is not intended to do. The feeder itself has a relay and a backup relay. Both the primary relay operated for the distribution feeder. Again, the transformer relay operated when it should not have.

SPEAKER JOHNSON: Well, in the 2012 rate case, Con Ed requested 26 million dollars for upgrades to the substation relays. Then, according to subsequent capital expenditures, 3 million dollars was budgeted in zero was spent. There was a similar instance in 2016 when 1 million dollars was requested and budgeted for relay protection communication upgrades, but, again, your public filing show zero was spent. What happened to this money and why was it not spent on the upgrades that were deemed necessary?

STEVEN PARISI: So over the past 10 years, we've spent an average of 21 million dollars on relay communication system upgrades through different projects that are across the system. All of those funds are targeted at upgrading relay systems, investing in technology, getting higher performance on the installed systems, and retiring

some equipment that has aged out. So, the program lines might be called different things, but the total Spanish is 21 million dollars just for the last 10 years and certainly spent before that.

SPEAKER JOHNSON: But in the 2012 rate case, Con Ed requested 26 million dollars for upgrades, but you are saying that only 21 million dollars was spent.

STEVEN PARISI: In-- In--

SPEAKER JOHNSON: Your public filings said 26 million.

STEVEN PARISI: Yes.

SPEAKER JOHNSON: So, how come 26 million dollars wasn't spent?

STEVEN PARISI: I'm not sure where the shortage comes on that.

SPEAKER JOHNSON: In the same rate case filings in 2013, Con Ed indicated that 90 percent of its relays were of electromechanical variety, which are severely outdated and more likely to result in outages. Is that correct?

STEVEN PARISI: Not outdated. No. Electromechanical relays are used throughout the industry, primarily at the areas station level.

Transmission level voltages 138,345 are moving more rapidly towards microprocessor-based relays. So, the population in the areas stations utility wide, that's not uncommon.

SPEAKER JOHNSON: Did the protection system that failed and allegedly caused the July 13th Manhattan blackout include electrical mechanical relays?

STEVEN PARISI: So, the relay itself is electromechanical, however the sensor is-- the wiring to the sensor is actually what misoperated [sic].

STEVEN PARISI: The relay was fine. The input voltages to it was the problem associated.

SPEAKER JOHNSON: What percentage of Con Ed relays are electrical mechanical relays?

STEVEN PARISI: Currently, about 80 percent.

SPEAKER JOHNSON: Why haven't they been replaced?

STEVEN PARISI: We will go through as they-- as required for if there is upgrades needed, if equipment is changed out. However, electromechanical relays provide adequate protection.

SPEAKER JOHNSON: So, industry standard dictates that cables should be tested regularly and insulation tests would normally indicate whether there are signs of degradation in a cable. And an interview, Mr. Coley stated that the five cables that failed in Brooklyn leading to the outages during the July 20th heat wave weekend, experts tell us that it is very rare for five cables to fail at once. It is more likely that Con Ed failed to conduct its regular testing or ignore the results of such tests. When were those cables last tested and what were the results of those tests?

DAVID DESANTI: So--

SPEAKER JOHNSON: Cables that failed.

DAVID DESANTI: Yeah. So, there's tests in the industry that are done occasionally with high pots. We conduct hi pot testing on cables if they meet certain criteria when they are returned to service. We don't have a high pop program where we take feeders out of service intentionally to test those feeders. The science surrounding that shows that it really can't predict-- isn't really predictive of a heat related thermal failure, so we don't do it for that reason.

SPEAKER JOHNSON: So, when was the last time those cables were tested?

DAVID DESANTI: I'd have to look at the records and--

SPEAKER JOHNSON: How come--

DAVID DESANTI: [inaudible 00:48:17]

SPEAKER JOHNSON: How come Con Ed comes here today---

DAVID DESANTI: So we don't--

SPEAKER JOHNSON: without these basic--

DAVID DESANTI: Again, they are not tested for the purpose of a thermal test. It's only under certain criteria when they are returned to service based on the characteristics of the fault at that time. So, let me just give you some understanding of-- you understand the breadth of the issue here. So we have 65 networks across the system served by about 1600 feeder cables. During the three day heat period, we lost 46 feeders. 16 of them in the peak period. Six of them in this one network. So it was a very concentrated failure in this one network and it was unique.

SPEAKER JOHNSON: In 2008, the Public Service Commission approved funding for your energy

efficiency programs. In testimony from the New York Energy Consumers Council, as part of your current rate case, your company still has more than 100 million dollars in unspent funds that were specifically earmarked for these programs. Can you explain this discrepancy?

KYLE KIMBALL: So there could be a-- I'm not necessarily aware of that specific discrepancy, but there could be a number of reasons. That certainly doesn't mean that it's not going to be spent or that it is not a priority. It's a huge priority for us. We have more money in the rate case for energy efficiency. I can't necessarily explain that specific des--

SPEAKER JOHNSON: That was--

KYLE KIMBALL: [inaudible 00:49:38]

SPEAKER JOHNSON: 11 years ago. 11 years ago the PSC approved funding for your energy efficiency programs and there is a current set-aside amount of money in unspent funds of 100 million dollars that was earmarked for these programs 11 years ago. It would be helpful to understand--

KYLE KIMBALL: So--

SPEAKER JOHNSON: why that is.

DAVID DESANTI: The energy efficiency programs typically break down into pieces. One was where we work with NYSERTA and local folks to distribute LED light bulbs and so forth, which really reduce that demand, that peak demand for power, which avoids us having to build additional plants which can impact rates and, certainly, helps with the carbon issue. The other piece of it is folks who subscribe forward demand response programs where we, essentially, pay them to turn off their equipment during peak demand. I had to look at the details. We may not have fully subscribed all of those programs across that period of time, but that's not money that we get it to keep, so you understand. That's money that is directed toward those efforts.

SPEAKER JOHNSON: But it's money that could help customers.

KYLE KIMBALL: Yeah. And we-- And like I said, if it's not spent, it doesn't mean that it's not a priority or that we are not continuing to spend. It's a tremendous priority for us and it's been extremely helpful in helping us meet some of the demand, particularly in Brownsville, Brooklyn, where we have had a lot of success. So, in unspent

balance, one, doesn't stay with us in, two, doesn't mean it's not a priority. It's, for one reason or another, it just hasn't been spent.

SPEAKER JOHNSON: When--

KYLE KIMBALL: Or we may be under budget.

SPEAKER JOHNSON: When deciding which neighborhoods to cut or reduce power to during a heat wave, does Con Ed take into account the cities heat vulnerability index?

DAVID DESANTI: No. We do not.

SPEAKER JOHNSON: Why not?

DAVID DESANTI: Operators really have to make technical decisions. We are not-- We don't track customers by demographics. We really have to look purely at the engineering behind it and make decisions based on not factual analysis.

SPEAKER JOHNSON: Are there some neighborhoods that have a higher concentration of older equipment?

DAVID DESANTI: It's hard to say. We have a robust investment plan. This network, in particular, of the 65 networks I mentioned, if you look at the assets we have directed at it, it ranks

eighth in spending in the last 10 years, so we have directed quite a bit of capital dollars and maintenance dollars to this network.

SPEAKER JOHNSON: No. But that's a simple question. Are there some neighborhoods that have a higher concentration of older equipment? You should know that.

DAVID DESANTI: Well, yes. But, it's-- Yes.

SPEAKER JOHNSON: So, what are those neighborhoods?

DAVID DESANTI: I would say I don't know off the top of my hand. A lot of it would be [inaudible 00:52:10]

SPEAKER JOHNSON: So, all the questions that you don't know today that--

DAVID DESANTI: So let me give you a [inaudible 00:52:14]

SPEAKER JOHNSON: that you should know and we expect answers to and I hope that, today, given these are basic questions-- these are not complicated questions.

DAVID DESANTI: That's a pretty--

SPEAKER JOHNSON: That Con Ed will come back to us later this afternoon with a written response of these questions that you've been unable to answer at this public setting given that 8.6 million people rely on you all. Okay. So, how does Con Ed prioritize where to upgrade equipment?

DAVID DESANTI: We have a-- For network reliability, we have a network reliability model which looks at and prioritizes the assets in that particular network. It looks that the reliability data on all of the cable and equipment. The underground system in Con Edison is quite large. It incorporates 96 miles and miles of secondary and primary cables. We have characteristics, performance characteristics, on all of it. We look at, as I said, business load growth. We look at demand that's moving around on the system and we prepare an investment plan to meet that. We've made consistent progress in the last 10 years using that reliability model and have driven those numbers down.

SPEAKER JOHNSON: And you all--

KYLE KIMBALL: Can I just go back to the previous question on the aging infrastructure? So, I think it's very important to address this

because I think we should address this because it is not necessarily a question-- the way you have asked the question is not necessarily a question that is answerable in a concise format. This is a network system and the system is only as good as its weakest counterpoint. And so, we don't necessarily think of networks as areas that we can leave behind for disinvestment because the system doesn't work that way. It works as an entire organism and you can't neglect one because it brings down the health of the entire organism. So, there might be cables here and there around the system that are an older vintage, but it doesn't necessarily mean that they are, therefore, failing or neglected. It means that they are working and we don't necessarily have to fix that. We can redirect our resources somewhere else. So, I just don't want that to go on answered because it is not in aging infrastructure story because the network doesn't work if you have aging infrastructure.

SPEAKER JOHNSON: Are you all currently seeking a rate increase?

KYLE KIMBALL: We are.

DAVID DESANTI: Yes.

SPEAKER JOHNSON: Witnesses testifying on behalf of the city on the current rate case have criticized Con Ed for focusing on maintenance and repairs as opposed to investing in research and development that would address design issues and modernize the grid in a manner that is more responsive to the city's needs. What is Con Ed doing to invest in research and development that would address some of the recurring issues, as well as the inevitable increased demands on the electrical grid from climate change?

KYLE KIMBALL: So, we're doing a number of different studies and where actually working in the partnership with-- This is a larger question, so I can go on or I can answer it in different parts in different people's questions. There is a tremendous amount of work going on in terms of preparing for climate change, both from a resiliency standpoint of just the system itself, but also work to get more renewable electrons into the system, as well as preparing for the increased load as a way electrified the system. Because, as we electrify the system, it's not lost on us that there is going to be more reliance on the system. Particularly as people

replace gas heating with electric heating. And so, right now, we are designed, as Dave mentioned, for about a 13,000 megawatt hour peak and that is, with the recent legislation that's put past both here in the city and in the state. You know, we estimate that that peak is going to go from 13,000 megawatts to nearly 40,000 megawatts and we could become a winter-peaking utility. We are currently a summer-peaking utility. So, there is a lot of different buckets that are going on and on the issue of resiliency, we are working very closely on the climate vulnerabilities study that should be released, as Council member Brannan mentioned, at the end of this year. That is something that is being discussed in now and finalized. We are also working in the second category of preparations with the electric system itself, we are working with the city and National Grid on a study with an outside consultant on what investments have to be made into the grid to meet the city's demand. And that's the study that will be done this next spring. And then, thirdly, there is a study coming out and we're happy to br-- All of these we are happy to sit with the council and brief staff, the Council members about

the finding because I think this is a very important conversation for us on this resiliency in preparation conversation is there's a study we're doing with electrical reliability institute that is focused on the technologies that are still needed. So, one of the biggest problems is that, as we move through this renewable future, there are some still pretty significant technological gaps in terms of how people are actually going to be able to take technologies into their homes and replace fossil fuel heating with renewable heating. And so, he pumps in that kind of thing. But there is still some technological gaps, so we are working with-- we funded a study with EPRI that is looking at what are the technology gaps that consumers are going to-- that we need to overcome in order to have wide scale electrification. And so, there is a number of different things going on in those three different categories that I could continue going on, but, essentially, we are looking at it in these three categories and working in partnership with the city. Happy to work more closely and in partnership with the Council on these important issues.

SPEAKER JOHNSON: It's estimated that the Westside outage cause businesses tens of millions of dollars in losses. Governor Cuomo has stated that Con Ed will be expected to reimburse businesses for their losses. Does the company plan to do that?

KYLE KIMBALL: Yes. We are currently accepting reimbursement applications for Brooklyn and for West side. We extended the time. There's been a lot of concern, as our conversations over the last couple weeks, about the policy around receipts and [inaudible 00:58:25] and I can assure you that we are going to be fair. We can also let you know individually what kind of reimbursements we have seen in your respective districts.

SPEAKER JOHNSON: Are these losses covered up to 100 percent or their limits?

KYLE KIMBALL: There are some limits that I can-- If you give me a second, I can-- But there are some dollar limits that--

DAVID DESANTI: Yeah. Those--

KYLE KIMBALL: I can find.

DAVID DESANTI: Those limits for retail customers would be, I believe, 225 dollars without receipts. Just an itemized bill for loss of food,

515 dollars with an itemized-- you know, with receipts and for commercial business, it would be 10,200 dollars for losses related to--

SPEAKER JOHNSON: What if their losses are more than 10,000 dollars?

DAVID DESANTI: For like lost business, no. We don't cover that.

SPEAKER JOHNSON: Well, that's really bad for the small businesses.

DAVID DESANTI: We understand that frustration. We understand the impact.

SPEAKER JOHNSON: Do you think that's fair?

DAVID DESANTI: We also-- We don't guarantee service.

SPEAKER JOHNSON: But do you think that's fair?

DAVID DESANTI: We don't guarantee service.

SPEAKER JOHNSON: But do you think that's fair?

KYLE KIMBALL: The reimbursement policy is something we've worked close-- So this is a function of the tariff we've set that we've

negotiated with the PSC, so whether or not it's fair-- I guess it's this is what we're allowed to--

SPEAKER JOHNSON: Do you think it's adequate?

KYLE KIMBALL: For the business that needs [inaudible 00:59:41] 10,000 dollars, no. I' love more than 10,000 dollars. I'm sure it's not.

SPEAKER JOHNSON: Why do New Yorkers pay some of the highest rates nationally? 43 percent than the national average? Higher than the national average?

DAVID DESANTI: So, the infrastructure and the-- what we have in the inner city is really quite capital intensive. No one else has a network system like Con Edison's. It requires significant capital investment. And to do work and conduct any kind of work in the city is expensive. It's an expensive place to operate. It's an expensive plate to provide service.

SPEAKER JOHNSON: Con Ed has been reporting increased dividends for shareholders for the last 45 years consecutively. How is it possible with all the money need-- How is that possible with

all of the money that's needed on an aging infrastructure grid?

DAVID DESANTI: So, the money we direct-- In fact, the rate increase we are asking for is not money to put in our pockets. It's money to invest in the system and we work with the Public Service Commission and other stakeholders on a plan, an investment plan, so that we can effectively provide resilient, reliable service.

SPEAKER JOHNSON: But you already have plenty of money. You're giving big dividends to your shareholders year after year. You're the only--

DAVID DESANTI: We provide--

SPEAKER JOHNSON: You're the only--

DAVID DESANTI: We've provide a modest increases in dividends to keep our--

SPEAKER JOHNSON: Modest?

DAVID DESANTI: Modest increases in dividends to keep our stock attractive in the marketplace. We fund our utility through stock and borrowing and that's about a 50-50 split. The borrowing that we need to execute the capital plan, all that borrowing, the interest rates does go into

rates and the dividends we paid to the equity market is to maintain that funding.

SPEAKER JOHNSON: Okay. I'm going to finish here. I just have a couple more questions. I apologize to the colonies for all of these questions. In the 2013 rate case, Condit agreed to carry out an assessment of climate risks to its grid. You just spoke about that, Kyle. Part of that 2013 rate case agreement included a reporting requirement. The first report was due in 2014 and the timeline have been ingested multiple times. However, no parts of the report have been publicly released. How many parts of the report have been completed so far? We're waiting. It's more than five years. And when do you expect it to be publicly released?

KYLE KIMBALL: We expect it be publicly released at the end of 2019. I don't think any chapters have been publically released. There are some chapters that are being shared with the other stakeholders in the other parties to the study.

SPEAKER JOHNSON: What's causing the delay?

KYLE KIMBALL: There's no particular-- The first real delay was that the funding-- and even

though it was in our rate case, the funding for It was not necessarily approved until, I believe it was, 2017. So it didn't really get started in earnest until 2017.

SPEAKER JOHNSON: Why is five years not enough time? Why does it take so long? You guys have a lot of money, a lot of staff, a lot of expertise. Do you think it is acceptable that it has taken so long for the public?

KYLE KIMBALL: I think what's going to be good is it is going to be a very good report that is going to address a lot of the issues that it's also going to take into account a lot of the changes that have happened within the last year.

SPEAKER JOHNSON: Historically, heat waves impact the city's electric grid more frequently and more significantly than any other type of weather event, as we witnessed this past July. The number of heat waves by 2050 is expected to triple and Con Ed projects the system peak loads by 2050 will be 13 and 24 percent higher than they currently are. What are Con and plans to provide reliable service when system demand is almost 25 percent more than what we

witnessed in July? And what impact will that have on the rates that customers pay?

DAVID DESANTI: We continue to invest in the system. We have a one, five, and 20 year look ahead plan. We hope to be informed by the study which will tell us what's ahead with regard to electrification. We think that will drive continued investment in the system. We may, at some point, become a winter peeking utility. We also intend-- our design criteria for our system incorporates what we call and 86 TV, which is our combined-- it's really a combined of the humidity and temperature of that time. It's about a 100 degree temperature index. And we're going to do sensitivities studied to see what that would look like if it went up a degree to 87. The experience in this heat wave was 86.9. We were above design and, in fact, the load in some of our networks was slightly above forecast as related to that. That study, we will talk about them point toward that continued capital investment. At that point, we would talk with our regulators and other stakeholders about the best use of marginal dollars. Is the idea to invest heavier in our system or should we pursue alternatives such as further

investments in energy efficiency and demand side management.

SPEAKER JOHNSON: Con Ed, I think, is a very opaque organization. You know, there's not much transparency. You can't glean much from the public filings. We have to rely upon the testimony that's presented to us here today or the testimony that Tim Coley gave yesterday to our state colleagues or to what you also hate it in public. And I don't feel like anything that is happened since the initial blackout in the middle of July has given much confidence to the public or the elected officials. I feel like there is a lot of platitudes. I feel like there is a lot of technical language that's used that the public doesn't easily understand that doesn't translate. They don't have expertise in. And, today I had some basic questions. My colleagues are going to have plenty of questions that there were answers to. So, you're making a lot of money. You are providing the dividend and returned to your shareholders. You continue to ask for rate increases near after year after year and then things happen then you stand up and say we are still very great. We are wonderful. We're doing all this good stuff.

There seems to be a total mismatch, I think, potentially in the perception you have of yourself and the perception that public has of you. And I think it's important for any agency, any entity, any organization, to have a candidate and her perspective assessment of themselves. And there is not really been much level of contrition, I think. I feel like there are throwaway lines that I read in testimony that I heard today that I saw from Mr. Cawley in the aftermath. If I were you, I would be saying I am so effing sorry for what happened. This is embarrassing. This is terrible. We know that there are people in nursing homes and on ventilators and people that don't have air conditioning in businesses that are losing money and we are sorry. I don't hear that. There's not that enthusiasm or that exuberance or that passion in what's been said. Tim Coley should be here today. I don't know why he's not here. He went yesterday. He said come here. I'm very disappointed he's not here. But anyone who is a public representative should be saying that. The governor is outraged and saying-- What does he say about Con Ed? That you don't have a right to your license to operate in this state. Your hearing

elected officials and the public over and over again talk about what happened. You had hundreds of people stuck in elevators across the city. Thousands of businesses affected. Tens of millions of dollars lost and I don't hear that level of apology from Con Ed from the day it happened until today or yesterday with Tim Coley. I don't know who does your PR. I don't know who does your communications. I don't know details what you should say publicly or in testimony, but you need someone new to advise you on how to communicate with the public because it is inadequate and laughable at this point. You should be saying, damn. We are sorry. We screwed up. We're going to be transparent about it. We're going to say this in a way that the public understands. I don't hear that. It's like all this technical, gobblegook [sic] of what most people in the public don't understand. So, there are going to be plenty more questions today, but I will tell you that, as an elected official that communicates with our constituents here from our constituents every single day, they are pissed. They are unhappy. Not just on what happened on the days the blackout happened, but they are unhappy with your communication since then

and with how you communicate with them via the press and publicly. That is another thing aspect of this and it is one man I think that you should seek to change as quickly as possible.

KYLE KIMBALL: I think there's one outstanding-- If I calculated, there was one outstanding question which was when was the relay inspected on the west side and so I think Steve has an answer on that.

STEVEN PARISI: Yes. So, as I mentioned, relays are inspected every five years. I mentioned that it was installed in 2008. The systems that misopoerated-- Well, three of them were inspected 2014, 15, and 16. So, just as a piece of information.

SPEAKER JOHNSON: So it had been a while.

STEVEN PARISI: On cycle. Inspected on cycle.

SPEAKER JOHNSON: Yeah. But it's still been a while.

STEVEN PARISI: Every five years.

SPEAKER JOHNSON: It might be on cycle, but it's still been a while.

STEVEN PARISI: Every five years.

SPEAKER JOHNSON: Thank you. Chair 9inaudible 01:09:48].

CHAIRPERSON ESPINAL: Thank you, Speaker Johnson, for your intensive questioning. I think we got through a lot of important questions that need to be asked, but I'm going to drill a little deeper. Can you explain specifically to the public why you are seeking a rate increase of 8.6 percent from consumers and what type of analysis is involved in that calculation?

DAVID DESANTI: Again, that rate increase is we are looking for a three year-- That's a three year rate increase we are looking for and work with the Public Service Commission and stakeholders where we present that plan and, essentially, it's our analysis of what we need to invest to ensure reliable service to customers, also incorporating needed expansion, load relief, and also to bring new customers online. The city is growing. You see cranes up all over the city. In Brooklyn and Manhattan. There's still vibrant growth in the city.

CHAIRPERSON ESPINAL: So, at the end of the--

DAVID DESANTI: So, we continue to invest. Again, this isn't money we are asking for to put in our pockets. We are asking too invested in the system to secure reliability and needed growth.

CHAIRPERSON ESPINAL: At the end of the three years, how much do you expect to generate in revenue because of these increases?

DAVID DESANTI: We have a fixed rate of return which is negotiated and each rate case. I can't speak about the rate case right now because it is in process, but, typically, that falls around nine percent. It's, basically--

CHAIRPERSON ESPINAL: Now out of the-- And now correct me if I am wrong. Out of the 1.378 billion dollars in profits, the 9.5 million that goes to the CEO every single year and the 84.6 million that went into dividends, how much of that is going to be reinvest back into Con Edison's up cranes and management?

KYLE KIMBALL: So, we spend-- Our net income is about 1 billion and a half and our capital program is about 1 billion and a half. So, there not necess-- It's not the same dollars, but it's,

essentially, to our net profit. The amount of money that we are putting back into the system.

CHAIRPERSON ESPINAL: Okay. Would you say that it's fair to say that consumers should be a little sorry about the fact that their rate increases are going up while so much money is being invested in shareholders, CEO, and overall profits?

KYLE KIMBALL: So, it's just really important that these-- The first premise is that you have to invest in a system and it's an expensive system to invest in given the urban-- the density of the urban fabric that we are operating in. So, whoever is running that has to invest in the system and they have to raise capital in the capital markets. So, the way we raise capital in the capital markets is through debt at around four percent and then shareholders who are willing to invest mostly their retirement funds into a stable dividend paying stock. That is sort of the basic ideas that you have people who want stable dividend paying stocks. They're looking for current income. They invest in infrastructure companies. In con Edison this proved to be a good investment for that population. Given everything that we have to accomplish together in

terms of our clean energy future, the amount of investment we are putting into the system is going to have to increase as we think about how to meet people's demand. And so, that's, essentially, how we attract capital. Are those dividends.

CHAIRPERSON ESPINAL: So, what part--

KYLE KIMBALL: That's how the city itself is relying on us attracting those shareholders and accessing the debt markets to pay for the infrastructure.

CHAIRPERSON ESPINAL: What guaranteed and provide New Yorkers that-- your customers-- that the increase is going to go into upgrading your failing infrastructure?

KYLE KIMBALL: So, I just want to take quick exception to the idea that it is failing infrastructure because I think the statistics show that it is not failing. We have had outages and those are regrettable, but I just-- I have to just-- I can't let that-- It's not about a failing infrastructure story. Having said that, we negotiate these rate cases with the public service commission. We are heavily regulated. We propose what we want to invest in. They actually propose separately what

they think we should invest in and we come to a settlement. So we are highly regulated on that. So they are helping us run, in many ways-- also running our system in terms of the capital that we are investing in. But we also report back to them about what we are spending. There is constant check ins and accountability for how is that money getting spent. Is it getting spent in the right way? If we are overspending, then we are subject to revenue readjustments. So, every step along the way we are heavily regulated by the PSC in terms of what we are spending and how we are spending it. So, that's the level-- that is the, basic, purpose of the PSC is to provide that accountability.

CHAIRPERSON ESPINAL: And in your testimony, we heard a lot about testing and maintenance. What is Con Ed doing to upgrade their systems to take us to the future? I'm talking about renewables.

DAVID DESANTI: With regard to renewables?

CHAIRPERSON ESPINAL: Renewables in the system--

DAVID DESANTI: So, two things.

CHAIRPERSON ESPINAL: Make sure that it's not failing in the future.

DAVID DESANTI: So, we are very familiar with renewables. In fact, Corporation is the second largest solar developer in the United States. With regard to welcoming and incorporating renewables onto our system, we've got an underground system that now we've got an ability to lock in, so to speak. Our network protectors so we can accept solar power into our network grid more easily than we've been able to in the past. And a lot of utilities-- Those utilities that have underground facilities have struggled bringing solar power onto non-radial systems. We are very open access for renewables. We welcome them. If you look at the regulatory direction in the last 30 years that we have been under, it's really been an effort to kind of reduce Con Edison from a vertically integrated utility where you had all of the customer operations, the sale of electricity, the production of electricity, and the transport. To reduce the relieved to what would be considered the natural monopoly, which is any enterprise that two people competing can't possibly do as efficiently as one person, right? And that

paradigm for that would be water service, right? You can't have two water pipes in a stray and it's more efficient than having one. So, we've taken the generation assets and may have gone off to a free market, so to speak. And certainly on gas and electric, you can purchase gas and electric from whoever you would like. We really are just a transport system for electric and gas. That is our main business and we are open to renewables. We're working with--

CHAIRPERSON ESPINAL: Any [inaudible 01:16:45]

KYLE KIMBALL: I take a note and just add to this question and then I'll turn it to Steve. So, on our website there is a-- we just released a report in January of all the twenty-year, essentially, capital plan that's, essentially, focused on-- and a big part of it is focused on getting ready for a renewables future. And so, things like grid modernization, were going to spend like 4 to 5 billion dollars there and that's, essentially-- in the past, the grid, you get the electrons from Indian Point or Sub Points West and they come to your house when you turn on the light

switch. That's all changing in the ideas that we need a two-way grade, so that if you have solar on your roof and I'm your neighbor, I might be able to-- the grid has to find a way to get the electrons that are coming from your roof to my house. That kind of thing. So, that's grid modernization. Electric vehicle charging infrastructure. We have a program with the city. We think there is going to be, you know, wide scale adoption of electric vehicles pretty soon, but we don't have the infrastructure. So, it's a bit of the chicken or the eggs. So, we've decided that it's the chicken. We are doing the infrastructure and the cars will follow. Also looking at ways to make the system more self-healing so that you don't necessarily have widespread outages. This is something that's more effective on the overhead system that Dave and his team have spent a lot of time where they have overhead systems and thinking about how to make the system more self-healing so that when there is a tree fall-- during weather events when a tree falls or a mylar balloon or squirrel, that you don't necessarily lose 1000 people. You may only lose 500 because the system can automatically addressed. We are looking at programs

with our cable and manhole monitoring. So, you have remote systems and manholes that can detect when there are heat issues or there is something going on in a manhole that you wouldn't necessarily know until it explodes. So this is giving us early warning on issues that are happening and manholes. So, these are all-- And I could go on and on and on. There is a very detailed--

CHAIRPERSON ESPINAL: Yeah. So--

KYLE KIMBALL: report on the website about this.

CHAIRPERSON ESPINAL: Back to your customers that were affected by the power outages.

DAVID DESANTI: Sure.

CHAIRPERSON ESPINAL: You know, Con Ed also talks about the amount of customers that were affected, but we know that in many instances you have buildings that can be counted as one customer with multi-units. So, do we have an exact number of how many New Yorkers are actually affected because of these power outages?

DAVID DESANTI: So, I believe in the outage in Southeast Brooklyn, and the customer count

was 33,000. The impacted population was, I believe, 89,000.

CHAIRPERSON ESPINAL: 89,000?

DAVID DESANTI: 89,000. The customers that were not interrupted in the Flatbush networks which were essentially where we prevented from going out of power with the preemptive interruption approaches over 300,000.

CHAIRPERSON ESPINAL: Now, because of these outages, as mentioned earlier, we had a lot of consumers that experienced a loss of goods. You mentioned there was a rebate refund program. How many of the 89,000 and Brooklyn--

DAVID DESANTI: So--

CHAIRPERSON ESPINAL: or across the city--

DAVID DESANTI: Well, so far we've received--

CHAIRPERSON ESPINAL: or have applied so far?

DAVID DESANTI: So far we have received almost 3600 claims and we've already got 1000 checks out.

CHAIRPERSON ESPINAL: 3600 claims?

DAVID DESANTI: 3600 claims and we've--

CHAIRPERSON ESPINAL: 1000.

DAVID DESANTI: We've already got more than 1000 checks out.

CHAIRPERSON ESPINAL: captains there Nina may more outreach on--

DAVID DESANTI: It's on our website. If you want to get it through community boards or through your offices, we would be glad to give you that information.

CHAIRPERSON ESPINAL: How much of you paid out in--

DAVID DESANTI: Uh--

CHAIRPERSON ESPINAL: in exact dollars?

DAVID DESANTI: I do have that in my notes. I think it's above a quarter million dollars already.

CHAIRPERSON ESPINAL: A quarter million dollars?

DAVID DESANTI: Right. But I'd really have to go through all the notes to get the exact number.

CHAIRPERSON ESPINAL: Yeah. No. Just looking at the Brooklyn numbers, having 89,000

customers in only 3600 people have applied. I think there must be some sort of communication issue because with your customers or--

DAVID DESANTI: Well, I wouldn't know that everyone suffered that loss because, remember, the customers went out of lights at 7:32 p.m. and by midnight we had about 55 percent of those customers back in service. Right? So that was-- Not everyone was out for past 12 hours. And we are not that strict about the 12 hours with claims. We don't have such a strict line. People should send in their claims that they had a loss. The family they lost food and they had to stuff out, they should get a claim and submit it.

CHAIRPERSON ESPINAL: So, something unrelated than this, but related when it comes to public utilities is we know National Grid is holding a lot of our small businesses and New Yorkers hostage because they want to have the Williams pipeline be approved. Is Con Edison doing anything to help these consumers that are facing these problems?

DAVID DESANTI: Yes. We think there's a-- Looking at the numbers, we think there's about 2600 customers right now that might possibly be

seeking an electric solution. About half of those will be in our service territory and, as I said before, we are a summer peaking utility, so we think this will be a winter demand. So, we think there is adequate capacity in the short term. With one of my prior assignments, I worked in the energy services department. That's the department that project manages customers on to our system that are looking for new or additional service in the electric and gas. And so those folks could apply with us. We will work with them on getting the electric they need, but we think, in the short term, there is definitely sufficient capacity and, as larger numbers come forward, we certainly can have the wherewithal and the access to capital and the expertise to build what is needed.

CHAIRPERSON ESPINAL: What is Con Edison's official position on the pipeline?

KYLE KIMBALL: So, the pipeline is not our project. We are not an investor in the project. We are not a financial beneficiary to the project in any way. By the New York City gas system also operates as one organism, essentially, so we-- essentially, most of the gas comes in from the west

and it is transferred through the city through con Edison piping and delivered to National Grid territory. The way, essentially, it works is it's all private companies that own the gas pipes coming into the system and coming into New York City. Each company buys a certain amount of capacity on that pipe and so we are, essentially, buying a certain amount of capacity. National Grid is buying a certain amount of capacity on the pipe and we are sharing that infrastructure. To the extent that National Grid is not able to meet its demand and buys more capacity on the pipes that we are currently sharing, does impact us. And so, the letter that we sent in the past couple months was just indicating that we are not immune to whatever happens to the outcome of the Nessie pipeline in terms of Con Edison and its ability to meet gas demand in the city. As you know, we have a moratorium on new connections in West Chester. But having said that, our official position is that, overall, having that pipeline is beneficial to the gas ecosystem in the city and rooms of avoid being moratoriums, but it's not necessarily our project and we can't weigh on the merits of the environmentals.

CHAIRPERSON ESPINAL: Paul, I think we all can agree in this room that climate change is real, correct? And we have to start moving away from fossil fuels. And I think that Con Edison, as an electric provider, has an important role in playing and helping make the switch. Is there any internal conversations of how we move away from fractured gas and start looking at renewable energy? Electric and the role Con Edison can play to help advocate for that?

KYLE KIMBALL: Sure. So, there are a number of things going on. I think the biggest is that we have-- we feel like we have a big role to play. We are the number two solar producer in North America, but because of certain rules, were not able to provide those renewable electrons in New York State. So, we've been advocating for-- And we also believe that-- Going back to the question you asked earlier about raising money, one of our biggest advantages is that we can raise relatively inexpensive capital to fund infrastructure in the city and we also believe that we should be able to extend that ability to raise an expensive capital on building renewable assets around New York State and

getting those renewable electrons into New York City. We are currently not able to do that. So, I would say utility owned generation as one big piece, thinking about how to make the grid more available for distributed generation, renewable generation is, too. Thinking about moving away from fossil fuels, we do believe that there is a role-- And this is sort of one of the fundamental debate among people-- We're not saying that we don't believe in climate change, but we also believe that gas has a role in the transition and that you can't necessarily just shut off the gas system because people, at the end of the day, want to be able to heat their homes and cook and, sometimes, in some places, they are turn of events are not necessarily available. Having said that, we think there is a role for natural gas and that we've got to really sit down and think about how the transition is going to work.

CHAIRPERSON ESPINAL: So, you are the largest producer of solar, but you mentioned that you cannot sell it in New York State. One of the obstacles you're facing?

KYLE KIMBALL: It--

DAVID DESANTI: So--

KYLE KIMBALL: So, what I mean by that is right now, if we wanted to go build a 1000 megawatts solar farm in somewhere not in New York City, we would not be able to do that because when deregulation happened in the 90s, the basic ideas they split out power generation from power distribution and so a solar farm is considered-- or a wind farm is considered generation. So, we are not able to own generation anymore because of deregulation in the 90s. And that is it is not necessarily a legislative issue. I mean, in terms of a law prohibiting it. It's a conversation we have with the PSC on whether or not we should be able-- can't own those assets.

DAVID DESANTI: One example of those assets we would really like to bring online would be community solar. Right? We have certain facilities with large roof areas that we think we could fund the development of a community solar project where individual consumers who ordinarily wouldn't have access to solar power could subscribe and be a part owner in that. And we could certainly fund that development through a regulated company. Beyond that, we also have an affiliate-- unregulated

affiliate-- with our transmission company, which is now working with other utilities in developing transmission assets out one day will support the government's initiatives for offshore wind projects and the like to bring other renewables on the system.

CHAIRPERSON ESPINAL: All right. Thank you. I'm going to pass mic to one of the other Chairs.

CHAIRPERSON CONSTANTINIDES: Thank you, Chair Espinal. So, the Speaker talked a little bit about the climate change vulnerabilities study that supposed to be completed and still hasn't. What dollars have you set aside to implement those recommendations when they do come out?

DAVID DESANTI: As of yet, we haven't really been informed by them and the timeline that study looks at is, I believe, all the way out to 2080 and there will be a lot to think about when that comes out. Again, in the short term--

CHAIRPERSON CONSTANTINIDES: How long do you plan on taking to think?

DAVID DESANTI: Uh--

CHAIRPERSON CONSTANTINIDES: I mean, you have taken five years to get us a study.

DAVID DESANTI: Well, these are--

CHAIRPERSON CONSTANTINIDES: How much more are we going to waste?

DAVID DESANTI: These are really going to be multiyear plans. It's really something that has to be looked at. I think, in the short term, I think we will evaluate the global warming issue, should we index that temperature variable, that design criteria from 86 to 87 and the impacts that might have on our capital plan. Again, as I've said before, other important stakeholders may consider an increased investment in energy efficiency has the better short-term plan for those marginal dollars.

CHAIRPERSON CONSTANTINIDES: All right. I mean, so it's-- We already know-- I can kind of give you a sneak preview, right? Every year it's gotten hotter. Right? In human history. We are going year after year in this decade and it is getting hotter every year. What are we doing to sort of accommodate that? Because, along with the heat, we're getting more precipitation. Right? Which means more rain. So, both for this study even comes out, we know sort of how the book is going to end. Right? I can kind of skip to the end of the book.

I can tell you that, you know, it's going to continuously get worse. It's going to continue to be hotter. It's going to continue to be more wet. What are we doing to make sure that we are upgrading the system in a way that meets what the IPCC talks about, that the, you know? We sort of know the different climate models that are out there. What are we doing to sort of meet those models?

DAVID DESANTI: So, as I said before, we are going to do a sensitivity analysis and take a look at what that--

CHAIRPERSON CONSTANTINIDES: And how long will that take?

DAVID DESANTI: I would say we could have that done within a year. Get an idea of what that impact would look like. And we don't get to make--

CHAIRPERSON CONSTANTINIDES: Why is that not happening now?

DAVID DESANTI: We don't get to make-- Sir, let me just finish. We don't get to make changes in our design criteria on our own. It speaks to the level of investment we are allowed to make.

We have to make that in company with our regulator. It's a significant decision.

KYLE KIMBALL: And I don't think that there is a specific answer to your question which Dave is giving you and there is a broader answer which is that the transition is-- and we've spoken about this before-- we're not necessarily-- I mean, you can sit around and wait for a study to tell you how to design your system and that is what Dave is talking about in terms of how-- What does a system-- And, yes. The end result is likely that it's going to be hotter and we need to have more systems in place, but there are so many other things that are happening inside of Con Edison in the public that are not waiting for any study to be done to get us ready for this transition. And the best one that I can think of is our investment in smart meters. This is the backbone of our clean energy future. Where this is going to give us granular data in terms of how people are using their energy, where they are using their energy. It's going to be the backbone of us being able to use more dynamic energy pricing plans to get people to use less energy or to have more choices and more control over how they are using

their energy. So, I wouldn't want it to be put out there that we are waiting for this study so that we can do everything. There are so many things that are happening that I could go through, but I don't want to take all your time, that--

CHAIRPERSON CONSTANTINIDES: I appreciate that.

KYLE KIMBALL: that mean that transition is well underway and Con Edison.

DAVID DESANTI: A specific example Kyle is talking about would be time of use rate. Right? Where we can take that peak demand and, through pricing signals, get the behavior of consumers to change where they can charge vehicles-- specifically set timers to charge vehicles at night, and do laundry at night, and things of that nature. And we do that with smart meters. Smart meters will also give us much more granular information about load growth which will influence our plans for--

CHAIRPERSON CONSTANTINIDES: I hear a lot about smart meters. What I don't understand is that there is a time of projected, you know, previous to this heat wave that the sort of Max was about 13,300 megawatts. Right?

KYLE KIMBALL: Yep.

DAVID DESANTI: Uh-hm.

CHAIRPERSON CONSTANTINIDES: And that this particular heat wave came in and about 12,000 and some change, so we weren't at that projection, correct?

DAVID DESANTI: Correct.

KYLE KIMBALL: Correct.

CHAIRPERSON CONSTANTINIDES: And, yet, we experience significant outages and challenges to the system. So, I don't know how smart meter-- You are giving me a lot of this about the smart meter. How would that sort of-- We have a problem here, right? We--

DAVID DESANTI: Right.

CHAIRPERSON CONSTANTINIDES: We didn't hit where we thought we were going to head because of the demand because of the heat and we still saw massive outages and challenges to the system. People being sort of blacked out. What are we doing as it gets hotter and demand is going to conceivably, possibly go up. What are we going to do to sort of solve this problem? With the answer to the riddle here? That's--

KYLE KIMBALL: [inaudible 01:33:07]

CHAIRPERSON CONSTANTINIDES: Because that's--

KYLE KIMBALL: I know Steve wants--

CHAIRPERSON CONSTANTINIDES: what I'm not getting--

KYLE KIMBALL: So, what's--

CHAIRPERSON CONSTANTINIDES: from you. I've heard a lot of sort of talk about the smart meters.

KYLE KIMBALL: So, the link is that, looking at smart meters and preparation and all that-- and I know Steve wanted to say something-- is, for example, in different parts of the neighborhood, if we have, in the future-- rather than shutting down the network, you may be able to pick individual or sets of meters, necessarily. You don't necessarily have to shut down of specific part of the network. You can find load relief in shutting down specific parts and/or bring them up specifically. So, at the end of the day, one of the issues that we are going to have to deal with as a city in terms of there is one piece that is great investment and everything we've talked about and

putting more feeders down and more assets into the ground, more transformers, more substations. But the other ideas that people at the end of the day needed just be able to have the tools to use energy more smartly. And so, that's going to be a big part of the solution in those hottest days. It's that people have the ability to control. Because right now in your home, you are either-- either your conditioner is on or off and you can move the temperature, but you have all these other appliances that are drawing the electricity. And having a smart meter is going to give you the ability to make smarter choices about what's going on. And that shows the link to the equation.

CHAIRPERSON CONSTANTINIDES: Let me talk--

STEVEN PARISI: Just on the 12,000 megawatt part--

CHAIRPERSON CONSTANTINIDES: Uh-hm.

STEVEN PARISI: What you to keep in mind on a Sunday, you don't have the load in Manhattan. That 12,000 megawatts is the whole system, so you're going to see a somewhat lower number discount on a Sunday when Manhattan's businesses are not, you know-- the city isn't filled with businesses that

are up and running. So, that's a larger number on a Monday through Friday basis. So--

KYLE KIMBALL: In this network is actually seen higher demand on a summer day. So, which goes to a question that-- Which goes to a point that it's not necessarily the network or the issues in the network. It's just there was a cascade of failures that happened and not something that is inherent to having a network system.

CHAIRPERSON CONSTANTINIDES: Right. But is it-- At the end of the day, though, there was failure.

KYLE KIMBALL: Yes.

CHAIRPERSON CONSTANTINIDES: Right? I think you keep defending the fact that this wasn't a system failure. There was a significant failure year, right? I mean---

DAVID DESANTI: Yeah. Absolutely.

CHAIRPERSON CONSTANTINIDES: I mean, the Speaker talked about that.

DAVID DESANTI: Absolutely.

CHAIRPERSON CONSTANTINIDES: And you keep trying to defend this has if, somehow, the infrastructure is keeping up, but it's not because,

obviously, if it was, we wouldn't have seen the outages. You are not here today to celebrate a great job in July. This is not the topic-- that's not the name of the hearing.

KYLE KIMBALL: We never are.

CHAIRPERSON CONSTANTINIDES: The hearing is like sort of talking about the outages, right? So, we are talking about failure. So, I agree with the Speaker when Mike acknowledging that there is a problem here and it needs to be fixed in a sort of more transparent way instead of trying-- I mean, I'm an attorney, as well, but sort of trying to hide behind sort of the legalese here is not what we need to be doing. We need to be much more sort of addressing that there were system failures. There are problems that are going on and how do we fix them, right?

DAVID DESANTI: Absolutely. And, as the vice president of Brooklyn Queens, I have bottom line of serving customers in that region and we have disappointing results, absolutely, this summer. We work hard to prevent that. What we really want to make a point of is we do not have failing

infrastructure and this was really a unique set of circumstances.

CHAIRPERSON CONSTANTINIDES: But they're not unique.

KYLE KIMBALL: Well, I mean--

CHAIRPERSON CONSTANTINIDES: I mean, that's the entire line of my questioning. It's that it is not unique. It's going to continue to get hotter, right? It's going to continue to get more wet. It's not my climate models. This is not the Costa Constantinides book on the environmental science. These are like scientific professionals who continue to lay out that it is going to get hotter every year and wetter every year. So, this is not a unique set of circumstances. This didn't fall out of the sky. This is like the new normal. Right? So how do we sort of deal with that new normal?

KYLE KIMBALL: I think the unique set of circumstances is referring to the unique set of equipment circumstances, not necessarily the unique set of weather circumstances. So, we're not denying that it is getting hotter or anything like that. It's just that I want to clarify that it's not about

a unique-- we are not seeing a hot day as being unique.

CHAIRPERSON CONSTANTINIDES: Okay. So, let's talk a little bit about some of the issues that are around Con Edison at the moment. I sort of brought up in my opening statement around sort of your charging the ratepayers for trade associations and that many of these trade associations have a sort of connection to anti-climate science and sort of the championing of natural gas and fossil fuels. So, how do we reconcile charging the ratepayers for those particular memberships?

KYLE KIMBALL: So, I think the memberships are talking about our Edison Electric Institutes in the American Gas Association.

CHAIRPERSON CONSTANTINIDES: Correct.

KYLE KIMBALL: So Edison Electric Institute, they are-- We think the ratepayers, at the end of the day, benefit a lot from being part of the national conversation that Con Edison has seen within those groups as a leader on issues of reliability, on issues of cyber security, on the network system. It keeps is very close to the industry. There's a lot going on inside of EEI with

respect to renewable energy in those conversations. So--

CHAIRPERSON CONSTANTINIDES: These are the same trade associations that give money to ALEC, right? So, I mean, if you are seen as a leader, you hold yourself out as like the second largest solar producer in the country. You are sort of prayer train yourself as being a champion of renewable energy, but at the same time you are giving money to folks who are sort of saying that because we had a cold day, climate science doesn't exist. So, how do you reconcile that?

KYLE KIMBALL: So we are not giving money. Just to be clear, we are not giving money, but I understand through the transitive property, UCS is giving money to ALEC. I think the idea there is that there is a lot unbalanced about our customers gain from being part of these trade associations and the company being a part of these national conversations. And it's also our-- Frankly, we have a lot of influence inside those organizations and are able to shape policies that are, at the end of the day, to the benefit of Con Edison.

CHAIRPERSON CONSTANTINIDES: I can go all day on this particular topic, but I won't because I want to make sure we stay on time. Let's talk a little bit about methane leaks. I know we sort of had some testimony around bills. Methane is 86 times more potent and yet, you know, you consistently downplay that sort of leakage rate and sort of fixing the system. You talk about the system not being failing and yet we sort of have issues of methane leaks which is one of the highest in the country. How do you reconcile your statements on methane and not being a sort of system that is sort of having leaks and having challenges?

DAVID DESANTI: We have a robust main replacement program. It approaches 100 miles a year and that up considerably in the last five years and we think that is the best way of replacing leak prone pipe. So, we have an aggressive strategy for replacing that pipe and really have brought a lot of resources to that issue.

CHAIRPERSON CONSTANTINIDES: But it still happening, right? We are still having--

DAVID DESANTI: Yes.

CHAIRPERSON CONSTANTINIDES: issues of leakages. We are still having challenges--

DAVID DESANTI: It's a very [inaudible 01:40:28]--

CHAIRPERSON CONSTANTINIDES: And you tell me today that we have a system that is in good repair.

DAVID DESANTI: It's a very big system. 100 miles a year is really an aggressive strategy.

CHAIRPERSON CONSTANTINIDES: All right. The questions I do have. You know, 36 percent of payday loans are taken out to cover utility bills. Why should New Yorkers continue to take out high-interest loans just to pay their gas and electric? I mean, it's one of the highest in the country, right? So why should families how to take out payday loans to pay their utility bills? I mean, that seems--

DAVID DESANTI: The price of electricity, if you look-- If you break down the bill for electricity, dance, basically, if you break it down, it falls into thirds. About a third of the Con Edison bill is taxes and fees that we pay. About a third is for supplies for those customers who don't

want to want to buy gas or electric from a third-party and about a third is for transmission and distribution assets for capital expansion, replacement, and maintenance.

KYLE KIMBALL: The other thing I would say is that, you know, each year we collect about 1 billion and a half of taxes and remit those-- I think it's about a billion seven and remit those directly to the city, so a big component of the bill as property taxes that are paid on the assets. So, what ends up happening is, as we invest in the system, we are assessed a new property tax rate on those investments and nine goes directly to the city. So, there is a third of it is just the cost of energy. A third of it is what the cost is to get this energy to you and a third of it is the cost to pay taxes on the system. One thing we do do for-- there are a lot of resources available for customers who are not able to afford their bills might be on public assistance and we can get information all of you, but we work closely with HRNA to help offset some costs for those that are struggling to pay their bills.

CHAIRPERSON CONSTANTINIDES: So, my last questions are, you know, we had a really hard time-- and my community did not have the same level of challenges during the blackouts of South Brooklyn or the West side of Manhattan, but we had a real challenge getting people on the phone and getting hard answers. I had constituents calling me that they were out of service. I wasn't getting updates in real time. I was getting lots of press releases from Con Edison. I kept them all on my phone. I got lots and lots of press releases talking about how you were on the job, but I wasn't getting the level of reach out, a level of here's what's happening in your community. What do you say to-- you talk about communication and how it needs to be better. What are your plans to actually make it better in the future that we are having real time discussions about how constituents can get their power back rather than getting consistent sort of celebratory emails from Con Edison on press releases? There is a disconnect there that concerns me very much.

KYLE KIMBALL: So we've had about a dozen or so meetings with elected officials since the outages. And I think this has been a consistent

feedback is that they weren't-- They are concerned about their level-- and this is something we also learned in Riley and Quinn. That people, certain times, certainly one direct information. This is a development point for us. I think we are going to take this back. Then it's my responsibility. We do our best to communicate with elected officials. Sometimes different elected officials on different levels of information and we just need to figure out that algorithm. I know in your case it's regrettable that you are not getting directly contacted in real time and I apologize for that. I think there is-- A development point for us is not necessarily just to take this back and say we will fix it. It's I've been thinking a lot about in those meetings what we can actually tangibly do and I think first as I want to invest in systems that make it more proactive and automatic at different thresholds of outages and that is something that-- These are things that are squarely in my control which is why I can sort of commit to them today. I think also what I've learned in these conversations over the last month or so is that-- And a lot of this is come up in our conversation today. It's at the end of the day,

people don't necessarily understand what we are doing with our capital that we are raising through the bills. And so, that delivery charge that you pay on the bill, that's, essentially, going to find the system. You know, you have the energy costs and that's just the cost it costs the electrons and the gas and there's delivery section and there is taxes. On that delivery section, we need to do a better job communicating with our communities about what we are actually spending capital on because, at the end of the day, people really don't understand what we are spending capital on. They just see the street is dug up or they rarely, but occasionally experience and outage. So, I think we need to work better on that interaction with customers and our electeds. I'm happy to come to the Council and brief more proactive way on things like the rate case settlement. We will certainly brief you on the climate change vulnerability study when it comes out at the end of the year. We have the city--

CHAIRPERSON CONSTANTINIDES: We'll definitely come out-- Are you--

KYLE KIMBALL: That's--

CHAIRPERSON CONSTANTINIDES: committing today that that'll be out at the end of the year?

KYLE KIMBALL: to the best of my knowledge.

CHAIRPERSON CONSTANTINIDES: That's been pushed back a couple of times already.

KYLE KIMBALL: That--

CHAIRPERSON CONSTANTINIDES: Are you committing here on the stand is saying that it will be, by December 31st when the ball drops to bring in 2020, that study will be in the hands of the people of the city of New York?

KYLE KIMBALL: To the best of my knowledge, today, that's the day. It is not necessarily something I can control or commit to, so I wouldn't want to do that. It's also not something I am intimately involved with, but that is, from my best knowledge. Before you today, that is the day. I think the last thing is, you know, briefing you on the rate case settlement, briefing you on the vulnerability study, briefing the Council on the study we are doing with the city on investments that are going to be needed at the grid to meet electrification means. There is an EPRI study that I

mentioned on technologies that are needed. That's going to be a fast hitting study that we are planning to brief the Council on, as well. So, I think, in addition to having better systems on pro active outreach with respect to outages, I think there are certain things we can do to be more transparent and proactive on our capital.

CHAIRPERSON CONSTANTINIDES: And then the last thing I'll ask and I'll hand it over to my colleague, Chair Brannan. I think the Speaker may have covered this, as well. The sort of nationally recognized rules for food safety, is that for dairy-- you know, this is the FDA. This isn't, again, the city of New York. This is the FDA. In fact, you know, dairy, meat, eggs, they have to be kept-- If they lose power for more than four hours-- If they are not kept in the safe temperature for more than more four hours, they have to be discarded. Right? And then, but your reimbursement policy for food spoilage requires the blackout of at least 12 hours. So, we have supermarkets in my district that throughout a trailer full of goods.

KYLE KIMBALL: Uh-hm.

CHAIRPERSON CONSTANTINIDES: I have a bakery that had to throw out, you know, almost their entire inventory, but yet they are not eligible for reimbursement based on your food spoilage lockout rules. So, how do we sort of recognize and reconcile the FDA ruling that says more than four hours it's got a go with 12 hours on your end for reimbursement?

DAVID DESANTI: We will certainly consider those claims. We would encourage those folks to submit claims in detail the impacts they had and we will certainly consider them.

CHAIRPERSON CONSTANTINIDES: They will be considered. Okay. I--

DAVID DESANTI: I don't think the 12 hours we hold is a very firm--

CHAIRPERSON CONSTANTINIDES: [interposing] It's not a firm rule.

DAVID DESANTI: [inaudible 01:48:32]

KYLE KIMBALL: It's also just not in our interest to be petty about it, so I don't think we're going to be.

CHAIRPERSON CONSTANTINIDES: So I will make sure that I am speaking--

DAVID DESANTI: [interposing] If they--

CHAIRPERSON CONSTANTINIDES: [interposing] I am speaking to those business owners today and making sure that they are filing claims with you with a letter from my office sort of detailing his conversation on the stand.

DAVID DESANTI: Please do so.

CHAIRPERSON CONSTANTINIDES: Great. Thank you very much. With that, I'll hand it back to Chair Espinal or Chair Brannan.

CHAIRPERSON BRANNAN: Thank you, Chair. I think kind of what my colleagues and I are looking for is, at the very least, we wish that Con Ed would share our urgency a little bit more. The vibe that we get is, you know, these aren't the droids you are looking for. There is nothing to see here. Everything is great. And I don't know that there is anyone who agrees with that. I think sharing our urgency would certainly go a long way. You know, when the CEO of Con Ed makes about 150 times what the average New Yorker makes, sharing our urgency is the least that I think Conrad could do. You know, for my district, Kyle, I mean, your team has been great. I mean, they are very responsive and they answer me when things go wrong, but we are so relieved when the

lights finally go back on, that we forget to talk about how to prevent this from happening next time. And so much of our job as elected officials in the city is being reactive. And there's not a lot of proactive miss happening when these things happen. In my district, I stole a lot of overhead power lines and we've talked a lot about trying to bury these power lines. Were told the cost is prohibitive. It's actually easy to fix the overhead power lines when they fail, but what happened over the summer in Manhattan happens in my district reliably every summer in every winter. You can set your watch. The power will go out at least once a summer and at least once a winter without fail, I think, for the past decade that I have been involved in service in this area. And, again, we are always so thankful that the lights go back on in the air conditioner goes back on and everything is back up and running that we just go, all right. You know, we won't talk to you soon. And then it happens again and it happens again and it happens again and there is never any change. Never. It's just where responsive. We get the power back on, so we are good. Okay. We move on to the next crisis. So, I think sharing our urgency and

understanding that this is just not acceptable. And as it relates to the climate crisis that we are facing and that we are going to have-- by 2050, where going to have almost 50 days a year that's going to be above 90 degrees, I just don't feel that we are being prepared. You guys seem way to calm form my blood pressure. And for what I know, you know, is coming on the pipe here. I wanted to talk about-- there's one way to better understand and plan for extreme heat events, which is by installing temperature and humidity sensors at substations. Does Con Ed have any plans to install sensors like this added substations sites?

STEVEN PARISI: Not that I'm aware of. No. Temperature and humidity sensors?

CHAIRPERSON BRANNAN: Yes.

STEVEN PARISI: Not-- No. No.

CHAIRPERSON BRANNAN: But do you are way more educated than I am. You know what they are.

STEVEN PARISI: Right. Why would it be specifically at the substations opposed to what we currently have?

CHAIRPERSON BRANNAN: Or do you have thermal sensors installed on cables or plan to do

that to know when it is reaching the point when is getting too hot?

STEVEN PARISI: Oh, okay. I thought you were talking about just general ambient air temperature. So, on our substation equipment, yes. Transformers, you know, things of that nature, yeah. We monitor the effect on our equipment very closely. In fact, we have a health index that goes along with all the major bulk power transformers in our area stations in our transmission stations. So, that all goes in new our maintenance program very close to watch, you know, what may approach higher temperatures that our equipment is designed for that temperature.

CHAIRPERSON BRANNAN: And I'm imagining like in the old movies where there is this a room and you see these things beeping and you're looking at substation 25 and you see that it is starting to get hotter and hotter. Is that what's happening and you are monitoring this and saying, okay--

STEVEN PARISI: Including oil sampling, online oil monitoring that we get readings on every 15 minutes to watch, you know, temperature and condition of the oil as it occurs over time. So,

that's what helps us monitor the life of the transformers.

DAVID DESANTI: And he is talking about the bulk power system. Out onto the distribution system, even our distribution transformers in the underground networks, the majority of them have pressure, temperature, and oil monitoring on them. So, we are watching what is developing on the system.

KYLE KIMBALL: In any time that you want to come to Dave's office at 30 Flatbush and see the room with the lights beeping, as he said, you're welcome to.

CHAIRPERSON BRANNAN: Huh.

KYLE KIMBALL: You're welcome to come.

STEVEN PARISI: So, yeah. And, again, I was also as you monitored transformers out in streets, transform that supply to people's homes, now you put that together with AMI metering and you start to really see what the drivers are. You know, what the load usage is and where we need to target replacements to be done.

CHAIRPERSON BRANNAN: So why are there areas in my district where we still have a lot of overhead power lines where we seem to be more

vulnerable in the summer-- in extreme temperatures, summer and winter, to the outages? What's the difference? What's going on?

DAVID DESANTI: So, I would tell you that overhead distribution is typically, in areas that are predominantly three-story residential, historically, areas, areas that have undergone a growth cycle we sometimes upgrade from 4KV to 27, but wholesale underground is something that is rarely done. Typically, it's when an area undergoes entire redevelopment as a kind of a compound. We might make that conversion particularly if they are very dense loads.

CHAIRPERSON BRANNAN: Right. But why-- I know why--

DAVID DESANTI: But we--

CHAIRPERSON BRANNAN: it's cost prohibitive, but why is it more vulnerable?

DAVID DESANTI: It's more vulnerable because it's a really more susceptible to weather impacts, animal contacts, tree contacts.

CHAIRPERSON BRANNAN: Okay.

DAVID DESANTI: Things of that nature. It's out in the elements. The underground system is

more protected, but we also are exposed to, you know, salt spread in the winter time which is--

CHAIRPERSON BRANNAN: So we get the worst of both worlds because we are always told the transformers blow up once a month in January and February because of the salt that gets underground. And we have overhead power lines.

DAVID DESANTI: Yes. We got issues in the underground in the winter. Yes.

CHAIRPERSON BRANNAN: That the cost to keep repairing this stuff is still cheaper than the cost of burying the power lines?

DAVID DESANTI: So, the costs of it in just a per unit basis, if you compared overhead construction to underground construction, it would be about 10 to one. Traditional underground construction is about 10 times as expensive. It's very capital intensive. After Sandy, we conducted an underground study on-- with stakeholders than it is about 8 million dollars per mile to go underground and 43 billion dollars in total to underground system. And that is only a component of the cost, right? We don't own the service connection. The service panel into people's homes, that would have to

be converted at their cost and for homes it could be 2500 to 5000 dollars. For a commercial business, could be up to 10,000 dollars. And all that is at customer costs. So, wholesale conversion is not something that's often contemplated.

CHAIRPERSON BRANNAN: All right. I want to take a little voyage into the weeds here on what happened over the summer in Southeast Brooklyn. So, Con Ed knew that they would be facing shortages due to the heat wave. Projected that the peak demand for electricity would reads a little over 13,000 megawatts this summer. But peak demand was only around 12,000 megawatts when you cut power to Canarsie, Mill basin, and Flatlands. The record is 13,322 megawatts which occurred back in 2013, but it did not lead to blackouts like what we saw. How did Con Ed determine that you should potentially cut power without notice to these communities when it didn't seem like this was an unprecedented situation based on these numbers?

DAVID DESANTI: So in my testimony, you know, you recall we were facing a cascade and the analysis overwhelmingly indicated we were going to lose the entire network and we would have now had

132,000 customers out of power. And rather than out of power for a number of hours, they could have been out of power for a number of days because of the extensive damage that occurs in a cascade in the amount of repairs that would have to get made. Now, with regard to the peak, the disparity in the peaks again, this was a weekend peak and, during the weekends, we don't have the commercial loads on in areas predominantly like in Manhattan, but the residential loads are actually quite high. And if you look at the load curve for residential networks, which is a large portion of Brooklyn and Queens, residential peaks typically occur around 7 p.m. when folks-- on a week day when folks go home for dinner. They go back to their domiciles. On the weekends, the peaks actually come in around 4 p.m. and stay there until about 10 or 11 o'clock at night. So, they are very heavily loaded. Before we were talking about the advantages of smart meters and the visibility that gives us. Each of those smart meters is really a recording volt meter which, basically, can send data back. And we would get very granular data about the load growth that is happening that's, so to speak, uncharted. Like not really visible to

us. The people who are going out and buying additional air-conditioners and TVs and things of that nature. The peak demand in this network was slightly above our prediction. Part of that is related to that the temperature was actually above design and we think some of it is load growth that we hadn't seen. Smart meters will allow us to see that immediately at the end of each summer and plan for next summer.

CHAIRPERSON BRANNAN: Okay. A couple more things--

DAVID DESANTI: But, again, I do want to make a point that there was no lack of supply going into that network. There was no overloaded feeders in that network or in the southeast Bronx network. It was fine. It was really the coincidental failure of these cables.

CHAIRPERSON BRANNAN: So, Con Ed has procedures in place to reduce the voltage by 025 percent and most other parts of the city when the grid is stressed, but by a percent in southern Brooklyn. Why is that?

DAVID DESANTI: So at all of our regional substations, we can select either five

percent or eight percent voltage reduction. Five percent is -- And so the reason we do voltage reduction, so you have an understanding, is voltage reduction will cause a corresponding reduction in load on the feeders. We get about half of what the voltage reduction is. So, for about a five percent voltage reduction, we will see the current income down in the feeders of about two-- two and a half percent. Linear loads like incandescent lighting's will respond in that fashion, right? And, so the load on feeders, the current is directly related to the heating that occurs, right? Because all of our cables, all of our equipment is thermally rated, right? So, there is a benefit there. And in addition to lower voltage, there is a lot of science in recent years that the lower voltage really reduces the stress on feeders and makes them more reliable. So, this year, we exercised, I believe, voltage reduction at the five percent level XI times and that progressed to eight percent six times. When we go to eight percent, there is a greater likelihood that there will be impacts to certain customers and areas where we may have defects out in a network that were identified or customers who have, say, elevator

equipment that is really very conservative pickup settings. They could be impacted. When we select voltage reduction, we have a very robust communication package related to that.

CHAIRPERSON BRANNAN: cap rate. So, how are people in those areas notified?

DAVID DESANTI: So, when we select eight percent voltage reduction, our operators actually select that, it commands the substation to reduce voltage to eight percent and, at the same time, communication goes back out to city agencies and we release a press release. We've been in communication with stakeholders such as the office of emergency management. In talking about this outcome where we had a load shedding event where we actually had to preemptively deenergize customers, we think we need to surround that event with better communication that is really robust like we have around voltage reduction.

CHAIRPERSON BRANNAN: So, the decision-- This sort of disparity in the voltage reduction is based on, you're saying, like borough populations?

DAVID DESANTI: No. In this event, we went to five percent when we had to feeders out of

service. And when the third feeder went out of service, and now our network is beyond design, right? So everyone--

CHAIRPERSON BRANNAN: [interposing] And those feeders were out of service in that area in south Brooklyn?

DAVID DESANTI: Yeah. We had cable failures, right?

CHAIRPERSON BRANNAN: Okay.

DAVID DESANTI: So, when it progressed to-- So you understand, we design our system in the city to withstand, peak design, to withstand the laws of the need to feeders. Any combination. When we got to the second feeder out of service, we went to five percent voltage reduction. When we got to the third feeder outage, we went to eight percent voltage reduction and, of course, that's when the public appeals went out for consumers to see if they could possibly limit any nonessential load, as well as notifying the city and OEM that we were in an eight percent voltage reduction situation.

CHAIRPERSON BRANNAN: So, knowing that current climate projections are saying that by 2050 we're going to have 30 to 50 days that are going to

be over 90 degrees, what are you guys preparing to do differently?

DAVID DESANTI: So, we're going to be informed by that study which is really going to look at the impacts of electrification--

CHAIRPERSON BRANNAN: [interposing] And that's the one we don't--

DAVID DESANTI: as well as--

CHAIRPERSON BRANNAN: [interposing] And when did we say we are getting that?

DAVID DESANTI: That was the end of the year.

CHAIRPERSON BRANNAN: Okay.

DAVID DESANTI: And that'll look at the rather short term impacts of that heating and the long term impacts of electrification. And then we've really got to work with our regulators and other stakeholders and deciding what are the elements and the plan to achieve that? And I think it's going to be a combination of infrastructure investment, doing all we can to bring additional renewables onto the system, as well as avoiding demand either with demand response or, which is the best thing, energy efficiency. Right? That that hit-- The energy

efficiency strike on all the important chords. It reduced carbon. It reduces our need to build infrastructure and it reduces the bill impact as a result of that infrastructure built.

CHAIRPERSON BRANNAN: So a simple question. If I'm living in one of these neighborhoods where you're going to cut of my power and my power is cut off, how am I getting this notification?

DAVID DESANTI: So, that's something, again--

CHAIRPERSON BRANNAN: A minor detail. Huh.

KYLE KIMBALL: Phones.

DAVID DESANTI: No. Phones would be the way to do that, but that was an issue that many stakeholders have raised with us.

CHAIRPERSON BRANNAN: You mean like home phones?

DAVID DESANTI: And we've got a really--

CHAIRPERSON BRANNAN: I've heard of those.

DAVID DESANTI: No. We've got texting, banners on the televisions.

CHAIRPERSON BRANNAN: Well, I can't turn my television on.

DAVID DESANTI: I get that. I mean, we've got to think that through. Essentially, we think mobile phones. Most of them have a charge on them and can last for a while. Computers.

CHAIRPERSON BRANNAN: Computers can't turn on. I'm just saying. You're about to turn off my power or my power is already turned off. There's no way for me to find out why the hell it's off.

DAVID DESANTI: And that's a question we are going to work through. We've really got to think it through. And much in the way we thought through voltage reduction. This is, unfortunately, it's a circumstance that does not come up often and I think we've got to spend some time and attention in thinking through how we notify customers. There's not a great deal of time to let people know this is coming.

CHAIRPERSON BRANNAN: Um--

DAVID DESANTI: And we do everything we can to avoid it. The last option.

CHAIRPERSON BRANNAN: Going back to the humidity-- the thermal sensors, does Con Ed have thermal sensors installed on cables?

DAVID DESANTI: We are deploying out in our networks-- We do have remote devices that will tell us-- Look into service boxes and give us some information about water level, gases, and give us some thermal information about what's going on in that box. We can certainly model and predict what temperatures are occurring on our cables through load devices and things of that nature.

STEVEN PARISI: Yeah. And I'd also say, too, in service boxes, manholes, we have been installing sensors that do infrared detection for us. So we are able to monitor that and pick up failures before they occur, so we would be able to go out on those. We do that throughout the year. It's part of our maintenance program, as well. You know, in the station, really when we say temperature monitors are important, looking at the capat-- the amps that a feeder is carrying is the most indicative thing. So, when feeders are at their rating, then we know if it is overloaded or under loaded or if it still has more capacity left in it. So, that's really where we

target our replacement and maintenance activities that.

CHAIRPERSON BRANNAN: I want to end on a question about the FEMA flood plan. Your current design standards for key systems and for a flood of a is the FEMA, the 2013 100 year flood plan plus three feet.

STEVEN PARISI: Correct.

CHAIRPERSON BRANNAN: Is that correct?

STEVEN PARISI: Correct.

CHAIRPERSON BRANNAN: Okay. Why do you think this standard is sufficiently protective and have you considered the FEMA plus five feet standard and, if not, why not?

STEVEN PARISI: So, when we went through our post-Sandy storm hardening, we worked with the collaborative and we went to the FEMA plus three best information at the time. And that's when we did all out storm hardening efforts around. There's east coast resiliency right now is-- will be underway. That is based around some of our facilities, I would say on the east side around 14ht Street. So we would be increasing some of our storm hardening efforts there. We have to look at that and, I think,

certainly we will see if the long range projections even further than the FEMA plus three, then we have to consider incorporating that.

KYLE KIMBALL: And it's also in the study that we keep talking about-- It's a big component of the study as to whether or not those standards change.

CHAIRPERSON BRANNAN: We've got to have a big party when this study comes out.

KYLE KIMBALL: You're invited.

CHAIRPERSON BRANNAN: Yeah. I can't wait. Back to the sensors on the cables, the cables that failed over the summer, did they have sensors on them?

DAVID DESANTI: Primary cables, no. We do not have thermal sensors on them. We--

CHAIRPERSON BRANNAN: [interposing] None of them do?

DAVID DESANTI: The primary distribution cables? No. We do not.

CHAIRPERSON BRANNAN: Why not?

DAVID DESANTI: We're really not required, for us to be able to forecast what they're operating at.

CHAIRPERSON BRANNAN: But wouldn't that have helped you?

DAVID DESANTI: Not in this case. No. We can predict what those cables are running at. It's really engineering.

CHAIRPERSON BRANNAN: All right. I'm going to turn it over to my colleagues. Chair Espinal?

CHAIRPERSON ESPINAL: I'd like to call on Council member Brad Lander to ask a few questions. Just let me give some clarity on where we are on the stack. We have Council member Brad Lander, Council member Deutsch, Council member Debbie Rose, and Council member Treyger who is also with us from Brooklyn.

COUNCIL MEMBER LANDER: Thank you very much to the chairs for all these questions and really important ones. And for the Star Wars reference, too. I want to continue, I guess, mostly along the line of Chair Constantinides because it seems to me that part of the challenge is we have a really big mismatch. You know, we have a system that had critical failures this summer. Subway, air conditioning, and the whole range of things that have

been articulated. Like critical failures. We've got the climate crisis challenges and the urgent need to transform the system to renewables, to reduce demand, to stop burning fossils, and we have a big mismatch as this is such a super complex system with many actors so no one is in neat control. You guys are in the hot seat today and that is appropriate for this summer's crisis, but you don't have all the levers necessary to both address critical failures and drive massive transformation to prevent us from burning the planet up and get us to a place where the system is resilient for that future. But I guess the question I want to ask you is like how are we going to do that? Which is not how Con Ed going to do it for us, but we can't just, you know, say we will get a study and will take another five years and you guys will tinker here in some other people will tinker they are. You know, we passed our journey buildings law which, I know, has significant impact on the system and Kyle spoke to the challenges that would be created if lots of people switch to electric heat pumps and dramatically increased demand for electricity, which I think is what we need. It's just we also need to achieve renewable production,

storage, and transmission that is consistent with that transformation. And maybe we will have to live with some gas from here to there in transition, but that would be a lot more palatable if we knew how long that transition was and really had confidence that we were making it instead of just hoping that, somehow, all of this is going to fix itself. And it's impossible, from listening this morning, to have any confidence that we are on the path we need to be on. And today that's frustration at you guys and, so be it, but really what we need is frustration at the system that we are all a part of and a serious effort to bind ourselves to a path that will deliver. And I-- you know, you can't say today like here is the plan to get there, but you are a major actor in this system and I guess I want to know, you know, if you communicated more like the Speaker at the end of his time and you felt that real urgency for the systemic transformation and you wanted to say back to us not just what Con Ed will do, but here is what we have to do together. What would that look like and what can we do to bind ourselves to that future better? Who else can we demand things of as well as what we should be demanding of you did get on the right path

for it. And I mean, I'll just leave it there. That's my question. I don't want to take more time. That's what we have to use this hearing today to push you and us and every other actor in the system forward.

KYLE KIMBALL: I think it's an incredibly important question and I think it's worthy of having, you know, more extensive conversation with the Council around this because I think we've danced around this out a lot of the different hearings. We've used some of the hearings as-- whether or not it's a story Borealis or the climate of emergency as opportunities to try to get out some of these ideas. But I do think that what you are tapping into is that there is a very important need to have a big conversation with a lot of stakeholders about how we get there and there is a lot of things that are happening inside of Con Edison and I am sorry that the urgency that seems to be lacking is not there, but I think it's also a building full of incredibly smart people who are very focused on maintaining reliability of the system. In these larger policy questions about how we can fundamentally transform our grid are not just questions that we can answer

ourselves, you know, inside 4 Irving Place. I think that the way that I think about it is there is the one-- the things that we can control are the things that we are doing with the capital plan in terms of grid modernization that I already laid out. I don't necessarily need to talk through all that. Just in terms of getting the grid fundamentally ready. Those are things we can control. Getting it ready for two-way power flows and distributed regeneration and EV's, that kind of thing. So I won't go into that. I think the larger conversation is separate and apart from getting the grid ready. It's this fundamental question of how are we going to reduce all the renewable electrons? Where are they going to go? How are we going to get them to the city? Just really basic questions like that. And the governor has, you know, made significant goals for getting a lot of that to be offshore wind, which is laudable and we are making tangible progress in moving those for word to the finish line in getting the 9000 megawatts, starting with 800 relatively soon. And we are very involved with that in terms of how to connect to that to the grid. So, we've got to do a lot more of that especially if we are going to become

a 40,000 megawatt facility just in New York City, let alone the rest of the state. We think utility owned generation is a huge part of that because you need all tools on the table to get as many renewable electrons built as quickly as possible and we feel like not having renewable utility owned generation is an artificial constraint that is keeping us back. I think that there is also going to be really hard questions around how we transmit. And it's not all going to be offshore coming through the ocean, wage, in and of itself, has environmental issues, in terms of laying cable on the ground, but you are going to be bringing a lot of power lines through, you know, suburban New Jersey and New York to get to the city and those are going to be pretty hard conversations with communities about how to get those electrons here. I also think there is going to be an important conversation about how we consume. And that's going to be questions of how much we consume, giving customers better choices of how they consume it. Better transparency into what they are using. Time of use pricing that Dave mentioned. So, right now, you can run your dishwasher in the middle of a heat wave and it is the same amount of money, but we need

to have the ability to incentivize people cannot run their dishwasher during a heat wave and run it at another time. And we need to be able to give people those tools. They don't necessarily have them now. And then I think the other hard questions are going to be how it is paid for. These are not cheap investments. This grid that we are moving towards is-- all these things we are talking about are not free. And so getting the grid ready and getting the transmission belt, those are all things that customers are going to have to invest in and we have to work together to guide those investments. So, I think there is a huge conversation that we all have to have with consumers, with utility advocates. The independent utility advocates. Our union, a lot of the stakeholders on different sides of the fence. We all have two come to the table and figure out how we are actually going to do this.

COUNCIL MEMBER LANDER: Right. I'm not going to ask any more questions because, obviously, all of those things could point in directions that we could go on for a long time. I appreciate your recognition of the need to drill down further. I hope we can find ways to keep doing that together. I

will just sort of underlying and maybe make one distinction on what you said at the end because I do think we will need to find ways to vest consumers in this process. And whether that looks like a carbon tax or whether that looks like dynamic pricing, demand management is a piece of what is going to be required here and we need smart and thoughtful ways to do it. On the other hand, I can't be that-- And I know you didn't mean to imply this, but just for the record, you know, that consumers are responsible for bearing the costs of the transformation here and that is why a lot of us are big supporters here of a Green New Deal Model. Then I just want to connect the dots because we're not going to be able to pay the costs of what you just described without substantial new resources to do it from somewhere. And hopefully that will be in the form of a substantial and progressive and federal plan to help us, but if that doesn't come, then we are going to have to find some ways to into a locally and regionally, as well. So, all right. I'll leave it there. Thank you, Mr. Chair.

CHAIRPERSON ESPINAL: Thank you, Brad. Up next week of Chaim Deutsch.

COUNCIL MEMBER DEUTSCH: Thank you, chairs. My hair was turning gray sitting here waiting to ask a question. So, firstly, I just want to say that I passed the bill a year ago regarding Department of aging and doing outreach at senior centers letting them know that if someone is on life-sustaining equipment, you should call Con Edison. And I tried myself. I called Con Edison and I was able to live a, possibly, register and address within like three minutes. So, I am encouraging everyone out there that, if you know someone who is on life-sustaining equipment, to make sure that they reach out to Con Edison and register that address, which is extremely important. I also am proposing a bill in the city Council that would mandate all elevators to have electric backup that, is an elevator gets stuck in a power outage, it should be able to go to the next floor so this way people could get out safely. In addition to that, there should be a battery backup for the lighting so that if you are stuck in an elevator with other people, you should have lights in the elevator. So, I am looking forward to working with you on this bill to make sure it works for everyone. So, firstly, I just want to-- Before I

get into my question, I want to commend your governmental staff who has been extremely responsive and I do receive the emails whenever there is a power outage and I use that information. I checked the emails myself, my Council email, so I disseminate that information to my constituents whether it is via Facebook or having my staff calling people up just to get that information across, which is extremely important. So, to my concern, I want to thank my colleagues and the chairs for bringing up many of the questions, but you mentioned both for that there are 2600 customers that are affected by the National Grid moratorium. So, I believe those numbers or already like three weeks ago, so I think those numbers have reached a higher number, probably closer to 3000. So, you did mention that short-term-- because Con Edison always projects like on different developments coming into the community and how the zoning is working with the Planning Commission, I hope, but long-term-- if there should be a long-term moratorium, and I know that one restaurant that I know that I have been working with in Crown Heights, they just switched-- they were forced to use electric because they couldn't get the gas turned on.

So, what is your projection, number one, for the future if it's only a short-term moratorium and, number two, that I understand Con Edison as no personal interest in the Williams pipeline, but how is con Edison going to weigh in to let the governor know and let the EDC know and the Public Service Commission whether you support the Williams pipeline or oppose the Williams pipeline, that we need to come up with a resolution to have people turn to some other type of energy opposed to electric. Many businesses, affordable housing, people are suffering every single day. And if you take Brooklyn, Queens, and Long Island that is affected now, combine them all three, there are more than 10 million residents. So, from the 10 million residents, from the 10 million plus residents, you have approximately, let's say, 3000 people that are affected. The conversation is really not-- people are not talking about it because, when you are talking about more than 10 million people, this is a drop in the bucket. So, how is Con Edison going to weigh-in for the future of your electric grids and having an excessive strain on the future?

DAVID DESANTI: Okay. With regard to the customers the may transfer over, we don't yet know how large that population is, but, again, we will accept those applications as they come forward. And, as I said, in the short term, I certainly have sufficient capacity to take those customers on and we can plan-- we have an obligation to serve or tariff-- the state, you know, compels us to-- were going to make sure-- we're going to put anything we need in place to secure electric service for those customers further on down the road and what he will be able to be there for them. How long this moratorium will last, we don't know. We don't know.

COUNCIL MEMBER DEUTSCH: So, question. If all 3000 customers turned to electric, right? You could have restaurant owners. You can have developments and every day you have more and more applications that are being put in, so in a month from now it could be 4000. It could be 5000. We don't know. Is Con Edison had issues up until now with the grids, right, and especially in the summer when you are saying that people should lower the usage-- but you also have to remember that in Brooklyn and other parts of the city, people are

vacationing during the summer months, so they are not using as much electric. So, imagine people stay home during the summer months, right? Power outage that we had several months ago would've been larger and there would have been really like a lot worse than it was.

DAVID DESANTI: We adapt to changing conditions. We did so when the city passed to the clean buildings law and we had to build out infrastructure for gas in the city to me the conversion demand. Then, similarly, on the electric side, I think we will be ready to meet this demand as it comes on. I don't see a problem with that.

COUNCIL MEMBER DEUTSCH: So you don't see any--

DAVID DESANTI: We'll build--

COUNCIL MEMBER DEUTSCH: Y--

DAVID DESANTI: We'll build the necessary infrastructure.

COUNCIL MEMBER DEUTSCH: So, you don't see any problems whatsoever is everyone's chose to electric?

DAVID DESANTI: Not in the short term. We--

COUNCIL MEMBER DEUTSCH: Not in short. I'm talking for a long.

KYLE KIMBALL: Not for those 3000 or so. Not--

DAVID DESANTI: Not for those 3000.

COUNCIL MEMBER DEUTSCH: So anything more than 3000 then you want to start thinking about it, right?

DAVID DESANTI: Well, that actually--

COUNCIL MEMBER DEUTSCH: So--

DAVID DESANTI: leads into the discussion about electric.

COUNCIL MEMBER DEUTSCH: so, shouldn't we like being proactive because we don't know how long this moratorium is going to last stand to, basically, reach out to the state and say, hey, listen. We could be in an electrical crisis, not just in a gas crisis. Shouldn't we be proactive rather than reactive?

KYLE KIMBALL: So, there is a couple of things there. One is something you said-- I just want to-- I don't want to forget to say it. So, one thing that I think would be helpful with in terms of continuing partnership with the Council is we are

actually not formally a part of the ULRP process, so whenever somebody-- and I am intimately familiar with this from my time at the Economic Development Corporation, so whenever you do an area wide rezoning, there is an environmental impact statement that is done and there is consideration paid for, and actually worked with Council member Rose on one of these, there is attention paid to schools, roads, water infrastructure that's necessary to facilitate, but there is not necessarily a conversation in that EIS about energy infrastructure. So, what ends up happening is that if an area wide rezoning happens, we can pay attention to it based on our presence in communities, but there is not necessarily a formal role for the utilities and assessing the infrastructure needs that are necessary for an area wide redevelopment. We would like to be much closer to that process because what happens now is we can keep track of an area wide rezoning, but we don't really factor in the load until someone actually comes to us looking for a service letter. And so, having a more formal look at energy infrastructure in an environmental impact statement, I think-- Just something you said triggered-- I wanted to make sure

Amy that point that that's actually not happening now in a formal way. But to the latter part of your question in terms of what are we doing with the state proactively, so we meet with National Grid. We sort of plan the organ-- it's called the joint utilities and, essentially, they're planning for the gas needs. And then we are in constant conversation with the cop public Service Commission on the gas issues in New York City and Westchester County. So those conversations are constant. So there is no formal need to like write a letter or formally advocate because they absolutely know the critical issues that are happening in the state with this system and the supply issues. And I think, secondly, we are proposing a couple of projects in-- on one particular pipeline called a compression project on the Iroquois pipeline that services the Bronx and Queens. And the idea there is that it is not a new pipeline, it's utilizing existing infrastructure so you have a pipe that fits so much gas into it. You can upgrade the compressors all along the pipe and, fundamentally, squeeze more gas molecules into the same existing pipe. So, without building a new pipe infrastructure, you can, effectively, deliver more

capacity to the city. And that is something that we are-- and that would, essentially, benefit the Bronx and Queens. And these are all projects that we are working on with the Public Service Commission to hopefully get approved to me some of the gas issues. So there is a lot of advocacy going on every day on these issues with--

COUNCIL MEMBER DEUTSCH: [interposing] So in other words, you are saying you are concerned about the future of the grids based on the moratorium.

KYLE KIMBALL: Oh, I'm sorry. And the last thing I was going to say that we are working with the city. To answer the your question, we are concerned and we are working with the city and National Grid on a study that, essentially, says what he would need to do to the grid to meet the demand that is going to come from people transitioning off of gas? Whether or not that is off of Con Edison gas or National Grid gas? What you have to do? What investments do you have to make? And so we are concerned and that's why we are working-- We've been working with National Grid and the city for about a year on this study and we will be done in June of

this coming year. We will happily come in brief the Council on the findings of that study, but, yes, we are concerned and we are actively working and planning.

COUNCIL MEMBER DEUTSCH: Thank you.

COUNCIL MEMBER ROSE: Good afternoon. First, I have to say that I'm really offended that there was no apology to Staten Islanders or any mention in this whole hearing about the service outages or disruptions to Staten Island. As you know, I'm sure, there were outages all over Staten Island this summer. West Brighton, New Brighton, Stapleton, and parts of the East and South Shore and they were recurring. Impacting-- Maybe it's not as much as in Manhattan or Brooklyn, but, you know, it was significant. More than 5000 or more residents in Staten Island. And so I am interested to know what were the main causes of the outages of this summer on Staten Island, as I had been briefed prior to the summer season and assured that there would not be a problem. That we could sustain the load and that they had anticipated any issues that might have arisen.

DAVID DESANTI: Yeah. We did experience-- You have my apologies. We did experience some difficulties on Staten Island. Customers were out of lights. We had a unit substation caught on fire, Grant City. The 5000 customers out of light. We had to switch around that. In each of the days going into the heat wave, we experienced several thousand outages on our radial system. Overhead outages that had to be put back in place and we did have a concern on one of our substations and we placed 18 generators-- these are synchronous two megawatt generators that can join into our system to support load in case of an event. So, Staten Island nares did have impacts across the heat wave and we regret those, absolutely, but we did work hard to get back in lights. So--

COUNCIL MEMBER ROSE: [interposing] Can you explain to me why they were reoccurring, especially in the same area, especially since I understand we have sort of a radial load type system where, I would think, once it'd been addressed-- whatever the issue was was addressed, that we shouldn't have sustained outages or disruptions to

service in those same areas, but we had requiring sword ages in those same, you know, areas.

DAVID DESANTI: Right. With that unit substation out of service, we did have an impaired network in that area which makes it more susceptible to outages. The load, as I said before, is trying to redistribute. So, in addition to serving customers, those cables are doing additional work trying to redistribute that load. Any pre-existing defects, perhaps a lightning strike or an open wire, which will open a small pinhole in the cable, maybe a year or two before, very, very difficult to find. Those can create oxidation pockets which really are only going to be found in a high load situation and those things will come out as a heat wave progresses, but we did have plenty of staffing down at Staten Island. We did to everything we could to try to restore people as quickly as possible, but there were significant impacts that I apologize.

COUNCIL MEMBER ROSE: So, now that we had the high load season, we should have some markers as to where these issues exist, right?

DAVID DESANTI: Uh-hm.

COUNCIL MEMBER ROSE: And so, what are the changes or improvements to the infrastructure that you anticipate and is there a timeline to remediate these problems?

DAVID DESANTI: So, we've actually-- We've invested in Staten Island each year. We have backboned two of our 33KV feeders in that area. We continue to make that investment. It's actually an element in the rate case we are discussing right now and we continue to work on that and make that investment. We believe improvements have continued. Our hot weather performance for radial systems, open wire systems, has improved in each of the last five years and we think it will continue to improve with continued investment.

COUNCIL MEMBER ROSE: And we understood that the outages this summer were because of searches and usage and uptick in the usage, but we also have problems in the winter time because we have overhead lines. Is there any anticipation and that we will have a problem with outages because during the winter the trees fall, wires are--

DAVID DESANTI: We have an aggressive tree trimming protocol. We spend a great deal of

money in Staten Island, as well as Westchester, trimming trees. We cycled trim the feeders at least two to three years, depending on the voltage category they are in. It's a pretty aggressive trimming policy, but storms, particularly wind and rain storms, will cause outages as equipment is impacted by trees that come over. We can't get to everything. In this rate case we are discussing right now, there is going to be money available for danger tree removal. This is private property tree is that could threaten overhead wires, so we are trying to do more with regard to storm preparation. We've continued to invest in storm hardening and the performance demonstrates that.

COUNCIL MEMBER ROSE: Are there plans to put any of the lines underground?

DAVID DESANTI: Not as [-inaudible 02:36:08]. As I mention before, wholesale undergrounding of overhead system is quite rare and there's considerable costs involved both for the municipality, as well as individual customers that have to bear the cost of those conversions. So, at this time, no. We have done in-- Through storm hardening, we have done some selective hardening

projects which will, essentially, allow us to isolate key pieces of infrastructure. For instance, we have had certain projects where we have allowed isolation of circuits so that we can keep, say, a supermarket in service, right? Which is critical to customers in a storm situation so they can have access to groceries. If you have a power outage that might-- You know, a big storm could have implications where people are out of lights for a few days.

COUNCIL MEMBER ROSE: So, new construction you're looking at putting the wiring underground?

DAVID DESANTI: Well, so, if you look at Staten Island, there are zoning requirements. If we are going to into-- Is there is going to be an extension and it meets certain criteria, it's like a residential subdivision, most of that is required to go-- if it meets certain criteria, most of that goes in as what we call underground residential distribution and it is, essentially, a radial system that is insulated and goes underground. Those are the green boxes you see sometimes on folks lawns. And before I talked about the unit cost of construction. So, overhead would be one dollar.

Traditional underground would be 10 dollars and URD would be about three dollars. So, we need to try to get these things into the URD profile, if it meets the criteria. The regulation. But a lot of subdivisions to go URD.

COUNCIL MEMBER ROSE: In my last question is just Staten Island is a pilot program for the smart meters. Is that--

KYLE KIMBALL: Yeah. No.

STEVEN PARISI: No.

KYLE KIMBALL: Yes.

STEVEN PARISI: Well, Staten Island is the place that we started, essentially, complete with AMI installations. So, not a pilot. All over the city.

KYLE KIMBALL: It’s not a pilot.

STEVEN PARISI: Right. It’s done.

KYLE KIMBALL: Yeah.

STEVEN PARISI: So, Staten Island, as a whole, is done, going out to all the boroughs large percent complete in many areas.

KYLE KIMBALL: I think what you are referring to as we installed all the smart meters and that is totally done on Staten Island.

COUNCIL MEMBER ROSE: UH-hm.

KYLE KIMBALL: I think what you are referring to is we are doing a pilot on Staten Island on time of use pricing.

COUNCIL MEMBER ROSE: Yes.

KYLE KIMBALL: So we are actively reaching out to customers right now or soon and giving-- It's a fairly complex study and it is really meant to look at how people respond to the time of use pricing, essentially, where the-- their desire to even do it in the first place and if they want to be energy advocates versus sort of passive customers. And there is a lot of different things going on. But, yes, there's a lot of different things going on in Staten Island that is, essentially, looking at and testing what programs are most effective for New Yorkers.

COUNCIL MEMBER ROSE: And hours of usage and--

KYLE KIMBALL: Yeah. So, the idea some people will be able to opt-in to a pilot where they can have energy-- Essentially, we are showing them what their inner energy usage is and giving them the tools to manage it. There are some people who have

to opt out. So, we are studying different things there. We are also looking at making sure that customers-- They are, essentially, getting a guaranteed flat bill. So, let's say, for example, that the program that they choose actually makes their bills go up--

COUNCIL MEMBER ROSE: Uh-hm.

KYLE KIMBALL: we are holding them flat at their normal bill. It's really just a test to see. So, it's giving us more tools to see how customers respond to time of use pricing.

COUNCIL MEMBER ROSE: Is everyone able to opt-in to that?

KYLE KIMBALL: There's different test groups. The way it is designed is some people have to opt-in-- First of all, not everyone is a part of the pilot, so there are certain groups, neighborhood. Two, some people have to opt into it, so they get a mail that says, if you would like to do this, please opt in. There are some people that are getting notices that say, this is your rate plan and explaining everything and if you don't want that, you can opt out.

COUNCIL MEMBER ROSE: And it wasn't determined by usage?

KYLE KIMBALL: No. No. No. It's a--

COUNCIL MEMBER ROSE: It's just--

KYLE KIMBALL: Mostly sorted by geographics and-- but it's not by usage.

COUNCIL MEMBER ROSE: Okay.

KYLE KIMBALL: Yeah.

COUNCIL MEMBER ROSE: Thank you.

CHAIRPERSON ESPINAL: Thank you, Debbie. Up next we have Mark Treyger from Brooklyn.

COUNCIL MEMBER TREYGER: Yes. The outer borough elected with a lot of patience. Before I get to-- So, I think the chairs on their leadership on this issue. A very timely hearing. Before I get to my prepared questions, and just want to follow up on something I think I heard. When did Con Edison first become aware that National Grid was going to not issue new gas connections to Brooklyn,-Queens residents?

KYLE KIMBALL: Sorry. When did we become first aware?

COUNCIL MEMBER TREYGER: When did you become first aware? Yes.

KYLE KIMBALL: As far as I know, we read about it in the press and he never called it a moratorium, but we-- I think we heard-- I, basically, didn't hear anything formally from National Grid other than in the press that they were issuing contingency letters.

COUNCIL MEMBER TREYGER: What prompted your meeting with National Grid and City Hall year ago that you mentioned before in your testimony?

KYLE KIMBALL: Our meeting with National Grid a year ago--

COUNCIL MEMBER TREYGER: I heard that a year ago, Con Edison, National Grid, and City Hall met to discuss the study.

KYLE KIMBALL: Oh, yes. Just--

COUNCIL MEMBER TREYGER: What was the basis of that study?

KYLE KIMBALL: So, we have been working with a National Grid and the city to find a study that is how to get the grid ready for electrification of heating load and National Grid as part of that study. It's not about gas issues, per se. The study has nothing to do with that. It's just about how to meet the--

COUNCIL MEMBER TREYGER: I mean, this meeting is not about National Grid, but I will tell you that I find it appalling and unacceptable that the people most affected by National Grid's moratorium were the last to know because their lobbyists and their folks in their circles said, well, we briefed REBNI [sp?] or we briefed the mayor's office. I don't care about REBNI or the mayor's office. I care about the small businesses and residents in my district and across Brooklyn and Queens right now that did not have gas. They are building affordable housing for homeless veterans in my district and there is a question about whether or not they're going to have gas connection. People who served this country. This is appalling. And the era of these energy companies with this greedy monopoly has got to come to an end. It is appalling. But, we are here about Con Edison and I want to just make sure I get to my questions. Now, do you have data with you about the number of outages that-- Let's just say in the past year. Forget five years because this goes on-- I mean, Councilman Brennan, him and I in Brooklyn, the outer borough, and Staten Island, as well, experience these outages frequently. I think

my colleague mentioned every summer and winter and, in parts of my district, it's every couple weeks. How many outages have you documented, for example, in Bath Beach? By the way, Bath Beach is a neighborhood in Brooklyn, too, in case City Hall doesn't understand that. We are not Brighton Beach. We are Bath Beach. So folks need to know the geography of their own city. How many outages has Bath Beach experience? 11214? And there's a loop that goes into Coney Island, as well. How many outages in this section in the past year?

DAVID DESANTI: I would have to get back to you on the exact number. I have looked at the loop performance in that area. You've got the Cropsey loop, the Graves End loop, and the Coney Island loop. And I would tell you that the Coney Island loop and the Cropsey loop requires some attention. What we are going to do, because performance has declined in the last 18 months, and what we're going to do in short order is we're going to one side those loops. We are going to thermograph them and really take a good loop at the construction. Cropsey loop, as you know, there's a large public improvement project going on Neptune and Mermaid.

That's where we had to transfer of all of our facilities to one side of the street. That, in effect, has impacted the reliability of. What we'll have to take a look at that a little closer once the new construction is up, but I would say those two loops require some attention. We have had outages in that section, as well as Seagate. We've had generators on twice this year where we had to replace a step down transformer and an underground transformer that failed. We've lost riser. We had a smoking manhole in that area, so it does, Council member, require--

COUNCIL MEMBER TREYGER: Do you have a-- First of all, I app-- This is the first time I've heard Con Edison acknowledge the depth of the problem in my district and I want to appreciate that acknowledgment because, in the past, I will tell you that folks from your company and tried to suggest that my residence having backyard barbecue parties with balloons skimming and overhead wire knocks down 3000 homes of power. If that is true, that is outrageous and it's frightening how delicate and sensitive our infrastructure system is in New York City. But that doesn't pass the laugh test to me.

So I appreciate that this is the first time I am hearing a serious acknowledgment about the depth of the problem because I will tell you, sir, that almost every other week-- and I'm not exaggerating. I have an email thread from my constituents. Almost every other week there is an email about an outage. Now, does Con Edison have a threshold as far as what determines an outage? Does it have to be a certain time period? Because sometimes the outages might last 20 minutes. Sometimes outage might last two hours. Do you have a threshold that determines--

DAVID DESANTI: Reportable to our regulator is anything beyond five minutes.

COUNCIL MEMBER TREYGER: All right. Anything that's out for five minutes. There've been times when I was shopping at the local Stop and Shop on Cropsey Avenue when the power went out and I called your company and the person did not even know that there was an outage in my neighborhood. The traffic lights were out. So all the things we heard about Manhattan experiencing, which is also horrific, very bad, we experience on a very frequent basis in southern Brooklyn.

DAVID DESANTI: Uh-hm.

COUNCIL MEMBER TREYGER: And what happens, sir, is that the local police precinct has to dedicate manpower to the intersections rather than making sure our neighborhood are safe. They have to do traffic control every time this happens, whether it lasts 20 minutes or it lasts an hour or two hours. That's number one. Number two, in this Cropsey loop, you have residents, as mentioned before, seniors on life-saving devices. You have a school for children who are disabled. And every single time I have to respond to calls, when is this power going to come back? This is every other-- almost every other week. And I'm not going to tell my constituents that maybe it's their helium balloons that are causing problems. That's outrageous and insulting. So, I actually would like to have data from your company about the number of outages. Let's just say the last 18 months. This has been going on for years prior to Coney Island construction, by the way. But I would like to have data on how many outages because that's an accountability tool.

DAVID DESANTI: Uh-hm. Absolutely. And what I would like to do is report to you on what we are going to do to make repairs and remediate the

situation. The southeast Bronx network, that overhead area, actually, that is a-- Actually performs better than the average and the two loops I mentioned have declined below the average and we have work to do their and I apologize for that performance and I hope to do better.

COUNCIL MEMBER TREYGER: And I appreciate--

DAVID DESANTI: Um--

COUNCIL MEMBER TREYGER: I appreciate that apology and recognition. And do you have a time frame on when these repairs can start and when will they end?

DAVID DESANTI: I can't tell you when they will end. I can tell you I need about a month to get together a plan. We can probably make some repairs before that's over, but I think the best plan for me would be to report to you at regular intervals and let you know how things are going and what we plan to do to make it better. I can't eliminate every outage and, again, the public improvement project is a bear to deal with, but we can definitely do better down there. We have to do better.

COUNCIL MEMBER TREYGER: Yes. Well, I appreciate that answer much more than about healing balloons and squirrels. So I appreciate that.

DAVID DESANTI: Yes, sir.

COUNCIL MEMBER TREYGER: Now, last two questions. And I'm not sure, forgive me, if this was touched upon earlier. I was on a different hearing. There been any contact or communication with the New York State Public Service Commission about what happened in Brooklyn? Have there been any conversations about-- Can you share what--

DAVID DESANTI: Yes.

COUNCIL MEMBER TREYGER: What they have been like?

DAVID DESANTI: They are going to conduct a vigorous investigation. We have had conference calls with them. We have had numerous interrogatories sent back and forth between the two entities. I believe I will be traveling next week up to Albany for a conference to give them a briefing, much like the briefing you have had today, but we would anticipate a full investigation that may take-- I can't tell you how long that would take, but it would be a public report issued by the Public Service

Commission and I think it will be quite comprehensive.

COUNCIL MEMBER TREYGER: To follow up on that, one of the items that I mentioned in my complaint about the outages that, you know, I understand that, if an outage occurs in midtown Manhattan, that becomes national news. An outage like that in my part of the world, which happens frequently, is covered by local news, but certainly not citywide or national news. But I have small businesses that purchase seafood that have-- that want to sell the product. I have working class people who just went food shopping and the health code and a lot of the guidelines say, if you don't have power, even for two or three hour outage, it could be a problem with regards to food storage. Now, your policy-- and correct me if I'm wrong-- the threshold to qualify for reimbursement for food spoilage is much more than two or three hours. Am I correct?

DAVID DESANTI: The policy says that. Yes.

COUNCIL MEMBER TREYGER: Now, I think that has to be revisited, particularly in

neighborhoods that see frequent outages. When you have on a day, two or three hours, two days later two or three hours, there are people that don't chance it.

DAVID DESANTI: Uh-hm.

COUNCIL MEMBER TREYGER: Especially if you buy fish or seafood. They don't chance it. They throw it out. The Parkview Diner on Cropsey Avenue, which is some of the best pancakes in New York City, they don't chance it. They throw it out. These are working-class people. They can't keep doing this, but your reimbursement threshold, I think, is really just not cognizant of the fact that the outages occur in these pockets of two or three hours at a time almost every other day. So, do you have any comments on making some sort of an accommodation for neighborhoods like mind that seeing these frequent outages in the pockets of two or three hours?

DAVE DESANTI: We need to look at claims that a case-by-case basis. Individual claims from residential individuals. I don't know that we take such a firm line on with the 12 hour requirement. I think we may be more liberal in paying those claims. Commercial businesses, on the

other hand, they have to consider outages in their business plan and think through how they might, you know, handle the occasional outage from time to time.

COUNCIL MEMBER TREYGER: Yeah. Well, I will appreciate if you will actually follow up on my requests to make accommodations for working-class people to get their claims reimbursed because it's not right for them to throw out their food shopping every time this happens and, respectfully, the commercial businesses, but a small business owner opens up shop, and that's with the assumption that they have power. You know, they pay their taxes, they pay their fees, they pay their bills. They are right to assume that there is going to be energy and so that is something-- Now, the final piece. We heard a lot today about preparation. Our current Chair is doing a great job, Chair Brennan, for the Resiliency Committee, I was Chair of the Recovery Resiliency Committee. I was very much involved in the efforts to push FEMA and push federal government in regards to push money for Sandy recovery in resiliency efforts in New York City after super storm Sandy. I was very much involved in the effort to get money for Coney Island Hospital to rebuild to be more

resilient and NYCHA to rebuild and be more resilient. FEMA actually require the city to elevate their infrastructure--

DAVID DESANTI: Uh-hm.

COUNCIL MEMBER TREYGER: their boilers, and mechanical infrastructure. Is there any conversation that we are having with City Hall and our federal officials about trying to apply for federal funding in this infrastructure build that, hopefully, takes shape in Congress so we could apply for resiliency dollars to make our energy grid and the system more resilient? Because I am hearing that it is very expensive in terms of the movements of the overhead wires. I acknowledge that that is an extremely costly initiative, but that cost should not be on the burdens of working-class people who experience the outages and, number two, if there is ever an effort to address this issue it will be passed on to them in the form of rate increases. This is a federal issue, not just a local issue. Is there any discussion? Has there been any discussions with City Hall or any members of Congress or US senators about our energy grid, infrastructure,

resiliency efforts in the infrastructure bill making its way in the Congress?

KYLE KIMBALL: I'm not aware of any specific conversations with City Hall about applying for federal funds, just to be a direct answer to your question. I'm not aware of it. I don't think we are necessarily opposed to it. It's something we can look into, but I don't know of any conversations going on right now about specific grant applications.

COUNCIL MEMBER TREYGER: Right. Because you won't get if you don't ask. I'm not saying that there is a guarantee that it's going to happen, but you have to ask. And I do think this is a resiliency issue. This is a public safety issue. Our infrastructure grid, energy grid, is very vulnerable and your company can't do it alone. So, I really do believe that there has to be an effort to make this an application to the federal government to make our system more resilient. And I would be my last appeal and message. I plan to follow up with Con Edison about the issues that pertain to my district then I think the chairs for their leadership in their time.

CHAIRPERSON CONSTANTINIDES: All right. So, I'm just going to come back for a few questions to sort of follow up. This 40,000 megawatt number, that's the first time I have heard it. I know that it is sort of been a long afternoon already. Morning to into afternoon, but what went into the consideration for coming up with a 40,000 megawatt number? Was it like solar-- Was solar PV thought about and how that is going to sort of reduce that number? How we are retrofitting buildings? I mean, where is that number coming from? The 40,000 megawatt number?

KYLE KIMBALL: It's not a firm number. So, right now, as I said, we are around 13,000 megawatts and though one of the main points of this study we are working on with the city is getting close to getting more refinement around that number. Right now, what we are-- and my phrase was it is up to. So, it's not a firm number. Is, hopefully, less.

CHAIRPERSON CONSTANTINIDES: All, came to me almost like a fact.

KYLE KIMBALL: No. No. Sorry. It's up to 40,000 and the idea is that-- So, if we are at

13 now, our concern and our thought is that the grid, as a winter peaking utility either doubles or triples in its usage. And a lot of that is going to depend on the technology that comes out in terms of getting people onto heat pumps, onto geothermal. The affordability of geothermal. Adoption of those technologies and our ability to penetrate on energy efficiency. So, if we can, you know-- It's going to be 40 if a lot of those things are working well and it's going to be less if we can get energy efficiency and more effective units and smarter energy usage. So, it's--

CHAIRPERSON CONSTANTINIDES: So, forwarding FICA worst-case scenario--

KYLE KIMBALL: Probably worst-case.

CHAIRPERSON CONSTANTINIDES: If--

KYLE KIMBALL: Yeah.

CHAIRPERSON CONSTANTINIDES: Is every building in New York City goes electric and everyone is running their appliances 24 hours a day with impunity. Right?

KYLE KIMBALL: It's, basically, if you take-- Basically, the triple comes from if you took just what is heated now with natural gas and made it

electricity, plus growth, over those however many-- 28 years, it could be triple.

CHAIRPERSON CONSTANTINIDES: I just think we need of a conversation--

KYLE KIMBALL: Absolutely.

CHAIRPERSON CONSTANTINIDES: about coming up with that number in a way that is not sort of punitive to the things that we have to do to fight climate change, right? And I think that throwing out that number is sort of trying to make folks do a double take and I think we have to have a conversation about, yes, we're going to grow certain sectors away from fossil fuels. Here's how we do it and come up with a sort of harder number based on fact and not just sort of projection.

KYLE KIMBALL: Yeah. And it's not an official number that we are-- And that's really going to be the point of this study is to figure that out.

CHAIRPERSON CONSTANTINIDES: And I just want to say lastly, you know, when it comes to Westchester, I know there is been a moratorium in Westchester. There's been over 8800 heat pumps installed in Westchester. Over 300 heat pumps

installed in the Bronx alone. So, I think when we talk about moving away from fossil fuel infrastructure, that can be a potential solution that we are not talking about and I believe it is a false choice. I mean, I still have not got any sort of info from National Grid. I sat here on this-- Well, in Rafael's chair about four months ago asking for data and I still haven't received that data. So, until such time as I receive that data, I will still believe that this is a ploy and an opportunity to sort of flex muscle and punish the people in the city of New York because they did not get their way on the Williams pipeline. And I think it's time we start talking about renewable energy alternatives instead of saying we have to sort of get more gas hookups. I think that's the solution we have to look too. It's how we moved to renewable energy and not be so dependent upon the use sort of fossil fuel options, I'll be it it's a false choice. So, with that, I'll pass it back to Chair Espinal.

CHAIRPERSON ESPINAL: Thank you, Chair. With that said, I want to give Councilman Peter Koo an opportunity to ask some questions.

COUNCIL MEMBER KOO: So, I want to thank the leadership from Con Edison having the patience to sit down here for [inaudible 03:01:26] three hours now. Yeah. And I have [inaudible 03:01:28] leave and come back to ask you a question. My question is related to the-- not to the electric problem, but for the gas problem. Recently, a lot of my constituents who are small business people or developers, when they open a new restaurant, and takes the months to get the gas to come in the restaurants. And, finally, they couldn't wait. They use the electric to open the stores, right? Well, no. And also apartment buildings, too, in Amherst and this is not [inaudible 03:02:09] remote areas. Just in the neighborhood downtown Flushing area, near flashing, my question is how come it is so hard to bring in gas? You know, we are not in Africa or some other remote countries. No. This is the most developed city in the whole world and you tell me, no, we have a problem to supply gas to new customers. And, especially, some places, when they demolish the building, the building there had gas before. But once you demolish it and build a high-rise, they

can't get gas to come in. So, I want to know why and how you can improve it.

DAVID DESANTI: Certainly we can make improvements in some cases to praying gas in, particularly for larger buildings. We have to do reinforcement, which takes time and takes planning. And, again, it depends on the time we have to prepare for those buildings to come online. If you get those sorts of concerns and inquiries, you can contact me directly. I can get it over to the gas department. I used to work in energy services. We dealt with a lot of issues where we are trying to match businesses and customers coming online and we have to move our plans around to accommodate customers. It's what we do. So, we can do better, but if you can get me those specific issues as they arrive, we will try to do what we can.

KYLE KIMBALL: In just one thing. This is one area that, in addition to being highly regulated by the Public Service Commission, we are intricately intertwined with city agencies on a number of different levels. And so, to the extent, for example, that someone has to have something reinforced, for example, that might mean we need to

go through DOT to open the street and so that's one way we sort of are intertwined with the city. I think second is that-- and that's through the Department of Transportation. And then I think, secondly, we, obviously, work very closely with the Department of buildings and we can't turn on anyone's gas until the department of buildings has cleared it. And so, that's another partnership with the city that, in the case of, you know, the customer that needs reinforcement, new gas-- for new gas service, it requires a great deal partnership with the city to get it done.

COUNCIL MEMBER KOO: So, there's no such stated policy from your company saying that you don't take any more new customers for gas? There's no such thing, right?

KYLE KIMBALL: Not in New York City.

DAVID DESANTI: Not in New York City. Not for the foreseeable future.

COUNCIL MEMBER KOO: So, as long as they have the Department of Buildings permit-- I mean, even though restaurant is completed.

KYLE KIMBALL: Uh-hm.

COUNCIL MEMBER KOO: But somehow they are waiting for because for four months. They've had to pay rent. So, they had to open the restaurant, so they use electric to power all these appliances and we all know gas is more powerful than electric. You know?

DAVID DESANTI: Yes.

COUNCIL MEMBER KOO: Even in our own homes, we have gas washers. Right? Your washing machine is gas. Or drying machine.

DAVID DESANTI: Right.

COUNCIL MEMBER KOO: Gas is much more efficient. In gas heat. So, for a whole apartment building, you say there is no heat and no gas. It's terrible.

DAVID DESANTI: Absolutely. If you can give me-- I'll talk to you afterwards if you--

COUNCIL MEMBER KOO: Okay.

DAVID DESANTI: give me this location, I'll look into it.

COUNCIL MEMBER KOO: All right. Thanks.

DAVID DESANTI: Because we really do not-- We do not want to not serve--

COUNCIL MEMBER KOO: All right. Thank you.

DAVID DESANTI: a large customer.

CHAIRPERSON ESPINAL: Thank you. All right. With that said, you are free to go. We're going to call our next panels.

DAVID DESANTI: Thank you very much.

CHAIRPERSON ESPINAL: Yeah. And, if possible, we would love to have Con Edison to kind of rep here to listen to the testimony. Doctor Yury Dvorkin, professor from NYU. Richard Berkeley, Public Utility Law Project. All right. You can begin your testimony. Just state your name for the record. Make sure your mic is on.

YURY DVORKIN: Can you hear me now? Some can. Thank you. Thank you again for the opportunity to share some recommendations here on how we can make the power grid here in New York more efficient. And I would like to begin with a phrase that stuck in my head. Yesterday, the CEO of Con Edison said that it's impossible to guarantee 100 percent reliability when you operate such a complex engineered system. And while it's true, I am surprised that the CEO failed to mention that, while

you cannot guarantee 100 percent reliability, you need to make sure that your recovery actions following a major outage are robust. That is something which is a [inaudible 03:07:23] importance in this, I believe, is something which Con Edison failed to address in their practice. There are four reasons that I am going to be talking about. The first one is that the resiliency is not in implicitly incentivized. Then I'll give you a very simple example. First of all, not every outage is considered as a major outage, regardless the people are without electricity. According to the program called Electric Service Reliability Performance Mechanism, the outage is considered as large by Con Edison is only more than 15 percent on every distribution network is affected. 15 percent of the consumers. And the interesting that even a large outage occurs based on this ridiculous standard by Con Edison, the charge imposed on Con Edison, according to this policy, is 5 million dollars. So, let's take an example of the July 15th event in Manhattan. 72,000 customers, which is approximately 200 people the customer's premises were affected. So, essentially, the penalty imposed on Con Edison

was 25 dollars per affected person. When the penalty is so low, the decision of the executive in charge is not to invest in resiliency. In this case, when you only have two paid 25 dollars per person, the decision is you do it. You shed load. You curtail consumption because it's the most economically efficient action in that case. And another thing, basically, it was a nationwide event when Con Edison didn't get any-- when there was a blackout in Manhattan, right? And they paid 5 million dollars in penalty. Only 5 million dollars out of 1.5 billion reported in their net income. The other interesting thing, which has not been explicitly discussed is that, even though the event in Manhattan affected six distribution grids, meaning that the customers were disconnected in six distribution grids, only penalty was imposed only for the power outages in three distribution networks out of six. Three out of six. Why? Because, according to this definition, the outages in the remaining three were not considered large even though people were impacted. So, the problem is that resiliency is not incentivized by the current practice and the penalty is laughable. So, what needs to be done here, we need to change the

regulatory framework so that Con Edison doesn't have the capability of some man taking on its role as a monopolist in power delivery because we of competition in supply and very often delivery related concerns are being exploited so that Con Edison can maintain their bottom line. What could be the solutions? First-- And it was mentioned by then gentlemen over there. It's introducing high fidelity electricity pricing, whether through advanced pricing mechanism more through distribution location marginal prices that recognize locational, temporal, [inaudible 03:10:22] and behavioral attributes of electricity production, and we need to do a better job in moving to delivery motivated entry [inaudible 03:10:29] for third-party electricity suppliers and for increasing customer autonomy. Introducing high fidelity pricing will do this job. Speaker Johnson, believe, said that-- I'm sorry. He mentioned that, basically, we have to be more flexible on how we supply electricity and that's exactly what that would achieve. And governor-- Not governor. Mayor De Blasio mentioned that probably we should have a public company running our wires. That's a valid point, but introducing competition would be more

feasible, I believe, because, in this case, customers would have a choice. Internalizing the choice of customers would be important. So, the problem is that Con Edison is a monopolist and it doesn't have any competitor.

In my final thoughts, I would like to point on something that the gentleman from Con Edison at earlier today that they don't collect social, demographic information about their customers and the reason for that was to prove their point that they don't discriminate people based on their social demographic attributes, which is a great thing. But the problem is that, if they don't have social demographic information, and they cannot internalize local sensitivities, which drastically vary across the city, into their decision. For example, people of different cultures, different religions, different social economic factors, they differently tolerate interruptions of their electricity supply. So, the decision that Con Edison people made based on technical reasons to shut down the electricity-- preemptively shut down the electricity supply in Brooklyn, didn't account for cultural sensitivities. So, what I suggest is that Con Edison should lead an

outreach, probably with assistance from the Council and from the city hall in general to understand what people in different neighborhoods of the city expected of their electricity supply preference. Right? If it's an ability to tolerate the collusion of balloon, let be-- in some, it would be observance of some other reasons. But, in my final remark, I would like to say that, based on my input as an expert, I believe this committee and, in general, on such complex issues discussed, you personally would benefit from having a panel of experts that includes not only academics like me, but there is a lot of engagement from US national laboratories from professional organizations that can give you technical advice on which questions to ask. Because, honestly, I feel that people with expertise who were sitting behind this desk before me, they were able to sort of cut the corners with answering some questions directly just because they were able to provide meaningless, but so technically sound answers. So, I believe you would benefit, honestly, from having experts on your side asking and grilling them on the questions that they don't want to answer. Thank you.

RICHARD BERKELEY: Thank you to the chairs, thank you to the Council, to the Council leadership, and, of course, to Public Advocate Williams. My name is Richard Berkeley. I am the Executive Director of the Public Utility Law Project of New York. We are a 40-year-old not-for-profit public interest law firm and consumer protection organization. We were founded to fight against runaway increases in the costs of energy and to provide an independent voice for utility consumers and to have an independent entity that protects them, which may be of some relationship to being here today. We are also committed to providing direct services to low income in the working poor New Yorkers New York City residents. We intervene in utility rate cases such as the existing Con Edison rate case and the National Grid New York City, formerly Brooklyn Union and the National Grid Long Island rate case, so we think a lot about the interplay between the two moratoria Con Edison soft moratoria in New York City which Council member Koo stumbled upon. And also, the other issues related to creeping electrification. We have taken part in most of the major rate case is in New York over time and we have also been involved in

investigations into major electric outages such as in the city. In reverse order, the super storm Sandy investigations and the subsequent Moreland Commission inquiry, the 2006 Long Island city and Westchester blackouts, the 1999 Washington Heights blackout, and the 1977 blackout. My predecessor was a key member of the Moreland Commission and of the Western Queens Assembly Taskforce Investigations and, to my knowledge, provided professional help to members of the Council when asked. All of which brings me to today and the topic of the hearing, which is the reliability of Con Edison. But, as the professor next to me pointed out, reliability is not the only important question. Resilience is as important a question with a utility like Con Edison. The company has said, yesterday in front of the state legislature and today in front of you, that it is the most reliable utility in the United States and, looking at the numbers on paper, that is not untrue. But reliability is not the only question. And particularly in New York, when the consequences of Con Edison having a failure are so much higher than they are elsewhere, you have a right and the citizens of New York City have a right to expect more from

them. Merely being better than everyone else is not good enough. They need to be as good as you need them to be. Electric is about economic development. Electric is about health, safety, and welfare. Electric is about quality of life. Electric is about livability. And, as the company said in more detail yesterday, but slightly today, there are large numbers of customers who are what are called LSE or life-saving equipment customers. These are people the company knows will die if the electric is out, but there is also people who are called customers of serious and chronic medical conditions. These are people that the company is not judged will die if there is no electric, but a medical professional is said that their medical condition, and a doctors expert opinion, well-being is substantially harmed by the loss of either gas or electric. The company does not do a very good job of keeping track of those people. None of the utility is due in New York and we talk about that with them and we push them to do better when we are in rate cases like we are in it now with Con Edison. You all know the story of what happened in Manhattan. We heard today from the Council members, not as much, unfortunately, from the

company and the news media about what happened in the outer boroughs in July, but there are two different types of events that occurred. The first was the one in Manhattan and the company raced to try and give answers because it knew that it was going to end up in front of you and in front of the state legislature and in front of the Public Service Commission and, if Senator Schumer has his way, also in front of the federal energy regulators. So they tried to come up with an answer. And in the first couple of days, they gave you four different answers as to what happened. The thing that is important to know is, first, there was a system failure that led to the outage. Second, the outage spread because, even though they are a network system in the underground system in which they have invested so much money and which is what costs so much money for ratepayers in the city of New York, it's designed to stop failures from spreading to other networks and that didn't work. And from, at least, the early reports-- and we will find out more as the investigations continue. The company's investigation, your investigation, and the states investigation, it sounds very like, from the outside, the type of failover problem that they

had in Long Island city in 2006 and in Washington Heights in 1999. Each time, there is been a hearing like this in front of this Council-- and I've been to two over the last four of them-- and there have been hearings that the federal-- I'm sorry. At the state level and in front of the public service commission. The company is been asked what the problem was. It is reported upon the problem and it has been ordered to do certain things to fix it. Earlier, you heard the Speaker say, you promised you would spend X amount of millions of dollars to replace these, perhaps, not obsolescent, but certainly replaced as technology has passed by, safety portions of your network. And if you look at the company's records-- and there is some very good reporting by the Wall Street Journal and the New York Times about this-- where they took the company's capital requests for rate cases and then expenditure records from years later, they saw that a lot of the money that the company requested wasn't spent. Now, let's be honest. The company makes decisions like that all the time. It asks for a certain amount of money in a rate case and then something may come up in the middle of the three years or two years between

one rate case and the next. And so, it decides to spend its money differently. But I think what you, the Council, have been saying today and I think what I heard yesterday from the state legislature, is that it is insufficient to simply trust the company in these periods and not what you need, among other things-- and I think the Speaker asked for this fairly clearly-- is you need the company or, perhaps, some joint investigation, to sit down and compare all the records of the company's requested capital and its actual expense records on the capital over time. Perhaps at least as far back as the 1999 blackout, but certainly as far back as the 2006 blackout because con Edison's system failures occur, essentially, at the same time of year every time with slight variations when it is things that are outside of their control like a double northeaster or a super storm Sandy. But when it is just the system failing because of the heat, which is something there system is designed as well as any system to tolerate, what we are seeing is the failure of business as usual to deal with the new normal, as we like to call it. The company knows, as well as any utility in the United States, that climate change is real. And New Yorkers

know that as well as anyone. But the company needs to take more steps to invest in resiliency, as the professor said next to me, which is it knows that sections of its grid are going to break from time to time. There are a whole bunch of reasons for that, which I won't go into now, but those breakages in certain sections of the grid should not bring other sections of the grid down. And that is a very important thing in the company showed us failures in that plan. And it's been being told over and over again after the major outages and four major outages in the last 20 years in New York. I'm sorry. In the last 40 years in New York. It's been told over and over again to invest in resiliency. Invest in reliability. The city, the state have been very clear about saying you must be the most reliable utility in the world. Wall Street demands it. A city that, at one point, had almost a third of all the elevators in the world demands it. The subways demand it and the fact that the city is graying and that we have more seniors and, and are fiscally challenged areas, that we have more people with serious and chronic medical conditions, they demand it, too. But you have also been demanding, each time

there is a public hearing like this, that the company become more resilient. And that a failure in one part of the grid should not take down other parts of the grid. Listening to it from the outside, and we will find out more as we investigate, the situation that occurred where the company decided to deep our Brooklyn, was the same situation that happened in Long Island city 13 years ago where they didn't deep power. Now, they are correct. In Long Island city, it ended up in a much longer and difficult restoration. In Brooklyn, perhaps that was the right decision-- we won't know until we look into it in more detail, but one of the things that you pointed out today and that the state legislature pointed out yesterday is that, quite honestly, the company sucks when it comes to actually telling its customers what it's going to do and when it's going to do it. Each time there is been a major outage, you and the state have told the company that it has to communicate better. One of the best examples of this is when LIPA collapsed in super storm Sandy and there is link the discussions in the Moreland Commission report about what the company must do to tell all the stakeholders, the businesses, the state level, the

city level, the municipal level officials. That you should all be informed. Con Edison does some of that, but what it's doing is outsourcing its duty to talk to its customers to you when it says we've told OEM and then it's OEM's problem to tell people when they say we told you and then you have to tell your constituents. I think it's pretty obvious from watching National Grid's behavior in that last couple of months, that when the company wants to communicate to people, it's able to communicate on a one-on-one basis. National Grid took email addresses that its customers had given it for other purposes and told them to lobby you. Con Edison, which also has email addresses could have easily have told people, to the extent that they still had email service, this is was going to happen next in your neighborhood. We're going to shut off the grids. Get ready. Whatever get ready means. But that's another question for another day. I had a whole bunch of prepared remarks. I'm not going to issue any of them today because it's late in the day and I know at some point you're going to want to go back and think about this. So, let me make a couple of observations and put forward a couple of questions I think that the

Council has task. First, I think this should only be the first of a series of ongoing hearings and an investigation into the behavior of the company. Again, this is about reliability, resilience, and the operation and management of the company. Most importantly, as your environmental Chair and, as all three Chairs have said today, the company has to be looking at the future. No one doubts that it is getting hotter. No one doubts that it is getting wetter. No one doubts that there will be more extreme weather events. The company has to have a plan to do better in all these circumstances and business as usual simply won't cut it. So, among the questions that you have test the company are, first of all, when did it make the decisions to not prudently invest in X such as replacing all the failing relays as opposed to spending it on something else? When did it make the decision-- Or I should say when should it have made the decision to begin preparing for electrification? It's pretty clear from where the National Grid moratorium it's going that there is going to be substantial electrification in New York. At one time, I would've said to you that there created could take it, but this is a

company that is having trouble during the period of the year that its system is designed to operate at peak under. When we switch large sections of residential and businesses in New York City to electrification for the winter, you have a system that is not designed to do its hardest work in the winter. They are going to have to design not from scratch and that's going to cost an awful lot of money and the ratepayers are going to pay for it in the end. So, it's important to know what that is ahead of time in to figure out if there is a better way to come up with that money. There are whole bunch of other questions that I think the Council should ask them, in fact, what I will do is I'll submit them to your staff, since some of them came from listening to your question today and some of them came from yesterday in front of the state legislature. I would also observe that-- Well, let me say one or two more things. First, preparing for climate change is as important as you have said, but one of the things that the company hasn't spoken a lot about, although it does say that it regards its customers is very important, which is only accurate incorrect, all of the measures to revert problems

from climate change, all of the measures to move to more renewable energy will cost money. Right now, almost 40 percent of the city can't afford to pay their bills on a monthly basis. You have something close to 40 percent of women headed households with children present that qualify for free lunch and, actually, 100 percent of the school district in New York it's free lunch, although a lot of that is the city's money. But there are huge numbers of New Yorkers who can't pay these bills now. All of the money that is going to be necessary to be spent on reliability and resilience and preparing for a more flexible system for climate change is going to go to the bottom line. And so, that's something that has to be planned and implemented. We can't avoid spending to avert the problems from climate change. We can't avoid spending to get more reliability and more resilience. But you can plan. In one of the ways that you do that is to make the company become more transparent as much as possible. I advocate that the Council take part in trying to get more ordinary New Yorkers into rate cases. That's one of the things that I work on on a statewide basis with

my organization. So, let me stop there and I think we both would be happy to answer questions.

CHAIRPERSON ESPINAL: Thank you. No. Good stuff. Thank you. I appreciate and we will take it all into account.

RICHARD BERKLEY: Thank you. And thank you for having me here today.

CHAIRPERSON ESPINAL: I appreciate it. Next panel we have Annel Hernandez from New York City Environmental Alliance. We have Lee Ziesche. And forgive me if I miss pronounce your name. You can correct me once you are up there. From Sane Energy Project. Kim Fraczek from Sane Energy Project. And Gustavo Gordillo from Democratic Socialists of America. It's good to see you all. Before you begin, anyone can begin, state your name before you give testimony.

ANNEL HERNANDEZ: Hi. Good afternoon, Chairperson Constantinides, Brannan, Espinal, and members of the City Council. I just want to say that I appreciate the energy that everybody brought to the hearing today. I think it's important to hold Con Ed accountable, so thank you for that. My name is Annel Hernandez. I'm the Associate Director of the New

York City Environmental Justice Alliance. We are a citywide membership network linking grassroots organizations from low income neighborhoods and communities of color in their struggle for environmental justice. Climate justice is based on the principle that front-line communities are most vulnerable to climate change and, therefore, must play an integral role in planning for the renewable and regenerative energy economy. These are communities where climate vulnerabilities intersect with historic patterns of environmental burdens, many of which could be ameliorated through equitable energy policies and strategic investments. As utility ratepayers, members of these communities have financially contributed into existing energy efficiency and renewable energy programs in New York, only to encounter barriers to their own participation or programs that ultimately fail at systemically addressing the root causes of energy insecurity and energy poverty. The massive system change required to stave off dangerous climate change impacts requires a consideration of these unique vulnerabilities. Extreme he will undoubtedly exacerbate energy inequities. Low income communities

and communities of color also face disproportionate climate risks. For example, New York City's 12 most heat vulnerable neighborhoods are predominantly high poverty areas where the residents are majority people of color. This assessment is based on the New York City heat vulnerability index which summarizes factors associated with adverse health effects and identifies neighborhoods with higher risks for heat-related deaths and consists of environmental metrics, poverty rates, and race demographics proven to be strong indicators of heat risk. Furthermore, the vulnerable neighborhoods and high poverty areas also face additional overlapping vulnerabilities. In central Brooklyn, one of New York City's most heat vulnerable areas, Con Edison has projected an energy shortfall necessitating demand reductions through it's Brooklyn Queens Demand Management Program. For years, we have warned of the vulnerabilities in the BQDM that may result in brownouts and blackouts. While Con Edison is expected to reach and exceed its energy demand reduction targets with a renewed commitment of 200 million ratepayer funds for demand reduction measures, the BQDM program only provided limited opportunities for residents. Despite

residents making the majority of customers in the BQDM area, residential programming so far has been limited mainly to light bulb replacements.

Furthermore, New York City is home to 16 peaker plants, many with multiple generating units both publicly and privately owned. These highly polluting fossil fuel power plants known as peakers fire up in the South Bronx, in Sunset Park, and other communities of color on the hottest days of the year when air quality is at its worst and sensitive populations are warned to stay indoors. Peakers then spew even more harmful omissions into neighborhoods already overburdened by pollution. This outdated, inequitable, and inefficient system for meeting peak demand is right for transformation. All of New York City's privately owned peakers have been in operation for over 45 years and utilize old technology without upgraded pollution controls. Over the past 10 years, by public estimates, these New York City peaker plants have taken in about 4 billion dollars of what are called capacity payments just to sit there and run infrequently with some units operating no more than a few hours a year to keep the grid operating. Local New York City ratepayers pay out of their

electric bills for these capacity payments and all of this is on top of Con Ed's proposed rate case increase. Many of these plants, particularly the largest, oldest, most polluting plants are owned by out-of-state private developers taking in billions of dollars in wealth out of these communities. These billions of dollars could instead be used in local investments for community solar and storage that could meet these peak demand means, reduce electric bills, and provide resilient power which would help avoid the impacts of blackouts like the one that hit Manhattan and Brooklyn this summer. Renewable and resilient energy systems will advance energy democracy, reduce energy cost burdens, strengthen the resiliency of communities, and capture the benefits that community and solar storage installations can deliver. Con Ed must ensure not only that its grid is resilient to extreme weather, but also that there is a plan to modernize and prepare for the new influx of large scale offshore wind, distributed generation, and community solar throughout the city. Right now, they are not prepared for the renewable energy future. The Climate Leadership and Community Protection Act which legislated commitments to

eliminate fossil fuel emissions in New York State by 2050 make it imperative to transition to renewable and resilient energy future. New York City's electricity generation and distribution infrastructure is highly vulnerable to storm surge, flooding, and extreme heat and we can no longer wait to invest in a just transition. Thank you.

LEE ZIESCHE: Hello. My name is Lee Ziesche. I am an organizer with Sane Energy Project. I am also a documentary filmmaker who is worked with communities that have been impacted by fracked gas infrastructure for about six years. I think the city Council so much for being here and listening to us today and I wish Con Ed would have stayed and done the same-- it seems like most of them left after they testify. But as I well kind of address in my testimony, that's kind of been the par for the course for us dealing with Con Ed. The Con Ed block out during the heat wave and following heavy storms expose a scary truth is that our energy infrastructure here in New York is not prepared for climate change. But what is even more terrifying is that Con Ed wants to continue to build out fracked gas infrastructure that will only make climate change

even worse. In their current rate case, Con Ed is proposing to spend 200 million of our rate payer dollars to expand fracked gas pipelines in Manhattan and Queens, 191 million dollars to expand seven miles of pipeline in the Bronx, and 64 million of our rate payer dollars to extend the light of an LNG facility in Astoria. That also does not include the money that they are spending to replace leaking pipelines and, very often, they are using that as an excuse to actually expand pipelines which, overall, will increase omissions when the full lifecycle of gas is taken into account, not diminish them like they testify today. Climate science is telling us we need to get off gas, but Con Ed doesn't want to listen to climate science or New Yorkers who, time and time again have vehemently opposed fracked gas. All they care about is locking us into a business model that makes their shareholders of seen profits. Yesterday, at a hearing before the New York State Legislature, Con and president, Tim Cawley said the rate case has been a very collaborative process. Sane Energy is a party to the rate case, which is currently in confidential settlement, so I can't say much, but I believe the public deserves to know that the proposal

on the table completely fails the climate test and that the process has not been collaborative. The room is mostly full of lawyers in suits and when we have brought up climate science, it's been thrown back at us as how we feel on certain issues. Requests for more public hearings in communities most impacted by fossil fuel pollution and high energy burdens were denied and, even today we requested that settlement negotiations be rescheduled so small organizations like Sane Energy Project could attend to this important hearing. Our request was denied and I felt it was more important to be here today in this room than in that settlement room a couple blocks away where the voices of people demanding that climate science they listen to have been ignored and even looked down upon. Yesterday, Tim Cawley said four times that Con Edison's customers are there true north, but they don't seem very interested in what I have to say is a rate payer. I think money is Cawley and Con Ed's guiding star and yesterday, while lying about what a collaborative process this has been, Tim Cawley made about 6777 dollars because he's making about 2.4 million a year. So that, you know, over 6000 dollars is actually more than I have in my bank

account right now. I work part time at sane energy organizing for a livable future, but I am also a server at a restaurant, so I work incredibly hard for my money and to be thinking that Con and is not only going to be raising my rates but that every dollar-- some of those dollars that I am sending to them, they are actually going to be spending them on making New York and on livable city by funding fracked gas infrastructure. So, how do we get to a truly reliable, safe energy system? We stop investing in fracked gas infrastructure today, we stop giving Con Ed and their CEOs and shareholders million dollars salaries and high rates of return, and we like climate science, not a brutal form of capitalism, determine our energy system. Recently, youth climate activist, Greta Thunberg, arrived in New York and her message was very simple. It was act now. So, Con Ed is proposing a rate plan that is going to last three years. It's continuing to invest in fracked gas infrastructure. We have a very limited amount of time to act and this rate plan does not get us there. So, if we continue to follow Con Ed's path, we know heat waves will only get worse. We know the rainstorms will only get stronger and more intense,

stressing not just our energy infrastructure, but the entire systems of the city. So, we need to act now and, like I said, I felt like it was more important to be here talking to you because I have seen action come from city Council. And so I hope you can take this message to a lot of the other members who had to leave, you know, what Con Ed is proposing right now is just insane and it's been very difficult to sit there in her room, not be able to talk about what is going on, and just have them, you know, debate about how much money they are going to make while the plan that is on the table is a disaster for the climate. So, again, thank you so much for listening and all the action you have taken already from city Council on climate change.

GUSTAVO GORDILLO: Hello. My name is Gustavo. I am with the New York City Democratic Socialists of America. Con Edison's blackouts in July coincided with a heat wave and extreme weather during the hottest month in recorded human history. Look at the devastation wrought this week by hurricane Dorian, the fifth category five hurricane in the Atlantic in the last four years and it's not hard to see that climate change will be the defining

social and economic issue of the next several decades. More and more, voters are seeing this, too. In April 2019, a CNN poll found climate change to be the top issue for registered Democrats. 82 percent of registered voters who are identified as Democrats or Democratic leaning independents listed climate change as a very important top priority they would like to see get the focus of a presidential debate. In August 2019, a poll conducted by a U Gov Blue and commissioned by Data for Progress, found that nearly 62 percent of owners said they would support a policy holding energy companies or utilities legally liable if it could be proven that they misled the public about the consequences of climate change. This isn't good news for Con Edison. In 2017, the Energy and Policy Institute published a report titled Utilities Knew, documenting electric utilities early knowledge and ongoing deception on climate change from 1968 to 2017. The report details that Con Edison contributed funding to produce a 1971 report on the industry's long-term research and development goals that already included research into the effects of CO2. Con Edison is a member of the major trade association, the Edison Electric Institute, which has spent recent

years lobbying against solar throughout the country. And today we heard Con Edison's representatives say that they have a lot of power and influence of these organizations. At the Edison Electric Institute's annual convention in 1971, and MIT professor, Dr. Carol L. Wilson warned that if a consensus arose that we had to limit or curtail the use of hydrocarbons because of their impact on climate, the implications would be enormous. The Edison Electric Institute sponsored a cutting-edge study between 1985 and 1988 which found that climate change is possible over the next 30 years may significantly affect the electric utility industry. But over 30 years later, investor-owned utilities, like Con Edison, continue to hold us hostage to ecocidal [sic] policy like expanding fracked gas infrastructure which Con Edison has supported both with Williams pipeline and its current ongoing rate case, to which we are also parties. And I also want to highlight the-- what I considered to be the illegitimacy of deciding a rate increase behind closed doors in the settlement process where none of us are able to disclose in a public way what's going on behind those doors or what even the utility wants to propose beyond what is already been

outlined in the testimony. So, furthermore, in the last months, Con Edison has shown itself to be unable to cope with the extreme weather conditions that they, themselves, have played a major role in creating and inflicting upon us. I and others in the DSA have spent the last few months talking to New Yorkers about our broken energy system. We canvassed residence in Southeast Brooklyn who spent up to three days lingering in the heat without power during a record-breaking heat wave. That's because Con Edison intentionally cut off power to more than 33,000 homes. These New Yorkers were sacrificed without warning and wanted to know why. Con Ed had 20 minutes between the decision to cut power to Southeast Brooklyn and the actual depowering, but they have no system in place to notify people when they cut off their power. Some we spoke to in these neighborhoods such as in Flatbush were concerned for their family members and elderly neighbors at risk of heat stroke. One spoke of a diabetic family member in her home who was unable to properly store insulin, putting her health on the line. Some, already rent burdened, struggled to eat that week because their food spoiled and they were unable to turn on their

stoves. Those who took the time to apply for reimbursement from Con Ed during the short window they were allowed initially founded Byzantine and difficult to navigate, but most reported knowing reimbursement had been an option at all. One Canarsie resident had her power shut off and was forced to sleep outside on the porch with her baby because it was so hot in their apartment. Again, during the hottest month in recorded history. The baby contracted viral conjunctivitis which cannot be treated with antibiotics and soon after gave it to the mother which led to her missing a week of work. It was a chain of misfortunes set in motion by Con Ed's greed and well documented history of placing profits over public safety, grid resilience, social equity, and climate justice. We also spoke to people in Astoria Queens where a lion's share of the city's powers generated and where a recent transformer fire turned to the night sky of vivid blue, leaving community members asking themselves if they were actually safe in their own neighborhood. More than 100 people made it out to a town hall Council member Constantinides had stood with us in Astoria to speak out against Con Ed despite the pouring rain.

Throughout that town hall and through canvassing, we have found that people are fed up with Con Ed and want real change. The climate crisis is upon us and it is time we prioritize a just transition to renewable energy over investors profits. We face two massive intersecting crises of climate change and debilitating economic inequality. There is no rationalizing why we led a corporate entity like Con Ed, who has shown no meaningful signs of being willing to confront the climate crisis, profit by mismanaging a critical public resource like our cities energy. There is mass support for an energy system that is publicly owned and accountable to the people, not shareholders. This is nothing new. Public takeovers of utilities can and have been done many times before. The entire state of Nebraska runs fully off of public power after the state expelled its for-profit utility for charging exploitative rates. Additionally, more than 2000 cities in the United States operate publicly owned utilities and actually see the money from these utilities goes straight back into their communities, rather than disappear into the pockets of shareholders and CEOs. Last year, Con Edison paid more than 850 million

dollars in shareholder dividends and made over 1 billion dollars in profits. Those profits should be democratically controlled by New Yorkers, the very people that provided them. It has been made clear that Con Ed's infrastructure is not ready for the coming century of climate crisis in their business model is in either. Thankfully, there is an alternative. We don't have to rely on a corporate monopoly to provide clean energy. We don't have to wait to save our planet until it becomes profitable for investors. We can take matters into our own hands by creating a publicly owned and democratically controlled utility instead. We could commodified clean energy and guarantee it to all New Yorkers as a human right, much in the same way we guarantee clean water through our public water utility. We already have the largest state owned public utility in the US, the New York Power Authority, which was founded during the New Deal. We could expand NYPA or municipal lives private utilities like Con Ed and National Grid to decarbonized, decommodify, and decarbonize our energy system. On average, publicly owned utilities are 15 percent more affordable, more liable, with outage durations less than half the

national average. More sustainable and safer than privately owned utilities. Publicly owned utilities contributions to state and local governments are, on average, 33 percent higher than those with investor-owned utilities and success stories like Austin Energy, the Carson Electric Cooperative in New Mexico, which of said some of the most ambitious renewable targets in the country, will give us a solid roadmap to work from. Publicly owned utilities are not a radical idea. Public or municipal utilities already serve 30 percent of all electricity customers in the US. What's radical is continuing to let Con Ed profit from killing us and our planet. Con Ed has passed the costs of their outdated and dangerous business model onto ratepayers, taxpayers, workers, and the environment for too long. It is long past time for the rest of us to wake up and propose a different way forward. It's time that we bring the billions in profits under Democratic control to invest in the renewable energy future we need to survive.

KIM FRACZEK: Hi, everybody. My name is Kim Fraczek. I'm the Director of Sane Energy Project. We represent over 8500 New Yorkers working

for the past decade toward halting fossil fuels and moving our economy in a 100 percent renewable owned and led renewables. Thank you for hosting this crucial hearing today. I also am joined by my colleague, Lee Ziesche, and Lisa Harrison. We are parties to the Con Ed rate case and we chose to come here today instead of a settlement meeting where we, clearly, have no voice. They do not have any means to consider our recommendations or anything, so we appreciate the fact that you actually listen to us and implement the change and you carry the same vibrancy toward demanding from our systems as we do, so thank you very much. After reviewing the legislative hearing yesterday with Consolidated Edison, it's clear that we have a rogue company monopolizing our lives and we should sculpt a plan of what New York City looks like with publicly owned energy systems. One where localized, renewable energy systems can flourish, be funded, accessible, and equitable. It's time for us to envision the world that we want and those people in this room right now are part of making that process happen. It's not an easy task, but we should think in the visioning process to make it a reality and work

together with those who have already put forward incredible visions and technology to pass climate laws in the state that we just saw this past legislative session. The money and the technology are there and we need to get it, yet we have powers working against us now that are willing to fight to the death to maintain the system that works for the billionaire and millionaire class. I just want to identify that Con Ed said in their hearing today that now they are working with the Public Service Commission to try to own generation and that already goes against the law because they are a monopoly, but, at the same time they want to own this generation and they are appealing to do so so that we can move to renewables, they are lobbying to squash communities solar at the same exact time. So, they, basically, want to squash any community drive to build renewables in our own communities until they can mandate that they own the power and the generation and the distribution and maintain their monopoly status. So they can own the renewable revolution. Right now, Con Ed is asking for another rate hike to expand more fossil fuels, as other people have pointed out in they want to stop for

their shareholder pockets by cutting corners on us, the people of New York City, and know that Con Ed's CEO, John McAvoy cashes in making 4200 dollars per hour and president Tim Cawley, 1150 dollars per hour. Per hour. The good people of New York City fought with all their might to get 15 dollars an hour just to put things in perspective. Tim Cawley's gross response to the blackouts in the hearing yesterday was that the company sent apology letters to the people of New York and that the current rate case is collaborative. Sane Energy Project, being a party to the case, to the current case, I can assure you that it is anything but collaborative, inclusive, or democratic. And Tim didn't even have the respect for our New York City Council to show up today at this crucial hearing. Regarding the blackouts, let's put on record that Con Ed did not use the funds in their last rate hike case to address grid dependability by funding a relay protection system, the very parts of the grid responsible for the blackouts and, to add insult to injury, they then selected neighborhoods to black out during the heat wave. We have the answers. The answer is to redistribute the wealth and power away from these

billionaires pumping fossil fuels into our city on our dime, while letting our systems go into disrepair. Although renewables and efficiency conservation undermine Con Ed's profit, it will keep us safe, so it's time to fight for that. We support city Council's leadership on accountability to the corporate utilities in New York City and we, additionally, urge the city Council to hold another hearing, continue to make statements and actions with us against National Grid's scare tactics and holding businesses and residents hostage to push through the Williams messy pipeline. We urge you to make a direct demand to John Rhodes at the Public Service Commission to do his job and serve the public by standing up to the criminal acts of corporate utilities. When I had conversations with Catherine McCarron and John Rhodes at the Public Service Commission recently, they told-- when I asked them where the investigation was on Con Edison's moratorium and now they're opening an investigation on National Grid's moratorium and I said when are they going to be ready? The Con Ed investigation was supposed to be due in June and they-- the answer from Catherine McCarron, who is in charge of gas at

the PSC, wrote me back and said it will be ready when it is ready. That is not the kind of answer that I expect from my state agencies that I paid their bills. So, you know, we should really-- I would love for the city Council to make a concerted demand to the Public Service Commission. We are all showing up at their meeting on September 19th in Albany because they are going to be issuing energy efficiency standards mandated to the utilities. So, we're going to be running a letter to the editor's Pain leading up to that meeting which is going to be the commencement of the climate strike week, so we would love to speak with all of you about issuing letters to the editor to the Public Service Commission to demand that they make our public utilities work for us because they are the regulators. This is their job. We know that we can't rely on the corporate utilities to be an honest voice in this renewable transition. Why would John McAvoy and Tim Cawley want anything to change? The slanted system is working just fine for them. And the power dynamic trickles down to other executives in Con Ed. Like we just saw the people sitting here today. Those same people were sitting at this very

table on April 15, 2019 in the hearing to pass the resolution to oppose the Williams messy pipeline. Consolidated Edison representatives Ivan Kimball, the VP of Energy Management and Kyle Kimball, the VP of Government and Regional Community Affairs, claiming that methane gas supply can strengthen New York City to justify building another heinous pipeline in order to bring profit to none other than Williams, Con Edison, and National Grid shareholders and stick all of us footing the bill. Their testimony was counter to report issued by Suzanne Mattea, former DEC regional director, that we don't even need the gas. Further, they continued to say-- they didn't do today, so they learned. But they did say and that April 15th hearing, and I watch the video to confirm, fracked gas was, quote, renewable gas several times in their testimony and they had no plan for renewables other than waiting for the market to work first, when asked by Speaker Johnson. We can't afford to keep business as usual when business as usual is killing us. We need accountability and redistribution of wealth, power, and, starting with the corporate utilities that operate in New York. I'll email you all my testimony. I just didn't have

the opportunity to print it this morning. Thank you so much.

CHAIRPERSON ESPINAL: No. Thank you all for your testimony and for shedding light on all of the issues with Con Ed and especially in our communities of color. I appreciate it. Thank you.

KIM FRACZEK: Thank you.

CHAIRPERSON ESPINAL: I'm going to call up our final panel. We have Lisa Harrison and Greg Waltman. Lisa Harrison and Greg Waltman? You may begin, just remember to state your name before you give your testimony.

LISA HARRISON: Okay. Hi. I'm Lisa Harrison. I live in the upper West side Manhattan and I am a volunteer with Sane Energy. So, for as long as I can remember, no black cow has been caused by lack of fuel. They've always been due to a problem in the distribution system. Distributing power is Con Edison's one job. I would like to see major improvements in the distribution system before Con Edison gets into the energy generation business. Public utilities are granted monopolies status for practical reasons than the public is to meet up between the various utilities. For the privilege of

having monopolies status, utilities are regulated. Unfortunately, the regulation part is not working very well. Con Ed has been granted multiple rate increases which it claimed were needed to improve the system. For example, it previously proposed the relay protection system redundancy program, projected to cost 315 million dollars. After raising their rates, Con Ed scrapped to the program. Did anyone get a refund for that? I didn't. As it turns out, the recent blackout on the west side of Manhattan was caused by a faulty relay protection system. Then, about a week later, as we have heard, Con Ed managed to their system load by cutting off power to 50,000 customers in Brooklyn during the heat wave. Con Ed is now asking for another rate increase. This time they want to spend hundreds of millions of dollars to expand fracked gas infrastructure, locking us into decades more of fracked gas and forcing us to pay for it. Instead of maintaining Con and business model, we should be increasing energy efficiency and transitioning to 100 percent renewable energy. A public utility would be helping with this effort, not taking us in the opposite direction. Instead of pipelines, we need aggressive efficiency programs and

incentives for replacing archaic boilers with ground and air source heat pumps which will eventually run on wind, solar, and tidal electricity. I just wanted to say a little bit and also about the smart meters, which we have heard great praise for her from Con Edison. Cyan tests and health care professionals are concerned about the health impacts of smart meters in the radiation that they emit. But this hasn't stopped Con Edison from installing them all over our city. Shouldn't a company have to prove that their product is safe before rolling it out? When did it become okay to use the public as guinea pigs? And especially in New York City where we are not talking about a single-family house with one mediator, we are talking about huge apartment buildings with rows of meters in their basement. I got this large postcard from Con Edison with a smiling guys saying smart meters are calming and it gave a phone number for if you have any questions. I called that number and I found-- I had several questions. Not one of them was answered. Which was can I opt out of this program? They said I can opt out if I pay nine dollars and 50 cents a month, which amounts to about 1000 dollars a year and they said that was because

they will have to send someone to read the meter, as they too currently. So, I said, okay. My building has 10 apartments in it. If the whole building ops out, would that be 9.50 for the building since you are only sending one person to read the meter and not 10 people to read each meter? And she said, no. That's 9.50 per account because that's what the p-- Public Service Commission, PSC, approved. So, I said, that doesn't seem very fair and she said, well, there's nothing I can do about it. I had some questions about the meters because I am not a scientist. I don't really know if they are safe. I don't feel comfortable just taking Con Ed's word for it saying, yeah, they are fine. Trust us. So, I try to get some answers. The person I spoke to had no information on the smart meters. She said to call the manufacturer which was Aclara. I called Aclara. I did not get information from them, either. So, I have a list of questions that I would like to get answered. If you have any influence, you know, with them, I would love to give them to you and see if you can get answers. Because I can't make an informed decision on this.

CHAIRPERSON ESPINAL: Yeah. After the hearing, we can have a side conversation--

LISA HARRISON: That would be great.

CHAIRPERSON ESPINAL: on those questions.

LISA HARRISON: Yeah. That would--

CHAIRPERSON ESPINAL: Thank you.

LISA HARRISON: That would be great.

CHAIRPERSON ESPINAL: I appreciate it.

LISA HARRISON: So, you know, Con Ed operates as a for-profit monopoly corporation and accountable to its stockholders, not to the public. Their decisions are made on the basis of profits. They do not consider the environmental impact of their decisions, only their bottom line. Con Ed is desperate to preserve their business model and keep us hooked on fossil fuel, as was made clear by their faked gas shortage and moratorium and lobbying for the Williams pipeline, which they have been doing, as people have mentioned. Obviously, the system is not working. The better option might be municipal utilities using only renewable energy. Since Con Ed clearly will not change its business model, we need a public solution to this. Thank you.

CHAIRPERSON ESPINAL: Thank you.

GREG WALTMAN: Good afternoon, city Council. My name is Greg Waltman. I'm here testifying on behalf of G1 Quantum, my energy company. We have been at this issue for quite many, many months now, but although I am appeased by today's schedule of having Con Edison and energy being discussed, I'm not ignorant to the Council using it redirect Jamie Diamond's proximity to Jeffery Epstein and that in relation to the Bernard Madoff type of issue that I have bought to the Council's attention, as I was there before Harry Mark Opolis [sic], which you have the email. So, going back to energy and, you know, energy generation, like I said, I submitted a superior bid on the border wall to put solar panels on the border wall and energy generation. Now, these contracts could be originated from New York and then offset any type of fiscal and budgetary concerns that the Council might have. So, are we going to sit here like Chair Constantinides said, in an illusion of choice or are we actually going to do something? And that's what I'm here to do. I mean, you have an illusion of choice with your improperly formed utility of Con Edison, but, if you were to cut me a blank check

today, I wouldn't be able to tell you that I'd be able to do a better job reworking infrastructure because you are going to have power outages. That's just the way it is. But how we address an offset or how can you talk about a rate increase under those types of conditions? And I just don't think a rate increase is warranted under those types of conditions. It's not that you need more competitors in the marketplace. It's just that you need to rethink about how you offset or address or generate tax revenue and in the type away that I just described of solar application on the wall. I mean, you might not like the wall, but if it's going to be there and has been there for over 100 years, might as well produce energy. Then you stabilize an economy like Tijuana demonstrating application and you create that type of reciprocity you need, not only stabilizing energy prices in North America, but also Latin America. So you have the type of opportunity in Latin America that we have here in America, right? So, if you create the similar opportunity, you resolve chain migratory issues, essentially, killing the couple value birds with one stone. And it's not only that. It's, you know, you look at Hudson yards

and you see trains conking out tens of thousands of dollars in diesel in our just sitting there. Anyone notice that? They just conk out diesel. Not doing anything. Just stationary. Spending money on stationary well, you know, New Yorkers are now being forced to buy a single ride tickets on the MTA. Is that because the price of diesel is going up, too? I mean, it's just one of those things where there is just a lack of accountability across the board and for the governor to write checks to different types of county officials and municipalities to into LIRR track enhancements while overlooking quantum tracks in the clean energy application like I described many times, reapplication of breed breaker technology, is just absurd. So, I just hope that some of these issues, you know, our address and we parse through the value Green New Deal illusion of choice narratives that Chair Constantinides was alluding to. Thank you.

CHAIRPERSON ESPINAL: All right. Thank you, sir. With that said, we are concluding this hearing. I appreciate everyone for their testimony. We will go back and review everything that was said today and see what is the best way for the Council to

move forward and find ways we can continue holding Con Ed accountable. Thank you.

[gavel]

CHAIRPERSON ESPINAL: Meeting adjourned.

[background comments]

C E R T I F I C A T E

World Wide Dictation certifies that the foregoing transcript is a true and accurate record of the proceedings. We further certify that there is no relation to any of the parties to this action by blood or marriage, and that there is interest in the outcome of this matter.

Date September 11, 2019