1	PLACE: Dobbs Building, Raleigh, North Carolina
2	DATE: Tuesday, March 15, 2022
3	TIME: 9:30 a.m 11:40 a.m.
4	DOCKET NO: M-100, Sub 163
5	BEFORE: Chair Charlotte A. Mitchell, Presiding
6	Commissioner ToNola D. Brown-Bland
7	Commissioner Lyons Gray
8	Commissioner Daniel G. Clodfelter
9	Commissioner Kimberly W. Duffley
LO	Commissioner Jeffrey A. Hughes
L1	Commissioner Floyd B. McKissick, Jr.
L2	
L 3	
L 4	IN THE MATTER OF:
L 5	Investigation Regarding the Ability of North
L 6	Carolina's Electricity, Natural Gas, and
L 7	Water/Wastewater Systems to Operate Reliably
L 8	During Extreme Cold Weather
L 9	
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APPEARANCES:
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    FOR AQUA NORTH CAROLINA, INC:
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    Jo Anne Sanford, Esq.
    Shannon Becker, President
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    Joe Pearce, Operations Director
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    FOR CAROLINA WATER SERVICE, INC. OF NORTH CAROLINA:
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    Jo Anne Sanford, Esq.
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    Don Denton, President
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    Dana Hill, Operations Director
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    FOR PUBLIC STAFF:
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    John Little, Esq.
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    Charles Junis, Director of Water, Sewer and
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    Telephone Division
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## PROCEEDINGS

CHAIR MITCHELL: Good morning. Let's go on the record, please. I'm Charlotte Mitchell, Chair of the Utilities Commission, and with me this morning are Commissioners ToNola D. Brown-Bland, Lyons Gray, Daniel G. Clodfelter, Kimberly W. Duffley, Jeffrey A. Hughes and Floyd B. McKissick, Jr.

This technical conference is being held in Docket Number M-100, Sub 163, which is titled "In the Matter of Investigation Regarding the Ability of North Carolina Electricity, Natural Gas, Water and Wastewater Systems to Operate Reliably During Extreme Cold Weather".

Due to the widespread outages experienced in Texas and the south-central United States during February of 2021, as well as the results of a joint inquiry into the Texas outages undertaken by the Federal Energy Regulatory Commission, the FERC, and the North American Electric Reliability Council, the NERC, the Commission opened an investigation to consider whether North Carolina's electricity, natural gas, water and wastewater systems are prepared to operate reliably during extreme cold

weather, and whether the Commission's rules require changes in order to ensure reliable service.

The Commission issued an Order on January 26, 2022, initiating this investigation. The Order made as parties to the proceeding the largest jurisdictional electric, natural gas, water and wastewater utilities and required these utilities to file responses to a series of questions related to their extreme weather preparedness by February 23, 2022. The Order also scheduled technical conferences to be held today, March 15th, as well as on April 19th, for the parties to present their responses and answer follow-up questions.

We're here today for the first technical conference which will focus on the preparedness of water and wastewater utilities. The technical conference to be held on April 19th will focus on the preparedness of natural gas and electric utilities.

We'll hear today from Aqua North Carolina and from Carolina Water Service, Inc. of North Carolina. The Public Staff, which represents the Using and Consuming Public in matters before the Commission, will participate in the technical

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conference as well.
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The conference this morning is being transcribed and the transcript will be filed in the docket as soon as it becomes available.

All right. Before we begin, I'd like for the parties to identify themselves for purposes of the record. We'll begin with Aqua.

MS. SANFORD: Good morning. I will speak initially. I'm Jo Anne Sanford, attorney for Aqua and for Carolina Water, and I realize you were talking to Aqua and not to me, but while I'm talking we have Shannon Becker and Joe Pearce from Aqua here this morning, and Don Denton and Dana Hill from Carolina Water. So, with that.

CHAIR MITCHELL: Good morning,

16 Ms. Sanford.

MS. SANFORD: Thank you.

18 CHAIR MITCHELL: Good morning to you-all.

19 Public Staff.

20 MR. LITTLE: Yes, good morning. John
21 Little, attorney with the Public Staff, Legal
22 Division, and with me is Chuck Junis, the Director

23 of the Water and Wastewater Division for the Public

24 Staff.

CHAIR MITCHELL: Good morning, gentlemen.
Mr. Becker.

MR. BECKER: Good morning, Chair Mitchell and Members of the Commission. Thank you for the opportunity to speak at the technical conference.

What we have prepared for us -- I'm the President for Aqua North Carolina. I also have Joe Pearce who is the Director of Operations for Aqua North

Carolina. We have a brief presentation that we'll review that really just goes over the questions that were asked of us in the Order. We have also reviewed the Public Staff's questions that have -- were sent to us in advance as well as the

Commission's questions, so we're prepared to answer any of the details related to those questions.

I am going to hand the microphone over to Joe Pearce as well as the clicker and he will review the presentation.

MR. PEARCE: Good morning. I'm Joe

Pearce. I'm the Director of Operations for Aqua

North Carolina. I'd like to start with the nice

picture on the front of our presentation. That's a

picture from Texas from one of their systems. The

pressure valve during the storm event froze in place

and sprayed water. It made a nice looking, huge snow crystal or ice crystal, also covered a power pole, cars out in the -- on the other side of the parking lot. That was not a planned failure. It's not been fully recognized, but things happen that you can't necessarily plan for.

If you would -- I'm just going to try to go through the questions that you asked and a bit of a summary about what our answers were.

The first question was about changes since winter storm Uri. The first change we made is we tried to make inclement weather notices to customers prior to the event. We did that this year prior to some freezing rain events. Previously, we've done inclement weather notices prior to hurricanes, because we can prepare for hurricanes. But after what happened with Uri, we realize there could be issues with loss of power for extended periods, that people need to perhaps store some water, that they need to consider they're under a system pressure advisory if there's a power loss and to basically give them some forewarning. If the customers prepare, it helps us get through the event without it being as much of an issue for them and more of an

inconvenience.

The other thing that we've implemented, we started this back with Hurricane Florence, we have an Inclement Weather Emergency Response Plan.

There's an internal checklist. I do have a copy of it available for staff that we can provide to them.

It's basically preparation for the event and we start as soon as we find out about the possible event as early as seven days, since our preparations are seven days, five days, three days, two, and the one of getting our materials and equipment together, assigning people to roles, for the incident command system.

What happens with these events, and I'm going beyond my testimony, is that they are 24-hour events for however many days it occurs, so one person can't cover the entire event. So, we actually set up teams of people across shifts. We assign roles. That's the big part of the preparation is how you handle it. And we increase our staffing for SCADA, our notification systems, at the call center, basically getting them prepared. The biggest part of what we can do is get prepared for it. Once you fall behind in an event, it's very

difficult to catch up. So, that's the main part of our program.

The next question is about whether we forecast usage due to weather. Weather is monitored both locally and at the corporate level. Can you imagine actually getting warnings from corporate about the weather event and now it's coming.

There was questions about whether customer usage is greater during winter storm events.

Typically not. Our greatest water usage is during the summer and the spring when people are irrigating. And there's a graph I'll show in a moment of what the summertime use is. Now during a storm event you can have increased usage, not so much at Aqua but at some of the municipal systems where you can have a large break and you lose your water towers. I've had that experience, but not with Aqua, with severe breaks but not at the Aqua systems.

Now, when the loss of water occurs, it's not during the actual freezing event. A lot of things are frozen, basically customers don't have water, but when things thaw then it breaks. So you will have to do some surveys if it's a severe case

to find out where people have breaks. We'll have crews out thawing water meters, repairing water meters.

We have -- I spoke to one of our employees that has been there 30 years, been through four events in those 30 years, and they actually have means where they can repair one water meter, take those parts, move them, do some minor adjustments with them and then install it on the next water meter. It makes it reuse parts and keep people -- keep the system going. But they have been through it several times. After the thaw, they're dealing with the water loss.

This is a graph of the water usage. If you'll notice, January and February we're averaging about 4,000 gallons per customer, but between June and September we're at about 7,000 gallons per customer. So demand in the wintertime is nowhere near as great, so the demand is not the issue.

MR. BECKER: And I'll add there that the systems are designed to be flex, to provide less water than max capacity. The top or the peak hours is about 1.75 times what the low months usage are. So, when we do have breaks usually they're contained

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    because we have self-contained systems, 750
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    independent systems, so we can actually isolate the
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    systems, where the issues are within those systems,
    where then even those systems are designed to be
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    able to flex and provide additional capacity.
               MR. PEARCE: The next question was about
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    coldest design ambient temperature.
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               CHAIR MITCHELL: Mr. Pearce, before you
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    move to question number 3, I'm going to go back to
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    question number -- your responses to question
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    numbers 1 and 2 for a minute.
               You referenced the incident command
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    system, and as I understand it, and as you
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    explained, as Aqua explained in the responses
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    you-all provided, it's a management system that's
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    designed to enable communication and deployment of
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    resources during an event. But can you talk
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    specifically about what the incident command system
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    is to Aqua? You know, who's in charge?
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              MR. PEARCE:
                            Sure.
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               CHAIR MITCHELL: Who makes that decision
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    to institute the system and how many times have
23
    y'all had to -- have you gone into this protocol?
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We first used it in Hurricane

MR. PEARCE:

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Florence. We've instituted it four or five times
since then. I don't keep an exact count.
normally called for the ICS to get started or if
Shannon asks me is it time and we're doing so.
usually rolling out the Inclement Weather Emergency
Response Plan first, and then as you see it growing
you decide to go ICS. We actually start some events
and then decide during the event if we need to go to
a statewide ICS. We can also have them at the local
area, if it's only an area it may only be the
western part, or central, or coastal for those
areas. I usually make the decision to go to ICS.
We'll have a pre-meeting beforehand; we're assigning
roles.
          When I speak to ICS, we're actually
following what's called the National Incident
Management System rolled out by the federal
government after Hurricane Katrina. Katrina had
real issues with communications and response. It's
used by large numbers of the municipal governments.
I mean, we've used that here at Aqua as a means to
ensure we've got 24-hour, seven day, or however many
day coverage. It does several things.
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So, we'll assign an incident command --

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    I'm not sure how much detail you want -- we'll
    assign an incident commander. The job should be
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    two: One for one 12-hour shift, one for the other.
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    We actually have three people that normally fill
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    that role, one of three, depending on who's
    available in case --
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               CHAIR MITCHELL: And who's qualified to
    fill the role? I mean, are --
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              MR. PEARCE: Myself, Shannon Becker and
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    actually Ruffin Poole. Ruffin knows the systems and
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    actually does a nice job with it. He was there for
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    Hurricane Florence with me. I was new at that
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    point, a few months in, when Hurricane Florence got
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    here.
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              We have an environmental compliance
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    officer, Ms. Amanda Berger, and she'll use someone
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    on her staff as her second or she'll use someone at
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    our corporate offices as her second command.
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    have primary and secondaries. We have an
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    operational technology officer. That's the person
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    handling our SCADA and all of our outside
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    programming. We have a public information officer.
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    That's the person who is making contact with the
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press, the public, and ensuring that we're covering

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with DEQ, even the Utility Commission, and customers, because a big part of that response is how do you respond to customers, because they want to know what's happening, when they're going to get water back, what's going to be the response time.

Now, we have a finance officer to ensure we have the funds and resources we need to carry on through the event. We have a safety officer. What happens is it's very easy to get hurt when you're responding to an emergency to these long term events. People get tired. They're not doing their normal job. They're using chainsaws. They may get in ice situations. So, safety is a big portion of it. That's the way we start all of our meetings with that group and that's what we cover with the staff.

We have an engineering officer. They help to support us with what systems, how we make the repairs, any of our complicated requirements for resources. We do split it down by area so inside our individual areas we assign them as team leaders.

We have task force leaders at the supervisor level. We actually use our human resources officer as a personal resource officer

during that time, event, if employees' families need to be taken care of. Human resources are doing two things. They're making sure their families are taken care of, because employees like to know their families are taken care of during the long-term events. Especially in Hurricane Florence, it became a pretty big issue for HR to reach out and keep in touch with them and make sure we had the staffing we need. It also helped us ensure we had staff back that were away from work when the event started.

We have logistic managers who are assigned, that person and a backup, to ensure that we can get fuel, get lodging, get food. We bring in out-of-state resources and our own to get through large events. You can imagine if you're paying someone from say Virginia or Pennsylvania, you need to find a room for them and food.

And lastly, a customer care officer. They are assigned through the customer call center to help ensure that we've got the 24/7 coverage. Our call center will be fully staffed 24-hours during the significant event with our staff. We'll also use our outside customer call center to help support that.

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So, it's a pretty significant system.
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    They're trained on that. We've been using that now
     for four years and think it works fairly well.
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    basically at that point when these events come along
    we're all hands on deck. People don't do their
    normal jobs. It's a way to reassign them.
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                                                 They all
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     answer to the incident commander, whoever it is for
    that shift, and it goes down through that chain of
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 9
    command.
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              Ms. Mitchell, I know that's a lot of
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    presentation but it's --
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               CHAIR MITCHELL: No, that -- I appreciate
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    all of that detail. And tell me the times that the
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    Company has had to implement the ICS. You said four
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    or five times, has it been in the summertime or in
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    the wintertime or a combination of the --
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              MR. PEARCE: The ones I've been involved
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    in, summer and fall.
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               CHAIR MITCHELL:
                                Okay.
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              MR. PEARCE: The hurricanes have been the
21
    main issues.
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               CHAIR MITCHELL: Okay. All right.
23
    think you were on to question number 3.
24
                                   So, the question is
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Okay.

MR. PEARCE:

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about coldest design ambient temperatures.
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                                                 We don't
    have a set number for that ambient temperature.
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    do build to the state design requirements.
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    typical minimum burial depth for a water line is
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    30 inches; however, the freeze line is only 12
    inches below grade. So, we've got 18 inches or so
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 7
    of hopefully insulation between the freeze line and
    our pipe. Our wellhouses are heated, and external
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 9
    exposed items which can freeze are heat taped and
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    insulated.
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               In the overall system, the greatest risk
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    for freezing of what's Aqua's assets is the meter
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    box. The meter boxes are usually fairly shallow and
    uninsulated so those will freeze. And we have staff
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15
    that will go during the event when they get those
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    reports and they will thaw meter boxes.
                                              There is a
17
    slight risk for hydropneumatic --
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              MR. LITTLE: Chair Mitchell, can we
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    interrupt?
              CHAIR MITCHELL: I'll give y'all a chance
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21
    once these gentlemen are finished to ask questions.
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              MR. LITTLE:
                            Thank you.
23
              MR. PEARCE:
                           During severe events there is
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    some risk of hydropneumatic tanks freezing, which I
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learned just a few days ago. I have learned that they have ways to warm tanks with barrel heaters, which is interesting. I hope I never see it. But if they do I'm looking forward to watching it when it gets so cold that a hydropneumatic tank will freeze.

The next question is about interruptible pricing tariffs. And no, Aqua does not participate in interruptible pricing tariffs. Our generators at our sites are usually pretty small, so we really don't have that capability to do that reliably.

Do we have a backup plan for power loss?

Yes, we do. We have a combination of fixed generators and portable generators. We have a pretty good size fleet, 41 portable generators.

These are between 30 kW and 75 kW spaced throughout the State on the portables. So, if you can -- what will happen is during the event we'll get power outage, we'll give it a certain amount of time for the power company to respond, if they don't then we're rolling a generator towards that site. We'll hook the generator up, pressurize the system. If it's a big system we leave the generator. If it's a small one, we'll basically pressurize it and head to

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the next system with it, as far as moving those generators.
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Those generators are substantial generators. They have a storage tank, a double wall with a storage tank below them for fuel. They'll normally store 24 hours worth of fuel at full load. Mostly since we're not at full load, so it's not a big issue with refueling those generators.

CHAIR MITCHELL: Mr. Pearce, talk some about fuel. So, you said normally the generators would store 24 hours worth of fuel. Does that mean that for each generator you have associated with that generator a 24-hour fuel supply?

MR. PEARCE: Correct. There's a 24-hour fuel supply under the generator itself. There's a fuel tank under the bottom of it.

CHAIR MITCHELL: And then how do you ensure that you've got sufficient fuel if there's an event that goes beyond the 24 hours?

MR. PEARCE: So, we -- these are all diesel generators and we do what we can to move diesel around. We have a few hundred gallon storage tanks that are actually in back of trucks. During Hurricane Florence we reached out to others.

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              CHAIR MITCHELL: Okay.
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              MR. PEARCE: So we managed to get fuel
    from the ports at Wilmington.
 3
                                   The Cape Fear Public
    Utility Authority helped us use their supply there.
 4
    And it really wasn't -- diesel wasn't our issue, it
    was gasoline. The issue was not us moving, the
 6
 7
    generators didn't run out of fuel, our vehicles did.
               CHAIR MITCHELL: So in advance of a
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 9
    weather event do you go and fill up all of the
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    storage?
              MR. PEARCE:
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                           We fill up -- as part of the
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    Inclement Weather Emergency Response Plan is to fill
13
    all the vehicles.
14
              CHAIR MITCHELL:
                                Okay.
15
              MR. PEARCE: And they are full going into
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    it. But we don't store gasoline.
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              CHAIR MITCHELL: And what about fuel for
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    generators? I mean are --
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              MR. PEARCE: All those are topped off.
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              CHAIR MITCHELL:
                                Okay.
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              MR. PEARCE: And we also have contracts
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    with people to supply diesel to us. So we have fuel
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    companies that will provide diesel. And that's --
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    so far we've never had to use that here, though, on
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the diesel side.

And we'll speak later to NCWaterWARN. But if I run out of diesel, I would call NCWaterWARN to finally invest their diesel and we'll be buying some diesel from a neighbor, neighbor utility, when things get really -- during Hurricane Florence, NCWaterWARN helped me get fuel for Wilmington.

CHAIR MITCHELL: Okay. If there -- how -- who is in charge? What member of the ICS is in charge of coordinating with Duke Energy or the electric power supplier about availability of electric service?

 $$\operatorname{MR.}$$  PEARCE: The incident commander normally handles that.

CHAIR MITCHELL: And --

MR. PEARCE: We had a -- we have a customer rep with Duke Energy that I normally work with for those items. And they are -- we're staying in contact for where I need to know if we have power they can ping our systems and let me know if power has returned and also I can let them know where I need them to get power back as soon as possible.

CHAIR MITCHELL: And so what I'm hearing from you is there is coordination with your electric

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power suppliers and during previous weather
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    events --
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              MR. PEARCE:
                           Sure.
               CHAIR MITCHELL: -- you have worked
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    closely with the electric power supplier to ensure
    restoration or verify whether service --
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 7
              MR. PEARCE: Correct.
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               CHAIR MITCHELL: -- is being provided to
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    your facility?
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              MR. PEARCE:
                            Sure.
                                   Dwight -- I'm not sure
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    I should mention names or not, but Duke Power's
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    individual for us is a person named Dwight Moore who
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    worked with us closely on making sure we got power
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    back as soon as possible to our sites.
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               CHAIR MITCHELL: And does that gentleman
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    assist you with both Duke Energy Carolinas' sites as
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    well as Duke Energy Progress' sites?
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              MR. PEARCE: He was, he's now retired.
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    They've got a new person that we're working with
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          So, it's a good bit of training for us to
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    learn to work together. If you can imagine, when
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    they change staff we have to go back through the
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    process of gaining the relationship.
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               CHAIR MITCHELL: But I assume you've
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undertaken the -- beginning that work together?

MR. PEARCE: We have. We've already got some other things working with Duke that -- we're doing well.

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CHAIR MITCHELL: Okay. Well, that's of significance to this Commission that the utilities are coordinating, so the more that you can tell us about that relationship the better in our opinion.

MR. PEARCE: Sure. So my current Duke person we've worked great with trying to get the billing corrected to get all the names right and the addresses right. And that's a big deal because we have 1700 accounts with Duke Energy, whether it's Progress or Duke Energy, and it's been a major undertaking, a task. And this Mr. Zavala has been extremely helpful in getting that done for us. And from that list now he will be able to help me out more with the emergency response. So, if I contact him with a meter number it will show up saying Aqua on it and so they'll know to respond. When Aqua calls and when I ask them they can track accounts by Aqua and say where Aqua has lost power. Before we had some misnamed accounts that I was having difficult time getting fixed.

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               CHAIR MITCHELL: Okay.
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              MR. PEARCE: We've -- in the last six
    months we've had a lot of improvements on the
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 4
    billing and account names.
               CHAIR MITCHELL: Okay.
                                      And --
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                            If I were getting into
              MR. PEARCE:
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    extreme details of the business, but --
               CHAIR MITCHELL:
                                That's helpful.
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 9
                            If you could imagine, we
              MR. PEARCE:
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    are -- Aqua is made up of several different
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    companies and every time the companies are brought
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    in, they have to change those account names and if
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    the account names are wrong then we can't track as
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    well. We have managed to get them consolidated into
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    a single set of names.
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               CHAIR MITCHELL:
                                Thank you.
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              MR. PEARCE:
                           Any more questions?
                                                 I think
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    I was on question 4.
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                           Next slide.
              MR. BECKER:
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              MR. PEARCE: Okay. Next slide.
21
               COMMISSIONER BROWN-BLAND:
                                          I do have --
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              CHAIR MITCHELL: Go ahead.
                                           I'm sorry.
23
              COMMISSIONER BROWN-BLAND:
                                          I do have one
24
    question. You just mentioned a minute ago that your
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gas supply becomes -- can become a problem. So what has been your solution? And are you looking at making any changes as this world keeps having more cyber and other kinds of risk that we guard against?

MR. PEARCE: Well, so the solution during Hurricane Florence were two. One is we contacted a contractor who brought us in 500 gallons of fuel.

And we have some large contractors that do capital work for us and I can call them and they will do

9 work for us and I can call them and they will 10 everything they can to help us get through a

11 | situation.

We have not yet put in a fueling station.

If I end up severely in a severe case for fuel, I'll
be contacting the State and finding out where
they've got emergency fueling. Because when you
build a fueling station, there are a lot of risk and
liabilities: Spillage, leakage. If you're not in
the business of providing fuel every day, you
probably shouldn't do it. The State has supplies
but for their fleet services, their DOT. When we
get to that point you will find me reaching out to
the State Department of Public Safety Emergency
Management saying please help me get some fuel so we
can keep safe water. And I'm pretty sure they will

step up to the plate and help us find fuel whether it's from their supplies or from other parties. I hate to say I depend on others but we do.

MR. BECKER: We additionally have corporate who has some relationships with some prioritized local fuel vendors where they just don't sell to the public, but we've been able to arrange - I can't remember which storm it was but it was recent - we were able to arrange some, to tag along on that priority service where our fleet was able to fuel at some of these prioritization stations that did not sell to the public.

MR. PEARCE: Right. We did have a few convenience stores that only provided fuel to ourselves and other private customers and retained the last of their fuel supply for us during the shortage. That wasn't the weather. That was the fuel shortage where we had people hold fuel for us.

COMMISSIONER BROWN-BLAND: So, are those relationships that you either work on or maintain so you know they're already in place, maybe through a Memorandum of Understanding or something, or right now it hadn't gotten to that point where you thought about having to do that?

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MR. PEARCE: As far as on the fuel?
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               COMMISSIONER BROWN-BLAND: Uh-huh (yes).
 3
              MR. PEARCE: We -- I don't currently have
    a Memorandum of Understanding. We don't --
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 5
              MR. BECKER: Corporate facilitates -- our
 6
    fleet director up in corporate has a lot of these
 7
    relationships.
                    So when a situation like this
    happens, we reach out to corporate and other sister
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 9
    states that are nearby to bang on the level of need.
10
    In this case, our fleet director has those
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                    I don't know if it's a MOU or how we
    relationships.
12
    maintain those, but they were able to come through
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    in very short order and help us.
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              MR. PEARCE: We also have two national
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    level emergency response teams we can call and they
16
    will bring in fuel. But they are the most expensive
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    choice though so we try not to call them any more
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    than we have to to bring in teams from other states
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    that are nothing but emergency response.
    last ditch call and I've not made that call yet.
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               COMMISSIONER BROWN-BLAND: So it sounds
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    like to me it's definitely an issue and it's on the
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    radar and that you take it into account and you have
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some backup measures in place.

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MR. PEARCE: Right.
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COMMISSIONER BROWN-BLAND: But I take it to date you haven't had a problem where you weren't able to get that fuel?

MR. PEARCE: Correct. It has not stopped us yet from completing our service.

COMMISSIONER BROWN-BLAND: Thank you.

MR. PEARCE: The next question is anything different for operations during cold weather? The primary thing is ensuring that our generators are fully functional. The fixed units are tested almost every week. I'm pretty sure they're tested every week as part of their, what's called, "regular required visits".

The portables aren't tested every week.

They just -- it's just not part of the plan. They do not accept load. It's just not part of what we do. So, we go back and we double check those. I mean, they're checked monthly. And so you go back right before the event and you make sure they start and you make sure the batteries are charged, make sure everything is good and ready to go.

MR. BECKER: The tires.

MR. PEARCE: And the tires -- well, we can

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talk about tires for a second. These generators
that look so nice really are not intended to go 70
miles an hour down Interstate 40 and travel 200
miles. They are single axil trailers and it's a bad
day if a tire blows. So you will actually find
us -- if I have to move -- if I need to move three
generators from the coast to say Kernersville, we
will contact a hauling company and they will put
them on the back of a wrecker and they will drive
them there. That's a safer way than us having flats
on I-40. If you can imagine, if you have a flat you
can also lose the truck and not to mention worker
safety.
          So, actually moving those, they're fine
for moving those trailers 40 or 50 miles but don't
move them 200. We learned during Hurricane Florence
just how much those tires are not meant to go those
speeds for those time periods. Even with new
trailers it's a safety issue.
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CHAIR MITCHELL: Mr. Pearce, does the Company have sort of a routine maintenance and operation program related to the generators? I mean, are you-all regularly checking them and assuring --

MR. PEARCE: We do. So we have an annual full maintenance done by an outside service company, and there are several of those depending on which part of the State they're in, so we don't have one contract for statewide. I've got three different contracts, different vendors, and then we have our operators and utility technicians testing the generators regularly. The fixed ones more-so. The ones at the wastewater treatment plants and some pump stations, those are weekly starts and month-end loading.

CHAIR MITCHELL: Thank you.

MR. PEARCE: Through the -- in the maintenance program.

The next question was how do we monitor water supplies. Approximately 55 percent of our wellhouses have remote monitoring for both power outages and low pressure, so there's a way to monitor there. It comes back across cellular and cellular picks up at our SCADA facility and then we know we've lost power or there's been a power outage.

The other 45 percent, we are dependent upon -- either we're -- we do check the Duke outage

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map that's online to see if those line up so we may get some forewarning there, but typically the customers call almost the second the lights flicker to say we're losing power, and we're monitoring the call center. The call centers are sending out work orders and we are tracking those continuously.
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The next question is how do you prepare for extremely cold weather. And that's our Inclement Weather Emergency Response Plan checklist that is implemented. That's the preparation for the storm.

Question 6: What do you do if water is unsafe to drink? I want to break this into two items. One is if we just lose pressure the water may not be unsafe to drink. It is not well guaranteed though if it's at full pressure. So we'll issue what's called a system pressure advisory and we will recommend that they can either boil the water or use an alternative source.

Unsafe to drink is a different term.

Unsafe to drink means that you know the water is unsafe to drink. It may be bacterial. It may be a pollutant. It could be a parameter. It could be PH. Unsafe to drink means we are getting people to

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stop drinking. We are draining the system. We're going to every house. Those are very, very rare, knock on wood, as far as unsafe to drink. So, loss of pressure doesn't mean necessarily that your water is unsafe to drink, it's just not as reliable as when you've had a system that stayed at full pressure. And the water they are being provided has been chlorinated. It came from a ground water source not a surface water source so very little chance of it being bacteriologically contaminated.

So, there's a -- we issue system pressure advisories which do recommend boil water. They're not a full -- they're not a boil water requirement. I hope the Commission understands. It's a level of
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advisories which do recommend boil water. They're not a full -- they're not a boil water requirement. I hope the Commission understands. It's a level of safety. I recommend it. And we do issue a fair number of those. We have small systems that have water line breaks and we -- a water line break and loss of pressure -- we let the customers know we recommend until we get bacteriological testing back that confirms the water was safe to drink.

MR. BECKER: And when we issue an SPA or a special pressure advisory, they're sent out as soon as we are made aware of the break or the pressure loss. And then the sampling that we do is almost --

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well, once the repair is made and return it back to pressure, we take a sample. Is it 48 hours, 24 to 48 before we get the results back?
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MR. PEARCE: Correct. Twenty-four is the bear minimum if we get everything perfect. It's usually 48 and then if it's okay, 72, if it's say a Sunday because of lab turn-around.

MR. BECKER: So, we issue this special pressure advisory with the intent of issuing a lift after we get the results back from the sampling indicating that the water is safe to drink. We will then issue another lift of the special pressure advisory to those same customers. And we can triangulate or minimize the special pressure advisory to sections of customers within a system; it can be a street, it can be the whole system, it can be multiple systems. So we can triangulate where we want those special pressure advisories to go so anybody with the potential to be impacted, negatively impacted, we can cover and we do cover.

CHAIR MITCHELL: Would you-all connect the dots for us here so that we're all -- make sure we're all on the same page. Help me understand why loss of water pressure results in water that for

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which you're going to issue the well water advisory?
          MR. PEARCE: So, if the water goes below
20 psi, it's actually the federal rule, there's a
possibility of water that surrounds the pipe getting
inside the pipe. So if that water outside the pipe
is contaminated with bacteria, it can make its way
into the pipe. So, it's really the pressure in the
water pipe is what keeps it safe. So, if you lose
pressure, you've got the possibility of water
surrounding the pipe basically getting into it.
          So whether it's the sewer line, septic
line, God forbid, gasoline contamination, whatever
it may be, that can make its way into the pipe.
          CHAIR MITCHELL: Okay. Thank you.
          MR. PEARCE: The pressurization of the
pipe is your -- is another one of your safety
factors.
          MR. BECKER: And to clarify, we have a
separate notice aside from the SPA, the special
pressure advisory, which is the boil water notice,
which is what we would do when we have a do not --
actually, it's a "Do Not Consume". But a Boil Water
Notice is a mandatory to boil your water before you
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NORTH CAROLINA UTILITIES COMMISSION

drink. The SPA, the special pressure advisory, is a

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recommendation.
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MR. PEARCE: And Do Not Consume's /
boiling water in the case of a pollutant
contamination you may not want to boil your water.
You can make matters worse. So, we want to make
sure it's using the right mitigation for whatever
the event that occurs.

The next question was about what if we have no water. And we have a lot of things that we use as sort of a shotgun approach. We're doing multiple items. One is we're rolling generators to sites without power. We have a relatively nice low hanger gallon water tank that is pressurized.

Before the event we will fill it with water and we will have it bacteriologically tested and it will be ready for potable use, if we have enough notice.

That why I say we have to have notice for that portion to happen.

We can supply bottled water. We used to supply bottled water more often but believe it or not it becomes a worker safety and health issue. If you deliver 20 or 30 cases of water your back starts to hurt. We found that the customers seem to be just as appreciative of a small gift card to a local

grocery store to get their own water in which case there's not the handling nor the storage of all that water, which if you don't use it all it gets dusty in your warehouse. So we have gone more to the gift card to a local grocery store for the inconvenience.

And also we can get in an extreme situation we have contract water haulers. The contract water hauler's water usually will not beat bacteria. It will be suitable for toilet flushing and that's about the only real use it would have unless people choose to boil it on their own.

We also get assistance from NCWaterWARN.

NCWaterWARN is primarily a municipal group but it also includes other utilities. Basically, it's a cooperative agreement to provide services in case of emergencies. As part of that, you agree that if you provide service to others you'll be reimbursed at FEMA rates and if they provide services to you you'll be reimbursed at FEMA rates. We first used it during Hurricane Florence. The City of Raleigh helped us out at one of our wastewater plants that was about to go under water. We helped a little town in eastern North Carolina because they had lost their pump stations. They didn't have the staff to

wire it nor the generators. Our event was slowing down and we sat down with an electrician and utility technicians and we hooked up a generator and we got their pump stations running.

So, it's basically cooperation, whether it's Raleigh helping Aqua, Aqua helping Raleigh, or Cape Fear. Cape Fear helped us with getting fuel. It speaks to a lot of utility directors working together to get our -- for us all to meet a common goal which is uninterrupted service. And there's no charge for NCWaterWARN. And it's -- even when the event occurs, I don't know that everyone responds. I believe we, I'll say in the case of Aqua, if we can respond we do. It helps build that cooperation, a cooperative relationship.

We can get assistance from NC -- from Aqua's North Carolina sister states. During Florence, we requested assistance from both Virginia and Pennsylvania. It depends on who has what resources. During Florence, we managed to get 13 generators down from Pennsylvania, because you couldn't get them in Virginia because they used all -- they needed those in Virginia because the storm affected them also. But sister states does

support. We do have some company-wide programs for emergency response, particularly for hurricanes, not so much for inclement weather. Pennsylvania seems to handle storms better than I think North Carolina or Texas would.

And lastly we're going to request assistance from State of Emergency Management. We participate in the State Emergency Operation Center through the WebEOC. I've only reached out to them once for -- we provided reports to them about how we're doing at Aqua. We use it so I can basically track road conditions, weather conditions; Duke Energy reports to them as far as number of outages. That's before they report to -- you see things there you don't see on the news; different level. But if you end up needing something that you can't get through your local resources, you can reach out to them.

During Hurricane Florence the issue wasn't in Hampstead. The storm rolled around and went up through the Kernersville/Greensboro area and an area called Oak Ridge. It had a lot of trees down. I think we lost 35 systems in one hour, lost power. And Duke was not able to get back to Oak Ridge very

quickly. I think on the second or third day we couldn't get generators there. There was so many trees down you couldn't get to them. Bottled water ran out at the grocery stores. We contacted Emergency Management. They arranged for us to get a trailer with water delivered to the local grocery store area. Luckily, the power came back and we didn't have to do it, but they had arranged for it to happen for us. We would have been paying for it but they helped you get that resource. And like I say, Emergency Management isn't just a public entity, they help private also so that's why we stay part of that group.

Next question is how would you communicate with customers. For system pressure advisories we provide information by email, text and telephone to those customers that provides us that information.

In the case of Do Not Consume, we are doing door-to-door communication. Also, if we get to where we're doing the Do Not Consume, I'm probably reaching out to our local health department also to let them be involved in the task of going door to door. Local health departments are key in that process. We can also use a press release for a

larger event.

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How would you communicate with the government? We send emails to the North Carolina Department of Environmental Quality. We normally have started that process before the event occurs. We normally tell them we're going to respond -- a couple of things we do with DEQ. The first is DEQ is scattered over the entire state and they would contact our folks directly. There would be 20 people contacting 20 people. We limit that now to where we have our environmental compliance officer corresponding with each regional office at set times of the day; it's usually 10:00 a.m. and 4:00 p.m., with a set email giving current status, and they communicate back through her that we can send back through the system. It's easier to maintain knowledge that way as far as putting through a central location with DEQ.

In the case of with Emergency Management, we're contacting them through the WebEOC, and we also communicate with the Utilities Commission and Public Staff via email. In the case of the Utilities Commission and Public Staff, that's normally Shannon taking care of that portion of it.

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But we try to key in on contact with the -- during the events we really focus on getting the event resolved and the communication outside is, sort of, a secondary, because we have to get the event logged as quickly as possible.
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What's our key customer message? Need the status of the water supply and/or wastewater treatment; any recommendations for boil water/alternative water supply; and lastly, expected time of recovery.

We are conservative on our time of recoveries. You don't ever tell someone that's going to be recovered and you don't make it. So you try to make sure that you're giving them a reasonable time period for that so they can plan for how they're going to respond to the situation.

(Inaudible conversation at the witness stand)

MR. PEARCE: I didn't mention it yet. So we do have -- there's something new at Aqua which you may not have seen yet. We have a disruption map online. It's not as -- not quite as nice as Duke Power's but if you pull up -- if you're able to get to the internet during the event, you can go to Aqua's website, you can pull up a map and it will

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show you, if you'll put in the address or your zip
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    code and it will take you to that local area and
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    tell you what's going on in your area. There will
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    be a little polygon. It will say here's what's
    going on here and here's the expected time of
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    recovery for you. I've not used that yet during an
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    event.
              MR. BECKER:
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                           It's new.
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              MR. PEARCE: It's new. I think the last
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    question was any operational issues due to cold
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    weather in the last three years. No.
                                            2019 and 2020
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    and 2021 have been relatively quiet for us for
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    inclement weather events. 2018 was interesting.
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    That was winter storm Grayson. They did have some
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    freezing. They had a water tank up in Gaston County
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    that froze up in Moratuck Manor and they had to thaw
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         They had a lot of water meters in 2018 they had
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    to close off, but that's my understanding on 2018.
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    I was not here for that 2018 event.
                                          I joined after
    that point.
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              CHAIR MITCHELL: Mr. Pearce, I recognize
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you weren't with the Company, but what about during the Vortex events in 2014 and 2015?

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MR. PEARCE: So on that one I asked my

staff, the 2014, I saw that question yesterday and I asked the senior staff there, people that have been there -- when I say senior, they've been there 30 years -- and they didn't seem to remember it. So, I apologize, Commissioner Mitchell, I don't have an answer for you about the 2014-2015 event.

Grayson - I was working for the municipality when Grayson hit, and they lost a water tower about an hour and a half, but not for -- they had actually had sprinkler heads freeze in unused buildings at the university. So, the sprinkler heads all open if you lose your water towers. Thankfully, we had other options. We had four or five million gallons of water we could use until we would figure things out, but there are other things that happened.

If we end up with a severe event, we will probably end up enlisting people to go door to door. What happens is the water lines freeze under people's houses, so it's not your asset that freezes. The lines under people's houses freeze and then when those thaw you lose water through those people. So you'll need to go door to door and figure out if you've got water loss and basically

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check the meter and cut off the meters. And the city I was working for when Grayson came through, well the fire department actually visited about 12,000 homes over three days and cut off water because we had over 80 little line breaks under people's homes. But at Aqua, the '14-'15, I don't have any information on. I apologize.

MR. BECKER: And Chair Mitchell, I was in Virginia in 2014 and '15. I am not aware of Tom Roberts, my predecessor, having to go through anything significant. In Virginia, the extent of our issues with regards to those events was really frozen meter boxes. Just getting out and trying to
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MR. PEARCE: In Texas, after they had their freeze last year, they called us to ask how to unfreeze meter boxes, and we told them the way we did it. The good way and the bad way. We told them just to use the good with the torch and to stay away from the plastic meter box and stay away from the plastic meters with a torch.

prepare individuals of how they can unfreeze their

own, but it was really very limited.

CHAIR MITCHELL: That sounds like good advice. I hope they took it.

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              MR. PEARCE: I think they did. I think
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    they were busy because I didn't get a lot of
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    feedback.
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              CHAIR MITCHELL: Let me see, check in with
    Commissioners. Questions for Aqua before we let the
    Public Staff loose? Commissioner Hughes?
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              COMMISSIONER HUGHES: Thank you very much.
    Could you talk a -- just little specifics about your
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    communication channels with customers? I've just
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    been both as a consumer and Utilities Commission --
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              MR. PEARCE: Sure.
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              COMMISSIONER HUGHES: -- curious about how
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    connected are we to people with cell phones. Is it
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    a volunteer opt in? Do you ever kind of go through
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    and do tests to see? Are you reaching 80 percent of
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    your customers with text messages or 20 percent?
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    Just, you know, some general --
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              MR. PEARCE: If you will allow me just a
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    moment, I think I've got an answer for that one.
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              COMMISSIONER HUGHES: Okay. Great. I'll
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    try to come up with a question you don't. Let me
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    see.
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              MR. PEARCE: Great. In the case of email,
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    we have 68 percent of our customers connected via
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email.
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               COURT REPORTER: I'm sorry. Did you say
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    68 percent?
              MR. PEARCE: Yes, 68 percent of our
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    customers connected via email. In the case of
    phone, it's 97 percent, which is actually lower than
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    I thought. I thought we'd have -- so apparently
    three percent of our customers don't have --
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    wouldn't give us a phone number.
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              COMMISSIONER HUGHES: But not -- for 97
    percent. And did they have to opt in or you get
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    their number and they don't get a choice for some of
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    these things?
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              MR. PEARCE: I believe our current
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    applications you have to give a phone number but
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    these may be old, old customers that's been for
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    awhile.
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              MR. BECKER:
                           And you can opt in and you
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    can select a method by which you'd like to be
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    contacted, and you can pick multiple. Right. So by
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    phone, email, or text, or and all, all three.
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              MR. PEARCE:
                            Text is 51 percent which is
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    still pretty good. And we think about that on the
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    municipal side I don't know if -- sure if they do
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the same thing. I'd never worked for a municipality that provided email, phone, and text for events, but I may not have worked for the best utilities either on the municipal side. And you know where I worked, Commissioner Hughes.

So, it's a pretty -- it's a fair percentage, and it does depend upon affluence perhaps though. I know that maybe in Bayleaf, the north Raleigh area, we're at about 80 percent saturation, 86 on email. We had to deal with that -- you know, look at that. It's a pretty high percentage. But they also communicate in other ways. There's this thing called Nextdoor. So you send a comment to one and it travels pretty quick on their own social media sites.

COMMISSIONER HUGHES: Thank you for that. It's very interesting. We asked you mostly questions about water and you talked mostly about water. Are there any unique challenges that you faced either both in a cold event and just in general with your wastewater systems? Particularly, you know, I think at the systems that are grinder, heavy with grinder pumps, so what happens when all those individual assets that you might not control

them might go down for extended periods?

MR. PEARCE: So, there are two things.

Grinder pumps I can speak about first. The power goes off for an extended period. Those homeowners don't have a way to flush. For all purposes their tanks will fill. And when they all come back on they'll come on simultaneously. You'll lose a fair number of your -- grinder pumps will fail because they're not meant to run for hours on end, so it is a higher failure rate.

During Hurricane Florence I think there was one particular area we lost maybe 20 percent when the grinder pumps failed, where they ran so many hours they overheated and failed. So there is a greater failure rate for grinder pumps. There are homeowners that think we should go home to home and hook up generators and that's really not an option. But when they sign their agreements for their homes that was in their agreements, that we do not provide power service to grinder systems. That's their responsibility to provide power.

When all of those grinder pumps come on, they can also overload the wastewater plant temporarily. Normally, we've handled that fairly

well with the plant itself. So grinders are an issue. It's not gravity. It doesn't get to the wastewater plant. Gravity always works, almost always. So, there's a greater risk for those homeowners on grinder pumps.

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The other thing that can happen is these are small wastewater plants and a lot of them use something called Airlift for return activated sludge. When these get really cold the Airlift line can freeze and when the RAS, return sludge, quits working then your clarifier will build up and your plant has an issue. So you can have some issue with the plants themselves. I have seen plants in North Carolina that we operate operating at 1°C and is still producing pretty good wastewater which shocks me. I'm not sure how it does anything at that temperature but it's still doing it. So the plant stuff will run but the RAS, it's called the RAS line, return activated sludge lines will freeze on its own so we have to watch those. We will increase those flow rates to try to keep them from freezing. COMMISSIONER HUGHES: And just back to tie to the first question, I mean, with contacting

NORTH CAROLINA UTILITIES COMMISSION

people with grinder pumps you mentioned

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door-to-door. I mean, do you have a separate
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    text --
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              MR. PEARCE:
                           We do --
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              COMMISSIONER HUGHES: -- to send out just
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    so the people with grinder pumps can get it.
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              MR. PEARCE: So, when we do these system
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    pressure advisories and SPLs or any of those to the
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    customer, we actually take a GIS map, draw on the
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    map who you want to contact and we do custom
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    messages. So, we'll send messages about grinder
            In fact, even our standard inclement weather
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    includes a small note about grinder pumps. I'll say
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    grinder pumps are a greater risk system so we do
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    reach out to those people along. We try not to send
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    a grinder pump message though to non-grinder pump
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    communities.
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              COMMISSIONER HUGHES: Okay --
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              MR. PEARCE: They tend to get confused.
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              CHAIR MITCHELL: Go ahead, Commissioner
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    McKissick.
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              COMMISSIONER McKISSICK:
                                        Thank you, Chair
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    Mitchell. Just one question. And I appreciate your
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    presentation. It answered the questions that were
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    posed pretty thoroughly, broad, expansive, and so I
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appreciate that.

Are there any measures that have been taken by other water companies in this same vein in terms of preparedness that you have not adopted or implemented, whatever the reason might be, perhaps cost, that you feel would be things that might be worthy of implementing longer term but they're not part of your toolbox today?

MR. PEARCE: I may -- Chair, may I speak about Texas? Texas had something called Senate Bill 3 that was passed. Texas is currently evaluating and getting pricing for putting a generator at every system, every water system, every wastewater system. I haven't heard what the final cost is going to be for Aqua Texas. If you can imagine, we direct -- COMMISSIONER McKISSICK: Sure.

MR. PEARCE: -- to each other. We looked at that after Hurricane Florence. Aqua will put a generator at every water system and every wastewater -- you know, every possible location.

Back then, I think back of the envelop was \$25 million for North Carolina. Now it would probably be forty or more to put generators at every system. I'll say that there's two things it will

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do, it will increase the -- invest in the operations
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    cost for that, too, to maintain that many
    generators. That will increase the liability.
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    will greatly increase the costs. It will reduce our
    safety risk at Aqua because driving generators
    around is dangerous, but it's also $25 to $40
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    million to put generators at every well site and
    every well treatment facility. So that's probably
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    the one -- that's the one we have not adopted and
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    that's to have generators installed at every system.
               COMMISSIONER McKISSICK: And typically
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    those generators, I mean, will be powered. How
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    would they be powered typically?
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              MR. PEARCE: So, there is some debate at
    the State about what's allowed around the well.
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    Some parts of the State will allow diesel, others
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    will require natural gas or LP, the thought being
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    how quickly it can contaminate your well. If you
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    use diesel you'll get diesel spills. Diesel spills
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    then infect the groundwater then you've got
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    groundwater entering your well. So, if it was my
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    choice I'd be using L -- low LP gas or natural gas.
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    But they will -- there are some areas of the State
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where they allow diesel. That's -- if I was going

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to do a new one I'm putting in LP and natural gas,
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    unless someone -- our portables, that's really not
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    an option for a portable. But we're not leaving our
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    portables there fueling continuously at the same
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    site.
               COMMISSIONER McKISSICK: And have you
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    given any thought to perhaps increasing over time
    the number of generators that might be at the more
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    strategic locations that would --
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              MR. PEARCE: We have --
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               COMMISSIONER McKISSICK: -- might help,
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    you know?
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              MR. PEARCE: At some of the higher
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    producing wells, we have a -- one in particular, a
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    large well in Bayleaf that's equivalent to probably
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    10 other wells. It's going to be a lot of money --
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    I'll say it's going to be a fair amount of money to
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    put a generator that large to serve it, but we
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    probably will put a generator there in the next year
    or two on the key ones.
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               COMMISSIONER McKISSICK:
                                        Sure.
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              MR. PEARCE: And the generators we have at
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    well sites, we have some now, but they're at the
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coast because of the high capacity well, and by

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having a generator there it allows you not to build as much water storage. It was done for a financial reason and a prudent reason, because if you put in generators it allowed you to have less water storage and that cost of water storage. But we could consider them for the ones that I consider the high -- probably the high production systems first.

COMMISSIONER McKISSICK: Exactly. Very good. Thank you.

MR. BECKER: We do continuously assess the risks of the different wells and the sizes of the wells to assess whether or not we should acquire additional mobile generators. So that's something we're always looking at. And if the risk goes up for a certain well or an area and we think it's prudent for us to position a generator in that area we will go ahead and acquire one in our budgets.

MR. PEARCE: Right.

COMMISSIONER McKISSICK: Got it.

MR. PEARCE: We do typically -- we put fences around the areas we store our generators because they're with wheels and a tow hook. They are -- even with a LoJack GPS unit they are still very attractive units for resell. So they're not a

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good solution. And, even then, with the portables we have a lot. We have a fair number, 41 portable generators in the State; 19 in the west, 10 in the central, 12 at the coastal areas, that we jockey around.
```

But as far as staff, they're really qualified to take those generators and hook into power, that's probably as many staff as I have also. They're really good at doing that. Most staff I don't feel comfortable with hooking a generator up. Now, if they have quick connects one thing, but we don't have that many quick connects either. So you basically -- I've got the right number of -- I feel like I've got the right number of portable generators for the number of staff I have that are qualified to drive them and hook them up. They will have other people with them that assist but as far as really qualified, you know, almost electrician to put one in.

COMMISSIONER McKISSICK: And how often do you test the generators that you have today? I mean, to make sure they're fully functional and operational so that when they're dispatched they are --

```
1
              MR. PEARCE: So they're started -- they
 2
    are load tested for delivery. We don't do that much
 3
    load test -- we do not load test the portables.
 4
    large ones are tested against the systems they're
    operating.
                                               That makes
 6
              COMMISSIONER McKISSICK: Sure.
 7
    sense.
              MR. PEARCE: But the portables we don't
 8
 9
    load test. It's a pretty expensive task to do.
10
              COMMISSIONER McKISSICK:
                                        I see.
11
              MR. PEARCE: But I'm not aware of ever
12
    having one fail where it didn't produce. It was a
13
    30-kW generator that didn't produce 22 or 23 as it
14
    specified.
15
              COMMISSIONER McKISSICK: Very good.
                                                    Thank
16
    you.
17
              MR. PEARCE: You're welcome.
18
              CHAIR MITCHELL: Let's hear from the
19
    Public Staff. Questions?
20
              MR. LITTLE: Your Honor, I'm going to
21
    defer to Mr. Junis.
22
              CHAIR MITCHELL: Mr. Junis, you're up.
23
              MR. JUNIS: So, I'm let loose now.
                                                   All
24
    right.
```

```
1
               If it would so please the Chair and this
 2
    Commission -- sorry -- and this Commission, could we
 3
    have Aqua file supplemental responses to our
    questions that we sent last week?
 4
               CHAIR MITCHELL: Gentlemen -- are you --
 6
    Mr. Junis, are you asking them to supplement with
 7
    the information they have provided here today?
              MR. JUNIS: To address all those
 8
 9
                They've hit on it a little bit but I'd
    questions.
10
    like full responses to all of those questions.
11
              CHAIR MITCHELL: All right. Well --
12
              MR. JUNIS: And as opposed to taking up
13
    folk's time in this hearing and asking every single
14
    one of those, I think it would be more efficient if
15
    they submit it in writing.
16
               CHAIR MITCHELL: Okay. Are there specific
17
    questions you'd like to ask them to respond to more
18
    fully or all of them?
19
                          I would say more fully to all.
              MR. JUNIS:
20
    I was trying to keep track and I would say we've
21
    gotten partial on a couple of them but they have not
22
    all been addressed.
23
               CHAIR MITCHELL: Ms. Sanford, do you have
24
    a --
```

MS. SANFORD: I'm just looking around my part of the room here. We perhaps would, I think, follow up with the Public Staff in a conversation to figure out where we need to emphasize or I think that a discussion is in order and then the Company's will certainly commit to a written follow up.

CHAIR MITCHELL: All right.

MR. JUNIS: That will work. I mean, based on what we saw from Carolina Water, it seems like they've addressed those questions and will further in their presentation. So, I'm going to avoid those right now, but I do have some follow-up questions regarding the presentation.

Mr. Pearce, you had mentioned meter boxes as being one of the primary concerns for freezing. With the shift to AMR/AMI capable meters, obviously, then the access to read the dials is not as frequent and so is it appropriate to start or at least consider insulating meter boxes, especially perhaps in the most vulnerable systems for cold weather impacts?

MR. PEARCE: Well, there's one nice thing -- if I may answer. There's one nice thing about the AMR meters and they will give us

```
notification of leaks. If there's 10 straight days of certain gallons, one or two gallon per minute, it will provide a leak notification during part of the read and it will allow us then to notify the customers of that leak.
```

As far as insulating meter boxes, I have not evaluated what that cost would be as that part of this project. I'm not aware if that's a standard procedure for others but in the northeast, of course, they've stored their meter boxes under the buildings and in their basements that also freeze. But I'll -- I can review and see what the cost would be for that project.

MR. JUNIS: You just mentioned AMR meters and leak notifications but that information is only available when you actually go collect those readings, right? So, it's not instantaneous data --

MR. PEARCE: Correct.

MR. JUNIS: -- or even available in a short period of time unless you go out and read those meters remotely?

MR. PEARCE: Correct. And if there is a situation where we're looking for a leak in a system we will send out someone to read AMRs to try to

notify customers.

MR. BECKER: I'll also say there's error reports. If we do happen to have, I guess, a frozen meter when we actually do the reading and maybe the reading is not accurate, we do get error reports when it's not working correctly or if there's a variance. So, we'll use the error reports but then we also know when we go back the next month it will usually true itself up. Again, looking at the cost benefit of insulating the meter boxes, we have not done.

MR. JUNIS: Again, with the error reports, that's only available after a reading has been done?

MR. BECKER: Right. So, if you don't get a reading, we'll know we didn't get a reading, it will do -- we automatically do an estimate based on history, historic usage. And then the next month, assuming the freeze event is over, it's likely that you're going to be able to get a reading or if it's damaged it will tell us so we'll eventually go out there to do a check.

MR. JUNIS: Okay. And again to clarify, that requires a truck roll that somebody is driving through the neighborhood to pick up those readings?

```
1
              MR. BECKER:
                            The meter reader when they do
 2
    their route is in a truck.
                                 Yes.
                           There is conversation about, I
 3
              MR. JUNIS:
 4
    think this was in response to question 6, regarding
    sort of cooperation.
                           Two questions there: Has the
    Company ever coordinated with FEMA as part of that
 6
 7
    process?
               MR. PEARCE:
 8
                           No.
 9
              MR. JUNIS: Okay.
10
              MR. PEARCE:
                           The EOC, as you're going
11
    through this process, they'll make determinations
12
    about -- well they'll say it may not be, basically,
13
    you may not be eligible for FEMA recovery, and I'll
14
    say understood we still want the help.
15
               FEMA recovery is not -- through the event
16
    that's not our main concern. If FEMA -- if it does
17
    make it available we'll use it.
              MR. JUNIS: Also, regarding supply of
18
19
    water, does -- the Company has some emergency
    interconnections with municipal or local government
20
21
    systems, correct?
22
              MR. PEARCE:
                            A few.
23
              MR. JUNIS:
                           Specifically, you have an
```

emergency connect to Raleigh for the Bayleaf system;

24

```
is that correct?
 1
 2
              MR. PEARCE: Raleigh for Stonehenge.
 3
              MR. JUNIS: Okay. Stonehenge.
 4
              MR. PEARCE: Stonehenge is a smaller
 5
    system just south of Bayleaf.
                           So that's potentially one
 6
              MR. JUNIS:
    other source of water if you had a --
 7
              MR. PEARCE: Anything that creates an
 8
 9
    issue with providing water. Correct.
10
              MR. JUNIS: Has the Company considered
11
    additional potential emergency interconnects or
12
    switching systems to purchase water?
13
              MR. PEARCE: We have others but normally
14
    that's where other utility -- we have some with PWC
15
    down in Fayetteville. Our systems, if they're
16
    putting in a new line and stops near ours I ask for
17
    them to give us a quick connection.
                                          We're trying to
18
    get some now with Friendship in Apex where their
19
    lines terminate near ours. The people that will not
20
    annex and will not provide water but their line
21
    stops near us, if I can get an agreement -- we've
22
    got a signed agreement with Apex for emergency water
23
    supply for one system in particular. So, we do
24
    everything we possibly can to keep people in water
```

```
and that includes using our neighbor's water if they'll let us use it.
```

MR. JUNIS: I think this was regarding -MR. PEARCE: Oh, Mr. Junis, one thing
about that though, when these events occur, if the
neighbor has water supply issues they're not going
to allow you to hook on. I've dealt with that on
the municipal side where I was with the city and I
was able to borrow the county water until the county
got in trouble, and then the county closes their
value and you're swimming on your own.

So, just understand that if the event is severe enough even Raleigh could have an issue in North Raleigh and not be able to provide their connection to us. Municipalities are hit pretty heavily also during these events.

MR. JUNIS: I think this is regarding question 7. You had talked about basically quick the connects for auxiliary or backup power, is that now a design standard when you're putting in filters on systems to put a quick connect on those wells?

MR. PEARCE: I don't think so.

MR. JUNIS: Okay. Do you have an approximation of the cost to install a quick

```
connect, basically a retrofit?
 1
 2
              MR. PEARCE: Not off the top of my head.
 3
    It would -- I don't -- it's not a guess that I would
 4
    be willing to make.
              MR. JUNIS: Would you mind providing that
    information as a late-filed exhibit?
 6
 7
              MR. PEARCE: No.
                                 I think it's more than a
    thousand and less than ten thousand, and probably
 8
 9
    closer to ten. It might be more than that these
10
    days.
11
              MR. JUNIS:
                           When you talked about
12
    potentially, I think it was Texas Senate Bill 3,
13
    basically a generator to every I think you said
14
    "system", but also perhaps switch to every well,
15
    lift station, wastewater treatment plant --
16
              MR. PEARCE: Yeah.
                                   So, I know they're --
17
    Texas is different. I don't believe they have
18
    generators currently on their wastewater plants, as
19
    far as Aqua Texas on their wastewater plants, on
20
    their pump stations, or on their water systems. So
21
    they are currently deciding where they are putting
22
    generators first, what the timeframe is, and how
23
    much it's going to cost.
24
              MR. JUNIS:
                           Yes.
```

```
1
              MR. PEARCE: I believe there's a lot of
    money being put just into the study because of
 2
 3
    the -- I mean, what's going to happen in the future
    and what type of cost is going to be with it.
 4
               MR. JUNIS: And, for reference, how many
    wells does Aqua have in North Carolina?
 6
 7
               MR. PEARCE:
                           Thirteen hundred and
    something I believe.
 8
 9
              MR. JUNIS: And most of those are
10
    basically isolated away from each other, correct?
11
              MR. PEARCE: Correct. Our average is 49
12
    connections for system.
13
              MR. BECKER: It's in upper 40's, low 50's.
14
    I have to take out some of the larger systems.
15
    Bayleaf is one system and it has 6000 customers, and
16
    the Cape as well with on average it's about 50
17
    customers a system.
18
              MR. JUNIS:
                           So, even if there was say some
19
    efficiency that you could say under emergency
    circumstances you don't need backup power on every
20
21
    single one of those wells, but because they are
22
    isolated you're looking at pretty close to that
23
    number of potentially generation to meet a standard
24
    like that, correct?
```

```
MR. PEARCE: Probably 700 to 800.
 1
 2
              MR. BECKER:
                           On just the water side.
 3
              MR. PEARCE:
                           Right.
                                   We have over 700
 4
    individual systems so every system is going to need
    at least one.
                          And, ballpark, I think you
 6
              MR. JUNIS:
 7
    have at least some generation -- well, let me ask
    this. How many lift stations does Aqua have for the
 8
 9
    wastewater side?
10
              MR. PEARCE: Allow me a second and I'll
11
    look it up.
12
              MR. JUNIS: All right.
13
              MR. PEARCE: You mentioned -- if I may
14
    ask, you mentioned questions earlier. We received
15
    two sets of questions yesterday. Which ones are you
16
    looking for responses to?
17
              MR. JUNIS: I think we sent our questions
18
    either Thursday or Friday.
19
              MR. PEARCE: It took us a while to get
20
    through the -- to get to me at least.
21
              MR. JUNIS: Ours were numbered similarly
22
    to the Commission's, so basically we used them as
23
    follow-up questions to the seven questions posed by
24
    the Commission. The top of it has the Docket Number
```

```
1
    and then the Company name and then it jumps into,
 2
    like, question one, there's parts A and B.
              MS. SANFORD: If I might, Chair Mitchell.
 3
 4
    We received your questions last week, Mr. Junis, and
    then yesterday we received some questions from the
 6
    Commission staff.
7
              MR. PEARCE: Repeat your first question
8
    again.
9
              MR. JUNIS: How many lift stations does
10
    Aqua have? Aqua NC, sorry. I don't want all of
11
    Aqua.
12
              MR. PEARCE: I've got to find the right
13
    set of answers. I believe it's around 187.
14
              MR. JUNIS: And how many of those have
15
    permanent backup generation?
16
              MR. PEARCE: Seventy-nine. So it's 44
17
    percent of our wastewater pump stations have
18
    generators, so it's 79 of them.
19
              MR. JUNIS: Okay. Thanks.
              MR. PEARCE: So there are -- Aqua has 79
20
21
    pump stations with generators and that's 44 percent
22
    of our pump stations.
23
              MR. JUNIS: Sorry. I'll slow down a
```

little bit. I get so excited about this stuff.

24

```
I'll be a little more careful not to dive into those questions that we've asked you guys to respond to in writing, but I'm just trying to add context to this number that you threw out of the 25 to 40 million.

That's what you had in your head when you were coming up with that number, right, is putting backup power on that other 56 percent of those lift stations and --

MR. PEARCE: Primarily the water systems.

I mean, the water systems is where the big count is and most of the generators are being installed. In
```

the case of the pump stations, those that we have were installed because of regulation; required because of their capacity.

MR. JUNIS: Right. And I think Carolina Water has done a great job on hitting on that in their supplemental answers dealing with storage of finished water, you brought that up, the need for elevated storage or if you have those have high

capacity aquifer wells. But I would say, you know,

21 how -- do you have a ballpark on how many wells
22 would fall into that category of high yields, you

23 know, over hundreds of gallons of water per minute?

MR. PEARCE: So, I think it's all but two

```
1
    of the ones. So, on our wells we only have 13
 2
    generators. I believe 11 of those are high
    capacity. And we have two other wells with
 3
    generators where the developer installed them
 4
    originally and if they installed the originally, we
    will maintain them.
 6
 7
              MR. JUNIS: Has the Company considered
    making that a design standard for new systems?
 8
 9
              MR. PEARCE:
                           It's not required by the
10
    regulation -- if it were a required thing for new
11
    developers that are not required by regulation.
              MR. JUNIS: If the Commission had made a
12
13
    requirement for that as a new design standard for
14
    new systems, would that level the playing field with
15
    other private utilities?
16
              MR. PEARCE: If it was applied to all
17
    private utilities, it probably would be best though
18
    to make it the same for private and public.
19
    Public's do operate as an enterprise, not as a
20
    social group, so it would appear that the same rules
21
    should apply to both. And I'm trying not to be
22
    political.
23
              MR. JUNIS:
                           Forgive me, Chair. I'm just
```

running through my notes to make sure I've asked the

24

```
follow-up questions that I had identified.
 1
 2
               (Pause).
               So Chair, I've run through my questions
 3
 4
    and we just look forward to, like I said, those ones
    that we submitted in writing to get addressed.
              MS. SANFORD: And we look forward as well
 6
 7
    to discussing the whole panoply of questions. As I
    say, some came in last week, some came in yesterday,
 8
 9
    some are answered here, some here, so we'll pull
10
    this altogether after the hearing.
11
               CHAIR MITCHELL: I'm counting on you-all
12
    to do that.
13
              MS. SANFORD: We will.
14
              CHAIR MITCHELL: Okay.
              MR. JUNIS: We promise to cooperate on
15
16
    that.
17
              CHAIR MITCHELL: All right. Perfect.
18
              MR. PEARCE: There may be a few
    confidential because of the Infrastructure Security
19
    Act that we don't want widely distributed.
20
21
              CHAIR MITCHELL: That's no problem. Let's
22
    do this -- all right, Commissioner Clodfelter.
23
              COMMISSIONER CLODFELTER: I've saved it
24
    til now. I have a question that has nothing to do
```

```
with the topic of today. It's a curiosity question.
 1
 2
    So, on your usage, seasonal usage chart, in most of
    the six years there's this funny little dip in
 3
 4
    August and then a peak in September.
                                           Is that
    vacation? What's going on there?
                                        Is there
    something weird going on?
 6
 7
               MR. PEARCE: I think that's the Bermuda
    people seeding fescue. The fescue seeding season --
 8
 9
               COMMISSIONER CLODFELTER:
                                         Is September --
10
    so they're putting the grass out in September,
    that's why you have a September peak?
11
12
              MR. PEARCE: I haven't spoke to them but I
13
    haven't -- I don't have a masters in the seeding
14
    schedules but it appears to be that's the seeding
15
    schedule.
16
               COMMISSIONER CLODFELTER: I just -- again,
17
    you have a little dip in August and then it goes
18
    back up and I was just curious what's going on.
19
    thought it might be vacations.
20
              MR. BECKER: Internally we attribute it
21
    typically to irrigation, unless it's a very wet
22
    season in which case that will not hold true but,
23
    for the most part, September is an increase.
24
               COMMISSIONER CLODFELTER:
                                         Thank you.
```

```
1
               CHAIR MITCHELL: At this point we will
 2
    take a 10-minute recess for our court reporter.
    We'll come back with Carolina Water on the stand.
 3
      (A recess was taken from 10:44 a.m. to 10:55 a.m.)
 4
              CHAIR MITCHELL: Let's go back on the
 6
    record.
             So, we've got Carolina Water. Y'all may
 7
    proceed.
                           Thank you very much for the
 8
              MR. DENTON:
 9
                  I'm Don Denton, President of Carolina
    opportunity.
10
            With me is Dana Hill, our Director of
11
    Operations for our eastern region. A lot of our
12
    answers are going to be very similar to what Aqua
13
    had earlier this morning, but I love to have a good
14
    dialogue and if there's questions please don't
15
    hesitate to ask. We've -- Dana is going to walk
16
    through -- we don't have a presentation the same as
17
    Aqua but we do have a handout that hopefully
18
    everybody has a copy of with our responses. So,
19
    with that, I'll turn it over to Dana.
20
              MR. HILL: Good morning. It's working.
21
     (Checking microphone)
22
               So folks, we take that initial list of
23
    questions, if it's okay, and we'll just walk through
24
    those then we can move over into any other
```

supplemental follow-ups that you want to address in any more detail.

So the first item was the question of any changes that had been implemented since the February 2021 events in the Texas area. I can say that we haven't made any changes directly related to those events. We have made some improvements that would certainly benefit the Company and our customers in that type of event as well as other natural disasters and other disasters.

The biggest of those changes I think are how we communicate with our customers and give them prior knowledge of events and preparations that they need to help us make to maintain service. We've implemented the "MyUtilityConnect" system which is an app, a portal, that our customers have access to. In addition to being able to go in and see their consumption, their outstanding bill amounts, and that type of thing, we're able to push messages out on a specific system-specific area to those customers. In addition to being able, we also maintain a list of email addresses, cell phone numbers for text, telephone numbers for voice calls, and we're able to reach out to them in those manners

as well.

Another improvement that I believe we've used in the last few years is we also have a much more cooperative relationship I'd say with our electric providers, Duke Energy being the largest, but also some of the smaller co-op utilities in the rural areas. We, as well, have a specific account manager in our area that we can reach out to directly to talk about outages that may -- that we feel like require a faster response than others.

We're able to talk to that account manager about anticipated timelines for restoration so that if we need to take a step further on our response, and that's worked out to be a very good relationship.

So any -- I don't know if we need to stop

So any -- I don't know if we need to stop at each question or if you want me to just roll right through.

CHAIR MITCHELL: Keep rolling.

(Laughter)

MR. HILL: So, the second question was whether or not we forecast usage due to weather, and we don't. We really don't, really, have a manner to do that I would say. We don't see huge variations in water usage when we talk about extreme cold

weather. We see more of those extreme seasonable variations in normal usage but not directly related to colder weather activities.

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The next question was speaking to the coldest ambient air temperature at which we could operate the system, and I'm not able to provide a temperature for that number. Our systems are designed by NC DEQ standards so all mains are buried at that 30 inches or below the frost line depth that Mr. Pearce mentioned earlier. All our exposed piping are wrapped with both heat tape and jacketed insulation. We do have some piping that remains exposed. That's generally dealing with our wastewater treatment facilities and it's just simply because those pipes are very difficult or unsafe to access to install that heat tape and insulation. Those lines would generally -- they would generally maintain a fairly high rate of flow, so during cold weather events they're susceptibility to freezing is very low both in terms of the volume of water moving through the pipe as well as the biological activity that's associated with wastewater.

CHAIR MITCHELL: I actually have a couple of questions for you on your responses to this

```
particular question. You mentioned heat tape.
 1
                                                     What
 2
    exactly is heat tape?
 3
              MR. HILL: So, it's really just a, you
 4
    have an electrical cord, drop cord, that routes into
 5
    a, really, just an unexposed wire. So it's a flat
    piece of tape that you lay against your pipe, you
 6
 7
    wrap it with insulation and plug it in and it just
 8
    brings that temperature up to, you know, above
 9
    freezing levels.
10
              CHAIR MITCHELL: So how is the -- how is
11
    it powered?
12
              MR. HILL: Electricity generally; it's
13
    plugged in.
14
              CHAIR MITCHELL: Okay. And so for those
15
    facilities that are wrapped with this heat tape, is
16
    there generator backup for the heat tape? I mean,
17
    what happens if the electricity goes down?
18
              MR. HILL: Sure. And so on the facilities
    that don't have a stationary generator the heat tape
19
20
    goes out along with the electricity. So, back to my
21
    earlier mention of the insulated, the jacketed
    insulation that's around the pipe, so the heat tape
22
```

matter of comfort, if you will, to us. The jacketed

is really a secondary protection source; just a

23

24

```
insulation will also go a long ways in protecting
 1
 2
    that.
 3
              CHAIR MITCHELL: Okay. In your -- in the
 4
    Company's written response you-all indicate that
    wells, pump stations, and other critical facilities
    are heated. What is the heat source?
 6
 7
              MR. HILL: It is also electricity; yes,
 8
    ma'am.
 9
              CHAIR MITCHELL: And how many -- so, how
    many of those facilities are backed up by
10
11
    generators?
12
              MR. HILL: Of the wells?
13
              CHAIR MITCHELL: Well, those facilities
14
    that you've heated?
15
              MR. HILL: So, yeah, 14. About
    4.5 percent of our wells have stationary generators
16
17
    that will automatically come on. Those heaters that
18
    are installed in the wellhouses are a part of the
19
    wellhouse electrical circuit. So, when either the
    stationary generator comes on or we move a portable
20
21
    generator in to recharge that system, it also runs
22
    that heater -- that generator.
23
               CHAIR MITCHELL: Are all of your -- just
24
    as to I'm clear the wells and the pump stations and
```

```
1
    other critical facilities that are heated, are they
    all located -- are they located throughout the State
 2
    or are they located in a particular area of the
 3
 4
    State?
              MR. HILL:
                         Throughout the State; yes,
    ma'am.
 6
 7
               CHAIR MITCHELL: All right. And then one
 8
    other question I have for you before you move on to
 9
    your responses to question number 4. You indicate
10
    those pipes which have constant flow, which pipes
11
    have constant -- which wastewater facilities have
12
    constant flow?
13
              MR. HILL: So, at all of the wastewater
14
    treatment facilities the lines, as Mr. Pearce spoke
15
    of, you have lines that are moving activated sludge
16
    from one portion of a facility to another and that's
17
    a continuous flow. It's very critical to the life
18
    and treatment process of --
19
              CHAIR MITCHELL: So, those would be
20
    lines -- pipes that are internal to the treatment
21
    plant, not necessarily transmission lines?
22
              MR. HILL: Correct. Yes, ma'am.
23
              CHAIR MITCHELL: Okay, got it.
24
              MR. HILL:
                         I believe I was on question 4,
```

```
and this is speaking to participating in demand
 1
    response or interruptible tariffs and we do not.
 2
 3
               So, question 5 speaks to --
 4
               CHAIR MITCHELL:
                               Follow up there.
 5
              MR. HILL:
                         Yes.
               CHAIR MITCHELL: So, one of the -- the
 6
 7
    second part of that question is what alternative
    means are available to supply power when there are
 8
 9
    electric outages. You've mentioned some generators,
10
    so talk for a minute about generators. How many
    generators does the Company deploy? Where are they?
11
12
    When are they activated? What's your maintenance
13
    and operation program for those generators?
14
              MR. HILL: Okay. So, in addition to the
15
    stationary generators that we talked about --
16
    and let me see I've got numbers here.
```

MR. JUNIS: Chair, if it would so please, in the questions we submitted and the Company has provided some responses, and I don't know if they preferred some of that to be confidential or not, they do have responses to questions regarding number and percentage of all their wells and wastewater pump stations that have generators and then they indicate that they do have an annual maintenance

17

18

19

20

21

22

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24

```
contract for all generators.
 1
 2
               CHAIR MITCHELL: Okay. All right --
                           I'm not sure if Mr. Hill --
 3
              MR. JUNIS:
               CHAIR MITCHELL: And that would answer my
 4
 5
    question. Is there anything y'all want to add
    beyond what you've put here in writing?
 6
 7
              MR. HILL: No, ma'am.
 8
               CHAIR MITCHELL: Okay. Perfect.
                                                 Thank
 9
    you.
10
                         The next question talks about
              MR. HILL:
    from an operation standpoint anything that we may do
11
12
    differently. Again, if we talk about cold weather
13
    events specifically, ahead of those events staff
14
    would go out to confirm that heat tape and
15
    insulation is in good condition installed on those
16
    pipes that we talked about and make sure the heaters
17
    in the buildings are functional.
18
               Certainly the big objective, we'd check
19
    all the generators in addition to our weekly -- we
    crank our generators weekly to make sure they run.
20
21
    We load test them monthly and they are under an
22
    annual maintenance contract. But ahead of those
23
    events we would certainly make sure that they crank
```

and make sure all the fuel tanks were topped off.

24

```
1
    We have portable fuel tanks mounted on trailers for
 2
    refueling purposes, we'd make sure all of those are
    full, you know, trailers are in good condition, that
 3
 4
    type of thing.
               MR. DENTON: One comment, Dana.
 6
    so -- and in this response I just want to clarify
 7
    one thing where in the last paragraph where we
 8
    talked about the emergency response plans being
 9
    filed with NC DEQ that was an error in this
10
    write-up. We do not file those with NC DEQ.
11
    do have them within our office and on-site should
12
    anybody would like to see an example of that we can
13
    provide that.
14
               CHAIR MITCHELL:
                                Thank you, Mr. Denton,
15
    for that clarification. Is that something that the
16
    Public Staff -- that you-all routinely discuss with
17
    the Public Staff? Have you ever discussed it with
18
    the Public Staff --
19
              MR. DENTON:
                           Not to my knowledge.
20
               CHAIR MITCHELL: -- to your knowledge?
21
    Okay.
22
              MR. JUNIS: Chair, I mean, if they could
23
    file a couple of those maybe by one by a region as
```

sort of an example, I think that would be helpful.

24

```
CHAIR MITCHELL: Mr. Denton, to the extent
 1
    that they are not confidential could you file them?
 2
 3
              MR. DENTON: We will.
 4
               CHAIR MITCHELL:
                                Thank you.
 5
              MR. JUNIS:
                           Thank you.
               CHAIR MITCHELL: And you don't need to
 6
    file all of them but just representative.
 7
              MR. DENTON: Okay.
 8
 9
                         Yeah, just a few other things
              MR. HILL:
10
    as far as preparation ahead of a cold weather event,
11
    or really, this applies to hurricanes which we're
12
    much more frequently affected by. You know, we make
13
    a round of our lift stations to make sure that both
14
    pumps are operable at each station, that those
15
    would, not as great a holding capacity, are all
16
    pumped down and prepared for possible failures to
17
    give us time to respond and that sort of thing.
18
              MR. DENTON: And I would say in addition
19
    it's not in this response but similar to Aqua we do
20
    have an incident command structure that we put in
21
    place. We evaluate case-by-case, storm-by-storm,
22
    whether or not it's needed or not. And the
23
    structure is very similar to what was described
24
    earlier this morning.
                            So --
```

1 CHAIR MITCHELL: How many times have y'all 2 implemented the incident command system? MR. DENTON: Since I've been here which is 3 over the past two and a half years we've done it 4 once. But prior to that, Brice Mendenhall who was Vice President of Operations for Carolina Water 6 7 Service had implemented it. I think during Florence was one and maybe prior, one prior to that. 8 9 CHAIR MITCHELL: And who are the incident 10 commanders? 11 MR. DENTON: I would. So Dana, his 12 counterpart for the western region, Tony Consul, and 13 myself. 14 MR. HILL: So question 6 talks about 15 emergency plans, specifically, towards if the water 16 becomes unsafe to drink. And much like Mr. Pearce's 17 conversation, we -- if there is an event where we 18 know we have lost water pressure on a system we 19 would issue a Boil Water Advisory to make those customers aware of that potential for contamination. 20 21 We push those advisories as well as any other

22 message that we need to send out to the customers.

23 Again, we push out through the MyUtilityConnect app

24 as well as those that have signed up for emails,

texts, and phone calls. We'd push that out as well.

If -- sorry.

MR. DENTON: I would say in addition to that, and I'm sorry for interrupting, but we have good relationships with a lot of our HOA's, and so direct contact with those HOA Board Presidents. We notify them and they go out and they use that channel as well as a communication medium for those communities that are affected.

MR. HILL: And then we also make aware our customer service, customer experience team of the specifics of any issue, why that Boil Water Advisory was issued, for example, and the time we expect it to take that sample to come back for the advisory to be lifted so that when those customers reach out to our customer experience team they can get a good solid answer from the first call.

The next portion speaks to how we communicate with state government regulators, and I think that's probably a two response approach.

Generally, obviously, in conversations with Public Staff and the Commission, those communications would go through our president or our community engagement manager. Generally, when we're communicating with

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DEQ and other operational regulators that's left to
each director of operations to make those contacts
with the appropriate regional office.
```

The last question, talking about any problems that initiated from cold weather in the last three years, and we have not had any operational issues from cold weather.

MR. DENTON: I know there was the question earlier about 2014, I believe it was. I, in a similar fashion, wasn't here with the Company and neither was Mr. Hill, but I did ask around and there was no knowledge at least or response of any issues related associated with the storm of 2014.

CHAIR MITCHELL: Gentlemen, we heard from Aqua about their participation in NCWaterWARN, is that something that Carolina Water participates in?

MR. DENTON: We don't currently but after learning more about it today I think it's worth -- we're going to look --

CHAIR MITCHELL: It's on the to-do list?

MR. DENTON: Absolutely.

CHAIR MITCHELL: Got it. Okay. Can you talk some about your relationship with Duke Energy or with eletric power suppliers in your respective

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areas and coordination that is ongoing or will be
 1
    ongoing subsequent to this conversation?
 2
 3
              MR. DENTON:
                            Similar to the
    conversation -- I'll let Mr. Hill respond here.
 4
    Similar to the conversation earlier about the
    account, accounting issues, and different companies
 6
 7
    and cleaning up those, we as well have an account
    manager with Duke. We're in that same process of --
 8
 9
               CHAIR MITCHELL: Is it the same account
10
    manager as Aqua's?
11
              MR. DENTON:
                            It is not.
12
              CHAIR MITCHELL: Okay.
13
              MR. DENTON: But we are working through
14
    those same issues. The relationship has gotten
15
    better over the past few years. And we are looking
16
    to continue the conversation around the priority
17
    restoration that we would be identified as one of
18
    those accounts or a number of accounts that would
19
    have priority restoration for service, and similarly
    with the co-ops and the other utilities that we
20
21
    interface with.
22
              MR. HILL:
                         And again, our -- in addition
23
    to our account manager our operation staff for the
```

most part has developed very good working

24

relationships with Duke Energy's field staff, for example. So, it's not unusual for our staff to reach out directly to a district engineer or a line crew to say look we've got this issue, we've run it through customer service and it's going to take a little bit too long, can you help us? And they -- when those issues have arose they have been very accommodating.

CHAIR MITCHELL: Can you talk some -- we heard from Aqua leaning on neighbors for assistance when you get to that point. Specifically, Aqua was discussing it in the context of gasoline fuel. Does Carolina Water have some of those same relationships or arrangements in place specifically with respect to fuel whether it's for the generators or for your vehicles?

MR. HILL: We do from a couple of different standpoints. I think probably most importantly we have developed relationships with local bulk fuel suppliers. These are mostly the folks that we buy our generator fuel from on a normal basis but those relationships have gained us that priority service that Aqua spoke of, so they've committed to saving a truck for us, for example, of

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a load of diesel in a severe weather event. And in
 1
 2
    return, you know, we go fill up our portable fuel
 3
    tanks at their facilities. We do have those
    relationships. I think as well we're -- in the
 4
    past, you know, when we're talking about a severe
    weather event, whether it's cold or a hurricane, it
 6
 7
    generally has not affected the entire state, so
    we're not able to pull from our internal resources
 8
 9
    to pull from our western region folks and resources
10
    to the east and vice versa depending on where that
11
    has or is.
              MR. DENTON: Well, and expanding upon
12
13
    that, across Corix if we did enable an incident
14
    command we would pull from other regions as well as
15
    needed, whether that's materials, fuel, equipment.
16
    In the case of the freeze in Texas I know that
17
    expertise including maintenance crews were flown out
18
    of Alaska down to Texas to support the Texas team
19
    with their cold weather expertise.
20
               CHAIR MITCHELL: Let me check in with my
21
    colleagues to see if there are questions for
22
    Carolina Water. Commissioner McKissick?
23
               COMMISSIONER McKISSICK:
                                        Thank you, Chair
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24

Mitchell.

One of the things which I raised with Aqua was, you know, to make sure that they might implement and go further and beyond what they're doing today in making Senate Bill 3 down in Texas and the potential of putting generators at each water system and potentially at critical lift stations as well.

Have you-all given any thought to that type of program or initiative of what the cost might be if something major like that were taken over some period of time either at the most critical locations or however you might identify increasing system reliability under these circumstances?

MR. HILL: Yeah, no, I would agree with that statement. I think an initiative to at least put a stationary generator on every system may be, you know, as opposed to every well, at least you could keep a system pressurized.

I think some things that we probably should have the conversation about leading from this discussion is looking into alternative powering methods if you will. Maybe LP for heaters or LP for running generators and things like that. I think that's a conversation worth having and looking into.

I'm also a big fan of adding portable generators to the fleet because you don't tie that resource to one individual geographic area. It can be moved across the states.

MR. DENTON: But making sure the proper breakers are installed, the quick disconnects, those kinds of things for those facilities, and making sure as we go through and upgrade we're making sure to include that as part of the design.

COMMISSIONER McKISSICK: It seems to me those types of initiatives have strategically taken over a period of time in a very measured way. It could be very valuable, you know, in the event of some type of extreme weather condition that where they might be necessary.

Are there any other measures that you can think of or have considered that might be implemented elsewhere that you might be -- would bring value to system reliability on these extreme weather conditions?

MR. DENTON: Well, one thing I think as we move into the next generation and it was mentioned earlier about the AMR meters. We are moving towards a combination of AMR and AMI. That will benefit

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down the road specifically when you get to leak
 1
    protection on the customer side. For instance,
 2
    talking about freezing of pipes under houses
 3
 4
    earlier, the AMI of course would give more of an
    instantaneous type of information. Whereas, the
    AMR, while if you were able to ping it on a regular
 6
 7
    basis you could get that information or do the
    driveby. So, that technology will benefit
 8
    significantly and at least in restoration.
 9
10
              COMMISSIONER McKISSICK: Excellent.
                                                    Thank
11
          I don't have further questions, Chair
12
    Mitchell.
13
              CHAIR MITCHELL: Commissioner Clodfelter.
14
              COMMISSIONER CLODFELTER: You've got a
15
    number of fairly substantial systems that are second
16
    home, vacation, do you experience a different
17
    incidence of frozen meter boxes or busted pipes on
18
    the customer premises at those systems than you do
19
    elsewhere and, if you do, do you have different
20
    protocols or procedures in place for how you respond
21
    in those communities?
22
              MR. HILL: So I don't -- I wouldn't say we
23
    notice an increase in those events. Generally
24
```

speaking, those second-home communities, you know,

```
those customers either call in to have service
 1
    disconnected when they leave for the season or many
 2
 3
    of them do it themselves. They just cut it off when
 4
    they are leaving for an extended amount of time.
    I wouldn't say there's a huge difference.
              COMMISSIONER CLODFELTER: You've not seen
 6
 7
    a difference so that requires you to take any
    different action then?
 8
 9
              MR. HILL: No, sir.
10
              COMMISSIONER CLODFELTER:
                                         Thank you.
11
              COMMISSIONER BROWN-BLAND:
                                          Just one
12
    question. Does CWS also have a checklist for its
13
    inclement weather emergency response?
14
              MR. HILL: Yes, ma'am. For preparation,
15
    you mean? Yes, ma'am, we do.
16
               COMMISSIONER BROWN-BLAND: I'd like to
17
    request that. If you can, you can to provide that
18
    to us.
19
              MR. HILL:
                         Sure.
20
              COMMISSIONER BROWN-BLAND: And also, just
21
    to be sure I heard Aqua make that offer, but that
22
    formal request that you provide your checklist as
23
    well.
           Thank you.
24
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MR. HILL: And ours is in more of a plan,

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1
    pre-planning form than a checklist so-to-speak, but
 2
    we'd be happy to provide that.
 3
              COMMISSIONER HUGHES: I just wanted to see
 4
    if you had anything to add to Aqua's response
    related to grinder pumps and assets that are on
    people's property. Is that a problem for you-all,
 6
 7
    too? Any secret way of reducing the headaches
    related to those?
 8
 9
                         No, sir, nothing to add.
              MR. HILL:
10
    would agree with Mr. Pearce's statements. They are
11
    challenging to some degree. I think a benefit in
12
    our case is many of our grinder pumps and
13
    residential lift stations are in those seasonal
14
    areas, you know, Outer Banks, coastal areas in
15
    particular. So, while I have personally not had to
```

deal with those in a freezing event, typically in

those residents are leaving going home ahead of

hurricanes you deal with them, but our advantage is

20 COMMISSIONER HUGHES: Along with their 21 waste.

MR. HILL: Correct. Correct.

16

17

18

19

those storms.

COMMISSIONER HUGHES: Thank you for that.

24 The other question was the -- I think as some of

```
these big incidents have occurred, the federal
government has reacted with funding programs.
understand this is a big topic of discussion and
access to -- what you have access to versus local
governments, but it does seem like generators were a
popular thing to help water operators by, and I just
wondered if you had any experience, you know,
whether those programs, whether you were eligible
for those, you know, if you had any comments about
that, because I do think that a lot of money went
into that specific type of asset.
          MR. DENTON: Right. I don't know that we
pursued funds and I don't know if they were
available or evaluated whether or not they were
available, but we definitely would be interested if
funding was available. It is something that I think
is, it was mentioned earlier about leveling the
playing field, it hasn't been as level as we would
like it to be.
          COMMISSIONER HUGHES:
                                Thank you.
          CHAIR MITCHELL: Mr. Junis?
          MR. JUNIS: Let loose again. All right.
I'm going to try to go in order. Well, first, we
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NORTH CAROLINA UTILITIES COMMISSION

posed this question to Aqua and we would like to get

your insights. Any consideration of insulating well or meter boxes.

MR. HILL: Again, that's not something I'm familiar with as a process. No, sir. We would be glad to look into it.

MR. DENTON: Yeah, we can look into it. It think one of the things that lessons learned at least from our mountain communities is those meter boxes are a little deeper, obviously, which so you get natural insulation from the ground.

MR. JUNIS: I think it was in response to the Chair's question in terms -- there was mention of priority restoration. Are there obvious concerns or challenges to priority restoration for a utility that's spread out like Carolina Water? Obviously, you have assets and infrastructure throughout the State and how Duke might go about prioritizing that?

MR. DENTON: I think the biggest challenge so far is similar to what was mentioned earlier, it's the number of accounts and the names associated with those accounts and getting all of that straightened out first so that we can then be within the systems and it's clear which accounts need that priority service.

```
1
              MR. JUNIS: So, it sounds like there's
 2
    some miscommunication of which -- basically when you
 3
     say a name that might not match up with what Duke
    has and there's miscommunication of what you're
 4
    trying to get prioritized or have concerns about.
              MR. DENTON: That's correct.
 6
 7
              MR. JUNIS: And you say that is a work in
 8
    progress --
 9
              MR. DENTON: It's a --
10
              MR. JUNIS: -- not quite resolved?
11
              MR. DENTON: Yes, it's a work in progress,
12
    but we are making progress.
13
              MR. JUNIS: There is mention --
14
               CHAIR MITCHELL: I'm going to jump in
15
    here.
16
              Mr. Denton, how many accounts does the
17
    Company have with Duke?
              MR. DENTON: I do not have that number but
18
19
    I can get it for you.
20
               CHAIR MITCHELL: I mean, is it ten,
21
    hundreds? Is it --
22
              MR. DENTON:
                           (Nods head affirmatively).
23
               CHAIR MITCHELL: Hundreds, okay.
24
    don't need to get the specific number. That's all,
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```
I just kind wanted --
 1
 2
              MR. JUNIS: So, Chair, just ballpark, I
 3
    mean, they have over 300 wells and over 200 lift
    stations or pump stations that probably all have
 4
    separate accounts. So, A little assist there.
              MR. DENTON: Thank you.
 6
 7
              MR. JUNIS:
                          Regarding the
    MyUtilityConnect, when did the -- when did CWSNC
 8
 9
    start it?
10
              MR. DENTON:
                            Have you got that? It was
11
    right before I came on board I think. 2019, maybe.
12
    (Speaking to Mr. Hill)
13
              MR. HILL: I want to say early -- late '18
14
    or early '19. Don't hold me to that, please, but
15
    that's close.
16
              MR. JUNIS: And I assume that that is a
17
    question when someone signs up for an account.
18
    they want to register. Has there been in other
19
    initiatives to, sort of, push customers to either
20
    download or join that?
21
              MR. HILL: Yes, several initiatives.
                                                     One,
22
    our communications team participates in these
23
    communities - Facebook and Nextdoor pages - they try
```

to push the MyUtilityConnect preparation or

24

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participation. We meet very frequently with several of our larger homeowner associations in large groups and try to push that idea through those meetings as well.
```

MR. JUNIS: Has the Company made any effort to, sort of, host one of these events to assess or communicate with customers on what communication work best for them?

MR. HILL: I'm not aware of that.

MR. DENTON: We've had in these homeowners association board meetings. We actually just had a great meeting recently about a number of topics, but communication was one, and we did ask the question what's your prime method of communication? What would you like to do?

Interestingly, obviously, the board has one communication method. They want to control the message, right, and so they -- we communicate through the board but we also want to communicate directly with the customer, and so, but we want the message to be the same. And so that's been an interesting conversation which we're trying to expand upon but it's, so far, those conversations are going well.

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MR. JUNIS: Do you feel that one or the other is more reliable in terms of an email notification or a text?
```

MR. DENTON: It's actually, it's individual dependent, right, and so it's a preference. It's personal preference. And so we're trying to hit as many communication channels as we can. That's, I mean, been part of the methodology and it's hard to keep up with everything new that's coming out.

MR. JUNIS: Regarding, sort of, getting into planning for a weather event, how far in advance would you start taking some of these actions, you know, mobilizing equipment, pushing boots on the ground to start preparing?

MR. DENTON: So, there's two different answers to that. One is we know hurricane season is coming so we start prep for hurricane season long before hurricane season gets here. And then we start to prepare for an individual storm and that can be anywhere from a couple of days before, because we just don't know where the track is going to be, right, but the individual storm prep could be anywhere from a week to a couple of days ahead of

```
time.
 1
 2
              Now, in reference to that, though, I'll
 3
    add onto that because we have multiple
    jurisdictions, basically all through the southeast
 4
    from Texas all the way up to Virginia, that have the
 6
    potential for an impact of the storm. We actually
 7
    have a conversation amongst the presidents and say
    what are we doing, where do we need to move people,
 8
 9
    potentially to support other jurisdictions.
10
              MR. JUNIS: I think to piggyback --
11
               CHAIR MITCHELL: Mr. Junis, I'm going to
12
    jump in --
13
              MR. JUNIS: Please do.
14
               CHAIR MITCHELL: -- for just one question.
15
    Mr. Denton, how bad was -- I mean, what was the
16
    experience of your analog in Texas? How -- was
17
    there service interruption?
18
              MR. DENTON: Most definitely there was.
19
    We did have frozen pipes. We did have systems that
    went down. And I'm sure that there will be much
20
21
    more conversation when the electric side is in here
22
    of the impacts due to the electric failure that
23
    occurred in Texas being more of a merchant-style
```

market with the ISO, a very different type of market

24

than what we have here.

And so it's a -- the impact was much longer and sustained on the electric side. Now, I'll say that the water systems were back up pretty quickly because once the cold front went through the pipes were able to be thawed out and generators being able to put online, but the power system was still having trouble. So, I'm sure that the electrical side will talk through that in much more detail than I have. But we did have some impacts down there but we were able to respond pretty quickly.

CHAIR MITCHELL: Have you-all -- are you instituting operational changes in Texas as a result of what happened in Texas to the extent that you're aware?

MR. DENTON: They are. I mean, they are looking at the House Senate Bill 3. I can't remember which one it is. And they are evaluating if they need to be doing other additional insulation or more, obviously, the backup generation or changes to like meter boxes and those kinds of things. So, they are looking at all of that right now. But it was such an unanticipated event that it just caught

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so many people off guard.
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CHAIR MITCHELL: Understood. And is there intention at the corporate level to disseminate the information and lessons learned --

MR. DENTON: Absolutely.

CHAIR MITCHELL: -- from Texas and the studies that are ongoing to other operating companies in other jurisdictions.

MR. DENTON: We do and we share on a regular basis. The leadership of the company gets the operational leadership of the company together and we talk through lessons learned from anything from safety to compliance to just operational improvements and so those are all shared across the organization.

CHAIR MITCHELL: Okay. Thank you.

MR. JUNIS: I think to piggyback off the Chair's question, would you say that the water and sewer utilities are highly dependent on reliable electric service? Does that make your job a lot easier if there's not an outage or there is a quick restoration of service?

MR. DENTON: Dana is over here nodding his head. Yeah absolutely.

MR. JUNIS: Regarding Commissioner Hughes' question about funding availability, and I probably should have asked this to Aqua too, but because we're in just a little bit more of a casual setting they might be able to chime in also, but are the utilities making any effort to gain access to some of this additional funding?

MR. DENTON: We definitely will be pursuing that. I mean, we're going to be looking. I actually in my past was part of obtaining some federal money for the Grid Modernization Program within Duke. And so we'd love to see some of those opportunities come our way as well.

MR. JUNIS: So, I guess a follow up would be are there legislative initiatives to gain access? Are there efforts and conversations with DWI and state government? What actions are being taken to attempt to gain access to those funds?

MR. DENTON: We're just getting started on that front. So, I think we're going to -- there's going to be a multi-prong type of look and see where is our best opportunities. I think, obviously, time is limited on resource availability, but we're going to be looking and seeing what we can do.

```
Is it okay if Aqua would
 1
              MR. JUNIS:
 2
    respond if they want to?
 3
               CHAIR MITCHELL: Ms. Sanford, did y'all
 4
    hear the question?
              MS. SANFORD: I do have a question as to
 6
    whether you're talking about the substance of the
 7
    filing we'll make later today or are you talking
    about something else?
 8
 9
              MR. JUNIS: So just answer this question
10
    here in the hearing about Commission Hughes'
11
    question about availability of funds and trying to
12
    gain access to those funds like ARPA or other
13
    initiatives for --
14
              MR. PEARCE: Jo Anne, I can answer pretty
15
    easily.
16
              MS. SANFORD: Mr. Pearce can --
17
              MR. PEARCE:
                            I'm sorry. I'm Joe Pearce.
18
    I've had conversations with Jon Risgaard from the
19
    Division, DWI about availability versus municipality
    versus investor-owned utilities. He did a
20
21
    presentation about two weeks ago when he started
22
    modifying his presentation of which parts were -- he
23
    had muni-only and some of those were muni and IOU.
24
    I hope in the future maybe he'll do one just for
```

```
1
    IOU's so that we know what's available to us and
 2
    what's not, but they are very early in the process.
    They have not laid out their whole program so
 3
    it's -- they're just in the infancy, you know, the
 4
    infancy of following the BIL and getting the
    information out there, and that was just in the last
 6
 7
    month.
 8
               CHAIR MITCHELL: And I do anticipate we
 9
    will learn more from the Companies as they make
10
    their filings in the docket that we have open at
11
    this time.
12
              MS. SANFORD: Correct, today.
13
              MR. JUNIS: Just one second to make sure
14
    I'm running down through my questions.
15
               I'm not sure this was asked or maybe I'm
    missing it. How many portable generators does
16
17
    Carolina Water Service have?
18
              MR. HILL: I don't know that I can give
    you an exact number. Somewhere between 55 and 60
19
20
    statewide.
21
              MR. JUNIS: And are those typically the
22
    trailer mounted or is that some combination of back
23
    of a work truck, smaller ones versus than the
24
    larger --
```

```
1
              MR. HILL: Yeah, those are all trailer
 2
    mounted, yes. We do have -- we have a number of the
 3
    smaller portable handheld generators but I honestly
    don't even count those.
 4
              MR. JUNIS: Has the Utility considered or
 6
    looked into any form of battery storage for an event
 7
    like this?
 8
              MR. HILL: For batteries to operate the
 9
    generators?
10
              MR. JUNIS:
                          As opposed to an electric
11
    generator but battery storage potentially.
12
              MR. HILL: I am not aware of any.
13
              MR. DENTON: Not within Carolina Water
14
    Service. But right now we are -- we have a study
15
    ongoing that's looking at a combination of in
16
    another jurisdiction of solar combined with battery
17
    storage.
              CHAIR MITCHELL: Which jurisdiction is
18
19
    that?
20
              MR. DENTON:
                           Florida.
21
              CHAIR MITCHELL: Okay.
22
              MR. JUNIS: Chair, that's all I have right
23
    now.
24
               CHAIR MITCHELL:
                                Let me just check in one
```

```
last time with colleagues. Any questions for these
 1
 2
    gentlemen before we let them go?
 3
               (Pause).
               Thank you very much. Y'all may step down.
 4
    Ms. Sanford?
 5
 6
              MS. SANFORD: If I might, Chair Mitchell,
 7
    Carolina Water has made available to me a document
    that I think will be of --
 8
 9
              MR. BECKER: Aqua.
10
              MS. SANFORD: Aqua.
                                    I am so sorry.
11
    must be time for lunch or something. That I think
12
    is relevant and will be interesting to the group.
13
    And it has to -- if you'll pass those out to the
14
    Public Staff -- it simply has to do with a disaster
15
    management mitigation session. It's to your
16
    interest in cooperation among entities including
17
    FEMA. So, if I might, I'd like to pass this out.
18
    It may be that it may be of interest to members of
19
    your staff.
20
               CHAIR MITCHELL: Please do. And I believe
21
    that brings us to the end of the morning.
22
    check in just to make sure there are no other
23
    questions.
24
               (Pause).
```

1		With that, we've come to the end of the
2	morning,	so we will be adjourned. Thank you very
3	much.	J 1
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5	_	Drogoodings wore adjourned
		Proceedings were adjourned
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## C E R T I F I C A T E

I, KIM T. MITCHELL, DO HEREBY CERTIFY that the Proceedings in the above-captioned matter were taken before me, that I did report in stenographic shorthand the Proceedings set forth herein, and the foregoing pages are a true and correct transcription to the best of my ability.

## Kím T. Mítchell

Kim T. Mitchell