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BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

Order Instituting Rulemaking to Examine Electric Utility De-Energization of Power Lines in Dangerous Conditions.	Rulemaking 18-12-005
NOT CONSOLIDATED	
Order Instituting Rulemaking Regarding Emergency Disaster Relief Program.	Rulemaking 18-03-011

JOINT ADMINISTRATIVE LAW JUDGES' RULING ENTERING PORTIONS OF THE RECORD FROM RULEMAKING 18-03-011 TO RULEMAKING 18-12-005

The State of California is experiencing the devastating effects of major wildfires that have occurred throughout the state. The Commission has instituted multiple rulemakings – including Rulemaking (R.)18-03-011, *Order Instituting Rulemaking* (OIR or R.) *Regarding Emergency Disaster Relief,* and R.18-12-005, *Order Instituting Rulemaking to Examine Electric Utility De-Energization of Power Lines in Dangerous Conditions* – to promulgate a comprehensive, state-wide approach to coordinate state programs and activities that preserve California's essential functions across a wide range of potential threats and emergencies. Continuity of essential functions is a shared responsibility of the Commission and its counterparts across the State government. Development and maintenance of continuity capabilities helps build and sustain a more resilient approach equipped to sustain essential

functions, deliver critical services, and supply core capabilities under all conditions.

To support the development of both records and promote continuity of essential functions, we enter portions of the record from R.18-03-011 to R.18-12-005 concerning communications service providers. Entering such portions of the record is appropriate where activity before the Commission involves common questions of law, fact, and/or interests pertinent to the public. Entering portions of the record from R.18-03-011 to R.18-12-005 will support the Commission's efforts to build and sustain a more resilient approach in providing disaster preparedness and relief to California in times of crises. At this time, R.18-03-011 and R.18-12-005 remain unconsolidated.

Therefore, all comments provided by communications service providers in R.18-03-011 and the workshop transcript from the November 1, 2018 Governor's Office of Emergency Services and the California Public Utilities Commission for Communications Service Providers All-Party Workshop in R.18-03-011 is hereby entered into the record of R.18-12-005 (Attachment A). Parties may file comments on the inclusion of the above from the record of R.18-03-011 into R.18-12-005 within five days of mailing of this ruling. Reply comments will not be accepted.

In the future, if there are portions of either record that become relevant to the record in the other proceeding, we will issue another ruling entering those portions into the record and allowing party comment.

IT IS RULED that:

1. The workshop transcript workshop from the November 1, 2018 Governor's Office of Emergency Services and the California Public Utilities Commission Communications Service Providers All-Party Workshop held in

Rulemaking (R.) 18-03-011 is entered into the record of R.18-12-005 (Attachment A).

2. All communications service providers comments filed in R.18-03-011 shall be entered into the record of R.18-12-005.

3. Parties may file comments 5 days from the mailing date of this ruling.

Dated February 11, 2019, at San Francisco, California.

/s/ MELISSA SEMCER
Melissa Semcer
Administrative Law Judge

/s/ COLIN RIZZO
Colin Rizzo
Administrative Law Judge

ATTACHMENT A

BEFORE THE PUBLIC UTILITIES COMMISSION

OF THE

STATE OF CALIFORNIA

ADMINISTRATIVE LAW JUDGE COLIN RIZZO and COMMISSIONER PICKER, presiding

	)	
	)	**WORKSHOP**
	)	
	)	
Order Instituting Rulemaking	)	
Regarding Emergency Disaster Relief	)	**Rulemaking**
Program to Support California	)	**18-03-011**
Residents.	)	
	)	
	)	

REPORTER'S TRANSCRIPT
Mather, California
November 1, 2018
Pages 1 - 193
WS

Reported by: Karly Powers, CSR No. 13991
Shannon Ross, CSR No. 8916

PUBLIC UTILITIES COMMISSION, STATE OF CALIFORNIA
SAN FRANCISCO, CALIFORNIA

I N D E X

STATEMENTS

MATHER, CALIFORNIA

NOVEMBER 8, 2018 - 10:00 A.M.

* * * * *

ADMINISTRATIVE LAW JUDGE RIZZO: On the record. This is the time and place for the California Public Utilities Commission and Governor's Office of Emergency Services Joint Emergency Disaster Relief Workshop for Communications Service Providers in Rulemaking 18-03-011, the Order Instituting Rulemaking regarding Emergency Disaster Relief Program to Support California Residents.

I'm Colin Rizzo, the assigned California Public Utilities Commissioner Administrative Law Judge to this proceeding. With me is President Michael Picker of the California Public Utilities Commission, the assigned Commissioner to this proceeding.

We have two court reporters in the back, Ms. Shannon Ross and Ms. Karly Powers, who are going to be preparing a transcript of today's workshop. To assist them in preparing a clean transcript, I ask that you speak one at a time and don't interrupt each other and if you are reading a prepared statement, please provide a copy to the court reporter. Additionally, if you would like a

transcript from today's workshop, there's transcript request forms in the back that they can provide you with.

Now, we turn to Ms. Karen Eckersley of the California Public Utilities Communications Division.

STATEMENT OF MS. ECKERSLEY

MS. ECKERSLEY: Good morning. Thank you all for coming to today's workshop, which has been designed to address key issues for communications providers during and after a declared disaster. I'm Karen Eckersley of the CPUC Communications Division.

It is not a coincidence that we are here in the headquarters of the office of Emergency Services because our partnership and open communication with OES on issues, which affect us all, is critical to developing a response to disasters, particularly wildfires. We thank them for hosting us here today at this workshop and for participating with their insights and concerns.

At the end of last year, when California experienced the largest wildfires at that time, the fires in Napa and Sonoma and also Santa Barbara and other fires in Southern California, the California Public

Utilities Commission passed two resolutions, which required electric, gas, telephone, water and sewer companies to take measures on behalf of their customers.

In March of this year, the Commission initiated a rulemaking to consider whether the Commission should adopt permanent rules in this area. In August, the CPUC issued an interim decision affirming the previous provisions and adopting further protections to ensure that everyone has access to communications when they need it most.

We are here today to build a record for that final decision. The CPUC is aware that not all disasters are alike, and many of you have asked that our safety measures should allow for differences. While we are concerned with providing protections for consumers who are affected by disasters, we are also aware that communication providers have their own efforts and disaster responses, which we expect would exceed our rules.

Many of the communications providers here have commented in this proceeding that their voluntary efforts are sufficient, and that we should not establish rules, or

one-size-fits-all rules, and that the CPUC should not require communications providers to provide customer assistance.

I will state the obvious: We would not be here today if we didn't think there were issues to resolve with our disaster response. We need to understand these issues clearly so that both of these agencies can serve Californians better, and I hope that all of you have proposals and helpful information to address the questions that we have put forward.

Our agenda includes the questions that we would like to address and for those respondents and representatives of communications carriers who would plan to speak, I would ask that you please not repeat what you have already provided in writing in this proceeding. We have that information.

Our facilitators, myself, Mr. Nojan, Mr. Lee, Ms. Steiner, we'll guide you through the questions that we would like to hear more about, and, of course, the questions from the dais. Our two opening speakers today will speak to what they see and why we are here.

First on the agenda is the President of the California Public Utilities

Commission, Michael Picker. Following President Picker, Mitch Medegovich will introduce Mr. Ghilarducci, the head of the California Office of Emergency Services.

President Picker.

STATEMENT OF MR. PICKER

PRESIDENT PICKER: Thank you.

I'm going to speak fairly broadly. Changes in the world are straining the CPUC's traditional independent identity in state government. At one point we were designed to be remote from the day-to-day pressures that faced other agencies and political pressures that the legislature and elected officials faced, but at this point in history that just doesn't work.

As we continue to try to help the CPUC remain effective and relevant to people's lives here in the State of California, safety has become an urgent and pressing problem; so some of that is strengthening and revitalizing our internal programs, but a large part of that is recognizing that the CPUC cannot be effective, relevant, and improve safety practices all alone.

So it's significant that one of the first MOUs that we've crafted with other

state agencies is to be able to draw on their wisdom, on their operational strengths, and on their statutory authorities to be able to do those things we need to do in today's modern world with that agreement with the Office of Emergency Services.

My history at the CPUC is limited; it's only about five years old, but every year that I've been here, there's been a new disaster of some type or another. Some of that is relative to aging infrastructure; some of that is related to changes in the world that affects our infrastructure. So whether it's a failure to replace and maintain gas transmission, or it's a vast amount of fuels, dryer winds, and ferocious winds, and low humidity that has characterized these recent weather events, we're in a different place; so we need to be a different agency. We need to work better with our partners.

Here we're talking about another set of challenges. It's how do our utilities and their vast differentiation also participate in providing services during emergencies. So while the specific focus of this discussion today is on what we provide in terms of consumer support in an emergency, the point

at which consumers need that support is kind of hard to pinpoint. Is it when they need communications and it's failing as they are trying to evacuate, or is it only when they are in an evacuation center when we've officially moved into a declared recovery mode. Those are important distinctions legally, but if you're in the midst of the emergency, not so much.

So we are going to explore those things today. We are going to continue to press hard. I just want to say because this workshop is one of three and it's about telecommunications, that many people in the industry come to us under different circumstances. They provide the same services: Voice, internet, and sometimes entertainment, but they do it with different technologies and different business models and under different statutes, but they all come to us in some fashion as utilities who are demanding access to the common carrier, which is the wooden poles.

Those wooden poles are largely paid for by electric customers, who are fully regulated here in the State of California. So you may have different sets of legal obligations, but you have an ethical

obligation and you have an expectation from the PUC, OES, local enforcement agencies, that you actually be able to participate in assisting in emergencies. We'll explore separately the limits of our legal authorities on some of these issues, but understand that there's that expectation. If you fail that expectation, then there will be problems.

Mr. Ghilarducci.

STATEMENT OF MR. GHILARDUCCI

MR. GHILARDUCCI: Thank you, Michael.

Well, good morning. I'm Mark Ghilarducci and the Director here at the Governor's Office of Emergency Services and welcome to the State Operations Center for today's workshop.

I'm going to kind of start off by sort of taking a trip down memory lane. You know, when I started in this business and many of the public safety folks that are in the room started in this business years ago, you know, our focus in communications was really on land mobile radio systems and hardened infrastructure and landline telephones.

Clearly, over the years that has continued to change, the technology has

improved, and really that technology that has been developed is really a tremendous addition and asset to ensure that the way public safety agencies respond to and prepare for and recover from major emergencies can be done in a much more efficient and effective way.

What would also come with that is we've moved from, what we call, secure communications, secure landline, secure land mobile radio systems to an internet-based, cellular-based system, and as our public safety are moving over to that system, we've moved from a system where government had much more control. We knew that the systems were secure. We could build redundancy and resiliency into those systems because we knew that they were the lifeline, the backbone, the absolute critical aspects of communications that we needed.

I will tell you, coming out as a first responder and starting at local government and working through all the way to the federal government, when you are responding into an emergency, communications are your lifeline.

When people are rushing out of a threatened area or having to communicate with

911 centers, that link, that communication link, is critical for life-saving operations.

And, in fact, that whole system today where you call 911 and really begin -- if you are a citizen, you dial 911 to get into the system to either figure out what's happening in an emergency or reporting an emergency, that is really the initial entry into the portal of the overall emergency management cycle from the point of the initial response or the initial situational awareness, up to the need to bring in additional mutual aid, multiple agency coordination, up to a full-scale statewide response or a federal response to be able to mitigate a crisis.

And, you know, I could tell you that the disasters we're seeing in California, and not just California, across the country, around the world, due to a lot of different reasons, notwithstanding climate, but increased population and increased building, these disasters are becoming more extreme, more frequent, and more complex.

In 2017, for example, where we had the fires in the State of California, all 58 counties between -- following the Oroville spillway collapse through that winter season

up through the summer of 2017, we had all 58 counties in California declared as Federal Presidential Disaster areas, and during the fires themselves in 2017 in the north, we -- well, the fires, during that time, represented three of the seven largest wildfires California had ever seen in its history.

So to respond to these events -- I mean, preparing is one thing, but to respond to these events and having a coordinated ability that all happens right here in this building to ensure that we all are responding effectively and that on the ground our fire, our law enforcement, our emergency medical, emergency management, military forces, et cetera, have the ability to communicate is absolutely critical, but more importantly, having the ability to communicate critical data to the public in times of those crisis situations so that they get out of harm's way or to be able to know if someone is in an emergency situation is absolutely critical.

So maintaining our telecommunications capability in disasters is an absolute necessity for effective response in recovery operations. You know, we saw in the October wildfire a total of 341 cell

sites go off-line. 911 calls require survivable cellular networks.

We're moving to this -- we have land mobile radios, but we're moving to this system where we are dependent upon the private sector, the telecommunications industry that supports that system, and we have to rely on that. We have to count on that. So this has to be a true partnership of us working together to ensure that we can have that resiliency and redundancy in place.

In the October wildfires, approximately 80 percent of all 911 calls came from cellular devices; a big statistic. Fifteen public safety answering points were impacted. So fifteen 911 centers were impacted to some level. Either they were off-line; they were interrupted, or they had to be evacuated. Approximately 72,000 people had difficulty reaching 911; some due to the inability of that system to be able to move the signal.

And, currently, our wireless network is just not built to survive the disasters and many of the cell sites do not have that resiliency, whether it's power backup or they're built to a standard at which they can withstand these kinds of events.

California is a disaster-prone state: Wildfires, earthquakes, floods, and then manmade things like chemical or biological or acts of terrorism.

We, in this state, the nation state of California, the largest state in the country, close to 40 million people have to be on that cutting edge of being able to effectively communicate during an emergency.

Other issues that arose during the fires was a lack of backhaul connectivity, which is the connection from cell site to the cellular network and clearly is required for cell sites to function, the link between those sites, that's absolutely necessary.

So we saw not just failure of the sites, the cell towers, but also their infrastructure that moves the signal. Most cell sites rely on those fiber connections, and then the fiber connections as well were destroyed in many cases in the fire.

You know, I will say that, as I started at the beginning, three of the seven largest wildfires in California's history occurred in 2017. We have all been learning a lot from this, but I am also surprised and I was surprised at the level of, I guess, I'd say a lack of resiliency in the existing

system.

And it really spoke to the fact that if we, in the public safety community, notwithstanding the public, if the public safety community is going to be counting on that system for their own lifesaving capability and communication, that system has to be extremely resilient and redundant.

I will say, though, on balance, the telecom teams from the various telecommunications providers embedded with us here at the state operations center early on during those fires, and they were able to provide some temporary backup capabilities to address some of the losses that were taking place, and, you know, they really did try to -- they worked closely with us and they tried to be able to get as much of their resources in place for emergency communications as possible, and worked hard to restore the backhauls and the communication connection, but I will tell you it was a stressful time, I think, for everybody.

What we want to do is buy down that time for which the cell site goes down versus having to bring in portable communications. We know that it's not realistic to expect 100

percent of every site is going to be staying up, but the number of sites that went down and off-line was far too many.

Cellular, wireline, data and voiceover internet protocol carriers and public safety answering points all rely on the backhaul connections provided by local exchange carriers in order to transport information to each system.

So it's not just us and the public, but the carriers, all of us are depending on this system that we're all investing in. In some cases, the backhaul connections all rely on the same exchange carrier and can include copper wire and fiberoptic cable.

If the backhaul is destroyed, outages can occur at the cellular, wireline, data and VoIP carriers even if the facilities and the sites are not destroyed.

So redundant pathways, network diversity and backup are all critical components that should be implemented to ensure that backhaul connectivity is maintained during a disaster.

As working to prioritize, we have some direction and data that will help us, we believe, in moving in that direction. In my view, if the public safety community is

expecting this and the public is expecting this during an emergency, what I call this system has to be public safety ready. We need to know that it is going to be there when we need it.

The other thing I want to talk about is enhancing our security over the new voiceover internet protocol. And, again, what we're going to in this state, or have gone to. So as the Director of Cal OES, I also serve as the State's and the Governor's Homeland Security Adviser, and, again, with the technological improvements we've seen, other safety agencies throughout California, have transitioned to the Legacy Landline Systems, to VoIP, or are in the process of doing it, again, we are jumping into a system that we, for the most part, have no control over. So it's a leap of faith, and it has to be a strong partnership with our telecommunication partners.

The availability of voiceover internet protocol service is not yet available all across California, particularly in the rural areas, which also makes a little bit for a dynamic shift for coordinating across the state, but I know that is an effort that the telecommunications industry

is working on, but since the VoIP, as they call it, voiceover internet protocol, since the VoIP is internet based, it also brings enhanced cyber security risk to the public safety agencies impacting their ability to both communicate and respond appropriately.

What do I mean by that? So the risk, the cyber security risk -- and we have seen this, and we're seeing every day -- we are seeing it at our 911 centers. We are seeing it in our local and state government offices. The risk includes, but is not limited to denial of service attacks, Spam over Internet Telephony or what they call SPIT; voice phishing, called vishing, where they go in and overwhelm the system or VoIP eavesdropping, where they're listening on calls. We've seen all of these.

From a security standpoint, this is unacceptable. This is something that is very critical. So notwithstanding our ability to have a resilient and redundant and a secure public safety grade communications capability, we have to have a cyber security component to that that addresses the issues that we're seeing here and standards that are put in place to ensure that we've got very robust cyber security capabilities.

I will tell you from our intelligence teams and what we are seeing in this state and across the country, cyber attacks are not getting less. They're getting more. This is framing us from the security standpoint, and it's a very serious thing.

This past September -- as a result of all this, this past September, the governor signed AB2813, which codifies the California Cyber Security Integration Center. It is an integrated center led by OES, but it includes the Highway Patrol, the National Guard, the Department of Technology, the FBI, the Attorney Generals, et cetera, and we all are working very closely with our state intelligence partners and trying to stay out in front of evolving cyber threats.

And, in fact, working closely with the CPUC with the new MOU that President Picker mentioned to enhance and help the PUC wrap around this issue of cyber security risk. Through that center, we will partner for both physical and virtual security of the VoIP networks, realtime reporting, breaches, outages, and other security measures to ensure for system integrity. It's a heavy lift that we all continue to work on, and we

look to work closer with our fellow communications partners in that endeavor.

So today's panel list, you're going to hear from local and state government representatives who will discuss specific issues related to the challenges in defensible space for telecommunications infrastructure, outage durations, recording, First Net Initiative and Next Generation 911. All of these aspects wrap around the need to have a secure, resilient, redundant security system that we can all, as I say, have a public safety grade capability. We will also hear about deployables and portable backhaul, restoration capabilities, and alert and warning community impacts as well.

There was a lot of legislation passed this year related to alert and warning of the public, and, again, everything from alerting and warning, from weather emergencies, to fire emergencies, to the new earthquake early warning system, all dependent upon the systems that we're talking about today.

So you can get a sense of how critical this is to us, how important this is to us, and has to be for the public as well. Most importantly, that we will hear directly

from first responders today and other state agency responders about on-the-ground, specific events that they can speak from their perspectives; whether it's fire and rescue or law enforcement or emergency management, the challenges that they're facing.

So, again, I welcome you all here. I thank you for attending this workshop, indulging me for a few minutes to talk about some of my concerns. I know that my adage of "One team one fight" applies here. I am confident that we can continue to work together as a collaborative effort to make sure that the great State of California, our public safety family, our citizens, all of us, and our telecommunications partners are all working on effectively building a system that we can all count on at an optimum level.

Thank you very much.]

MS. ECKERSLEY: Thank you, Mr. Ghilarducci, for those remarks. I particularly resonated with 911 as the portal to emergency response. And, also, thank you very much for that cyber security overview. We think that that's extremely important.

In Section 2 of the agenda, we're going to talk about ensuring that both the

public and first responders are able to communicate. And I would like to make that distinction, as Director Ghilarducci just did, about the public in general and then first responders.

The public requirement is to reach emergency responders and also to communicate with each other in an emergency. The people you need to reach in a disaster, think of those people, your relatives in a fire, the vulnerable people at the end of a road, your child's school. There's many needs on that list.

Emergency responders also need reliable networks to communicate with that public for the notifications that happen before, during, and after a disaster. Whether those are landline calls or wireless calls or texts or whatever methodology a local agency uses to deliver those. Emergency responders have vital information to push out to the public.

And we're going as to hear a little more today about how first responders need to talk to each other and their control agencies. So just as introduction, I'm going to say when we talk about facilities operated by -- wireline facilities by telephone and

cable companies, and wireless networks operated by cellular companies. And thank you, also, for pointing out that wireless networks rely on wireline networks to deliver those communications through what is called backhaul, the aggregation of those communications in a facility.

Backhaul is often provided with fiber these days, but can be satellite in an emergency. So we have facilities for wireline and wireless. And then we have the functions that we need them for in an emergency.

So this panel is first going to talk about functions, and then we're going to talk about available facilities. So, first, Mr. Medigovich, who heads up logistics management is going to talk about the impacts of outages. And then Pat Mallon, who is the Assistant Director of the 911 Emergency Communications Branch, is going to address FirstNet. And then we are going to have a discussion about wireless emergency alerts, WEA, and how public safety agencies communicate with the public.

So each of you has some time. And then I'm going to facilitate some questions for the providers.

Mr. Medigovich.

STATEMENT OF MR. MEDIGOVICH

MR. MEDIGOVICH: Thank you for that introduction. I appreciate that. So there's a slide here so we can -- all right. Okay. Okay.

So I would like to start with this first slide. And it's about connecting the technology. And it's going to walk us through, graphically, to explain where we see the limitations and how our systems integrate together. Because it really helps to explain it.

So if you start on the upper left-hand side, you see land lines, wireless calls, voice and internet, text and 911, our cellular community. And from there, that call starts and pushes into our 911 environment. And from there, through a series of switches and routers, and eventually the NextGen 911 technology, it pushes that call into our public safety answering point.

And from there, it moves back up into either two spots, either land mobile radio, which is the radio systems our first responder community uses within the EMS, fire, and law side of the household. Or it

can go into FirstNet broadband services, which are basically cellular services now. And we're seeing more and more applications that are being pushed on that.

And then, finally, what's important to understand is that the alert and warnings community, which is that red balloon at the bottom, comes back out into the carrier environment using one of those methods of transportation of the call back to its community there.

So this simple slide is really what we're going to focus on with within Cal OES within our team. And you'll see each of these areas highlighted as we move forward.

So, as said, the first start is a 911 call for us. And then at Cal OES, we immediately go into the use of the incident command system within the National Incident Management system, or NIMS, for state side of the household. And we have an emergency function which is based on communications. And having that background of communications for us is the cornerstone for our ability to respond and to provide information to the director and the unified coordinating group so that we can make good decisions and respond to the event that's there. This is

both during the response phase and recovery phase that we work with.

So, as pointed out, there's an assumption that our systems are going to work; both ours and our partners within the carrier industry are going to be functioning. And they have to be reliable. And they have to be resilient.

It’s no surprise that every day there's new technologies that are coming out. And everybody wants to embrace those new technologies. But if those new technologies are not reliable and not resilient, it just creates another vulnerability in the response and recovery phase of our work.

So what I wanted to kind of highlight were some of the recent events we just saw here in North Carolina and South Carolina here, and then we'll go into Florida. And the key takeaway from this is -- these are significant disasters that are taking place. And if you look at the 15th, you can see a wide block of the percentage of cell sites that are down as the hurricane is moving in. And there's still many areas that were not restored a week later.

And so this has a traumatic impact when you're trying to either do the response,

recovery, or alert and warnings to the community that's there. And no different in Florida, as we saw in the panel at least in the severity of the category of that hurricane created a much higher level of percentage of cell sites that were offline. So we had well over 60 percent in one county for a solid week taking place. So when you see that many sites that are down and that kind of dependency on our operational systems, it creates a lot of challenges for the emergency response efforts to take place.

Well, what does that mean for us? We have this component, this emergency function for communications that's supposed to be advising us all. It's dependant upon us having good situational awareness. And that means that we have to have to have monitoring capability or reporting capability. And we currently do that now through voluntary sharing of information between our providers and then Cal OES. But without good outage notification or good situational awareness, as stated, we can't make good decisions.

So we look forward to this opportunity to work together with CPUC. And we'll continue to work with our technological

partners as we move forward. And I look forward to your questions and comments today.

At this point in time, I'll be followed by Assistant Director Pat Mallon who oversees our Public Safety Communications. And he's going to give you an update on FirstNet.

MR. MALLON: Thank you, Mitch.

STATEMENT OF MR. MALLON

MR. MALLON: You saw in this -- oops, I went the wrong way.

Okay. So, you saw this slide before. And what we're going to be doing is focusing on the upper-right portion of your screen on the FirstNet broadband services.

FirstNet was an outgrowth of the 911 after-action report that highlighted the lack of information flow to our first responders in real time, which resulted in the loss of public safety lives, as well as those of the citizens that we serve. Network congestion has also been noted to be a huge problem in 911 responses, as we saw in the Boston marathon bombing when cellular services were pretty much consumed by the commercial traffic, yet public safety was on that same service.

To answer this issue, back in 2012,

Congress passed legislation which established the first responders network authority which was called FirstNet. The focus of FirstNet was to provide public safety with data. And in response to this issue with the congestion of the services, that service of data to first responders also included priority and preemption.

Priority means that if there's ten people on the sector that can use that sector, and you come on as public safety, you'll be number one in queue waiting for access to that system. Preemption means you jump to number one and you kick somebody else off the system.

So last year after review of a plan by FirstNet and its contractor AT&T, the Governor allowed to opt in and allow AT&T, as FirstNet's contractor, to deploy a public safety broadband spectrum Band 14 throughout the State of California. AT&T's plan, recognizing a significant amount of input from Cal OES recognized, and our partners with local agencies, that coverage was key. And so we've been working with AT&T, and they have committed to throughout the next five years to significantly improve the coverage range in California for FirstNet services.

Also, subscription to FirstNet is a local choice. So if local agency determines that other providers can provide better service, at least until such time as their improvement in the services, that's entirely their function.

The role of Cal OES, Cal OES we've been an active participant since the FirstNet was first established. Our role is to provide locals or state-level input into the FirstNet plan. We did that by conducting a number of outreach sessions throughout the State of California. We listened to our partners, and we provided input that was ultimately included in the FirstNet RFP that was won by AT&T. This included regional planning meetings, and communications with the local partners.

We've also been an active participant since the execution of the contract with AT&T, we've been an active participant with the California Department of Technology in completing the CalNet project, which will allow State agencies to subscribe to the AT&T FirstNet services, as well as local governments through the overall umbrella.

And, again, in recognizing that not

all agencies, particularly in the interim, may elect to subscribe to the AT&T service and may choose to go with others. We will be working with CDT in the very near future to establish a CalNet contract for other service providers to provide public safety broadband.

Mostly important to us is the ability to define specific services and the parameters of throughput, et cetera, the coverage requirements that are going to be required and, ultimately, the cost. Cal OES also recognizes that we will be -- that we have to remain active in our role as leaders in coordinating public safeties' needs to AT&T and other providers, you know, as we do with other incidents throughout the State of California.

We also provide coordination of resources, including a land mobile radio communications. We see the same requirement under FirstNet. We -- again, to address this issue of coverage, coverage is key. We will continue to work with FirstNet to improve coverage throughout the State, including building coverage, rural areas, and tribal lands, which are largely neglected unfortunately.

We will be working with AT&T and

FirstNet to convey operational concerns and to provide a contract support to CDT on the CalNet procurement process. Lastly, we'll act as the go-between for local responders and large area responses, including statewide coordination with the State operations center.

Next up is Caroline Thomas-Jacobs who will talk about WEA.

STATEMENT OF MS. THOMAS-JACOBS

MS. THOMAS-JACOBS: Good morning. So I'm going to talk about our alert and warning program, specifically around wireless emergency alerts.

So IPAWS, the Integrated Public Alert and Warning program is managed at the federal level. So it's a Federal system, executed out of FEMA. It’s coordinated at the State and regional level, and executed at the local level. And this is really important because it’s the locals that we need to support for them to be able to execute our alert and warning mission.

Cal OES reviews all local applications prior to submission. And they are approved at the federal level. Right now, we have 45 counties that have been approved for the IPAWS system.

The IPAWS system has multiple methods of communication. So as you'll notice on the slide here, the local, triable, territorial State and Federal government entities can communicate through the alert and warning system. But it's distributed to the residents through multiple forms of communication.

So, historically, it's been the Emergency Alert System, when most people got their public forms of communication through broadcast and radio. We're now moving more into the Internet and wireless environment. And most residents expect to be getting their alerts through their mobile devices. And this is important in relation to what Director Ghilarducci mentioned in terms of having a very robust and resilient cellular network.

So in terms of wireless emergency alerts, I'm going to focus on that particular method. That method is slightly different than the other methods that we have used historically in the past. The wireless emergency alert is an alert you receive over a mobile device. And it's an opt-out system.

So the device has to be enabled for the wireless emergency alert to be received

on that. So the user has to have a device that has that capability.

Their device will default to receiving those alerts unless the user opts out from receives those alerts; which different devices provide easier or a less easy access to understanding how to do that. For example, some devices when the alert comes up, it will immediately offer an option for the user if you want to opt out of these in the future, just press button. Other devices might say you have to go into the settings and opt out of the wireless alert. So that's important because our users and our residents are expecting to be communicated with.

As the form of communication have diversified, so whether it’s through social media, or their old school cable TV, or their wireless mobile device, they are expecting to be communicated with. We now have to communicate through all of those forms of channels to reach our users and residents across the State. Most of those devices now are relying on this infrastructure that is cellular based.

Also, what's different about WEA is that it's a unique tone and alert. A lot of

people have a misconception that it's a text message. It's not a text message. It comes, breaks through the phone, and is visible whether you've been in "Do not disturb" or not, and it's not in your text messaging through the operating system that's on the phone.

So one of the challenges with WEA has been that we have not been able to actually test the system. Federally, the first national test just happened this fall which many of you probably received over your phone in early October. And that was the first test of WEA system.

Since then, local governments have been working with the FCC to gain approval to test within their specific regions. So Napa and Sonoma have tested in their specific and we're now sending a letter to the FCC to actually test through WEA as well, specifically around early earthquake warning system.

What's important about that is we need to understand the technical details of how people receive and when people receive those alerts. So from the moment we push execute on that alert, to the moment the user receives that alert on the phone, that timing

is extremely important to us. And I'll talk a little bit more about that in the next slide -- or the following slide.

So statewide guidelines in alert and warning. As I mentioned earlier, it’s executed at the local level which means that each jurisdiction does it that fits their specifics that are required in their jurisdiction, the configuration whether they are rural or urban, what their geography looks like, what their constituents are used to receiving messaging on. What we're doing now is recognizing that that's difficult for the users, that we need to establish some standards across all the jurisdictions on how we execute early alert and warning.

So what we're working on right now is a draft statewide alert and warning guidelines. It's been approved by our statewide emergency management system technical group, and we're submitting it to our advisory board for this December to be reviewed and potentially approved. What that's going to do is establish some best practices to allow the jurisdictions to understand what they can do to ensure that they have a very robust and successful alert and warning program.

So what the current challenges are, so, as I mentioned, we have very robust communities and they differ across the jurisdictions. So depending on the resources of the local jurisdiction, staffing, and funding, they might have only one person that's overseeing alert and warning or they could have a team of people in our more financially capable areas.

And also there's a lot of complexities to the way that communications are received by our constituents across the communities. So there is a plethora of communication channels, ever evolving technology -- so our jurisdictions are regularly having to keep up with the technology improvements and changes and making sure that they are staying abreast of that.

And then, also, inconsistent implementations. So that's where the guidelines are going to become really important. And we can try to provide some consistency across how alert and warning is executed across California.

Also, geography is extremely different, as you all know, in California which makes it challenging in terms of where

those residents are actually located in receiving that form of communication. Obviously, we don't have cell coverage across everywhere; but that's what people are relying on to be able to get their communications. Also, a couple significant areas that are hard for our local jurisdictions to manage are the geotargeting and the length of the message in WEA.

In terms of the future of WEA, I know we have some changes that are coming very shortly. So we're going to -- this month, we're getting Spanish language capability in WEA, which is a significant improvement for us. And then we also are going to be working to expand from 90 characters to 360 characters. But that's not coming until May of 2019, and this obviously is an impact right now.

And we're also looking at getting more targeted geofencing to 0.1/10 of a mile, which will also improve. But, again, that's not until later -- until November of 2017 (sic). And our jurisdictions and our constituents across California are expecting that level of communication right now.

Thank you.

MS. ECKERSLEY: Warming up for

questions.

Okay. Thank you, everyone, for those remarks. Thank you, also, for the Hurricane Michael charts and the comments about redundancy and resiliency. Also, for the CalNet purchasing clarity, I know that that will be a very helpful thing for the local governments to be able to do that.

I would like to look to President Picker and Mr. Ghilarducci now to see if you have any questions now that you would like to lead off before I facilitate some others based on what you heard.

STATEMENT OF COMMISSIONER PICKER

COMMISSIONER PICKER: So our initial resolution focused a lot on the immediate needs of people who have been dislocated. Here we're hearing from a range of different consumers of telecommunications services and how their needs are met during emergencies and immediately after. And, as I pointed out, it’s really hard to point to a specific point where you're dealing with after.

There are some standards that people use for when recovery begins, but it frequently starts during the emergency. And, meanwhile, emergency operations are continuing. So here we're posed the

challenge of how do you separate the obligations of telecommunications providers to actually plan, prepare, and to provide services during emergencies.

And so I'm curious to see if people can help us to really define a distinction and if -- I'm skeptical that there is an easy answer. But I'm going to open it up for comment for that here at some point today.

STATEMENT OF MR. GHILARDUCCI

MR. GHILARDUCCI: Yeah. Thank you.

I agree with President Picker. I think the issue has to do -- based upon what we've heard already this morning, is really to get a strong idea about how our partnership is blended. And it’s not like a provider and a customer, but that we are all on the same page and that the priority is for not a, you know, anything but a fully comprehensive and capable system that we in the public safety community can 100 percent rely on as the provider.

Right now, that confidence does not exist. And it is something that we need to -- and that's a culture issue. It’s a priority issue. It’s an understanding and mutual respect on both sides of the industries so that we can come to a place

where we're all working on making sure that we're a hundred percent resilient and redundant.

Thank you.

MS. ECKERSLEY: Okay. Let me frame that as a question for the audience, for the respondents here. And that would be what specifically -- what specific actions should the CPUC and/or Cal OES take to ensure that communications are available in a disaster, particularly to the redundancy and resiliency points that Mr. Ghilarducci just made.

Just hold your hand up.

STATEMENT OF MS. SALAS

MS. SALAS: Good morning, everyone. Thank you. Ashley Salas with TURN. The Utility Reform Network. I appreciate the presentations and the topics and questions today. I think they are very important and valuable.

And a lot of what was discussed today and with other incidents that happened throughout the nation, we saw here in California with our various wildfires. North Bay, North Coast broadband Consortium actually did a survey of their residents following the October 2017 wildfires. And I think what we'll find from that is the

residents and the first responders who responded to that survey, they have an expectation of being able to communicate and that expectation was not met.

So that survey has been published. We submitted it as part of a motion in the Bill Kahl conclusion docket. So it is available to the Commission as well. I wanted to highlight a couple things from there:

First responders being able to communicate with one another, there wasn't the wireline services available to them. Some first responders had to use a resident's hand radio in order to communicate with their home office. Other first responders found there was no wireless services available.

And for consumers, on the same block, one resident had service while the rest of the residents on the block did not. Now, these were just residents that were responding, we don't know specifically what communication services they had or what technologies they had.

But I think it highlights that there isn't that redundancy in the system at the moment that we need in order to facilitate communications during an emergency between

first responders and between residents and consumers.]

One of the issues that was brought up was about VoIP. Now, VoIP was an issue that we brought up, as consumer advocates, is the need for battery backup to ensure that those VoIP services are accessible during disaster-related emergency or when there's (indecipherable) to prevent a disaster.

Without that energy or battery backup at the residence and at the network, those VoIP services are not available to the consumers. And if the first responders are relying on that, too, presumably not to them as well.

There was a discussion about outage reporting. The Commission has a tool in their hands right now through the roll call completion decision that came out last year to look at outage reporting and for staff to find the right granularity for what would be most helpful for staff and for the communications providers to move forward and figure out, you know, what's going on out there. I'll note Nora's reporting is not sufficiently granular in order to provide that insight.

The Commission has other tools

available to them. Ongoing right now is the Search Quality Study of the AT&T and Frontier Networks. In the service quality reports that came out for 2017, with the exception of most of the small LECs, the providers did not meet the Commission's services quality standards. So that's one way the Commission can look at the resiliency and reliability of the networks, to use that tool.

And, of course, there's maintenance and tools available to the Commission to make sure that there's resiliency there. Vegetation management, of course, GO 95, and looking at, you know, lessons learned from some of those issues.

So the Commission does have tools available to it, and we would encourage the Commission to utilize those tools that are in their hands so that consumers and first responders have communications available to them before, during, and after emergencies.

MS. ECKERSLEY: Thank you.

I think we heard as well from the panel here regarding the importance on wireless communications. So if one of the representatives from one of the wireless companies would discuss during -- or in their comments, Verizon wireless said that their

ability to offer relief is dependent on a variety of factors including location, magnitude of disaster, available resources, and technological considerations. I'm wondering if one of those cellular carriers would care to elaborate or further comment on those communications.

PRESIDENT PICKER: Real quickly, just as a procedural issue, I'd like to ask the judge and his staff to make sure we incorporate the published record from rural call completion proceeding in this proceeding so that we can take advantage of the record there as well.

ALJ RIZZO: We will.

STATEMENT OF MR. ROMAN

MR. ROMAN: My name is Jesus Roman, Associate General Counsel for Verizon. And so, generally speaking, I think we all know that the wireless network has to have the backhaul. So if you don't have the backhaul and you have a situation where even if you have resiliency and redundancy, there's a massive disaster that burns all of the fiber or a lot of it or some of it, then even cell sites that have had no impact from the fires will go off air.

So from a wireless perspective, the

ability for us to actually have wireless communication impacted by the backhaul -- I'm an attorney so I don't have the technological expertise to actually provide more detail, but I did reach someone that I believe will have the ability to speak to some of the challenges that wireless carriers, at least Verizon has, in making sure that our systems are functioning properly even during a disaster.

I will say that we're very proud at Verizon that in most of these disasters that we have had in California, that we've been able to have a network that is running, and if not running full speed ahead, that we're able to deploy, as called here, the deployables to help at least on a temporary basis.

We pride ourselves in having the best network. We definitely agree that 911 and the public safety is extremely important, critical, and we want to do right by our customers. So I'm going to have Jim Cigler speak to you.

STATEMENT OF MR. CIGLER

MR. CIGLER: Hi, I'm Jim Cigler. I'm a Senior Manager for Network Operations for Verizon. I totally agree with everything --

I was listening to the presentation talking about redundancy and resiliency. I do want to point out in the Napa and Sonoma fires 2017, the cell sites that we had that relied on fiber, we had a pretty much equal split between different providers and we lost both of them. So in a case of that situation, having redundancy, even through another provider, would not have been sufficient to keep those cell sites on the air.

There is a lot of talk -- I do spend some time at OES and I've worked with some of the great staff over there, and occasionally the discussion comes up about microwave backhaul --

MS. ECKERSLEY: Or satellite.

MR. CIGLER: Or satellite, yes.

On satellite, most people, or probably technology, realize it's a very low capacity. It's not a great long-term strategy. We do continue to work with satellite companies to try to find solutions. Right now, we do have some small surgical solutions that do use satellite technology. We're trying to look at some bigger ones.

When it comes to microwave, you know, we could have an entire off-line discussion about the challenges associated

with microwave, but that question does come up a lot, but it's probably pertinent to point out that as wireless companies move into the 5G world, our dependence on that fiber backbone is only increasing, and microwave, again, is a very limited, challenging backup scenario.

We do it during disaster recovery. It does provide reduced capacity, per se, but it is a fast, quick deployable solution that we do use, and we'll continue to use for the foreseeable future.

MS. ECKERSLEY: Some of the challenges in microwave without going into --

MR. CIGLER: Great detail?

MS. ECKERSLEY: Yes. Just the high points, please.

MR. CIGLER: Sure. You've got a culmination. First of all, there's a lack of licensed microwave available. You do have to have licensed frequencies that are available to not interfere with one another. You've got to be able to hang sometimes very large heavy dishes on towers that are already having trouble supporting what's there. They're already loaded.

So you either build those towers to make them beefier, stronger, and

unfortunately sometimes that means they might be a little uglier, or you proliferate a need for additional towers, which I think, as most everyone in the industry knows, is not always a loved solution either.

Sometimes you can't have a microwave solution at all. Microwave is a line-of-sight style of technology. So if you don't have a way to get a line of sight, that's an issue.

And, again, really, it just doesn't fit into our evolutionary path, but it will continue to be something that we see for the future for disaster deployment.

MS. ECKERSLEY: It doesn't fit into the evolutionary path?

MR. CIGLER: Yes. As we move to 4G and 5G, even 4G is a very high speed fiber-dependent network and as we advance 4G, we provide faster and faster services to our customers, we require a faster and faster backhaul and --

MS. ECKERSLEY: And the microwave doesn't fit as you go forward?

MR. CIGLER: It doesn't grow.

MS. ECKERSLEY: Thank you.

President Picker.

PRESIDENT PICKER: Can you hear me now?

THE AUDIENCE: Yes.

(Laughter.)

STATEMENT OF MR. PICKER

PRESIDENT PICKER: So the cellular companies actively promote their ability to provide universal access. They also actively are understood by the public to be a tool that will be used in a variety of emergencies.

Every time I talk to a senior who has a phone, they talk about the fact that they need that cell phone to contact people in the case of emergency, and we've seen that fail.

Here, you're telling us that we're building a system that has more points of failure and is more dependent on a particular component that is a failure point.

How do you plan around that? And are there critical points that you absolutely will protect, so, for example, public safety coordination for their communication purposes?

How do we begin to understand how you're going to provide that essential service to customers in these points of crisis? It's not just fire; it could also be floods, which attack fiber, backhaul equally

as much.

I'm struggling to understand what we will tell the legislature when they call us and tell us that we failed to ensure reliable communications services. How are you going to begin to do that?

MR. ROMAN: President Picker - this is Jesus again for the record - I think what Jim was trying to express wasn't that there's additional points of failure here.

PRESIDENT PICKER: He did do that very well.

MR. ROMAN: 4G is not going away. I think the point was the microwave itself -- we're going to have the ability to deploy our infrastructure in a way that is resilient.

The point that I believe Jim was saying is, hey, if you're going to try to use microwave as a deployable technology, as you -- you can do that for 4G and it's still going to work even for 5G, but for 5G, the amount of fiber that's required to make it work as fast speeds with the low latency is going to be more robust.

And, Jim, you can correct me if I'm wrong.

MR. CIGLER: He is correct. The whole point of a microwave -- we will continue to

use microwave as a disaster deployment. I'm not disagreeing with that at all, but in terms of -- the question may be, why don't we just build the entire network to run on microwave so that we don't have fiber dependency? That does not work with the evolving technology.

STATEMENT OF MR. PICKER

PRESIDENT PICKER: I understand you're trying to educate us about the weaknesses of microwave as an alternative, but you also did very distinctly and clearly say you're increasing dependence on fiber, which is at risk and that was an initial comment from Jesus.

Is an issue -- and I'm asking you to give us some understanding of how you begin to actually provide service to public safety customers and have a clear answer to how you're trying to harden the system that people will become more dependent on, and which you said is going to be at a greater risk because of the complexity of the 5G system.

So I understand you were trying to respond to the assumption that the microwave could provide that, but you also revealed to me very clearly and I'm just saying, I need

to understand how you're going to make the system.

STATEMENT OF MR. ROMAN

MR. ROMAN: So that's the complex question, I think, in terms of how we answer it because I think the system is evolving and we are trying to figure out how to do exactly what you're saying.

As we are dependant on other parties for the fiber, and that presents an additional complexity, but I will say this, in terms of ensuring that if there is a disaster and the fiber isn't burnt or somehow damaged, one thing that we've been trying to do, when we actually deploy fiber, is we deploy it underground.

Underground gives you the ability to avoid the issues that you're having with this area. And that's just one.

PRESIDENT PICKER: But you use broadcast technology; so at some point, it's going to climb to the antenna; so you can give us complex answers, but we need that answer.

MR. ROMAN: Okay.

MS. ECKERSLEY: Being mindful of the time, I would like to take any other questions or comments from the audience, and,

please, identify yourself.

STATEMENT OF MS. MICKIEWICZ

MS. MICKIEWICZ: Helen Mickiewicz for the California PUC. I happened to see on my phone just now that in an earnings call last week, Verizon's CFO, Matt Ellis, told investors the FCC's recent decision on -- that eliminated local -- caps local fees would not prompt Verizon to increase its investment in 5G, and, if, in fact, Verizon is reducing its overall investments over -- in this year, over last year, and I'm just wondering what that means for purposes of the conversation we're having today.

MR. ROMAN: So, Helen, I was a bit interrupted when you were talking, but if I understood your question, what I heard, was Matt Ellis said that we're going to reduce our investment -- not reduce our investment, but that the FCC order did not necessarily, specifically --

MS. WOMAN: No. I can tell you what I said.

MR. ROMAN: Tell me.

MS. MICKIEWICZ: What I said was the report said that Verizon is not speeding up investment in 5G, notwithstanding the FCC's recent order capping local fees and making

other changes, and that Mr. Ellis said -- I'm sorry. And that the report said that Verizon's overall capital investment is going down somewhat.

And I was asking if you have any comment on what that means in terms of trying to enhance the system that's being discussed today.

STATEMENT OF MR. ROMAN

MR. ROMAN: So the only way I can respond to that, Helen, is to say that we're full steam ahead with deploying 5G. We have partnerships with Sacramento, with San Jose, with other cities. We've announced -- we're the first to announce 5G, and we're working really hard at making sure that we're first in 5G everywhere.

I, frankly, don't see it impacting at all because we have not slowed down. Our response, as they say, is pedal to the metal here.

MS. ECKERSLEY: Thank you.

Are there any other comments?

Okay. We would like to move to the next session. Thank you. I will introduce you to Mr. Lee who will take you through Session 3.

STATEMENT OF MR. LEE

MR. LEE: Thank you. My name is Chasel Lee, from the California PUC Communications Division, and I will be the facilitator for Session 3: Discussing the expansion of 3-digit communication systems during emergencies. Our first speaker for Session 3 is Budge Currier from Cal OES who will give us an update for 911.

Mr. Currier.

STATEMENT OF MR. CURRIER

MR. CURRIER: Thank you.

My name is Budge Currier. I'm the 911 Branch Manager at Cal OES and I have the responsibility for the 911 system in California as well as a few other functions.

We'll be focusing back on this diagram and so we're using this kind of as a point of reference as to which part the communication is focused on.

At this point we're talking about 911, which is focused on getting information from those who need help to those that can provide help at the public safety answering point. This presentation that I'm going to give, when I presented to the 911 advisory board took 45 minutes. I've been given three minutes. So I will be moving rather quick. That full presentation is available on our

website at Cal OES, slash, 911. You can get all the slides in the entire brief.

This slide is important because our statistics each year show that about 80 percent of our calls to 911 come in from a wireless device. Obviously, you can't access 911 with a wireless device if the wireless network is down during a disaster. So this is a huge problem.

Wireline devices, similarly, which is the next metric there, that 15 percent, if the infrastructure is damaged, the overhead poles, the lines, that sort of thing, those calls are not accessible. The voiceover IP, often travel across the same wires, if those are damaged, you can start to see the rippling effect of being able to reach 911 during a disaster. And so millions rely on 911 each year. The stats are a little less than 77,000 911 calls a day in California.

What we're seeing with our existing network, our existing point-to-point network that we have out there, is that we're seeing the number of outages increase. We track these. We've tracked these for many years, and we're seeing an average of about 15 outages a month, about 255 hours of downtime.

There's a new network, Next Gen 911.

We've talked about it. We're in the process of implementing that. Just by way of comparison, Next Gen 911 with 5-nine's reliability equates to 26 seconds of downtime per month. So this is what we have today and we're trying to move aggressively toward Next Gen 911.

The other portion of our 911 system today, the path, when you make a 911 call, your audio goes one path; your location information goes a different path. They both arrive at a public safety answering point and they are linked back up. So that location path also has some challenges. We are seeing there's about 20 outages a month for those, an average of about 219 hours a month, and that information is simply not available.

In addition to that, because of the way that wireless calls are processed today, only about half of the calls arrive in the 911 center with location. So that means the first 30 to 40 seconds of your 911 call is spent asking where you are, and there's a better way to do this. And so Next Gen solves this problem. It's going to increase location accuracy.

Another limitation with our current system is that the systems now are tariffed.

So this slide is showing as we move into the Next Gen environment, we anticipate these services to be tariffed. This provides an overview of the tariffs that will be established to support Next Gen 911. And the limitations I mentioned, most specifically, the one I want to highlight is the lack of redundancy. We have many point-to-point circuits today in our network. When that single connection goes away, there is no backup and so that 911 center becomes isolated, and, obviously, we need to find a way to fix that.

Then moving forward to Next Gen 911, we have a little revenue challenge we're working on. We have some legislation we're going to be presenting to make some corrections to the 911 funding model that will support Next Gen 911 to allow us to sustain our current system.

So, in short, the current system has limitations. We have a path forward to address those limitations, but the portion of the network that I'm going to build into redundancy still doesn't solve the ingress path for the citizens that are going to be trying to access 911.

Once that 911 call arrives in this

Next Gen environment, it will be a reliable, redundant path. So our conversation focuses on making sure that the originating service providers, regardless of technology, have a system to route those calls in.

So next up we're going to talk about the 211 system.

STATEMENT OF MR. LEE

MR. LEE: Thank you, Mr. Currier.

Now it's my turn to spend three minutes talking about 211 instead of 15.

So what is 211? 211 is a free telephone number by which Californians can obtain information and referrals for health and human services programs and they also obtain disaster information. They can obtain information on shelters, on food, where to evacuate, how to evacuate, where the roads are closed, and various other methods of assistance.

As of today, 38 counties in the State of California have access to 211 services. They comprise 96 percent of the state's population. There's 20 remaining counties that don't have this service. They're mostly rural. They're mostly in northern and eastern California. The biggest one is Placer County, which is northeast up

here. I don't know how big that is. Sorry. It's also where Lake Tahoe is.

The CPUC's authority over 211 is mostly restricted to granting our service providers, information and referral service providers, the use of the 211 code in a particular county. So there's an approval process set up in 2003. They just go through the approval process. Once they're approved, they are served in accordance with the approval resolution.

For Disaster Only 211, Senate Bill 1212 passed in 2016 and CPUC Decision 11-09-016 passed in 2011 gives the Commission the authority to approve those providers and to spend up to $1.5 million from the California Teleconnect Fund to implement Disaster Only 211 services in the remaining 20 counties that I spoke of earlier.

What is the CPUC doing now with 211? They're currently collaborating with those 20 counties I was discussing and with 211 service providers to craft a statewide proposal to implement Disaster Only 211.

We just got a buy-in from the majority of the counties yesterday, from 11 counties, and we're now going to solicit implementation proposals from providers and

adopt a final proposal to implement Disaster Only 211 in early 2019.

This entire process, we're going to get Disaster Only 211, we are currently projecting that it will be completely implemented by the end of next year in 2019.

So for our next presentation, we have Mr. Gabriel Kendall, Director of Community Relations and Program Development for 211 Sacramento.

Mr. Kendall.

STATEMENT OF MR. KENDALL

MR. KENDALL: Good morning. Again, my name is Gabriel Kendall. I'm the Director of Community Relations and Program Development, 211 Sacramento. Today, I'm actually going to spare you listening to the hour-and-15-minute presentation. So it's a good thing for all of you.

So as Jason mentioned, we do all our information on rural services -- these microphones are never a friend of mine. So we're focused on social, health services, information referral, as well as disaster recovery and support in terms of nonemergency disaster support services. So initially the Information Referral Service was established in roughly the 2001 to 2005 edition of the

nonemergency disaster component.

In terms of some of the background of 211 Sacramento, our primary service area include Sacramento and Yolo County. We maintain a service database, which does include the disaster recovery services in addition to the social and health services programs.

THE REPORTER: Slow down, please.

MR. KENDALL: 1,600-plus programs in the community. Sorry. I'm trying to get through a good bit of content in a very short period of time out of respect for your time.

We are a 24-hour service center. We have five languages spoken in-house and then an additional 250 languages and dialects serviced through (indecipherable) available live 24 hours a day. Being here in community-side Sacramento County, largest refugee settlement site in the country, having that diversity in terms of language is a very important piece, and also in terms of making sure we are able to reach vulnerable populations, especially in times of emergency.

We provide a variety of other specialized services. They are not really germane to the conversation today. Public

access point, scheduling vital services, and other special programs that are in response to the local community.

So in terms of our infrastructure, we do operate entirely on cloud basis and so we use contact telephony platform, and I'm not going into too much depth, but we have complete scaleability. We don't have any hard cap limitations in terms of our port usage or anything else to that effect. We can roughly triple our capacity onsite, and then we can leverage the larger network of 211 providers both in the state, national coverage with mutual agreement in place for scaling for coverage, whether it's for local communities, or in our case, it's been mostly used for response to outside communities, as close as neighboring communities like Butte County and fire, and concerns with the Oroville Dam, and as far out as places like Texas and Florida for uses such as Hurricane Harvey recovery or Hurricane Irma response.]

So we worked day in and day out with some of our local response organizations, such as County of OES, EMS from local cities, public health systems, as well as working with organizations like Red Cross, Cal Fire -- and, actually, the local

Voad is actually housed within our 501C non-profit.

So just to kind of cover some of the local examples, as well as national examples, where we have responded to working with our State and National networks, these are cases where Sacramento staff have responded to these disaster systems. Using these web-based systems, we're able to seamlessly integrate for the front-end user to provide disaster services using locally sourced information to make sure they're getting point-in-time information as well as trying to branch them back to the those responding organizations.

So in terms of a little bit of background, so we're just one small 211 in a much larger network. So we covered some of the pieces of what that statewide network looks like. Also, we're part of a larger national network, which is roughly 300 211s.

So in terms of 211 Sacramento services, last year you're looking at about 200,000 connections to CARE 1600 services provided, over 250 languages and dialects, and over 12,000 cases we're providing specialized assistance in terms of appointment scheduling, screening, and

applications for public benefits.

This is just a little bit of a geographic spread of those provider networks. And as Jason mentioned, there is quite a bit of work being done within the network to establish disaster coverage that will be give both local control for disaster response to some of those currently uncovered counties, as well as the opportunity to bridge the larger networks that are offered through 211 California and the National 211 network. So if there should be a disaster response that exceeded the local capacity with the flexibility of these web-based systems, they would be able to leverage that larger infrastructure to respond to those local emergencies.

So this is a really quick effort to answer some few key questions that were posed in the packet for this scenario. To be quite honest, rather than reading something that you can easily read off the screen, the bottom line is 211 is an infrastructure support to leverage to make sure that there's connectivity to vital point-in-time information, recovery services information that really falls in line with the social and health services work we do on a

day-in-day-out basis. And we're here to offload burden from that 911 system.

There are issues that are life and limb. There's also a lot of things that we can help focus on that are not necessarily that life and limb issue to make sure that people are getting the connection to the right service support and information to help alleviate the impact of these threats while keeping that burden off the 911 system so they can focus on the vital life-and-limb scenarios that they are posed with every day.

But we are simply an infrastructure support to help bolster information access, especially for vulnerable groups, such as the functional needs groups in our communities to make sure they have information access for disaster preparedness and response.

MR. LEE: Thank you, Mr. Kendall, for your remarks. Thank you, everyone, for your remarks.

So, before us there are three questions. We have received written initial reply comments on these questions, and they are already in the record. So in the interest of time, we will not repeat the questions -- what has been already said.

I do have a question for Mr.

Kendall. Do you have any suggestions on improving access -- or your access to information for your own use and for the dissemination to the public.

MR. KENDALL: So -- and I'll try and project. Tell me if I have to raise it up here.

But in terms of local access to information for response to incidents in our community, I feel like we have a fairly strong grasp on that with our existing relationships with groups such as OES, local city EMS, and so forth. I think, though, when you start to look at scaling in terms of large incidents that are going to be multi-county, multi-jurisdiction incidents, I think that's something where 211 as a network can really do some work to establish those connections and relationships beyond our local communities. Because not everything -- let's face it, disasters don't care about county lines or other jurisdictional boundaries.

I worked for many years the 211 San Diego. And we did a lot of work with Cal Fire in places where there was significant overlaps of jurisdictions both with our own and some surrounding counties. I think it’s

just that level of communication relationship that's going beyond our local communities where we honestly have some work to do so you have those points of communication and connection for those other agencies that are covering something larger than those local jurisdictions.

MR. LEE: Thank you. One more question.

You mentioned MOUs earlier. What is usually contained in these MOUs. Is it just with local OES? Or is there one with Cal OES? And how widespread are they amongst 211 providers?

MR. KENDALL: So in this space, a lot of times we say, "If you've seen one 211, you've seen one 211." Because there are some very significant variations. Generally speaking, you're going to see those MOUs in place with the local entities. In terms of -- so we have direct MOUs with things like Sacramento County OES, with Sacramento County Public Health, with various local municipalities' EMS systems. And then we also have mutual aid agreements with larger 211 California Network, as well as United Way Worldwide.

In terms of beyond that, it -- I'm

going to be honest and say that it is a little bit spotty. And I think that's where we have to take it beyond that local level.

MR. LEE: Thank you.

I want to the open it up to other participants. President Picker and Mr. Ghilarducci may have remarks.

Yes, is there a question in the back?

MS. KASNITZ: Thank you. Melissa Kasnitz with the Center for Accessible Technology, one of the consumer advocates.

And the availability of 211 as a way to relieve the burden on 911 has great value, particularly for the consumers. I think in that regard, a big gap is awareness. I think there's a very low level of awareness among the public about the availability of 211 in general and, particularly, about the awareness of emergency services; again, not the life and limb services you mentioned, but the support availability through 211.

So to facilitate the ability of 211 to relieve the burden on 911, I think that an awareness campaign is vital. Because if people don't know about it, they are obviously not going to use it.

And then with regard to both 211 and 911, the information that's available during

emergencies like Mendocino survey results obviously illustrate that when people don't have access overall, they don't have access to either 911 or 211. And so all the things we were previously discussing, the need for emergency backup power, powering people's homes, the need for system redundancy, we need to make sure that people's overall connectivity to the telecommunications network remains in place obviously are threshold issues for the availability of both 911 and 211. Thank you.

MS. ECKERSLEY: If there's a Sheriff or other PSEP representative here, would they like to comment on their use of the administrative lines and 911?

MR. NOJAN: Please state your name.

STATEMENT OF MR. MARTIN

MR. MARTIN: Brian Martin, Lake County Sheriff. I'm in a very rural county. Our name did not appear on the map up there. We're one of the counties that is not serviced by 211 at this time. We're in talks for that.

We've looked at it for relieving the burden on the 911 lines. Lake County borders Mendocino County. The Mendocino Complex fires, actually, impacted Lake County much

greater than they did Mendocino County. I'll be presenting here shortly and will talk a little bit more about that.

Our administrative lines and our 911 lines got overrun during these fires. They simply can't handle the volume of calls that come in. A lot of the calls are repeat calls for information that we already have. And to have a service available such as 211 where people can call in to get information that we would like to disseminate, other than 911, would be a great value.

Unfortunately, some of the challenges we face are the economic challenges. It was said it was a free phone service, however, there's a cost to the local agencies that we're trying -- we're trying to grapple with those costs.

MR. LEE: And we definitely look forward to working with Lake County. Lake County has agreed to participant in disaster-only 211. We thank you for your participation. And we look forward to working with you.

One last question?

MR. NOJAN: Please state your name and affiliation.

STATEMENT OF MR. BATONGBACAL

MR. BATONGBACAL: Thank you. My name is Eric Batongbacal with AT&T. This is not so much a question, but a suggestion.

Aside from easing the burden on the 911 system, 211 also has a potential for decreasing the congestion on the network during a disaster if there's some kind of connection capability. So I would encourage the Commission to explore what we can do to help 211 centers gain that functionality.

MR. LEE: Thank you, everyone, for your comments. In the interest of time, we thank everyone for participating in this section. I will now hand up this podium to the facilitator for section 4, Mr. Amin Nojan.

Mr. Nojan.

MR. NOJAN: Okay. Great. Thank you.

We will now be moving on to discuss actions taken when a disaster strikes. First, we'll be hearing from Mr. Mallon of Cal OES about the benefits and limitations of deployables.

STATEMENT OF MR. MALLON

MR. MALLON: Okay. Thank you.

Again, I think as you've heard, deployables are a great asset, but they are not the end to meet all needs. We've found that, particularly, in some of the fires like

the Sonoma Fire, when the backhaul burnt up and the generators, you know, the batteries began the fail, the commercial sites went down. Fiber is also acceptable to heat in the ground. We found some incidents where it was reported that the fiber was buried in the ground and melted in the conduits.

So the other issue with deployables is redundant power. Most cell sites have some battery backup. But we would like to see all the cell sites with a generator backup as well.

You know, the commercial industry touts their system can replace -- be replaced with deployables such as colts or cowls, cell on wheels. And while colts can replace the lost cellular site the backhaul remains a significant issue.

We did talk about the limitations of microwave, certainly some limitation with fiber. And backhaul via satellite has its limitations, because it significantly reduces the capacity of throughput. You know, even with the suitable backhaul established, there are other limitations on replacement of lost infrastructure.

How long does it take to get a deployable onsite? You know, from a public

safety perspective, our agreement with FirstNet and AT&T is that a deployable will be on site in seven hours. A lot of stuff can happen in seven hours, particularly if you're a community with a dam ready to break in seven hours -- it's about six hours and 59 minutes too late.

We see the greatest benefit for the deployables from a command post in evacuation or disaster recovery center use, not so much to service the commercial customers in a normal mode of operation. While service during the recovery period is beneficial, we also need to focus on the data services during the incident. Installation of generators at all sites, as I said, will greatly benefit the reliability of the system, as well as redundant backhaul. And what I mean by redundant backhaul is, let’s go two ways with the fiber instead of just one way. If we can go fiber and microwave backhaul, that's even that much better.

You know, as I mentioned earlier in the conversation we were talking about the connection of technology, I would like to focus one last moment on the fact that the deployment for deployables is a seven-hour. The from a public safety perspective, and

that's my background, I don't want to give up communications and wait for seven hours. If the backhaul has failed, the system fails, today, you know, public safety relies on a redundant and reliable backhaul -- or communication system -- that's their land-mobile radio system. From a public safety perspective, I certainly would not recommend that public safety abandon their land-mobile radio systems for the foreseeable future.

MR. NOJAN: Thank you, Mr. Mallon.

MR. MALLON: And I believe Sheriff Martin is next up.

ALJ RIZZO: I would like to note for the record that we're running a little bit behind on time. So in order to get a full discussion on each topic, we'll deduct 15 minutes from the lunch break.

MR. MARTIN: I will try to speak quickly to not disturb anyone's lunch break.

(Laughter.)

(Cross talk.)

STATEMENT OF MR. SMITH

MR. SMITH: I'm Brian Martin, the Sheriff and Emergency Services Director for the County of Lake.

We're a small county that's located

about two hours north of the here and nestled in between the I-5 and 101 corridors. We're a population of 65,000 people. We're surrounded by Napa, Colusa, Sonoma, Glenn, and Mendocino Counties. If you haven't been to Lake County, it's a short drive up there. Come visit us. You're welcome, Chamber of Commerce.

Over the past four years, we've experienced numerous disasters. We're at seven major wild fires to date over the last four years. Cumulatively, those fires have burned over 640,000 acres in my county and managed to destroy over 3,130 structures. That's 993 square miles. To put that in perspective, Lake County is only about 1200 square miles, so there's a little bit left to burn.

In addition to that, we've also dealt with a major flooding event in 2016. Clear Lake is the largest natural fresh water lake in California. It overflowed its banks in 2016. It had a great impact on many of the communities surrounding the shoreline.

These events illustrated for us the need for a local government to be able to quickly notify extremely large numbers of the population with timely, accurate, and

reliable information. During the 2015 wildfire season, my agency did not have access IPAWS, WEA, emergency alert systems, weather radios, or the emergency broadcast system.

We relied on technology that had been in place for many years. It relied on drawing down subscriber phone numbers from the telephone service providers, and were able to target small areas for mass notification by telephone using 12 phone lines at that time. It’s a great system if you had to notify a couple hundred people. When we had to notify thousands and thousands of people, the system was insufficient.

Our only other mass notification system at that time was NIXLE. It's a service that relies on people subscribing as to the service, and they are able to receive messages on their cell phone or email. Given the extremely violent and swift movements of the valley fire through mountainous terrain, places where people didn't have much cell service, if any at all, we received numerous reports of people who received no notifications on what turned out to be a very deadly fire.

We have started realizing how

commonplace it's becoming for people to abandon their traditional phone lines and go with cellular only. People that were in cell -- or in areas that didn't have any cell service or telephone lines weren't able the receive our messages. People who didn't subscribe to our NIXLE didn't receive our messages.

The valley fire burned so quickly the phone lines were compromised in the early hours of the fire. The system that we had in place continued to push phone calls through on those lines, but those lines were down for two weeks. When the phone system was restored, over 3,000 phone calls from the initial alert were pushed through. Needless to say, people were less than assumed to received the notice of evacuation two weeks after the fire started.

Four people died in the Valley fire, a fifth person remains unaccounted for to this day. It's presumed he perished in the fire.

Following the events of 2015, I undertook an effort to bolster and improve our mass notification systems. Over the past three years, we've been able to become IPAWS subscribers. That's given us the ability to

push out wireless emergency alerts and broadcasts.

We've partnered with our local community radio station for assistance with messaging. Our communities have installed several siren systems. And we've upgraded our subscription-based notification system.

Our social media reach is phenomenal. And today we are much more efficient at notifications than we were in 2015. Our practice is to utilize every available notification system at our disposal in the event of life-threatening events and disasters.

We have had no civilian fatality since the Valley fire, despite having a half a million acres burn in the subsequent three years. This is despite the sulfur fire that was part of the North Bay wildfire complex that started at just before midnight when most people are sleeping. I knew this as a success, but I don't attribute it completely to our robust notification systems. But I do feel confident that our ability to quickly notify our residents during emergencies was instrumental in saving lives.

One thing that these alert systems all have in common is this, all of them

require power operating. The advantage of having multiple redundant notification systems is that if one system fails, whether it’s due to technical issues, power outages, or system failures, another system may still be effective. Keeping our infrastructure up and running safely and reliably is absolutely essential for public safety officials to be able to do their jobs effectively. I'm grateful we live in a state where we're able to provide such services.

In predicting what issues lie for us ahead, I would like to raise an issue that has recently come to light with my agency and its use of SMS or text notification. Last year, we entered into an agreement for service for text, email, and mass notifications, which we rely heavily on both during disasters and in routine messaging to our constituents. The system is our work horse for the bulk of our notifications. And it's how we as a public safety agency communicate with our populous. It’s also the method of communication that society has come to expect and one which ma rely upon for information.

Last week, we were notified by our provider that cell service providers have

started charging a surcharge to providers such as ours for SMS messages. Our provider informed us that they would need to pass those costs along to us as the surcharges have already outpaced the revenue that generated from our small accounts.

They attributed this to the increase of use of SMS messaging by both public and private entities. Consequently, we have curtailed, modified, and, quite frankly, reduced our use of this form of messaging in response to that. I understand the need for private enterprise to turn a profit, and I encourage them to do so, but not at the expense of public safety.

Revenue opportunities exist from their users in the private sector. If I had something to ask this body, I would ask them to examine this practice as it relates to public entities. The need for public safety and effective messaging warrants an examination of the feasibility of waiving or drastically reducing such fees for messaging from public safety entities.

Thank you, again, for the opportunity to speak in front of this body. And I am happy to take any questions.

MR. NOJAN: Thank you, Mr. Martin.

STATEMENT OF MR. NOJAN

MR. NOJAN: Okay. I will be going into a summary of the comments we received from respondents. And then I'll be posing some questions as well.

So, for this section, the ruling requested comments on how to interpret and consequently define disruption of the delivery or receipt of the utility service. According to written comments, parties generally agree that a disruption occurs when there's a loss of dial tone, connection, and/or loss of service-preventing calls from being made or received. "Degradation" was defined as poor service quality, including static, failure to connection, dropped calls, or the inability to complete calls.

Furthermore, the ruling inquired as to whether other emergency declarations effecting utility services should be recognized, such as those at the local or federal levels. I would like to hear more from parties on why recognizing local and federal declarations is not a good idea, and what kind of impact recognition these emergency declarations can have. There were some parties who did not think that they should be recognized.

(No response.)

MR. NOJAN: I can look back in my notes to see which parties those were, or if someone wants to speak.

STATEMENT OF MS. KASNITZ

MS. KASNITZ: Melissa Kasnitz, Center for Accessible Technology. The consumer organizations did support recognizing these various levels of declarations of emergency, but did recognize a certain concern about creating redundant requirements if emergency declarations weren't issued at multiple different levels; if they were both a local emergency, and a state emergency, or both a state and Federal emergency.

And so we certainly would be interested in -- or even a multiple-state emergencies I should say. A fire begins in one county, for example, and then spreads and you get repeated declarations of emergency, we would be interested in exploring ways that the administrative requirements don't become a hurdle to actual service being provided to customers. But we still think that the recognition of the various states of emergency is important and is a good way to trigger help to what we're going to need in whatever disasters do arise.

MR. NOJAN: Thank you.

Okay. If no one else would like to weigh in, we can move on to Section 5. So in Section 5 we'll be talking about actions taken during a disaster by facilities-based wireline providers.

First, we'll be hearing from captain Mark Lenzi of the San Joaquin County Sheriff's Office about computer-aided dispatch and radio communications during a disaster.

STATEMENT OF MR. LENZI

MR. LENZI: Well, I don't know if it's good morning or good afternoon. I'll be as quick and brief as I can.

In the Winter of 2009, the Sheriff's Office we experienced a catastrophic failure of our UPS system. When this first happened, our sergeants in the field had no idea what was going on, because it resulted in a complete loss of our computer-aided dispatch capability, in addition to our ability to take in 911 calls, and we lost all radio communicates. So you could imagine being a deputy in the field and losing every piece of communication that you have. It was pretty unnerving, and did not realize what was going on.

And from a supervisor perspective, trying to figure out where my people were at, what are they doing, what calls were they on. At the time, it took us about four to four-and-a-half hours to figure out it was in fact the UPS that caused the problem. But in the interim, we had some sharp people on the ground to figure out how can with get through this when we don't really know what's going on.

And to tell you the truth, at that point in time, cell phone communication was the key to this. So we were quickly able to transition over our 911 calls to one of our local other law enforcement agencies through the PSEP, the Stockton Police Department. So they began fielding the calls, and were able to relay the 911 calls that we were getting back over to our comm center on the cell phone and we were able to call the folks in the field.

So before all that had actually happened, we had to get in touch with our people in the field. And we were able to do that with department-issued cell phones to figure out where they were at, what they were doing, were they in the middle of an arrest, were they okay.

And then, essentially, we did a roll call and come up with a strategy to where we could stage them throughout the county. And then when we got a call, we would send them in multiple -- several deputies would go to one call -- we were only fielding emergency calls. We were hastingly able to put this particular plan together. And it worked out well until we got staff on the scene at the Stockton Police Department to begin fielding the 911 calls and were able to activate our mobile law enforcement center.

Now, obviously, there's been a lot of things that have changed since 2009, a lot of redundancies in our systems, a lot of different things with our radio communication, cad system, so on, and so forth. But that's just one prime example of a major catastrophic incident of what we lost communications at the Sheriff's office. I brought Tom Mashado, he was our IT manager at the time. If any questions are needed to be asked and answered from a technical perspective in regards to what happened with us.

Thank you.

MR. NOJAN: Thank you, Captain Lenzi.

So I'll be moving on to a summary of

the comments we received, and I'll also be raising a few additional questions. In this section, the ruling requests a comment on whether the CPUC adopts a duration for emergency protection measures implemented by facilities-based wireline providers and non-facilities based resellers.

Generally speaking, carriers did not feel there should be a designated time period for protections to be afforded to consumers, whereas consumer groups believe the protection should vary based on the service and circumstances. Respondents also proposed that a variety of methods be employed to notify consumers about the emergency protections available to them.

I would like to hear more from respondents about specific difficulties small facilities based wireline providers face in being required to provide emergency protections to consumers.

Do we have any representatives from them present?

(No response.)

MR. NOJAN: Is there anyone who can speak to the challenges small facilities based wireline providers face in providing emergency protections during a disaster?

STATEMENT OF MR. HUANG

MR. HUANG: David Juang on behalf of the small LECs. I'll just make this very brief. There's a distinction that I would like to draw between the small LECs and other larger carriers in that we are rate of return regulated carriers. A lot of the cost that we incur for disaster relief cannot be just taken from the adjustment of rates. It has to go through the rate case process through the Commission. So we mentioned this in our comments but, again, reiterate this and ask that this is recognized.]

Thank you.

STATEMENT OF MR. NOJAN

MR. NOJAN: Thank you very much.

And following up on that, I would to actually ask some of those three network consumer groups, who thought these protections should be afforded to everyone regardless of size, if they had solutions or proposals as to how these difficulties could be managed, some of the financial difficulties that maybe occurred as a result of these provisions on the part of the small facility based wireline providers.

STATEMENT OF MS. KASNITZ

MS. KASNITZ: Melissa Kasnitz, Center

for Accessible Technology. My colleague from TURN may be able to supplement, but we don't have any information available as to the actual costs that are incurred. We would imagine that the costs are proportional to the population being served so that small service territories are less likely to incur the same amount of costs, but we don't actually have any data on that.

That said, people who live in sparsely populated areas need service as much or potentially even more because they have fewer options and alternatives than people who live in more densely populated areas. So while we don't have an immediate proposal on how do you address cost issues, the answer can't be, Well, so they just cannot provide services for people who need it.

We are certainly willing to grapple with these issues, but we can't support the scenario that some people just don't get service because their provider is too small.

STATEMENT OF MS. SALAS

MS. SALAS: Ashley Salas from TURN.

I would echo what Melissa Kasnitz just said. I think one of the things that we wanted to focus on is that all Californians were provided with relief efforts regardless

of who their providers were.

So as Melissa highlighted, if you have a residence in an area that's more sparsely populated, they might even have more need to receive those, but we want to make sure all Californians have disaster relief available to them.

STATEMENT OF MR. NOJAN

MR. NOJAN: Thank you. And I don't think anyone is doubting the necessity of providing these services, but more trying to seek a collaborative solution to providing this protection even for rural California.

Would anyone else like to weigh in on that question?

(No response.)

MR. NOJAN: Thank you very much for your participation. We will now be breaking for lunch. So it's 12:05 now, and we'll be resuming at 1:15. So if you all could please be back here 10 minutes before that so we can resume promptly, we'd appreciate it. Thank you.]

(Whereupon, at the hour of 12:03 p.m., a recess was taken until 1:15 p.m.)

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AFTERNOON SESSION - 1:15 P.M.

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ALJ RIZZO: We'll be on the record.

We'll now begin Section 6.

Mr. Nojan.

STATEMENT OF MR. NOJAN

MR. NOJAN: We'll now be discussing Section 6, Actions During Disaster by Facilities-Based Wireless Providers. First, we'll hear from Budge Currier about fiber-based infrastructure.

STATEMENT OF MR. CURRIER

MR. CURRIER: There's been a lot of discussion already about fiber infrastructure. For the record, I'm Budge Currier, with Cal OES, the 911 Branch.

Fiber is becoming more and more prevalent because of the need for backhaul. So as these technologies that we use have more and more reliance on increased backhaul, one of the technologies that's used to provide that connection is fiber. And so as technology continues to rely more and more on bandwidth requirements and through-put requirements, fiber is one of the tools that can meet that need. We are also seeing some advances to the use of microwave where it's getting more and more capacity and

through-put, but nowhere near the capabilities of fiber.

So it's important to consider that a single conduit of fiber could have literally thousands upon thousands of signals from a variety of different vendors. So what we're seeing is that a single piece of fiber that is severed or damaged or destroyed can impact not just one agency or two agencies or two companies or providers, it can be in the 10s, 20s, 30s of different providers and companies that are impacted by a single piece of fiber that's severed.

The FCC has published a significant number of best practices regarding the use of backhaul and redundant paths and resiliency with regard to fiber infrastructure and the infrastructure that supports facilities.

If you're interested in that, CSRIC, which is the Communication Security Reliability and Interoperability Council that reports up to the FCC, there's about 1,000 different best practices. A good majority of those are dedicated to some of the best practices around fiber and fiber infrastructure.

Obviously, multiple redundant paths are the goal; however, mapping those paths

out and ensuring that they truly are not in the same physical piece of conduit at some point is very challenging, especially when you are going to multiple providers.

Providers may have their own network map, but the minute that you cross provider one with provider two, finding the mapping solution to show you all the paths of the two companies that you're using is very challenging.

Some municipalities have taken the effort to do that. I know, for example, there's a system in the south bay area, where they use fiber infrastructure as their backhaul provider, and they've done that. They've mapped the entire thing to ensure they are not using two physical pieces of conduit at the same time, but that's the exception, not the rule, and it takes a tremendous amount of labor to get to that point. So that single fiber, when it becomes severed, can have an impact on multiple people.

The other challenge is that we heard today mentioned that underground fiber tend to be more resilient during much of the disaster we see in California; however, the environmental and zoning requirements to

actually trench and dig and put in fiber, that can be quite time-consuming as well.

So this lack of fiber path diversity certainly compounds the impact during the outage and we're seeing that, even when providers are going through the effort to engineer two different paths into the same location.

At our public safety entry points throughout the State of California, that's what we strive for to make sure we have redundant paths into the centers so that a single backhoe doesn't have the capability of taking out a public safety answering point, but there simply isn't path diversity available, especially in the more rural areas of the state.

Overhead fiber is certainly more susceptible to disasters, especially fires, winds, and other events that happen frequently in California and so that's a challenge, and backup connections can be made using microwave, but, again, to the points that were discussed earlier, microwave does have a capacity limitation to it. It's an excellent path redundancy solution for limited through-put, but getting multiple gigs of the data across the microwave

connection can be challenging, and availability of microwave channels and licensing of those channels, and then installation of the equipment on the towers is another limitation.

So one of the things that we think would be a good path forward here is to find a way to truly ensure there are diverse paths, and where diverse paths don't exist to facilitate building out fiber infrastructure to diverse pathways, and that's it.

MR. NOJAN: Thank you, Mr. Currier.

Next, we'll be hearing from Ms. Caroline Thomas-Jacobs with Cal OES about the importance of the alert and warning systems.

STATEMENT OF MS. THOMAS-JACOBS

MS. THOMAS-JACOBS: Good afternoon. Caroline Thomas-Jacobs, for the record, Chief of Response Headquarters Operations here at Cal OES.

So as Budge mentioned, obviously, that technology is very dependent on the infrastructure. We've seen this slide several times now; so I'm going to just jump into the impact on the alert warning. So as I've mentioned in my earlier comments, our tools in the toolbox for us to be able to

communicate with the public keep expanding, and we can communicate with users where they're at and get the message out across multiple pathways, but what it's also doing is there's a convergence of a single point of failure on lots of those pathways that all come back to fiber, cellular, and internet-based infrastructure.

So there's recent legislation that has passed, SB 833, for those of you that are familiar with it. That's the legislation that is requiring Cal OES to create those statewide guidelines that I referenced earlier. So we're working with our communities and through our SEMS system to collect all of the best practices from the local on how to best implement a local alert warning program and coordinate that at the regional and at the state level.

Once we get those guidelines published, we're going to be socializing those guidelines over the course of the next six months in the middle of 2019 so we can make sure that all communities are clear on what are best practices and then support them in building up their programs to be able to meet those best practices.

We, also at Cal OES, have alerting

capabilities. So we're right now the last resort, if you will, if a community can't reach out to their public, but, ultimately, our alerting capability to the end user, the person who is receiving that communication, still is dependent on the same infrastructure. So if a local community, their cellular towers go down and they can't send something, we can send it for them, but it's still not going to get to those people that are in their communities because we are using the same pathways.

So the key message that I want to be able to communicate today, is that the dependency on a community ultimately is a single point of failure back to the infrastructure, and we need to be able to create multiple pathways and redundancies on that across the infrastructure so that we can communicate with our constituents across the State of California.

As people become more dependent on technology and embed technology into how they run their lives, they're becoming dependent on that technology, and so when that technology goes down, they no longer necessarily have the same level of capability and resiliency to take protective actions -

let's say - as when they were used to not having that communication. So as their dependency on technology goes up, their ability to be resilient against that technology is inversely impacted on that.

So I just request that everyone think deeply about that, how we can build up the infrastructure to ensure we can communicate with our public as well as our public safety responders using the communication system.

STATEMENT OF MR. CURRIER

MR. CURRIER: One other thing I wanted to mention on this slide, and the reason why I'm back up here again is one of the roles I have for the state is I'm the Statewide Interoperability Coordinator or the SWIC; so some of you may have heard that term before.

So the third bullet on that chart identifies the Statewide Communication Interoperability Plan. That's the plan that we have in place in the State of California that primarily governs interoperability use of land mobile radio channels statewide. We've also included in that document goals and objectives regarding alerts and warnings.

So we, at the state level, are tying together this alert and warning capability so

that we can make sure that this information is pushed all the way down to the local level so that the tools and resources that are available are messaged and there's training and technology and coordination that goes on to make sure that this information is out there.

We are also taking steps in the 911 network to provide as much resiliency and redundancy as we can there.

Again, to Caroline's point, though, the critical place where this all comes back together is the device that each of us holds in our hand. It's got to be able to work in order to make that 911 call or receive that alert and warning, and as the reliance on this technology increases, you know, we're doing our part to make sure that the networks that the state manages and oversees and puts in place are reliable, are redundant, and there's a need to make sure, similarly, that the commercial infrastructure that's supporting that has the same level of reliability and redundancy.

And this goes back to what Director Ghilarducci said, when he said that the public safety grid needs to be able to survive during a disaster to meet the needs

of those that are using the tools.

MR. NOJAN: Thank you, Mr. Currier.

We'll now be hearing from the Chief Tony Bowden from the Santa Clara County Fire Department about the operational impacts.

STATEMENT OF MR. BOWDEN

MR. BOWDEN: Good afternoon. My name is Tony Bowden. I'm Santa Clara County Fire Chief. I have two goals for today: One is to stay awake after lunch - always a struggle - and to provide you with just a little bit of an overview of operational impacts on the public safety side of the house when we're talking about wireless communications.

So, as I said, I'm Fire Chief for Santa Clara County. I'm also the Operational Area Fire and Rescue Coordinator, which means I coordinate all fire and rescue resources both in and out of the county regardless of department, and Santa Clara Fire is also unique in the sense that I oversee the Office of Emergency Management for the county, and I also oversee the county communications center, which is sheriff, medical, fire, dispatch somewhere in the range of a half-a-million-plus calls a year. So it's a little bit of a unique perspective.

So as most of you know, I found myself in a little bit of a situation two months back with one of our units in a reduction speed to their connectivity during the Mendocino Complex. Many of you probably don't know, I was two weeks in as fire chief and not what you want to have happen in your second week as fire chief.

But it really brought forth a point as to what are the operational impacts. From a public safety perspective, I know what that is, but do our private partners know what that is or what that means?

Of course, in public safety we train our personnel to operate in the absence of technology, but technology makes us much more efficient and effective, especially in California. California is amplified.

I believe it still holds true today, but California, during any given year, moves more resources from the fire rescue side of the house up and down the State of California than the rest of the states combined. That's a tremendous amount of resources that requires a tremendous amount of coordination.

Some of the tools that we use and rely on includes routing, mapping, resource tracking, situational awareness tools, mobile

CAD, just to name a few. So what does data capacity limitations look like on the operational side of the house?

Well, unit tracking and accountability is directly linked to firefighter safety. If we don't know where our units are, we cannot effectively provide for their safety. Routing and mobile CAD is another issue that is definitely for my public safety partners on the law side of the house, we're talking mobile CAD is critical to their safety. The ability to run a plate; their ability to look up information on suspects is absolutely critical to their safety. Loss in connectivity for our law enforcement partners is a law enforcement officer's safety issue.

EMS, the emergency medical side, most people don't realize that most of our paramedic apparatus today all carry devices that are transferring critical information on the patients to the hospital that they're going to be transported to, including critical PCR information that we gather at the scene.

Without that connectivity, that does not occur and it slows patient treatment time when they arrive at the hospital; so there is

a direct impact. It also slows critical reporting of information, which we could have land mobile radios, of course, but what this does is it slows -- when you take away the technology side of it, it actually slows our reporting back on current fire conditions, evacuation information, updated incident action plans, which turn around every operational period.

So it does have an impact on the operational side of the house, for sure, and especially when you talk about the deployment of resources that may be a direct result of the tracking and accountability information that we received.

Situational awareness tools: What does that mean? It means different things for different people, but for us, there's specific tools that are unavailable to us. ROSS is our national system that we use to order resources. The inability to connect to ROSS means that any incidence has now a decreased ability to order additional resources regardless of discipline.

So moving forward, why it's important to me that we examine past events, I believe we need to learn from those events and really focus on the future.

For my public safety partners in the room, they'll probably all smile when I say this because they all know Gordon Graham, but Gordon Graham had something that he said for years and I believe it's true today: If it's predictable; it's preventable.

One of the things we don't talk about a lot on the fire side of the house is more lives have been saved through the preventative and mitigation efforts before the emergency occurs. This is one of those times. I believe public safety is doing a part by creating the 911 centers, which we're in Santa Clara County using 911 trunk lines, but we need to make sure those calls get in.

Lastly, I want to emphasize that public safety is a critical resource for the telecommunications industry, and I think that's a point that may have been lost. I've heard the word "partnership" several times today. We are absolutely your partners and we're there to be a resource, but the communication has to be inclusive of the public safety partners to ensure we're moving in the correct path forward.

The last thing I would say, I just really want to emphasize and I want to encourage better collaboration in the future.

It was great to really be here today at OES and I thank Chief Zagaris for having me here today and inviting me here today because I think this is the beginning of the collaboration that really needs to occur to address this issue because public safety isn't for just the folks wearing a badge. Public safety is inclusive of family members, friends, neighbors. So, thank you.]

STATEMENT OF MR. NOJAN

MR. NOJAN: Thank you, Chief Bowden.

In this section -- so I'll now be moving on to a summary of comments and request for additional comments. In this section, the ALJ ruling requested comment on whether the CPUC should adopt a duration for emergency protection measures implemented for facility-based wireless providers. I would like to hear more from respondents on how the duration of protection measures can be linked to the impact of a particular disaster.

So there were comments that articulated that disasters vary in nature in duration in impact on consumers. So the question is how can we link the impact of a disaster to, for example, a particular -- or, rather, what metrics could be used to approximate the impact of the disaster on

consumers? And what metrics can accurately illustrate the extent of recovery post-disaster?

If there's a way we can link the duration protection measures to the impact of a particular disaster, then we can more accurately determine the duration of these protection measures.

(No response.)

MR. NOJAN: I can repeat the question if it wasn't clear. But what I'm looking for is, are there any suggestion on how we can measure the impact on consumers and also how we can measure the recovery to better get a sense of how long these emergency protection measures should be in effect.

And I look forward to hearing from industry, from consumer groups, from...

STATEMENT OF MR. DISCHER

MR. DISCHER: David Discher, AT&T. Simply, the answer is you can't. Every network, every provider is going to have a different downtime. So you can't have one number.

So our suggestion is to the extent some consumer assistance is put in place, that it goes until you provide service back to your customers.

MR. NOJAN: Thank you.

My question wasn't so much I'm looking for X-number of months or weeks or years. I'm looking for what we measure of the impact or what measure of recovery could be used to estimate where we stand post-disaster. In other words, what data can we lock at to show us how long these things should be in effect for? Therefore, the final number would obviously vary based on the data that's being examined.

STATEMENT OF MS. KASNITZ

MS. KASNITZ: Melissa Kasnitz, Center from Accessible Technology. I'll speak from a consumer perspective. But I think it is very telling, the unwillingness of the respondents and carries to respond or participate on these issues of how to serve their actual customers who are experiencing emergencies.

Certainly, protections that only apply until service is restored is fundamentally inadequate when the very premise of this proceeding is to help in the recovery to customers who are impacted by a disaster. So the economic impact of a community that has suffered from wildfires, as we all know, lasts much longer than the

actual duration of utility service being disrupted, and, certainly, the financial relief measures that are under discussion, like availability of payment plans for people who might lose income, need to go beyond restoration of service.

You also have issues for customers whose homes are damaged or destroyed where service may be up in a community, but that individual wouldn't have access because their house burned down. So I think that a statement that restoration of service to a community should be an endpoint is very disingenuous.

I don't, I'm afraid, have models or metrics for how to evaluate disparity. But I very much find it disturbing that industry is not contributing with recommendations.

MR. SINGH: Yes. Hi, Arvin Singh with Verizon. Maybe I wasn't clean in understanding the question early on. But from a provider perspective, we have metrics that we've started to share and collaborate with OES and the likes. And things around network availability, percentage of sites that are down, restoration time for the sites that are down, and the work that has been done to augment the network coverage and

capacity.

So any time you're running an sophisticated nationwide network, there are lots of elements that are measured that can go down. It's one where brainstorming is required to assess what kind of metrics should go to first responders and OES and what can be passed on to the consumer that the consumer can benefit from.

MR. NOJAN: Thank you.

And do you have suggestions on what metrics could be used to approximate the length or duration of emergency protection measures? Do you have any ideas of what metrics you would like to look at to determine that duration?

MR. SING: Yeah. So we have metrics that we've shared with critical public safety entities, OES is a large enterprise, customers around service level objectives, per se, network availability, call performance, data performance, text performance, those kinds of things. And the thresholds vary. So depending on the type of event and the magnitude of impact, the SLA to turn that around would be also a variable.

That's why it's not easy for the provider to put the finger on the pulse on

every single issue in such a manner. But we can certainly provide the metrics and potential range of availability and service levels around that.

MR. NOJAN: Thank you.

MR. ZAGARIS: Kim Zagaris, Cal OES Fire and Rescue Chief, State of California. At the end of the day, our customers are your customers. If they can't get out to us, they can't get to anybody else. And if we can't provide that service, your credibility and ours is going to be zero at the end of the day. I'll just make that as clear as I can.

If I can't take a 911 call, if I can't hear from the cellular, and I can't do it on 911, at the end of the day, we're not going survive, period. We already have a credibility issue as the disasters continue to roll in.

Matrix, I'll tell you about matrix. We've you've got to have better matrix, you've got to develop them, we've got to work with you. We've got to be more transparent, we've got to share things in more real time. At the end of the day, we want to protect people's lives and property. That's what it’s going to take.

The survivability of the system and

how we operate will dictate where we're going to be. At the end of the day, some of you are operating on profits. Unfortunately, on our end, we don't operate on profit. We expect a system that's going to operate each and every day.

I don't -- it doesn't really matter whether we're on hardline, cellular, or VoIP. If we don't sell systems and develop systems so the public is aware and we're also aware in different communities and different participates of the country, it will be much harder for us to provide the service that's out there.

I watched in the last number of years, I listened to the public, I listened to our own folks. We need to bring up the system. We need to be more transparent in how our systems work and what it’s going to take us to get to the next level. I can't emphasize that enough.

It doesn't matter if you're from a large metropolitan area, and you're hit by an event. Or you're from a very rural, very small county that's stretched very thin trying to provide that service. At the end of the day, the public has an expectation.

They call 911 on your system, they

expect a service and they want it now. They don't want automation. They want to be able to reach somebody, they want to be able to talk to somebody, they want to know that they are being taken care of.

Tell you this, same thing happens to our people out there each of and every day. And the frustration level goes up when we can't get an answer or on one end when we say we have the most sophisticated system in the world. It doesn't mean jack if it's is not working or we can't have reliability and backup to that system.

MR. NOJAN: Thank you.

STATEMENT OF ALJ RIZZO

ALJ RIZZO: I would like to ask the respondents about an issue that's happening with the energy corporations and the crossover impacts to the service providers in this room. The energy corporations are currently de-energizing the grid when weather conditions require it. So they will shut the electricity down.

So my question to the parties are what impact does de-energization have on your service to provide service to your customers? What are you ding to plan for this? And when it happens, what education, if any, are you

doing right now to tell customers that electricity is impacting your ability to provide service to them.

So I would like to hear first from the industry. Is this a problem for you?

MR. ROMAN: This is Jesus Roman again from Verizon. So the entire de-energization is shut off as a preventative measure by energy companies is something that concerns us. It concerns us deeply. Because if all of our systems are shut down in a particular area without notice, then that's a problem.

Now, the way that the Commission has structured this is that the energy companies are supposed to provide notice. We are currently in discussions with, for example, PG&E, about the latest fires and the notices that we got that, unfortunately, were not the type of notices that we think would get us to a place where we can actually go very efficiently to put out more generators to particular facilities or ensure that our communications don't go down.

So we've had some experiences where we've got an email that provided a street address number, but not the actual address of where there was going to be a preventative shutdown. We've got, you know -- for one

fire, I think we got a hundred e-mails from PG&E. And I'm not picking on PG&E, it's just an example. So I think that, ultimately, you know, we -- so Verizon prides itself also on the fact that we have battery backup to all of our macro towers along with our generators.

So we're able to actually deal with a preventative shutoff. But we need to have proper notice. And I'm not sure, frankly, that that's there.

ALJ RIZZO: I would like to hear from AT&T on the issue if you have any comment to make.

MR. DISCHER: David Discher, AT&T. I know it's a huge issue, but I'm not handling that issue.

ALJ RIZZO: Is someone from your organization here to comment on it?

MR. DISCHER: No.

ALJ RIZZO: No comment?

I believe there's another hand in room.

MR. CANDELARIA: Good afternoon, Jerome Candelaria from the California cable and telecommunications association, CCTA and the cable industry is participating in a relatively new OIR concerning the

implementation of SB901 where deenergization is a point. But I will say over the course of several years, our industry has worked -- attempted to work with electric providers on what was presented as the need for information.

Our facilities will accommodate outages. We have power ready. What we need, though, is direction from these proactive de-energization events where they know where energy will go off, we need to know where that's going to occur with as much advanced notice as possible.

We understand that that's a call that can be made at the time. But we need a process where we need to know with as much advanced warning and, also, with a higher level of precision as to where the de-energization would occur, such as circuit level.

In the past, we received county level de-energization notices. And when you've staged your backup power generators to send out in the field, a general county isn't necessarily as helpful as knowing what specific circuits are going down. Our -- CCTA's members have met with each IOU and will continue to work bilaterally. But we

also look forward to Commission direction to the IOUs to encouraged more precision and more timely notice.

MR. LEE: Just a random question.

How long does the battery backup last?

MR. CANDELARIA: We have different facilities. We have head-in facilities where there's diesel backup, so it becomes a matter of fuelling and getting fuel to those areas, as well as out in the field where it’s a matter of being able to continue to provide fuel to generators that are recharging the batteries out there. So it’s a fuel issue.

MS. SALAS: Ashley Salas for TURN. I just wanted to echo Melissa Kasnitz's concern that she raised earlier about the providers' unwillingness to participate. As parties to this proceeding, we've all had these questions to comment on before these workshops, to think about, to form questions, so the fact that AT&T comes here without a comment prepared or with someone willing to speak on this issue is very concerning to TURN and to consumers.

MR. DISCHER: Your Honor, this wasn't on the agenda. So that's why we didn't have anyone here to speak on this.

ALJ RIZZO: Noted for the record.

Does anyone else have any comment to make to the question on de-energization?

(No response.)

ALJ RIZZO: My last question for this is disaster response. The energy corporations are being required to submit plans that stipulate their preparedness to respond to disasters. So in this, I would like to ask industry, what internal plans do you have in place that prioritizes your response to disasters?

I'm opening that up.

(No response.)

ALJ RIZZO: Where are your first priorities? How do you manage the risk when it’s happening?

MR. DISCHER: David Discher with AT&T.

Our first priority is to work with Cal OES. I mean, we have, through this gentleman right here, we are a part of this organization. And he has an office right here. And we are part of this organization and work with Cal OES to meet their needs first.

So if they have an emergency center that they set up, and there isn't any cellular service there, that's our first

priority. We have an incredibly robust nationwide disaster recovery plans to deal with outages and wireline and wireless. I don't know how to really answer your --

ALJ RIZZO: If you could just extrapolate a little bit further on those plans, that would helpful for the record. And it doesn't need to be granular, it can be high-level. The protocol in place you first stated with the engagement with Cal OES.

MR. DISCHER: We've got network people on the network side that coordinate with Cal OES about the status of outages in our network so they know and making sure that the first responders have the services that they need. Then we start working on restoring our service, to the extent we can even get into areas after or during the fire.

I don't quite -- so it’s a very detailed process.

ALJ RIZZO: Thank you, Mr. Discher.

Can you state your name?

MR. ROMAN: Yeah. This is Jesus Roman, again, from Verizon. And we do appreciate that question. And, you know, since there has been some negative comments about to the industry members, I just want to ask all the members from Verizon to stand up that are

here. We've got seven people that we've brought.

We think this issue is very, very important. This is critical. We work with Cal OES all the time. But I'm going to have Curtis Mentz here to talk about our crisis response system, because I think it's important to understand that we actually run to a crisis.

ALJ RIZZO: Thank you.

MR. MENTZ: Thank you. Curtis Mentz, Verizon Wireless. I manage our Verizon crisis response team. It is a national program activated by calling one number.

And what we do is we provide emergency wireless communication to public safety agencies, American Red Cross, emergency management agencies in the field. We are a 24/7, 365 response team. We also receive those incoming calls from our Verizon security assistance team.

We have two in national operation centers, one in Texas, one in New Jersey that receives those incoming calls. And then if there's a disaster anywhere in the United States, we then have teams all across the United States to deliver emergency wireless communication equipment.

We do have a long history in supporting Cal Fire, U.S. Forrest Service, and many, many different agencies all throughout California. My area of responsibility is Washington, Oregon, California, Nevada, Alaska, Hawaii. So on a regular basis, we have responded to dozens upon dozens of fires, emergency situations all through the state, and continue to do so.

MR. DISCHER: Your Honor, Barn Wynn could provide a lot more detail about our interactions with Cal OES.

ALJ RIZZO: Thank you, Mr. Discher. That was from Mr. Discher of AT&T.

Please state your name for the record and reiterate that you're from AT&T please.

MS. WYNN: Sure. Barb Wynn, AT&T External Affairs. I directly work together with CUEA, my peers at Verizon, we work together. Echo everything that Verizon says that we do. We're always there, we work directly with them.

In addition to what we do during the disasters, when they start, we're already mobilizing. Before the power safety shutoff, we're moving generators, we're getting resources in the area, we see the winds

coming, we know. We monitor these things. We move our assets around the states as needed so they're available quicker in realtime, so we don't have the incidents that can occur when those super catastrophic events like the Napa.

ALJ RIZZO: Can I ask you a follow-up on de-energization, which I understand you do not have someone here to speak directly to it. But as you move those resources around, are you finding notice requirements from the energy corporations to be as cumbersome as the other parties have noted? If you don't have an opinion, you can also say that too.

MS. WYNN: My opinion.

ALJ RIZZO: Or on behalf of your company?

MS. WYNN: I can say they are working changing it to make it better. This was the first go around. I'm not trying to defend them. But I'm not going to criticize them for something they're trying to do.

Was it perfect? No. Nobody wants to lose power, Safeway doesn't want to lose power; right? PG&E is getting beat up by everybody. We all work together collaboratively.

That is why we have CUEA, why we are

imbedded in the OEC and the SOC and we have representation there 24/7, 365 as needed during these incidents. And I don't know, the last two years ago, or last year, it went how many days straight? 41 days straight that we had a member in there working with the utilities to make sure we were imbedded, there when they needed us.

The only other thing I can say is when data is collected and relayed, we need to make sure it's interpreted correctly so that they understand and the people reading the data is not misunderstanding what the data is.

I'm reporting for situational awareness to make sure the leadership and public safety in the field knows what is down, when it’s down, and when it will be back up. Other reports they may see may talk about technologies that are down, which is not the same as situational awareness. Numbers can construed differently.

So I really want to make sure if we want to improve communications, we need to know what's being communicated. And we need to be able to examine it, look at it, and talk to each other about it. And if there's questions, we're here to answer them.

ALJ RIZZO: Thank you.

MS. KASNITZ: Melissa Kasnitz, Center for Accessible Technology. I'm hearing what sounds like defense of what has been done in previous emergencies. But I think that the purpose of what we're trying to do this in this proceeding is to figure out ways to do better.

So I would be very interested if the providers would be willing to talk about lessons learned and the example that I'm most familiar with, even though it's not the most recent or de-energization, are the wine country fires, where the consumers presented to the Commission a lot of information to people who experienced severe problems and life-threatening problems with accessing communications during the fast-moving fires that put life and property at risk.

And I think there are a lot of people who would say that what was done in that situation didn't work very well for them. So if providers are willing, and the Commission is willing, I would very much be interested in hearing how the providers are improving. That might be out of school for this section, but thank you.

ALJ RIZZO: Okay. Let's go off the

record really quick.

(Off the record.)

ALJ RIZZO: We'll be back on the record.

So I'm going to modify the agenda just slightly. We're already a little bit into the next section, which is Lifeline, which we want to cover. However, Ms. Kasnitz brought up a point that I think is worthwhile for us to explore a little bit more for the next five to ten minutes on lessons learned.

So, at this point, I would like to present the question to industry and consumer groups here, as well as Cal OES and members from our public safety across the state, what are some lessons learned that we can look at to create a pathway forward that better serves the people of California?

I open that up to whoever wants to speak first. And to refine the question, what were some barriers? What were some impediments? What were some challenges? What areas can we improve upon collectively to better serve the public?

MR. CIGLER: Jim Cigler for Verizon Wireless. That's actually a really good question. We did have some lessons learned from the Napa fires. A couple big ones, as I

look forward here, I see Mr. Mitch Medigovich -- I probably pronounced your name wrong, I apologize.

But I was imbedded with CUEA at the state operation center, literally, day one with those fires. One of the quick lessons we learned, because we had a very deep discussions, Mitch, and myself, and others, where we're -- it's a huge disaster out there, I've got three shifts of people trying to work, but I'm getting booted out by a curfew every evening. Because there were some issues with vandals and looting and what have you.

And I said, "Listen, if we're going as to make headway, you got to let me get in there." He went and discussed it with law, came back a couple hours later, our wish was granted. We learned how to better brand our vehicles. We got letters, made ourselves appear more official so we could get through roadblocks easier. That was something we learned that was very, very useful.

Another thing that we did learn was we were really good at running to the crisis, but we weren't really good about raising our hands and saying, "Hey, look what we're doing." So there was some communications on

our part that we learned we needed to communicate better through leadership and political personnel as well, to let them know we were there. Because what they were sometimes hearing was there was nothing. They weren't hearing anything, so they assumes we weren't there. But we were completely there.

I think those were probably the two biggest ones I can think of. Thank you.

MR. MEDIGOVICH: Your Honor, I think -- it's nice to hear the comments on it and think about what we're going to do to move forward. The ability to communicate as an industry is a challenge that I would like to see resolved.

And it’s disparate reports that come in from all the individual providers. You are all tracking your individual piece. Here at Cal OES, it then turns into a stubby pencil exercise trying to figure out who's up and who's down and what's working and what's not working. So it doesn't allow for timely decision making and our ability put that information together in a common operating picture to share with our first responder community, because they can't make a decision either.

So we'll end up with some raw numbers. Sometimes they're right; sometimes they're wrong. And then we're trying to extrapolate and figure out what this really means. There's no geofile where it takes Verizon, AT&T, T-Mobile, Sprint, cable, and there's nothing that I can share with the Sheriff or the fire chief on the ground so they can make a decision.

So we're having to say okay we've lost this many in this area, it’s going to be approximately this time, and it’s a little vague. And it’s already at a -- a challenging environment already. Because it’s very dynamic. It's never static, things are always coming up and down for the provider community.

And I think it’s probably the one area that we could really do better when we're in a crisis event from it. Obviously, I know our partners don't want to be down. But our ability to have good information there makes a direct impact on alert and warning, our first responders, and everybody else who's coming in; whether it’s a truck full of supplies that a road closed on and we couldn't tell them it’s closed because they don't have a land mobile radio with no

cellular connection. These are just truckers bringing in cots, food to a shelter, or something more important where we're bringing in and moving other significant services into an area that they are not in as well. So just for the record.]

STATEMENT OF MS. THOMAS-JACOBS

MS. THOMAS-JACOBS: Caroline Thomas-Jacobs, Chief of Headquarters Operations. To speak to your question, what would be helpful for us? Several people in the room, I'm working directly with them in the State Operations Center and definitely appreciate their partnership.

Speed of information is really critical because as Deputy Director Medigovich mentioned, we're constantly in that room trying to understand the situation and then communicate that down to all the partners which is a very wide variety of folks and make sure we are all on the same page with what's happening.

As Director Ghilarducci mentioned at the very beginning of this, everything in emergency management comes down to communication. It's a flow of information and understanding what's happening in the field and understanding how we're helping to

solve the issues that are in the field. So speed of information is really critical, making sure everyone is on the same page, and also common terminology is really important so that we understand, when the information is given, we all actually understand what that information says.

So, for example, when we get into the State Operations Center a communication that says: "We have six cell towers that are operational."

Well, is that operational because they've got power to them and they're fully operational or they on generator power?

The specifics really matter because that helps us understand what additional services it could impacting and how we can provide support to those services while that outage is still happening or potentially could happen. So common terminology and speed of information are two areas.

STATEMENT OF MR. ZAGARIS

MR. ZAGARIS: Kim Zagaris, Cal OES Fire and Rescue. Besides having some common language, we need some common platforms to operate, to just share our infrastructure, and we need to try to get past the proprietary issues.

At the end of the day, I can tell you a lot of the folks I work with in the room, we require three basic things to operate: Communication, coordination and collaboration.

The fourth most important ingredient is our relationships. Some of the folks in the room might spend hours on the phone all year long during emergencies either assisting us or us assisting them trying to protect the infrastructure that's out there.

Again, we try to move back and forth across the lines to make this come together, but at the end of the day putting together some common operating pictures that we can share that information at all levels of government.

I'll be real honest with you, it takes it from the chief's end here at the local level, goes up into the county operational level, the regents, working with our state, federal, private partners, working with the various private organizations, the utilities. It takes a lot to get to that point.

I think the more we can work on trying to use our relationships to build that common operating picture is the key to

success long term, and I mean that wholeheartedly.

I work in a world in which we deal with vendors, and vendors like to have proprietary systems. Works great for them. It doesn't work for me one iota. I don't need one-offs. I need systems and programs we can build on together in the room.

At the end of the day, one thing I hate is getting a report and have to read through it. We're moving more to dashboards. When I pull out my smart device, whether it be my phone, ipad or smart tablet, whatever I may have, I can share it.

Something visual that we can see very quickly. Something that tells us, that will give us in realtime that there's a problem in a particular area, and we can, again, use that to cut down the amount of notifications that we have to run either by phone, by texting, by email or some other means.

STATEMENT OF MR. CURRIER

MR. CURRIER: My name is Budge Currier with Cal OES, and in a disaster, I'm the one that's coordinating Emergency Function 2. So I've worked with most of the representatives here in this room during a disaster. So I

want to help make sure we understand the bigger picture of why this is important.

When we set up an evacuation center or a disaster recovery center or we are determining the ingress and egress routes from a disaster, knowing the status of the communication in that area is critical because if I know there's a fairgrounds here on this road where the cellular infrastructure is damaged, but three miles down the road the cellular infrastructure is intact, we will choose the other one.

If we don't have that type of information in realtime, we can't make those decisions. So then the ripple-down effect of that is, I establish a disaster recovery center at a fairgrounds with no com, and now you're having to bring in portable cellular to provide communications there, which we all know doesn't have the capacity to truly support everybody that would be in that area.

It creates an undue burden on you and also us. So that's why this realtime data is important. And it needs to be accurate.

We're finding that we're getting reports of -- especially during this recent power outage, we were told a certain number

of sites were available/not available, and then we hear from county and locals a different story.

So trying to validate all that and what really happened really hampers our ability to coordinate emergency. So situational awareness is really the tool that's trying to drive all, and if we have that information available in realtime at our fingertips, we can properly coordinate the response effort, and that's our goal. That's what we're focused on.

The information we receive, we're not using it for any other purpose other than the situational awareness to make a good operational decisions on how to protect lives and property.

STATEMENT OF MR. ZAGARIS

MR. ZAGARIS: I just want to go back to the lessons learned. We went through several seasons of some pretty terrible weather and some pretty terrible fire conditions. I think last year over 350 cell sites were lost last year in California. What did we learn? Did we put them back exactly the same way? Did we harden the infrastructure there?

There's opportunity here to learn from the failure points that occurred; that's

what I think from a public safety side: What was the failure point? How did it occur? How can I harden that site? Because I'm going to put that infrastructure back to prevent this in the future. We know this. And we know that fire will occur there again.

When you talk about lessons learned, we need to take that information because if we fail to learn, fail to take the opportunity to harden that infrastructure, it doesn't matter how great your response efforts are. You failed to prevent it from happening in the first place when you could.

STATEMENT OF MR. SINGH

MR. SINGH: Arvin Singh, Verizon.

Just to make a couple quick comments on this, your Honor. I think based on everything we're hearing today, it's super critical about the communications future that the one thing that's learned is the communications infrastructure is far more robust today than ever before in the history of this nation; right.

There's absolutely opportunities. Those opportunities, I think, require collaboration across industries, across the public sector. It requires plumbing that's pre-put in place to serve the needs of first

responders.

To the points that were brought up, the different mediums of communications and what the status to be able to provide best situational awareness and actions and directives, you almost need those seven or eight different communications mediums and existing AGI plumbings and such in place. OES has some kind of dashboard that they are able to render insights from that to the other first responder agencies that may be running to that crisis.

So we're absolutely in favor of collaborating and coming up with that. I think it will require the mindshare of many beyond the technology service providers. That is the tremendous opportunity I see based on some the discussions we're hearing today.

STATEMENT OF MR. BOLAND

MR. BOLAND: Don Boland, Executive Director of CUEA. I need to put a little handle around what's going on here. Understand that we are a subsection operating a utility operations center as a trade center within the state operations center. That is so that we can bring the interdependencies of all of the utilities impacted.

Communications is not stand-alone unto itself. It relies on the power grid. It relies on water for switches. We, when we're activated - for 13 years I've been at every activation of the state - bring together the SMPs from each of the utility disciplines. We bring power. We bring telecommunications. We bring gas, pipelines, water, wastewater.

As we've addressed the PSPS, Public Safety Power Shutoff, this is not new. It's new to northern California. This has been in place since the Cedar Fire in 2003 in San Diego. We had a lot of lessons learned there. We're going to learn a lot of lessons here.

We are the unit that stands up from the private sector and from some government sectors like DWR that brings all the players into one room to address those issues. As Mitch said very clearly, we need a common dashboard with realtime information to allow the public safety people to make their respective decisions they need to make.

Chief Zagaris and I work hand-in-hand just about every day during the disaster as we do with the chief of law and the Caltrans and Cal Fire. This is a unified

concept of operation, not just a telecommunication. They are a major component. They are the backbone in which we work, but they also are dependent on every other utility out there. They cannot function by themselves, and as such we coordinate that between our companies, gas companies, and the legacy providers, the wireless providers, and the backhaul and cable providers.

So there is a point of presence here for input, communication, output, and dual flow, through CUEA.

STATEMENT OF MR. BATONGBACAL

MR. BATONGBACAL: Eric Batongbacal from AT&T. I think what we'd like to impart here is a process improvement, a way for us to move forward, but we must rely on the fact that much of our emergency protocol response today, they exist because of collaboration and the recognition of each system with each other. That's why we're embedded with Cal OES when a disaster occurs. I think that's where we need to build on.

I really feel bad when a certain party would question our commitment there because, certainly, that's not the case. We are very committed to this process. It has

no place for us to be questioning each other's commitment.

I think we have the best public safety when we all agree. Let's try to understand each other's needs. Let's collaborate. It's very explicit in the California Emergency Plan. We should embrace that.

ALJ RIZZO: At this point, we will be wrapping up because we need to move on, but I would like offer this last round for final comments on the topic.

Consumer Advocates in the room, we haven't heard from you yet. Would you like to make comments? I realize there's TURN and ORA, and anyone else who would like to comment you're welcome to.

Thank you, Ms. Kasnitz.

STATEMENT OF MS. KASNITZ

MS. KASNTIZ: Melissa Kasnitz, again, Center for Accessible Technology.

The need within the responder community, and the utility community for equipment and learning lessons is great. The need for pushing those out so that people who are impacted by the community is also great.

I understand that, perhaps, the first discussion needs to make more progress

before you get to the second conversation, but at the end of day, when people need to know whether or not there's a wildfire bearing down on them and they should be gathering their belongings and their pets and seeking safety, that's what all of this is about.

So this proceeding is also about how to help those people afterwards, but at the moment we're talking about making sure that everything is being done to secure their safety, their property, their ability to respond when they are directly under threat.

And so the part of the conversation that can't be left out while all collaboration is happening within the industry players and the public safety players is making sure that the actual people facing disaster or an emergency are able to pick up the phone and get help or are able to receive the information that will allow them to take steps to stay safe.

And to the extent that people want to be self-congratulatory or that they want to point to other players in the system for not doing their job, sure. I understand that impulse.

But we really do have a common

purpose, and it really is about making sure the members of the public know what to do and how to do it when there's threat bearing down.

STATEMENT OF MS. HOOK

MS. HOOK: Charlyn Hook, just a quick comment on behalf of the Public Advocates Office. The Public Advocates Office supports the uniform and most technology neutral application of the customer protection measures and other measures adopted in this proceeding.

We appreciate the voluntary efforts and the collaborative efforts that some of the communications providers have taken to date, but the Commission cannot always track those efforts, and we cannot enforce voluntary efforts.

So one thing we've really noticed and learned today is that the vast majority of customers have adopted cell phones as their primary phone and rely on these to work during emergencies.

As Cal OES said, 98 percent all 911 calls come from cell phones, and the fire department, first responders and other agencies have all made clear that the cell phones are a critical piece of the emergency

response communications network.

So the Public Advocates Office is still learning about the emergency response and we'll put more specific comments and recommendations in our comments, but we think this workshop has been very helpful, and we look forward to participating more in this proceeding.

ALJ RIZZO: Thank you.

We'll conclude that section and now move on to Section 7.

Mr. Nojan.

MR. NOJAN: Thank you, everyone, for your comments. And as Judge Rizzo said, we'll now be moving on to Section 7 and discussing Actions During a Disaster by California's Lifeline Service Providers.

Ms. Steiner will be leading this discussion.

STATEMENT OF MS. STEINER

MS. STEINER: This next section includes California Lifeline providers. Decision 18-08-004, included three protections for California Lifeline participants: The delay of the renewal process; the extension of the enrollment; and outreach in consumer education by the Consumer Affairs Branch and the

California Lifeline Administrator.

These protections were originally included in resolutions in fall of 2017, but they were contingent on the FCC granting our request for a temporary waiver of the federal Lifeline rules. CPUC submitted two requests for waivers in the fall 2017, but did not receive a response until February of 2018, at which point the four months of protections had already expired for many of the affected consumers. For this reason, CPUC did not implement the renewal protection or the nonusage protections; however, we did implement a renewal over the phone by our third party administrator and outbound calls to notify participants of this option.

So the questions in the Ruling 3.2.4 were addressed in nonfacility-based wireless Lifeline provider; however, since the protections in this decision applied to all California Lifeline providers, we'd like to receive comments on these questions from the other providers.

So the workshop today is an opportunity for the wireline and facilities-based wireless providers who did not respond in written comments to provide their input.

First question: Should any of the California Lifeline consumer protections be contingent on the federal program? So, generally, the state of these protections should not on contingent on the federal program granting a waiver as long as the California Lifeline fund makes up the loss of the federal subsidy. Although there were several commenters that expressed a preference for relying on federal and state programs if possible. Additionally, AT&T suggested that the CPUC seek a permanent waiver from the FCC.

I would now like to hear from the parties that did not comment on this issue, specifically the wireline- and facilities-based California Lifeline providers.

MR. DISCHER: David Discher, AT&T.

We did comment. We think it's very important for the Commission to pursue this permanent Lifeline waiver. Just making it clear that the California fund will make up for any lost federal support is not enough.

And that's because if you have a situation where you don't have a waiver from the FCC so that the FCC Lifeline renewal is extended, then you have a potential situation

where a customer's renewal for the California Lifeline program is extended, but not for the federal program, and all sudden now even if you've made up for the lost support for that time period, you may have two time periods for renewal going forward and so our solution is to get that permanent permission from the FCC to delay both the federal and the state renewal process so you continue to have one renewal date going forward.

STATEMENT OF MR. DiNUNZIO

MR. DiNUNZIO: This is Mark DiNunzio with Cox Communications. We are Lifeline, wireline provider here in California, and so I just wanted to echo one comment with respect to the comment on the FCC in granting a permanent waiver, and that is, I think what we've seen historically in the past is that this Commission has requested waivers and they've just not been timely or in some situations, they may not have granted the requested relief that's been requested.

So I think it's important that that that is an option that we can look at, but in terms of going forward, we really need a detailed plan on how we're going to address this and perhaps specific rules that can be adopted by the Commission probably in the

Lifeline docket. That makes more sense.

I also think this question sort of ties into the second question. I didn't want to jump ahead. But there is a key aspect with respect to a loss of that federal subsidy if you are not in compliance with that FCC renewal process.

And so that's really important that if carriers are providing that discount to consumers, that if the State Fund can compensate carriers for the loss of any federal support that they may achieve, that is critical for us as a provider.

STATEMENT OF MS. JACOBSON

MS. JACOBSON: Good afternoon. My name is Kristin Jacobson and I'm representing Virgin Mobile in response to this particular question.

I would like to echo David Discher's comments. Virgin Mobile's first preference is an alignment between the two programs, really for the reasons that were already articulated. It brings in complexity that is likely to lead to challenges that the carrier would face with being able to report correctly to both agencies.

If you have different sets of criteria, and there is no waiver in place for

the FCC to provide the uniform guidelines for what the carrier should do both with their federal Lifeline and the California Lifeline customers during that impacted period so the number one choice of preference would be a permanent waiver. That way the Commission wouldn't be in a position like it is now to go to the FCC to ask for temporary waivers because it's shown that the FCC doesn't necessarily act with a level of expediency that we would need to be able to implement this and help the customers who are impacted.

So the alternative is the option of having the CPUC make up for the federal Lifeline subsidy. That would Virgin Mobile's second preference because it does address one piece of puzzle, which is the subsidy piece, but, again, it doesn't address reporting requirements and the inconsistencies in the timing of determining when customers enter and leave the Lifeline program. It also doesn't address what to do for the renewal issue. So that's definitely a second choice that leads to more complexity to work through. Thank you.

STATEMENT OF MS. SALAS

MS. SALAS: Ashley Salas for TURN.

We did respond to this in comments,

but I just wanted to echo what we're hearing today, and I think ideally for the consumers, you know, if we can get a permanent waiver from the FCC to align both programs that would be ideal, but I think what we're hearing and what we've seen historically, that's probably not going to happen.

Even if we were to do the resolution to get a waiver on a temporary basis each time, as everyone said today, that's not going to be timely either. So, I think, regardless we have to have a backup plan, and that backup plan should be that the California Fund make up the loss of the federal funds temporarily and consumer groups are happy to work with the Lifeline providers to figure out some of those difficult administrative issues, like how do you work on the renewal dates, or how do you do compliance with some of the other rules in the state and federal programs.

That said, this issue about Lifeline disaster relief is in this docket for a reason. That is one of the relief efforts that would kind of fall into disaster and it would fit better to stay this proceeding than in the Lifeline proceeding that is dealing with a lot of other issues that are separate

and apart from disaster relief.

STATEMENT OF MS. COOK

MS. COOK: Maheen Cook with the National Lifeline Association. We also submitted comments on the record on this issue.

With regard to the FCC waivers, when California did submit its waiver request, it was 12 months in duration, and I think that timeline was one that the FCC was not ultimately comfortable with. So the idea of a permanent waiver, I'm not very sure that the FCC would even grant something like that. That's not to say that it shouldn't be pursued, but that is an issue that may raise some concern at the FCC.

The other issue was when California filed for the waiver it requested the identification of consumers by county, and then when the FCC ultimately did grant the waiver late in the process at a point where it was no longer useful, they identified consumers by census track. So there was also an inconsistency there on how the process was to ultimately bear out had it been more timely.

In our comments, we suggested the identification of consumers by zip code or,

alternatively, that the third party administrator could identify and relay to Lifeline service providers who are the affected consumers.

I think the key here, kind of the overarching theme, is clarity because for our membership and other carriers that we've had these discussions with, it was unknown what was required for compliance.

The CPUC, obviously, cannot waive the federal rules and carriers have to comply with the recertification, annual renewal and nonusage rules. So the first preference is to seek a waiver and NaLA and other individual carriers that I've spoken to are happy to also file in support of the CPUC's waiver request, but in the event that either the FCC waiver is pending or at the time if it's ultimately not even granted, California should make clear that the Commission will cover the cost of the loss of federal subsidy in that duration.]

STATEMENT OF MS. STEINER

MS. STEINER: Thank you for your comments. We're going to move on to question two. So there are two parts to question two.

The first question is asking the impact of implementing the protection FCC

waiver. We're going to delay that question and combine it with question four. There's a significant overlap in the comments from parties on the response to this question and operational issues.

So the remaining question in two is what should the process be to implement these protections? And the comments were consistent in posing a resolution. So if we're not using a resolution, what would be the process? And what triggers do we need to have to begin implement?

MS. SALAS: Ashley Salas for TURN.

I think what we want to see is triggers here that would be the same triggers that would apply across the board so there is some clarity and providers know when they need to act, when they need to provide these reliefs. So the two triggers that were provided in the decision is that there was a declaration of emergency by the Governor, and, two, that service was impacted -- the consumers's service was impacted.

So if that's still the same case here, you know, the rules can be applied and triggered in the same way for Lifeline rules and protections for those consumers. If consumers are affected by the disaster, and

that disaster is declared a state of emergency by the Governor, then the rules should go in effect.

MS. STEINER: Now we'll move on to question three if there's no further comments.

(No response.)

MS. STEINER: So question three asks the appropriate length of time for the Lifeline consumer protections and whether or not it should match up with the protections for CARE customers. The comments did not generally support aligning the Lifeline protections with those for CARE. And the duration, there was not consensus on the appropriate length of time.

So our question is what should the duration of the California Lifeline protections be and why? And should it vary for the different types of protections?

MS. SALAS: Ashley Salas for TURN.

To the second question first, whether it should vary. I think, yes, it should vary depending on the protections. I think that was TURN's position for a lot of disaster relief protections.

And then the first question was -- oh, align with CARE. I think we agree with

most of the parties who filed comments that it might just become administratively burdensome to try to align the program between CARE and Lifeline. And so to address those separately, especially since they might be addressing different consumer bases, then I think that might be appropriate.

And I think the interim decision and the resolution adopted four months toling of the renewal and non-usage rules. And we're happy to discuss if the providers want to consider other time frame.

MS. STEINER: So as a follow-up question, in a comment join consumers suggested six months. Do you have -- could you explain further why you wanted to extend it beyond the four?

MS. SALAS: So I think we came to six months on a couple different reasons, just keeping in mind that some consumers might be affected in different ways. To extend that time from four months a little longer would be helpful. But to the point earlier, 12 months seems -- like, if we were going to go for permanent or temporary waiver for FCC, FCC might not support that if we're even considering that. But six months seems like a good round number, as wells as if we do get

a temporary waiver from SCC, they were able to activate in about three and a half months. So maybe we have a few months left to go after that.

MR. DISCHER: David Discher, AT&T. I think that the -- I don't think you can come up with one number. I think -- to AT&T, it's really important to try and pursue this waiver from the SCC. Because the complications that happen with TPA, treat certain customers differently and then reporting back to us differently is just a host of problems.

And if there's a way to interact with the FCC to find out how they would view an appropriate duration so that a permanent solution could be reached, I think that's the way to go. If they won't interact with you, that's another question. But if they will and say three months, and we'll give you this blanket waiver, we are so much better off with that situation than the current situation of having the TPA and doing all these imaginations.

MS. JACOBSON: This is Kristin Jacobson again on behalf of Virgin Mobile. I just want to extend upon what David Discher is talking about.

I, again, agree and reiterate that seeking a permanent waiver is I think the cleanest and most clear way to approach this, not only for the carriers to be able to implement but to be able to communicate with their customers about what the program will entail. And if you seek a permanent waiver for a shorter duration, which may make it more palatable for the FCC, you could also build in a process for extending that under certain circumstances. So you could foresee that there may be certain types of natural disasters that may need to be for an extended period and, again, build in a process so that you aren't having to file for another waiver. Rather, it will be a designated abbreviated process to provide an extension.

MS. COOK: Maheen Cook. We do also have the recent examples with Puerto Rico, Florida, and the aftermath of Hurricane Harvey, where the FCC actually did move much more expeditiously in granting waivers. So I do think that with a process in place, the clarity of a process in place, and being able to move quickly and seek extensions of waivers that, you know, the FCC has shown that they are able to do that.

I think it just needs to be

something that's clearly communicated to service providers within the State, but also the FCC with what the request is actually seeking and mirroring, again, the recent waivers that the FCC did grant with regard to disaster relief in the Caribbean and South Eastern states, in the aftermath of recent hurricanes, could provide a good example.

MS. STEINER: So those who are responding, could you also please answer what the time frame would be absent a waiver. We are considering both scenarios here.

MR. McTARNAHAN: Hi, Jim McTarnaghan, Perkins Coie.

Just echoing Maheen's comments. And just, if the Commission is not aware, Florida filed for a waiver this week related to hurricane Michael, which would be interesting to see how quickly the FCC acts on that. And it may be something that California could piggy-back or model upon. Let’s just presume that Florida gets more favorable treatment of the FCC than California, and see if we can build upon the success that Florida might have for the waiver.

MS. STEINER: One follow-up question.

Cox suggested a specific time frame of 60 days, which is quite different than

what we also heard. Could the representative for Cox explain the justification for that number?

MR. DINUNZIO: Sure. Mark Dinunzio, again, for Cox communications. So when we were looking at filing for these comments, we were debating on what we felt would be a sufficient time. There is -- with respect to the renewal notice, the Lifeline administrator sends out those renewal notices approximately three months prior to a renewal date. So we felt providing at least another two months was sufficient time for subscribers without there being a lot of disruption and cost to the California Lifeline program, so we thought that was a good mix and good balance of time for an extension.

MS. STEINER: Okay. So we'll move on to question four.

So question four asks about what the operational challenges are to implement these consumer protections. And then combining it with question two, what the impacts would be of implementing them absent a waiver.

So parties in comments noted various operational issues, many regarding the complexity of having to classes of consumers,

reestablishing federal eligibility for the participants who have been de-enrolled from the federal program, as well as what the consumer messaging would be. So I would like to know first if the wireline providers who did not comment have any additional operational concerns they would like to note and, also, if anyone has proposals for how to resolve any of those issues and what the process would look like to reestablish federal eligibility for these consumers absent a waiver.

MS. COOK: Maheen Cook from NaLA again. We did, in our comments, propose the option of treating a benefit transfer as a re-enrollment so that if a consumer transfers his or her Lifeline benefit to another carrier and provides qualifying documentation, again, that that should actually -- could reset that consumer's anniversary date by a year so they don't retain the original anniversary date benefit transfer as a re-enrollment, assuming they have provided their qualifying documentation again. So that would help alleviate some of the concerns regarding various anniversary dates if they have just essentially reenrolled and reset an anniversary date. So

that is an option to consider.

MS. STEINER: A follow-up question.

Our current transfer process does not actually require the customer to submit proof of eligibility. In this scenario, how do you differentiate between these customers that do need provide proof of eligibility to transfer and those that do not.

MS. COOK: It would just come down to the consumer actually providing the qualifying documents. And many of our members actually do take in the qualifying documentation again at the time of the benefit transfer for the simple reason of qualifying the enrollee. Even if they are transferring a benefit, they may not be eligible to transfer the benefit.

They may no longer qualify for the program. And in that instance, oftentimes it's best practice, the carriers will review the qualifying documentation again at the time of the benefit transfer. So in the event that that does occur, that could be treated as a resetting of the anniversary date -- renewal anniversary date.

MS. KASNITZ: Melissa Kasnitz, Center for Accessible Technology. I'll just comment that while I think it’s outside the scope of

this proceeding, it's very problematic if carriers are demanding renewal documentation for customers who the program says are allowed to self-certify their ongoing eligibility. So that's something to take up to in the other docket.

For here, to the extent that the California fund ends up picking up support for customers if there is no federal waiver available, consumers do want to work to come up with ways to encourage as soon as possible customers to reenroll in federal programs so that the California-only fund isn't depleted more than is necessary.

That said, we would be concerned about any threat to de-enroll customers in the California-only program if they failed to reenroll in federal support. So it’s going to be a balancing act for how to encourage customers to regain federal eligibility as soon as possible without putting them under threat for the services that they do manage to successfully retain.

MS. STEINER: So along those lines, as we try to get them back on the program, for the renewals, we would -- at the end of the protection period they would generally be sent a renewal form. Our current form is

self-certification, therefore would not requalify them for the federal program. So what would this process look like?

Would we send them a new form to require proof of eligibility? And then to Ms. Kasnitz's point, if they sent the form back without the proof of eligibility, just the renewal form, what would happen to their status as a California Lifeline customer?

MS. KASNITZ: Melissa Kasnitz.

Again, there obviously would need to be customer education involved and there might be different information or renewal forms that would be sent to someone who is California-only that says you can self-certify to reenroll in California, we want to encourage you to also apply for federal support, it's better for you, for the state, whatever the message would have to be developed.

But if a customer were not currently enrolled in both, then the message could be one of encouragement to have them pursue the enrollment in the federal program.

MS. STEINER: And the situation where the California program was making up for the loss of federal funding, what do we then do with the participants? How long do we

continue to make up the federal funding if they don't choose to reenroll in the federal program.

MR. DISCHER: David Discher, AT&T. I think once you go down that road, you have to keep subsidizing that customer.

MS. KASNITZ: Melissa Kasnitz again.

I would have to go back and check my comments, but I think we recommended that there be a review in either one year or two years of the extent to which the California fund was being asked to pay more in scenarios that we're hypothesizing here. So it's a very important question because California support costs all California customers paying in. But I think we're hoping to collect some data on how much those costs actually were, and that would allow policy makers to make more informed decisions.

MS. COOK: Maheen Cook from NaLA.

Part of this also gets back to previous discussions about duration of providing the benefits of the disaster relief. And I think some of that has to be on an ad hoc basis depending on the underlying disaster.

In this instance talking about Lifeline, 70 percent of the Lifeline

consumers are served by wireless resellers. And wireless resellers obviously do not own their own their own facilities. They would have to work with the underlying carrier who if the system is offline, to get back online, and that's the infrastructure-related question.

But then you have the consumer-related question of, you know, are they still impacted? Maybe they have had to move to a different area because their house burnt down and maybe they are outside of a service area or still in a service area that's impacted.

So, again, my ultimate point here is that it may have to be on an ad hoc basis. And perhaps the option would be to open up rulemaking when a disaster occurs to identify impacted consumers and determine the duration and reassess, perhaps at a 3- or 4-month mark to see if furtherer extension of the disaster relief may be required.

MS. SALAS: Ashley Salas for TURN. I will just add if the FCC continues with its current schedule right now, it is scheduling to no longer provide support for voice services for Lifeline programs. And that's several years into the future, but they are

starting to reduce their funds for their support in the next couple years. So although the question is a timely one now, and important one, it might be moot going forward several years from now.

MS. JACOBSON: This is Kristin Jacobson for Virgin Mobile. I apologize, this was an earlier question, but a topic that I meant to bring up. The two triggers for the relief that was established in the resolutions are, one, a Governor-issued declaration state of emergency. And the second is impact to networks.

Virgin Mobile suggests that we have some greater discussion about what that really means. Is it one cell site that is impacted? Is it five sites that are impacted? Because any impact could be one site that was impacted for an hour duration. And giving an extreme, obviously, but I think maybe some greater discussion is warranted to talk about really what these impacts are so that the relief that's being provided is appropriate for the type of impact to customer service.

ALJ RIZZO: Right. And that question, as you noted, was presented earlier in the day. We don't have time now to revisit that

topic. Obviously, you want to tailer relief to the appropriateness of the disaster. There will be further opportunity for parties to private more comment and detail on the topic, but we won't be getting on it again today.

Ms. Steiner?

MS. STEINER: So we've discuss the process for getting consumers back on the program if there were -- for those that had delayed renewal. So what would the process look like for those that under the federal program were disconnected for non-usage, but under the California program remained on the program due to these protections.

MS. KASNITZ: I'm talking a lot, I apologize. But Melissa Kasnitz, Center for Accessible Technology. I don't know that there would be reason on the California side to distinguish why a customer loses access to the federal program and ends up a California-only customer. I think any customer that becomes California-only during the course of the availability of disaster relief or, frankly, customers who are California-only in general as developments occur in the Lifeline program, should be encouraged if they can establish eligibility

for the Federal program to do so, because it benefits California in general for customers to be enrolled in both programs to the extent that the federal program continues to support voice during the phase out period.

There is a lot of work happening in the Lifeline docket about to the development of the California-only program and how that might move forward in light of ongoing changes to federal support for Lifeline in general that are outside the scope of this proceeding. But to the extent that it's California -- it's customers who are impacted by a disaster any reason that they have for losing access to the federal program, should result in the same treatment of encouraging them as much as possible to restore their federal eligibility.

MS. STEINER: So my question is because there would have to be a different process for those that are in the Federal program with their renewal suspended, the California program will be sending them a renewal form gives us an opportunity to get them back on the Federal program either by requiring proof of eligibility or we requested a waiver from that particular requirement.

For those that are de-enrolled for

non-usage, there's not a process in place where we would be sending them materials. And we would not be expecting materials from our program. My question is, is there another way that service providers could work with us to get those participants back onto the federal program other than a renewal form?

MS. KASNITZ: It may be broad educational efforts, at least, as a foundational way to try to inform customers that the two programs are out there. And they might have separate processes to enroll in them.

MS. COOK: Maheen Cook from NaLA. I think consumer education, to echo Melissa's comments, is critical here. Because once they are removed from the program, oftentimes they will get a new phone or phone number. So for the original carriers, if they don't return to that carrier, there's no way to reach them. So their interaction will be more closely aligned with the third-party administrator in that instance.

But we restating their continued eligibility or qualifications for the federal program is likely what will have to happen in that case, in the event they are not able to

breech the time of being de-enrolled as to non-usage.

MS. STEINER: So in this scenario, under the California protections, the participant should still have phone service with their provider. The California program has not de-enrolled them, only the Federal program. So we're looking at how we would then bring them back onto the Federal program, assuming they do in fact have service.

MS. COOK: I think we would have to garner their qualifying documentation again for the Federal program. That's the only way that the federal subsidy would likely be reinstated if the federal rules that -- in -- that's the only way that I can see would be the best way forward.

MS. STEINER: Next question, would the parties support the CDC requesting a waiver from the SCC specifically of the proof of eligibility requirement for re-enrolling these participants as opposed to requesting a waiver outright for the suspension of the deenrollment, the non-usage, and the renewal rules.

(No response.)

MS. ECKERSLY: Would you ask that

again?

MS. STEINER: We're trying to get these participants back on the program. And the requirement from the FCC currently, they have to provide proof of documentation. So as a renewal process, that's not currently required. And if there's no renewal process, it may be difficult to get those documents to those participants. So we're looking for an easier way to get them back on.

So I'm wondering if parties would support us requesting a waiver from the FCC for the proof of eligibility requirement to reestablish federal eligibility for these participants affected by disasters.

MS. KASNITZ: Melissa Kasnitz, again. Off the cuff, I would certainly support a request for such a waiver. But I wouldn't be optimistic that the FCC as currently situated would grant such a waiver.

MS. STEINER: Okay. So the other option we have is that under our current rules, customers who have been disconnected from the program have 30 days to reconnect. Do service providers see any way they can work with their participants to reconnect them for those that lost service within 30 days of the end of the disaster relief

protections?

MS. ECKERSLEY: This is a question for carriers.

(No response.)

MS. STEINER: Okay. So, I guess, the question is if the carriers see a way where they could work with the participants to request a reconnect for them for those who were deenrolled in the federal program for non-usage within 30 days at the end of the consumer protection period.

(No response.)

MS. ECKERSLEY: There are no comments.

MS. STEINER: Okay. So let me move on to the last part of this question, which is how the program should determine which participants are impacted.

So in the comments there was a request that the third-party administrator identify the customers and inform the carriers, or that the CPUC provide a list of zip codes. Additionally, there was a suggestion that there may the billing address or there may be other ways to identify which wireless participants were impacted since they may move around. So I want to follow up on that point.

What are the other methods that

you're suggesting that we use to identify impacted wireless participants?

(No response.)

MS. STEINER: Any of the joint consumers that would like to discuss the proposal?

MS. SALAS: Yes. And, I'm sorry, I was taking notes at the time. Can you repeat the question?

MS. STEINER: The question is about alternative methods for identifying which participants were affected. In the comments, joint consumers said they were interested in discussing other methods for wireless participants, such as self-identification.

MS. SALAS: Yes, sorry. This is Ashley Salas for TURN. We are still willing and open to discussing other options like self-identification. I know that was something that some of the utilities had used in response to the resolution, the two resolutions that came out following the October and December wildfires, was self-identification. We're hoping that could be used here too. Hoping to hear from some providers on some thoughts on that as well.

MS. KASNITZ: Melissa Kasnitz, as well. Yes, also looking to hear from providers.

For customers that have billing addresses, that obviously seems to be the appropriate starting point. Prepaid customers don't tend to have billing addresses, so their location is based on what the TPA, third-party administrator knows seems to be a good starting point.

Direct consumers would generally keep self-identification as a supplement. So rather than requiring customers to self-identify, it would be if a customer was not successfully identified, but wanted to believe they should be able to self-identify, demonstrated that they needed assistance. And it shouldn't the burden on the customer, unless they can't be located through one of the more systemic ways to identify customers. And if the providers have options, other than the TPA and the billing address, we would very much welcome hearing them and engaging with them.

MS. STEINER: Okay. Thank you for your comments. I'm going to invite Amin Nojan back up for the next section.]

MR. NOJAN: Thank you for your comments. We'll now hear from Lee Brown Emergency Manager from Sierra County Office of Emergency Services.

STATEMENT OF MR. BROWN

MR. BROWN: Good afternoon, everybody. Lee Brown, Sierra County Office of Emergency Services. For those of you who don't know where Sierra County is, we're kind of northwest of Reno, and we're surrounded by Nevada, Plumas, Yuba, Lassen and Washoe county out of Nevada. We're the second smallest county by population in the state, just under 3,200 people. I grew up in the community of Downieville, a little bit less than 300 residents. Advantages and disadvantages of growing up there was that as a kid, if you got in trouble, your parents knew what you did before you got home.

According to the US Forest Service, we see 1.5 million visitors a year in Sierra County - campers, hikers, mountain bikers, fishermen, hunters, just people just enjoying the outdoors. Of those 1.5 million, we have no cell towers in Sierra county. There's not a cell tower in Sierra county. So it's all landline. Over in the Sierra Valley, on the eastside of the county there, some cell service does come in there and a little bit on the ridge.

One of the problems we have in Sierra county is being so small, we only have

one dispatcher on duty in our PCEP at a time, and we don't have a deputy on duty between midnight and 8:00 in the morning.

So in the last year from October 20th to October 20th of this year, we've had 111 static 911 calls from the aging communications cables. Last week we had three of them, and there's no rain or anything to justify why these calls are coming in, just that the lines are aged.

Two different things, last year we had five of these calls within 24 hours. In one of these communities - it's called Clark Station - we've had 42 of those calls last year, and one of those numbers, inside Clark Station since 1998, has called 911 96 times.

The dispatcher usually checks the phone, you know, calls them back, and nobody answers. Then they check with AT&T to see if it's a ghost 911 call, and they also check to see if that's a legitimate number that has called in the past. And so then if it hasn't, then they'll send a deputy out there. Sometimes in the winter this area is inaccessible due to snow.

The main copper line in Sierra county, according to one of the AT&T repairman, it's twice the age of what it

should be. It should have been replaced years ago.

In September our fiber-optic line for Sierra county went out, and the Sheriff's Office could not use their radio as the communication link between the PCEP and the repeater was down, and at the same time we had lost 911 service to Sierra City.

So I contacted the Sheriff's Office and they checked there in Downieville, and they tried calling 911. Their 911 call went to the Western Regional 911 Center in Canada. And Canada informed them that they have their phone numbers at the Sheriff's Office to route that 911 call back to them.

I live in a small community called Goodyears Bar. A telephone pole near my home has been leaning for years, and finally in the storms of 2017, it kind of broke loose and it was kind of just hanging there from the telephone wire, and on a Friday afternoon, a garbage truck went by and hooked the line and I loss services as well as residences down at the street from me. I got a hold of AT&T and by Monday they were out there fixing it, but, unfortunately, some of the other homes that were on that line, it took them weeks to get their service back.

So in Pike, we have a small community right there, and they have a -- whenever the power goes out in Pike, and if it's out for more than two days, their system is run on batteries at the AT&T center there, and we had to contact AT&T to get them to send a repairman out there to either recharge the batteries, the generator, or to replace the batteries so that they have their phone service.

Last year during the 2017 storms, Pike loss their phones. It wasn't due to the batteries. It was due to a tree falling on one of the switches. I contacted the Cal OES coordinator, and they were able to pass that information up the chain of command and I was able to get that repaired within a few days.

Allegheny, another small community, intermittent problems for last year. We had a resident up there, sometimes the phone works; sometimes it doesn't. In a medical emergency, he called 911. He called several times and couldn't get through. His neighbor heard him yelling for help, and she was able to contact 911. So thankfully he's okay, and he's back home.

Fire Chief Jeff McCollum, he has static on his phone line all the time, and

his next-door neighbor, his static was so bad that his phone no longer works. The Lake Basin area, which is above Sierra City, they have static on their phone lines all the time and when they lose a phone line or it needs to be repaired, AT&T has to go out there and they take one wire from one pair and another wire from another pair to make another pair to get that line working.

And in Sierra City, when someone wants internet service, they have to weight for someone no move or quit in order to get that DSL service.

I have coworker and her mom had passed away, and so her daughter and son-in-law were going to take over the house, but they were disconnected from the mom that passed away, and now they are on a waiting list to get that same service at the same house. Another family I know in Downieville were told by AT&T several years ago that they had to drop their landline and go with U-verse. And that they were told there was no exception. They had to with U-verse and that was with several other residents within the county, and now we have voiceover internet provider and their phone sometimes says, "line in use," and they're not using

it, and they can't get out.

There was a phone line that was hanging down in Downieville at one time and I was fire chief at the time and I was informed about it and I was heading over there to see it, and one of the AT&T repairmen stopped by and I flagged him down and told him about it and he reported to me he couldn't do anything because he didn't have a service tag.

I said, Well, you need to go over and do something about it because we were prepared to either put a ladder up or do something to hang i tup there.

And I finally convinced him to go over and take care of it.

And years ago, talking with AT&T service personnel, I was informed that it would take to get fiber-optic up to Downieville.

And since Downieville was in need of high-speed internet service, the county officials who knew it would be several years before AT&T could bring in fiber-optics, contacted Digital Path out of Chico to invest providing high-speed internet through microwave.

Within a year after Digital Path started serving Downieville with plans to

serve other nearby communities, AT&T ran fiber cable into Downieville several years ahead of schedule, knocking Digital Path out of the community and Digital Path also dropped their plans to serve the other communities that were nearby. One of the communities was Goodyears Bar.

When AT&T brought in the fiber-optic, they had a chance to run it into Goodyears Bar, just a mile away from the fiber path, and they did not do it. All they were interested in was serving Downieville.

And, see, one of repairmen had commented to me that they spend more money and time on repairs than it would to upgrade the system. Thank you.

ALJ RIZZO: Before we conclude, I have one more item. Ms. Steiner, can you come back up regarding Lifeline. And please help me rephrase the question so that we can get a little more on the record regarding it.

I would like to get an answer from the carriers on the planning and coordination that needs to occur to help reconnect customers. I believe that was a question you presented. If you can frame it again.

STATEMENT OF MS. STEINER

MS. STEINER: So the question was for

those that had been enrolled in the federal program for nonusage, we would not be currently sending them a form under regular circumstances. The question of how we would get them reenrolled in the federal program.

One option for those that had been off the program for less than 30 days whether or not services providers could work with them to reconnect under our 30-day reconnect rules and then for the rest of the consumers, what would be the process for them?

ALJ RIZZO: Carriers?

STATEMENT OF MR. DISCHER

MR. DISCHER: I'm Dave Discher for AT&T. I just don't have the expertise to answer that question. I'm sure we can provide an answer later, but I just can't right now.

STATEMENT OF MR. SINGH

MR. SINGH: Arvin Singh, Verizon. I also don't have the expertise to answer, but it sounds like it's our wholesale channel that is providing the services today to those consumers. Again, it's something we can probably take off line and collaborate with the wholesale arm of the business to figure out.

Clearly, we have visibility when

there's nonusage, and there's ways to track those things. How do we use that to trigger that communication to the consumer or to the appropriate agency to drive follow-up; that's certainly doable. I think we just need to engage the right mindshare on our side.

STATEMENT OF MS. JACOBSON

MS. JACOBSON: This is Kristin Jacobson with Virgin Mobile. Unfortunately, I don't have the person on the phone today that would be able to provide greater detail than I can, but I can at least note the primary issue is identifying the customers who fall within small bracket, but Virgin Mobile could work with staff or work with the third party administrator to send text messages or other outreach efforts to try to communicate with them. I don't fully understand all the pieces of information that need to be communicated and what action needs to be taken, but in terms of just outreach efforts, definitely there is opportunity to collaborate and the most meaningful method of collaboration with Lifeline subscribers tends to be via text message because of the inherent mobility of that customer base.

STATEMENT OF MR. HUANG

MR. HUANG: David Huang on behalf of

the small LECs. Just piggybacking on the discussion of coordinated outreach education, the small LECs believe that a single coordinated outreach and education process rather than separate unilateral efforts should would be effective. So in that regard, I think further workshopping on this issue would be useful.

STATEMENT OF MR. DiNUNZIO

MR. DiNUNZIO: Mark DiNunzio for Cox Communication again. I also apologize. I don't have the expertise to answer that specifically. But what I will say is we don't have the ability to do text messaging because we are a wireline provider. We do have some outreach efforts on our website that talks about the Lifeline program. So we would be happy to work with staff in coming up with something.

ALJ RIZZO: At this point we're going to start wrapping up. There's been a lot of discussion here today that I think necessitates a further ruling to get us some topics that we can iron out further in this proceeding so the parties should look for that.

I'll turn it back to Mr. Nojan to start wrapping things up.

MR. NOJAN: Thank you, Judge Rizzo.

Now, we'll now be moving on to closing comments. So if there are any parties that have a burning question to ask or have not had the opportunity to make a comment or ask question from a previous section at this point we have a minute or two to dedicate to that.

STATEMENT OF MS. SALAS

MS. SALAS: Ashley Salas from TURN. I want to thank everybody for their efforts in coming here today and speaking and for the Commission for taking on this effort of providing disaster relief for utility consumers.

I do want to note that absent from this room today is representatives from the tribal areas of this state, and so I think as we continue to have these discussions, moving forward, we should make sure to be inclusive of all the state including the folks in the tribal regions.

STATEMENT OF MS. ECKERSLEY

MS. ECKERSLEY: This is Karen Eckersley. I had a follow-up question for one of the previous presentations by Mr. Currier of the 911 office.

During your discussion about

redundancy and in the fiber section, you talked about redundancy and resiliency and wondering if you would like to comment in any way from a prioritization perspective of what should be redundant, but starting where?

STATEMENT OF MR. CURRIER

MR. CURRIER: The example that Sierra county points out the challenge for the rural areas. We are seeing a single fiber path into a lot of these rural communities and when that single fiber path is damaged, the entire downstream effects of that are catastrophic.

So that would be the priority: Identify the locations in the state for public safety answering points and mission critical facilities of which we have a list where providers know there's only a single path in.

What we may not know at Cal OES is which ones only have a single path in. That's where the gap in our knowledge is. We know that exists when the backhoe or the fire takes out that single line.

From there, I think it's incumbent upon the providers to take a look at their network infrastructure to look at where a single outage had the most catastrophic

effect, in terms of downstream effects for a single fiber going down.

In some cases the redundant path doesn't have the capacity to support the through-put needs until -- while you still have a secondary path, it doesn't really meet the bandwidth requirements until the networks are choked up in other ways. What we are going to do when we build out Next Gen 911 is look for those redundant paths in every public safety answering point.

Since my bandwidth requirements are not the same as an E-network for a public safety answering point, we're going to build a secondary microwave path for every public safety answering point to meet that need. So those are some suggestions on where to start this process.

MS. ECKERSLEY: Thank you.

STATEMENT OF MR. BATONGBACAL

MR. BATONGBACAL: Eric Batongbacal from AT&T. I just want to address we're actually meeting with Sierra county and so I'll connect with Lee, and as you put it, prioritize needs, and I'm looking forward to that opportunity.

STATEMENT OF MR. SINGH

MR. SINGH: Arvin Singh. Quick comment

to a question asked by Helen earlier in the day about our CFO's cautionary guidance.

So the context behind that, in the first quarter of this year, we had invested $4.6 billion in capex for network investment, which was on 39 percent over the expected guidelines that we shared with Wall Street. So the guidance was that we don't expect to exceed what's been previously communicated; so we are on track to invest over $17 billion in the network this year. Thank you.

MR. NOJAN: It looks like there's no further questions or comments. In that case I'll turn it over to Mr. Medigovich from Cal OES for the closing remarks.

STATEMENT OF MR. MEDIGOVICH

MR. MEDIGOVICH: First, let me say thank you to everyone at CPUC for allowing us to host and be part of this and also to all of our partners in the audience, and I'm sure I'll see many of you again on the next emergency we're facing.

I do have a slide if you want to bring that back up, but it's fine either way. I'll say that the key takeaway that I wanted to share with everybody that we tried to lay out systematically with our presentations today for you is that while I'm very

appreciative of the voluntary sharing of the information that I get, as I pointed out, there's no common operating picture for us to work from and to make quick decisions and to aid our decision-making. So it's an area I definitely want to work collaboratively and to see change. The impacts are just way too significant and great in making things difficult for us all the way around.

The second piece is that we talked about cellular infrastructure and for that matter any communication infrastructure, if it's not hardened and doesn't have redundancy built into it, resiliency built into it, it just becomes a vulnerability for us as we take care of work. So finding ways that all infrastructure is more resilient, has redundancy, and is capable of operating in these disasters is better for everybody involved.

I think we did a pretty good job of outlining what the limitations of the 911 system were, the causes of outages, and we're hopeful because we'd like to see us solve some of the funding issues we have right now because Next Generation 911 should overcome those limitations, and we're anxious to put that into play.

Finally, we've talked about deployables. They have a great place in our emergency operational work. We are always grateful to our partners, I will say that. Deployables work wonderfully for us particularly at shelters, at incident command posts. We've got just wonderful pieces of things we can do, but as we've seen in these big, large catastrophic fires, they're not a substitute. You can't drop a deployable in.

We have many officials that believe that a deployable is going to service 10,000 people in a population center that's lost all cellular communication, and it's just not the case. Our deployables work great, but they have limitations for them.

And then on wireless emergency alert, boy, did we see a lot of emphasis on that after 2017 fires. The ability to make quick decisions, and the work we're doing in that area between the federal government and the counties and what we're putting together here at the state level is something that we're going to continue to work on.

I did get a question off line regarding the guidance that Cal OES is working on. That's going to be presented at the SEMs meeting here in December, and once

that State Emergency Management meeting is completed, it will be open for comment, and we'll be looking for feedback from all of you at that point in time, and you can share your comments, but most of the communication on that is geared for us in the counties, and how we're going to do business and set those standards for.

Once again, thank you very much. I wish all safe travels.

ALJ RIZZO: If there are no other matters the parties wish to raise at this time, we'll be off the record.]

(Whereupon, at the hour of 3:30, the Commission Workshop having been concluded at Cal OES, in Mather, California, was adjourned.)

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BEFORE THE PUBLIC UTILITIES COMMISSION

OF THE

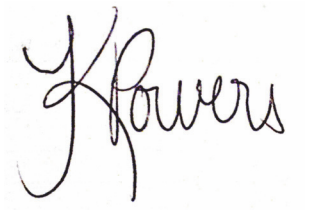
STATE OF CALIFORNIA

CERTIFICATION OF TRANSCRIPT OF PROCEEDING

I, KARLY POWERS, Certified Shorthand Reporter No. 13991, in and for the State of California do hereby certify that the pages of this transcript prepared by me comprise a full, true, and correct transcript of the testimony and proceedings held in this matter on November 8, 2018.

I further certify that I have no interest in the events of the matter or the outcome of the proceeding.

EXECUTED this 8TH day of November, 2018.



KARLY POWERS
CSR No.#13991

BEFORE THE PUBLIC UTILITIES COMMISSION

OF THE

STATE OF CALIFORNIA

CERTIFICATION OF TRANSCRIPT OF PROCEEDING

I, Shannon Ross, Certified Shorthand Reporter No. 8916, in and for the State of California, do hereby certify that the pages of this transcript prepared by me comprise a full, true, and correct transcript of the testimony and proceedings held in this matter on November 8, 2018.

I further certify that I have no interest in the events of the matter or the outcome of the proceeding.

EXECUTED this 8TH day of November, 2018.

SHANNON ROSS
CSR No. 8916

(END OF ATTACHMENT A)